

SUPERIOR COURT OF THE STATE OF CALIFORNIA
FOR THE COUNTY OF LOS ANGELES

DEPARTMENT NO. 106

HON. RAYMOND CHOATE, JUDGE

PEOPLE OF THE STATE OF CALIFORNIA,
Plaintiff,

vs.

BRUCE MCGREGOR DAVIS,

Defendant.

232

No. A-267861

REPORTERS' DAILY TRANSCRIPT

Thursday, January 27, 1972

VOLUME 32APPEARANCES:

For the People:

JOSEPH P. BUSCH, JR., District Attorney
BY: ANTHONY MANZELLA
and
STEPHEN R. KAY,
Deputies District Attorney

For Defendant Davis: GEORGE V. DENNY, III

CHRISTANSEN

WACHSMUTH

SHEEHAN

COPY

MARY LOU BRIANDI, C.S.R.
ROGER K. WILLIAMS, C.S.R.
Official Court Reporters

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1 LOS ANGELES, CALIFORNIA, THURSDAY, JANUARY 27, 1972 9:55 AM

2
3
4 THE COURT: All right. The defendant is present, the
5 record may show. Mr. Denny is present, and Mr. Kay for the
6 People.

7 MR. DENNY: Your Honor, I have six 4 X 5 negatives,
8 appearing to be of photomicrographs, serially numbered 1
9 through 6 on the bottom of each negative.

10 May they be marked Defendant's B for identifica-
11 tion? I believe they had previously so been marked, outside
12 the presence of the jury.

13 THE COURT: All right. So ordered.

14
15 ROBERT P. CHRISTANSEN,
16 having been previously duly sworn, resumed the stand and
17 testified further as follows:

18
19 CROSS-EXAMINATION (Continued)

20 BY MR. DENNY:

21 Q Good morning, Sergeant Christansen.

22 A Good morning.

23 Q Sergeant Christansen, would you look at those
24 negatives, removing them from the envelopes, and tell me if
25 you recognize them?

26 A Yes, I do.

27 Q And what are those negatives?

28 A These are the negatives of the evidence bullet

1 and the test bullet that I and Sergeant Warner took in the
2 Sheriff's Crime Laboratory.

3 Q That is, the test bullet fired in March of 1970,
4 as compared with the evidence bullet recovered in January of
5 1970; is that right?

6 A Yes, sir.

7 Q All right. And they are the negatives which you
8 produced in November, pursuant to court order; is that
9 correct?

10 A That's correct, yes, sir.

11 Q All right. Now, they are serially numbered 1
12 through 6; is that correct?

13 A Yes, sir.

14 Q And what does that indicate?

15 A This was our method of showing the continuity or
16 the -- or differentiating between them.

17 We actually took six negatives, or from six
18 different positions.

19 Q In other words, the six positions around the
20 six land impressions on the bullet?

21 A Yes, sir.

22 Q All right. Could you return those to the
23 envelope there, the larger Manila envelope that is in the
24 file folder?

25 A (Witness complies.)

26 Q And, Sergeant Christansen, those numbers, then,
27 serially numbered 1 through 6, are the numbers that appear --
28 although they appear black on the negative -- they appear

1 white on these photographs, People's 100-A through -F, I
2 believe; is that correct?

3 A Yes, sir, that's correct.

4 Q And similarly, on the Defendant's Exhibit H-1
5 through -6, those same numbers appear on the bottom here,
6 in white; is that correct?

7 A Yes, sir.

8 Q All right. By the way, you have indicated,
9 I believe, that the Mathews Firearms Identification is a
10 recognized and accepted work in the field, used by you in
11 your work; is that correct?

12 A Yes, sir.

13 Q All right. And that's in two-volumes, is it not?

14 A There are two published volumes, yes, sir.

15 Q All right. The first volume has specifications;
16 the second volume has pictures for identification of the
17 various guns; is that correct?

18 A Yes, sir.

19 MR. DENNY: All right. May I approach the witness
20 again?

21 THE COURT: Yes, you may.

22 Q BY MR. DENNY: Showing you Volume II, at page 178,
23 is there reproduced there a photograph of the Radom Vis 35,
24 as they call it?

25 A Yes, there is.

26 Q All right. And the picture that appears there
27 shows the Radom with a ruler over it for measuring purposes,
28 and then the description; is that right?

1 A Yes, sir.

2 Q And in the book, in serial number, as they've
3 set them forth, it's numbered what? 489?

4 A Yes, sir.

5 Q All right. Now, showing you this photograph
6 which has been marked C-8, Defendant's C-8 for identifica-
7 tion, do you recognize what that photograph depicts?

8 A Yes. The photograph depicts the photo in the
9 book.

10 Q In other words, it's simply an enlargement of
11 the photo in the book; is that correct?

12 A Yes, sir.

13 Q All right. And setting forth the same informa-
14 tion over here, No. 489, Radom Vis 35, and where it's made--

15 A Yes, sir.

16 Q -- and the serial number?

17 A Yes.

18 Q All right. And as you are aware, is it not true
19 that you can then take pictures and similarly reproduce them
20 of all or any of the automatic pistols that are depicted in
21 the book?

22 MR. KAY: Irrelevant.

23 THE COURT: Sustained.

24 Q BY MR. DENNY: Now, on the photographs -- excuse
25 me again, your Honor.

26 (Pause in the proceedings while a discussion
27 off the record ensued at the clerk's desk between
28 Mr. Denny and the clerk.)

1 Q BY MR. DENNY: While the clerk is getting the
2 photographs that you've already identified, I believe I can
3 ask you:

4 You have pointed out, incidentally, a hole in
5 the cabinet, and you indicated at one point a ricochet mark
6 along one cabinet, and then a hole in the cabinet work under
7 the sink; is that correct?

8 A Yes, sir.

1 fls.

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1 Q And you traced from that hole under the sink to
2 the bullet the evidence bullet, People's 31?

3 A Yes, sir.

4 Q Did you do that with some sort of probe or just
5 with the naked eye?

6 A No, I did it with a probe.

7 Q And did you probe through that hole in the wood
8 under the sink that has been circled here in People's 10-C?

9 A Yes, I did.

10 Q What sort of probe is that?

11 A I used a rifle cleaning rod for length.

12 Q Now, were there any other holes in the wall behind
13 the sink?

14 A Yes, there were.

15 Q What number of holes were there?

16 A I don't know. I remember there was one that was
17 quite similar in appearance to the bullet hole that was just
18 a few inches away from the bullet hole that completely penetrated
19 the wall.

20 Q A few inches above the hole from which you
21 recovered the bullet?

22 A I believe it was a few inches to the left and
23 slightly lower, as I remember.

24 Q Well, did that, in your opinion, sir, appear to be
25 a bullet hole?

26 A In my opinion it could have been a bullet hole.
27 It was similar in appearance to bullet holes.

28 Q Well, was it any different in appearance than the

1 hole in which you found the evidence bullet?

2 A No, sir, no great difference. No.

3 Q So as an expert in the field looking at it, you
4 would have called it a bullet hole?

5 A No, sir.

6 Q You would not have called it a bullet hole?

7 A No, sir.

8 Q You would not have called the hole from which you
9 recovered the bullet a bullet hole?

10 A Yes, sir.

11 Q You said in all appearances it appeared to be
12 similar to the hole from which you recovered the evidence
13 bullet, and I've asked you if there are any differences, and
14 I asked you if you said you would call it a bullet hole in
15 looking at it, and you have said no, so why would you not have
16 called the second hole a bullet hole if it were in all
17 appearances similar to the hole that you recovered the evidence
18 bullet from?

19 A Because I didn't recover a bullet from that hole
20 and I don't know that that hole was caused by a bullet.

21 Q Well, do you know that the hole in the sink, that
22 is the hole in the cabinet under the sink, was caused by a
23 bullet?

24 A No, sir.

25 Q Well, is the only reason that you say that the first
26 hole, the one from which you recovered a bullet, is the only
27 reason you call that a bullet hole, is because you recovered a
28 bullet from it?

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1 A Yes, sir.

2 Q Well, are you able to tell, sir, based on your
3 expertise in the field, what is a bullet hole and what isn't
4 a bullet hole?

5 A Not always.

6 Q Well, did the second hole appear to be a bullet
7 hole of a bullet that had gone all the way through the -- both
8 interior and exterior wall?

9 MR. KAY: Asked and answered.

10 THE COURT: Sustained.

11 Q BY MR. DENNY: Well, Officer, in your experience,
12 have you had experiences where a single hole in a cabinet
13 culminated in two holes behind it, some several feet behind it
14 from two bullets?

15 A No, sir, I have not.

16 Q Did you probe the second hole to determine whether
17 the path through this particular hole in the cabinet under the
18 sink would be compatible with a bullet having been fired
19 through that hole and exiting the second hole?

20 A Yes, I did.

21 Q What did you find?

22 A I found that it would not have been compatible,
23 would not have been in line with this particular hole under the
24 sink.

25 Q So that the only one that would have been compatible,
26 then, was the one from which you recovered the bullet, is that
27 right?

28 A Yes, sir.

1 Q All right. And, Sergeant, is it a fact that in
2 using this gun cleaning rod as a probe, you thereby disturbed
3 the fibers of the wood so that you were unable, then, or any-
4 one would have been unable to tell the age of that hole?

5 MR. KAY: Calls for a conclusion and assumes a fact not
6 in evidence.

7 Q BY MR. DENNY: Well, let me rephrase it.
8 Is it a fact that by using the probe you disturbed
9 the fibers of the wood in that hole in the cabinet work under
10 the sink?

11 A Yes, sir.

12 Q And by doing so in your experience as a ballistics
13 expert would you say that you thereby made it impossible for
14 anyone to determine the age of that bullet hole?

15 A I don't know of any way to determine the age of a
16 bullet hole, whether the fibers are disturbed or not.

17 Q You do not?

18 A No, I do not.

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1 Q Well, sir, if there are no dust and air particles,
2 if there is no sort of debris, if the wood appears freshly
3 disturbed, would that have some significance of determining
4 the age as distinguished from a hole that had dust and debris
5 and grease particles and things like that built up within the
6 hole?

7 MR. KAY: Calls for speculation, improper hypothetical.

8 THE COURT: Sustained.

9 Q BY MR. DENNY: Well, sir, --

10 Your Honor, this is not a hypothetical. This
11 goes to test his expertise as an expert in ballistics.

12 THE COURT: Well, the Court sustains it on the first
13 ground. The Court recognizes it is not a hypothetical, a
14 proper hypothetical.

15 MR. DENNY: Well, I'm not sure what the first ground
16 is, your Honor.

17 THE COURT: Well --

18 MR. DENNY: The only ground was hypothetical and I'm
19 not putting forth a hypothetical.

20 THE COURT: Well, you're asking the witness whether or
21 not under certain circumstances he can determine the age of
22 a hole, is that it?

23 MR. DENNY: I'm asking whether --

24 THE COURT: Then you asked, in the course of your
25 question, you say "the fibers appear freshly disturbed."
26 It is --

27 Q BY MR. DENNY: Well, let me rephrase the question,
28 Sergeant Christansen.

1 In your experience as a firearms identification
2 expert with the Los Angeles County Sheriff's Department over
3 the past five and a half years, have you ever attempted to
4 determine the age or the relative age or the relative
5 newness or oldness of a bullet hole?

6 MR. KAY: Irrelevant.

7 MR. DENNY: Your Honor, it is extremely relevant.

8 THE COURT: The Court will permit the question,
9 although the Court believes it has been asked and answered.
10 You may answer.

11 A I don't recall ever attempting to determine the
12 age of a bullet hole.

13 Q BY MR. DENNY: Well, Sergeant, then why did you
14 cut out the piece of wood and take it back to the lab for
15 possible further examination?

16 A For the simple reason that there might be some
17 chemical test possibly from the deposits left by metals
18 from the bullet that a chemist or a criminalist could deter-
19 mine that I am not qualified to determine.

20 Q After you had disturbed that with a rod, a gun
21 cleaning rod?

22 A Yes, sir.

23 Q And would perhaps portions of the gun cleaning
24 rod also be left within that bullet hole, as you describe it,
25 then?

26 A Perhaps.

27 Q For a chemist to pick up?

28 A Perhaps.

1 Q And did anybody perform any tests on this piece
2 of wood which was cut out and taken back for possible
3 further examination?

4 A No, sir, not to the best of my knowledge.

5 Q Well, to the best of your knowledge are there
6 people in the Sheriff's Crime Lab who do have the expertise
7 to determine the age of a hole made in wood or the relative
8 age?

9 A To my knowledge, there is not.

2 fls.

2-1

1 Q And no part of your training and experience -- or,
2 to your knowledge, no part of the training or experience of any
3 person in the crime lab of the Los Angeles County Sheriff's
4 Department -- would enable them to determine whether a hole was
5 either freshly made or made a long time ago?

6 A No, sir.

7 Q Well, again, sir, calling on your own background
8 and experience, would the factors of no dust or dirt in a hole,
9 versus a lot of accumulation of dust or dirt in a hole, have
10 some relevance to you?

11 MR. KAY: Irrelevant.

12 THE COURT: Sustained.

13 Q BY MR. DENNY: Well, could you tell, sir, whether
14 there were any -- whether there was any buildup of dust or dirt
15 in this particular bullet hole?

16 MR. KAY: Irrelevant.

17 THE COURT: Sustained.

18 MR. DENNY: Well, your Honor, that goes to his --

19 THE COURT: The objection is sustained.

20 Q BY MR. DENNY: Well, did you look to see if there
21 was any buildup of dust or dirt in the bullet hole?

22 MR. KAY: Irrelevant.

23 THE COURT: Overruled. You may answer.

24 THE WITNESS: No, sir, I did not.

25 Q BY MR. DENNY: All right. Now, then, when you
26 make a report concerning your examination and evaluation of the
27 bullet, what do you normally put in such a report? That is,
28 if you do not have the gun and you are asked to determine what

1 sort of gun would have fired this particular bullet -- all you
2 have is the bullet -- what do you normally put in the report?

3 MR. KAY: That's irrelevant.

4 THE COURT: Sustained.

5 Q BY MR. DENNY: Well, did you put in the report you
6 made up about your examination of this particular bullet the
7 findings -- all of the findings that you considered pertinent?

8 A Yes, I did.

9 Q And what were the findings that you considered
10 pertinent that you put in your report?

11 A The caliber of the weapon; the --

12 Q 9-millimeter?

13 A Right. The weight of the bullet; the type of
14 bullet --

15 Q And the weight was what?

16 A 126 grains.

17 Q Grains?

18 A Yes, sir.

19 Q All right. What else?

20 A Possible weapons.

21 Q Well, you put in the number of lands and grooves,
22 didn't you?

23 A Yes, I did.

24 Q In the same paragraph with the weight of the
25 bullet?

26 A Yes, I did.

27 Q How many lands and grooves?

28 A Six lands and grooves.

1 Q And you also put in the twist?

2 A Direction of twist, yes.

3 Q What direction?

4 A Right.

5 Q And you also put in the ratio of land to groove
6 width?

7 A That's correct.

8 Q All in the same paragraph?

9 A Yes, sir.

10 Q All right. Those you considered pertinent data?

11 A Yes, sir.

12 Q All right. And what else?

13 A I listed bullets -- or, the weapons that bullets
14 on fire -- on file in our office, with similar characteristics,
15 were fired in.

16 Q And those were --?

17 A Those included Astra, Browning, Luger, Radom,
18 Star and Walther semi-automatic pistols.

19 Q And did you check the evidence bullet with those
20 bullets on file, to determine that they were similar, from
21 a standpoint of land to groove ratio?

22 A I did with some of the bullets; not all of them.

23 Q Well, is there any reason why you would put down
24 that -- "bullets on file in this office with similar
25 characteristics to the recovered bullet include those fired
26 from Astra, Browning, Luger, Radom, Star and Walther" if you
27 had not checked all of those to determine that they were
28 similar in characteristics?

1 A I checked the characteristics of the weapons. I
2 did not check the evidence bullet against individual bullets
3 from these weapons.

4 Q You checked --

2d fol 5 A Or from all of them.

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1 Q I'm sorry. You say you checked the character-
2 istics of the weapons or the bullets on file from them?

3 A The bullets on file from them.

4 Q So you did -- in other words, you did check
5 the bullets on file from all of those guns listed, and
6 determined from your visual observation of those bullets
7 on file that they had similar characteristics to that of
8 the evidence bullet; is that right?

9 A Yes, sir.

10 Q And by "similar characteristics," you mean that
11 they were 9 millimeter, and that they had six lands and
12 grooves with a right twist, and a land and groove ratio of
13 approximately 1 to 1; is that correct?

14 A That's correct.

15 Q All right. And you -- you remember doing that?

16 A Yes, I remember doing that.

17 Q All right. Including the -- the Walther and the
18 Star, the last two mentioned?

19 A Yes, sir.

20 Q All right. Now, sir, did you put any other
21 pertinent findings down in your report?

22 A No, sir.

23 Q Did you make any other pertinent finding at the
24 time?

25 MR. KAY: Well, I'm going to object to the use of
26 the word "pertinent." That's ambiguous.

27 Q BY MR. DENNY: Well, you understand what I mean
28 by "pertinent," don't you, Sergeant Christansen?

2a-2

1 A Yes, I believe I understand your definition of
2 "pertinent."

3 Q All right. What is your definition of "pertinent"?

4 THE COURT: That's immaterial. Let's answer the
5 question.

6 The question is: Did you make any other perti-
7 nent finding, whatever you may interpret that word to mean?

8 THE WITNESS: Yes. At the time I determined that the
9 weapon that had fired the evidence bullet apparently had a
10 barrel in very bad condition.

11 Q BY MR. DENNY: But you didn't put that in your
12 report, did you?

13 A No, sir, I did not.

14 Q But that was a pertinent finding?

15 A Yes, sir.

16 Q All right. Did you make any other pertinent
17 findings at the time?

18 A Yes. That the bullet was apparently a foreign
19 military type of ammunition.

20 Q And did you put that pertinent finding in your
21 report?

22 A No, sir.

23 Q Did you make any other pertinent finding?

24 A Not that I recall.

25 Q Well, was it pertinent to you that this bullet,
26 as you've now testified before this court, was an undersized
27 bullet?

28 A No, sir.

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1 Q That has no pertinence at all?

2 A No, sir.

3 Q But you did make that finding at that time, didn't
4 you, within about five minutes, you say, after you saw the
5 bullet --

6 A Yes, sir.

7 Q -- or brought the bullet back and checked it
8 with a micrometer?

9 A Yes, sir.

10 Q How did you check it with a micrometer?

11 A By holding it in my fingers; by closing the
12 micrometer against it, and reading what the dial of the
13 micrometer said.

14 Q In a single measurement?

15 A I don't remember whether I -- I probably made
16 more than one measurement. Normally I do, on a round
17 object.

18 But I -- I can't say for sure at this time.

19 Q Well, in fact, is it not an unfair type of
20 measurement, from the standpoint of -- let's not use the
21 term "unfair."

22 Is it not, perhaps, professionally inaccurate
23 to take simply one measurement of the diameter of a bullet
24 to determine whether in fact that bullet is one particular
25 size versus another -- normal versus undersized?

26 A Is your question: Is this unfair?

27 Q No.

28 (Laughter.)

1 Q My question is: Is this professionally inaccurate?

2 A Yes, I -- there would be inaccuracies in this
3 method, definitely.

4 Q Because any bullet is not totally, wholly and
5 completely round, is it?

6 A That's correct.

7 Q And a bullet that has passed through a number of
8 pieces of material, and ricocheted off a piece of material,
9 and then gone through a piece of one-inch wood and three-
10 quarter inches of plaster and a half inch of another piece
11 of wood is likely to be highly deformed, as far as roundness;
12 isn't that correct?

13 A Yes, it is.

14 Q So that the bullet could be almost flattened
15 down on one side, and squashed down on the other side; isn't
16 that right?

17 A Yes. It would be possible for one to be this
18 way.

2b fls.

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1 Q And so in order to be professionally accurate in
2 determining whether a bullet is actually undersized or the
3 right size, or so deformed that you can't say that it is
4 perfectly round, you have to make a number of micrometer
5 measurements, and then average them, even if you are going to
6 attempt, from an average, to determine what the size is; is
7 that correct?

8 A No, sir. For -- if a bullet were as badly
9 deformed, as you say, I don't think that you'd be able to
10 determine the size of it by averaging or any other method.

11 Q All right. But if a bullet is perhaps just a little
12 bit deformed, you could get a relatively wide variance in
13 thousandths of an inch, by measuring it one place versus another
14 place; is that right?

15 A Yes, you could.

16 Q All right. And you don't know where you measured
17 this bullet, do you?

18 A No, I don't.

19 Q That is, the evidence bullet?

20 A No.

21 Q All right. Now, when an automatic is fired,
22 as distinguished from a revolver, what happens to the shell
23 casing?

24 A If the weapon functions normally, the shell casing
25 is ejected from the weapon at the time it is fired.

26 Q In other words, in a revolver such as we have got
27 here (indicating), each time the gun is fired the shell casing
28 simply remains -- the bullets leaves, and the shell casing

2b-2

1 remains in the cylinder (indicating); is that correct?

2 A That's correct.

3 Q And then they have to be individually emptied
4 out, in a gun of this kind? Or you can flip it out in some
5 guns and eject all of the shells; is that right?

6 A Yes, sir.

7 Q All right. And it is possible, is it not, to make
8 an identification almost equally as accurately -- or perhaps
9 just as accurate -- as to the gun from which a bullet was
10 fired, if you have the shell casing from which that bullet
11 emanated, so as to trace the gun, if you ever get the gun;
12 is that right?

13 A Yes, sir.

14 Q And you can trace this by the firing pin markings
15 on the primer cap; is that right?

16 A That's one method, yes.

17 Q You can trace it by markings of the breech, on the
18 base of the bullet; is that right?

19 A Yes, sir.

20 Q You can trace it by markings of the ejector -- the
21 ejector markings on the base of the bullet; is that right?

22 A Yes, sir.

23 Q You can trace it by scratches from the spring --
24 and then, if not the spring, then the magazine, if the magazine
25 leaves any particular scratches on a casing?

26 A Magazine lips often leave particular scratches
27 that are identifiable for that magazine, yes, sir.

28 Q All right. And were any shell casings brought to

1 you for identification in connection with this particular
2 weapon?

3 A No, sir.

4 Q All right. By the way, after you fired the --
5 strike that.

6 After you recovered this bullet that has now been
7 marked People's 31, what did you do with it?

8 A I placed it in a small manila envelope, placed it
9 in my pocket, and transported it to the crime lab.

10 Q Did you mark it in any way for identification,
11 before this transportation to the crime lab?

12 A No, sir. I marked it after I arrived at the crime
13 lab.

14 Q And did you -- in recovering this bullet, did you
15 make any scratches on that bullet?

16 A I don't believe so.

17 Q And when you marked it for identification, how
18 did you mark it?

19 A On the base of the bullet I marked my initials;
20 and my partner, who was with me at the time, marked his
21 initials with a small scribe.

22 Q And this you did using a glass, to look at the
23 base, so that you could see what initials you were inscribing
24 there with that scribe?

25 A I don't remember whether we used a glass or not.
26 Probably.

27 Q But under a ten-power glass, those initials show
28 up very clearly; is that right?

2c-1

1 A Yes, sir, definitely.

2 Q All right. And you were the one who inscribed
3 the initials, were you?

4 A I inscribed mine. I don't remember whether I
5 also inscribed my partner's or whether he inscribed his.

6 Q Did you do anything to the bullet before marking
7 it for identification with your initials?

8 A Not that I recall.

9 Q Did you check it in any way, before inscribing
10 it with your initials?

11 A I don't recall the sequence of events, whether
12 I made my examination of it prior to inscribing my initials
13 or not.

14 Q Well, do you have any recollection as to what
15 examination you might have made, prior to inscribing your
16 initials?

17 A I don't recall.

18 Q Well, then, you don't recall whether or not you
19 checked to see whether there were any powder marks on the
20 base of the bullet, do you?

21 A No, I did not.

22 Q And powder marks on the base of the bullet have
23 some significance in identification, do they not?

24 A They do in some cases, yes, sir.

25 Q And what significance do they have in identifica-
26 tion?

27 A At times, they will tell what type of powder was
28 used to propel the bullet.

Q You can get traces of powder sometimes off the

2c-2

~~2c-2~~

1 base of the bullet; and from that, chemically -- or, through
2 a spectrograph -- determine the type of powder that was used
3 to propel the bullet; is that right?

4 A I --

5 MR. KAY: That's irrelevant.

6 THE COURT: Sustained.

7 Q BY MR. DENNY: Well, you didn't do that in this
8 case; is that right?

9 A No.

10 MR. KAY: That's irrelevant.

11 MR. DENNY: Well, it's certainly relevant to his
12 identification of the bullet, your Honor.

13 MR. KAY: Oh, that --

14 THE COURT: The Court's ruling is the same.

15 Q BY MR. DENNY: And then after you brought it to
16 the Crime Lab, what did you do with it? You say you -- you
17 put it in an envelope, put it in your pocket, and took it
18 to the Crime Lab.

19 Then what did you do with it?

20 A Marked it, performed my tests to determine --
21 what I could about the bullet.

22 Q And then what did you do with it?

23 A Placed it back in the envelope, in another
24 identifying envelope, and put it on file in the Unsolved
25 Crime Bullet File Section.

26 Q And there it remained until around March 12th
27 or thereabouts?

28 A Yes, sir.

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Q Or 11th?

A Yes, sir.

Q Now, sir, before we get specifically to the photomicrographs that you prepared, I have four documents that appear to be photomicrographs of bullets, which had previously been marked in another case, case No. 222633, Los Angeles Superior Court case, as People's Exhibits 99, 100, 101, and 102.

May they be marked by reference to that case, under those numbers, but marked for identification in this case as Defendant's next in order, serially? I think that's I.

3 fls.

3-1

1 THE COURT: It would be I.

2 MR. DENNY: 99 as I, 100-J, 101-K, 102-L.

3 THE COURT: All right, so ordered, I, J, K and L.

4 Q BY MR. DENNY: Now, sir, if I can stand here,
5 showing you Exhibit I.

6 What is that?

7 MR. KAY: That's irrelevant, your Honor.

8 MR. DENNY: This is for demonstrative purposes, if he
9 knows.

10 THE COURT: Let me see the picture.

11 MR. KAY: Can we approach the bench on this?

12 THE COURT: You may approach the bench.

13 (Whereupon, the following proceedings were had at
14 the bench among Court and counsel, outside the hearing of the
15 jury:)

16 MR. KAY: Again, your Honor, these are the photographs
17 from the Kirschke trial. I don't think they have any
18 probative value in this case. The Sheriff's had nothing to
19 do in that case other than giving a test bullet --

20 THE COURT: What's your purpose?

21 MR. DENNY: Your Honor, my only purpose is to show that
22 photomicrographic evidence can be produced that is worthwhile,
23 relevant, material, clear and it -- there are -- it is
24 possible to make photomicrographs which show land impressions.

25 But the photomicrographs which have been prepared
26 in this case do not show the land impressions as the witness
27 testified he could see.

28 We've already established that you can see -- you

100-J
101-K
102-L

ID

1 can get a picture through a comparison microscope and through
2 the American Optical Company comparison microscope of anything
3 the eye can see. He said that through the comparison
4 microscope he was able to see the land impressions so that he
5 could measure them and establish a one-to-one ratio and that
6 he could specifically see the driving edge shoulder and the non-
7 driving edge shoulder, and if he could see that, then, he
8 could photograph it.

9 I'm going to show by the photographs that we have
10 in evidence or marked for identification that he made the
11 Exhibits 1 through 6, 99-A through F, and the blow-ups that
12 I made, that you cannot see that through his photomicrographs
13 either because he negligently prepared them and this is an
14 indication of the kind of work that he does --

15 THE COURT: How do you expect to do it by them?

16 MR. DENNY: Because on these you can see them and these
17 are good photographs which show the edges, which show the
18 ridges, which show the land impressions. And they are clear
19 and they can be made clear.

20 THE COURT: Well, he has not, as I heard his testimony,
21 he has not stated that they can't be made clear. He simply
22 said that with what he had and what he used, he had difficulty
23 in --

24 MR. DENNY: Well, that's relevant, too, your Honor. That
25 goes again to his expertise here and goes again to the opinion
26 that he formed.

27 MR. KAY: The problem is, your Honor, and I mentioned
28 this yesterday, and I don't know if your Honor remembers, the

1 Sheriffs had nothing to do with the production of these
2 photographs. They have no sensitive equipment that produced
3 pictures like this. This was done by Mr. Wolfer over at the
4 police department. And this wasn't done with an American
5 Optical Company camera.

6 MR. DENNY: How do you know?

7 MR. KAY: Because I talked to Wolfer, I know.

8 MR. DENNY: Well, in the first place, it doesn't matter
9 whether it was done with one camera or on the other. Two years
10 ago --

11 THE COURT: The Court is going to sustain the objection.
12 The Court sustains the objection. The Court believes it is
13 immaterial.

14 MR. KAY: Thank you, your Honor.

15 (Whereupon, the following proceedings were had in
16 open court within the presence and hearing of the jury:)

17 Q BY MR. DENNY: Sergeant Christansen, I believe you
18 indicated earlier in the course of your testimony that when the
19 people from the American Optical Company came a couple of years
20 ago, when the Sheriff's department bought, purchased, was
21 given, whatever, acquired the particular American Optical
22 Company comparison microscope, that they were able to produce
23 good, clear, clean photomicrographs of bullets, is that correct?

24 A Yes, sir.

25 Q The representatives were?

26 A Yes, sir.

27 Q High quality?

28 A Yes, high quality.

3a-1

1 Q And that under their direction you were able to
2 produce good, clear, clean, high quality photomicrographs?

3 A Yes, sir.

4 Q What do you mean by a good, clear, clean, high
5 quality photomicrograph?

6 A Showing a great deal of detail, clear.

7 Q One that would show the land shoulder impressions
8 if there were any on a bullet?

9 A Yes.

10 Q One that would show some reasonable clarity of
11 the striation marks on a bullet?

12 A Yes.

13 Q And the pictures that you prepared pursuant to
14 court order, do they show any of those things?

15 A Yes.

16 Q With any degree of clarity?

17 A Yes.

18 Q What do they show with any degree of clarity?

19 A They show some individual striations and they
20 show -- I believe one of them shows portions of the land
21 shoulders.

22 Q Portions of the land shoulders?

23 A Yes, sir.

24 Q One of them shows portions of the land shoulders
25 of which bullet?

26 A The evidence bullet.

27 Q The evidence bullet?

28 A Yes, sir.

3a-2

1 Q All right. For the jury's edification, can you
2 describe how you set up the bullets in order to photograph
3 them?

4 A Yes, sir.

5 Q How you set them up in this particular case.

6 A Yes, sir.

7 The bullets are placed on the stages or the
8 individual holding devices which are adjustable. They are
9 held on by bees wax. The bullets are lighted from the side
10 with indirect lighting.

11 Q Well, excuse me just a moment, Sergeant Christan-
12 sen.

13 Do you place them back to back, nose to nose or
14 noses going in the same direction?

15 A Noses going in the same direction.

16 Q And in which direction?

17 A In this case, it was away from the stages. It
18 would be to the operator's right as they face the --

19 Q As the operator faces the microscope?

20 A -- microscope, yes, sir.

21 Q And which bullet was on the left and which bullet
22 was on the right?

23 A The evidence bullet was on the right. The test
24 bullet was on the left.

25 Q All right. And your -- when you make a picture,
26 does the picture come out the same way with the evidence
27 bullet on the right and the test bullet on the left?

28 A I believe so. I'm really not sure.

3a-3

1 Q Well, the photograph shows exactly what the
2 eye sees, as you are looking down, doesn't it?

3 A Yes. The photograph shows what the eye sees
4 as you are looking down. However, the negative can be
5 flopped when it is printed, is my understanding. There are
6 a great many things that can happen. As far as I know,
7 if it is reproduced normally, they will be in the same
8 relative position.

9 Q Well, you marked the negatives in these cases
10 with the numbers?

11 A We did.

12 Q And each number was placed on the proper side
13 of the negative, either the shiny side or the dull side so
14 that they were all in sequence that way, is that right?

15 A Yes.

16 Q All right. So that in this case you know
17 personally that the negatives weren't flopped in printing?

18 A Yes.

19 Q All right. Otherwise, the numerals would be
20 backwards, is that right?

21 A Yes.

22 Q And the numerals in these exhibits, 100-A through
23 F, are not backwards, they're all in proper order?

24 A Yes, they appear to be.

25 Q Now, again, I'm sorry, I didn't make a note of
26 it. You said the evidence bullet on the right and the test
27 bullet on the left, and they were facing nose to the right?

28 A Yes, sir, I believe so.

3a-4

1 Q Well, is that the way you normally set them up?

2 A That is the normal manner, yes, sir.

3 Q All right. Then, you go ahead and make the
4 adjustments for light.

5 And did you line them up in some way so as to
6 attempt to line up what appeared to be land impressions
7 on any particular land mark on the evidence bullet?

8 A Uh, we lined them up so that the land mark
9 that was visible on the evidence bullet appeared to coincide
10 with the land mark on the test bullet.

11 Q Well, do you recall in so lining them up,
12 was that the picture, then, that you took first and labeled 1?

13 A I don't recall.

14 Q Well, was there any particular rhyme or reason
15 to the numbering that you used, 1, 2, 3, 4, 5, 6?

16 A No. It was just a sequence numbering.

17 Q Well, did you number those negatives just sort
18 of randomly after the negatives came out of the wash and
19 the drying process?

20 A No, the numbers -- the negatives were numbered,
21 I believe, by Sergeant Warner prior to the shooting or just
22 after taking the photo. I'm not a photographer. I'm not
23 sure of the process, but it was done at the time that the
24 pictures were taken.

3b fls.

3b-1

1 Q In other words, then, they were numbered
2 serially 1, 2, 3 on the negatives as the pictures were taken
3 or just --

4 A Just --

5 Q -- or prior to?

6 A Just prior to or just after they were taken,
7 yes, sir.

8 Q All right. Now, then, showing you 100-A.

9 Does that picture depict to you the land
10 impressions showing the shoulders of the land impressions
11 on the test bullet?

12 The test bullet, by the way, as you are looking
13 at it with the number on the bottom is towards the bottom,
14 is that correct?

15 A That's correct, yes, sir.

16 I am not sure. I believe this is probably a
17 shoulder (indicating), the left portion of the photo.

18 Q When you say this is probably a shoulder, you
19 indicate a line on the -- a light white line on the far
20 left-hand portion of the photograph.

21 Would you like to draw an oblong mark around
22 that line with this red felt marking pen?

23 A (Witness complies.)

24 Q Well, now, you've drawn that up into the half
25 of the picture depicting the evidence bullet. There's no
26 marking of a shoulder impression on the evidence bullet,
27 is there?

28 A There is a faint line there. I can't distinguish

1 whether it is a shoulder or not.

2 Q Well, if you can't distinguish whether it is
3 a shoulder or not, you're not in a position to say that that
4 is a shoulder marking from the land impression, are you?

5 A No, sir.

6 Q Well, then, perhaps for a better identification,
7 do you want to just sort of cross out that line on the
8 evidence bullet so that you are not indicating that that's
9 a shoulder impression and the only one, then, that you
10 would say, possibly, and you do say possibly a shoulder
11 impression is the unremaining hatched mark line, is that
12 correct?

13 A That's correct.

14 Q And then, showing you No. 2.

15 Do you see any shoulder marks on the test
16 bullet there?

17 A No, sir.

18 Q All right, showing you No. 3.

19 Do you see any shoulder marks on the test
20 bullet there?

21 A I see what is possibly a shoulder mark on the
22 test bullet here, near the center of the photo.

23 Q A shoulder mark near the center of the photo.

24 Would you like to mark that in red and only
25 again on the test bullet (indicating).

26 (Witness complies.)

27 Q BY MR. DENNY: Showing you photograph No. 4.

28 Do you see any shoulder mark on the test bullet

1 there?

2 A I see what may be a shoulder mark in this photo.

3 Q Are you saying that it is just possible that it
4 could be a shoulder mark or can you say with any certainty
5 at all it is a shoulder mark?

6 A I cannot say with any certainty at all that it
7 is a shoulder mark, no, sir.

8 Q All right. What is the mark, then, that you say
9 may be a shoulder mark?

10 A Towards the right portion of the photo.

11 Q Well, would you like to, again, put an oblong
12 circle there on just the evidence bullet.

13 I take it, sir, that you cannot see anything
14 that even appears to be a shoulder mark on the evidence
15 bullet, is that right?

16 A Well, nothing that I would care to identify as
17 a shoulder mark on the evidence bullet, no, sir.

18 Q All right. And I'm not sure whether I misspoke
19 myself when I said make a red mark around the test bullet
20 or evidence bullet. Whichever I previously said, you made
21 a red mark around the -- what you say may be a shoulder mark
22 on the test bullet?

23 A That's correct?

24 Q Is that right?

25 A Yes.

26 Q Again, on the lower portion of the photograph?

27 A Yes, sir.

28 Q Now, showing you photograph No. 5.

1 Do you see anything there that appears to be
2 or that you would say with any degree of certainty is a
3 shoulder mark?

4 A Yes, I see what could be a shoulder mark.

5 Q Again, this is just possibly a shoulder mark,
6 is that right?

7 A That's correct.

8 Q All right. And would you indicate that, please,
9 by circling it in red?

10 (Witness complies.)

11 Q BY MR. DENNY: And you have circled, now, on
12 photograph No. 5, a mark over about the left-hand third of
13 the picture, is that right?

14 A Yes, sir.

15 Q And, again, you see nothing that you could even
16 say possibly resembles a shoulder mark on the evidence
17 bullet, is that right?

18 A Well, yes, the portion directly in line with
19 that resembles a shoulder mark on the evidence bullet.
20 Whether it is or not, I don't know.

21 Q Resembles?

22 A That's correct.

4 fls.

4-1

1 Q Well, in what way does it resemble a shoulder mark?

2 A The appearance is similar to the appearance of a
3 shoulder mark.

4 Q And what sort of appearance does a shoulder mark
5 have?

6 A A shoulder mark on a flat photograph appears as a
7 series of striations -- a raised portion, actually.

8 Q Well, does not a shoulder mark on a photomicro-
9 graph -- that's any kind of decent photomicrograph -- appear as
10 rather a sharp, distinct, darker line, or width of darkness?
11 Along the bullet?

12 A On some photomicrographs, yes, sir.

13 MR. DENNY: All right. Ladies and gentlemen, we'll take
14 a short recess now.

15 You are admonished during the recess not to
16 converse amongst yourselves nor with anyone else, nor permit
17 anyone to converse with you on any subject connected with the
18 matter, nor to form nor express any opinion on it until it
19 is finally submitted to you.

20 Incidentally, a court order that experts prepare
21 photographs or exhibits may be made at the request of either
22 party, on the Court's own motion.

23 The fact that the Court made such an order does not
24 imply an opinion of the Court as to the weight of the evidence
25 in any way.

26 All right. Ten minutes, ladies and gentlemen.
27 Be back at 11:00 o'clock.

28 You may step down, Sergeant.

4-2

1 (Pause in the proceedings while the members of the
2 jury exited the courtroom.)

3 THE COURT: Mr. Denny -- the record will show that the
4 jurors have left -- the Court didn't mean to preclude you from
5 showing, if you wish to show, that better pictures could have
6 been made, better than those which the witness made with what
7 he used in the Sheriff's crime laboratory.

8 But I think that's implicit in his testimony.

9 MR. DENNY: Well, your Honor, again, with testimony
10 that --

11 THE COURT: And I'm referring to your offer of H, I, J --
12 or, I, J, K and L.

13 MR. DENNY: Your Honor, I think it's relevant at this
14 time, since Sergeant Christansen has stated what land impressions
15 and land shoulder impressions do look like on a good, clear
16 photomicrograph, to be able to show what land impressions do
17 look like on a good, clear photograph; because they don't look
18 anything like -- like what we have got in these photographs
19 (indicating).

20 These, particularly Exhibit I --

21 THE COURT: Well, you are talking about the bullets,
22 pictures of the bullets, test bullets and evidence bullets in
23 the Kirschke case?

24 MR. DENNY: That is correct, your Honor. And they do
25 disclose very distinct land impressions, with land shoulder
26 impressions, very clear and distinct.

27 MR. KAY: But also, the Sheriff's had nothing to do with
28 the preparation of those photographs. They don't have that

4-3

1 type of equipment.

2 MR. DENNY: It doesn't matter whether they have the type
3 of equipment, whether they had anything to do with it or not.

4 If this gentleman can say that he can identify --

5 THE COURT: Let's take a look at them. The photographs
6 were ordered made at the Court's order, at your request.

7 MR. DENNY: That's correct, your Honor.

8 THE COURT: This witness had formulated his opinion
9 before he had the photographs.

10 MR. DENNY: That's correct, your Honor.

11 THE COURT: The photographs, as he has stated, did not
12 assist him in forming his opinion.

13 MR. DENNY: They sure as heck can assist the jury in
14 determining whether that initial opinion was proper or
15 erroneous, though.

16 THE COURT: Well --

17 MR. DENNY: And this is why I got them. That's why I
18 asked for them.

19 THE COURT: You believe that the photographs that he has
20 can assist the jury?

21 MR. DENNY: Absolutely. Because they will show --

22 THE COURT: What do the Kirschke files have to do -- if
23 they were admitted into evidence, then, what place would they
24 have in evidence?

25 MR. DENNY: Your Honor --

26 THE COURT: They simply show that better photographs could
27 have been made.

28 MR. DENNY: All right, your Honor. Let's just assume that

1 this is --

2 THE COURT: And he admits that better photographs could be
3 made.

4 MR. DENNY: All right. But now, he says, "I look at these
5 photographs, 99-1 through -6, and I see what appear to be
6 land shoulder impressions. And I see here, here, here."

7 On one point, he picks out a very light area, a
8 light -- a highlighted line; on another part, he picks out
9 what appears to be both a dark and a lighted line that appears
10 to be, rather than a shoulder impression, a raised portion.

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1 THE COURT: Now, what you want to do, Mr. Denny, is
2 show him those Kirschke photographs --

3 MR. DENNY: I'll show him just --

4 THE COURT: -- and go through them and show shoulder
5 marks, striations, various examples of marks on a bullet?

6 MR. DENNY: No, your Honor. All I want to do is show
7 him -- in this case, I -- and ask him if he can show where
8 the shoulder marks are here.

9 THE COURT: I can't see that they would be relevant.

10 MR. DENNY: Because, your Honor, they are far different,
11 and they do show clearly what shoulder marks are.

12 And he has stated under oath now, before the
13 jury, that shoulder marks can be a light line; they can be
14 a dark line; they can be any --

15 MR. KAY: But they are also pictures of different
16 bullets.

17 THE COURT: Different bullets and different cameras.

18 MR. DENNY: The camera doesn't matter, your Honor.
19 The camera has -- the camera sees what the eye sees. The
20 camera doesn't matter.

21 It's the operator that matters.

22 And one of the things that I have --

23 THE COURT: But the witness, in forming his opinion,
24 and in expressing his opinion, did not utilize these
25 photographs. He didn't see what the camera saw before he
26 arrived at his opinion.

27 MR. DENNY: Yes, he did, your Honor. He saw --

28 THE COURT: He did?

1 MR. DENNY: -- what the camera saw, what was in the
2 microscope.

3 THE COURT: What was in those photographs?

4 MR. DENNY: He saw --

5 THE COURT: The photographs were not ordered until
6 sometime this year.

7 MR. DENNY: The bullets don't change, your Honor.

8 THE COURT: But --

9 MR. DENNY: The bullets don't change.

10 THE COURT: -- we do not know that he saw what the
11 camera saw, because he may have had a different focal length;
12 he might have had his microscope prepared differently.

13 You don't have that background established. And
14 the Court can't see that these photographs -- these Kirschke
15 photographs would be material whatever, except to show that
16 a better photograph could have been made with other equipment.

17 MR. DENNY: Well, your Honor, suppose I show, in
18 Gunther's -- or, Mathews' book here, which he says is a
19 recognized work, a picture to the jury of a land impression,
20 a good picture of a land shoulder impression.

21 THE COURT: All right. Now, what difference would that
22 make, Mr. Denny? What relevance would that have?

23 MR. DENNY: It would have relevance, your Honor, to
24 show that when he identifies land shoulder impressions now,
25 here, on these photographs, he is identifying things that
26 are not land shoulder impressions.

27 THE COURT: But the photographs were not used by him
28 in making the determination, and he says that --

1 MR. DENNY: But your Honor, whether they're used or not,
2 he's testified as an expert now. "I can look here --" and this
3 goes to the weight of his testimony and his credibility as an
4 expert. If he sits himself up on the stand and says, "I can
5 look at those pictures, and I can say, 'That looks like a
6 land shoulder impression, that looks like a land shoulder
7 impression, '" --

8 MR. KAY: That's not what he said.

9 MR. DENNY: --" 'that appears to be a land shoulder
10 impression, '" and he circles them, and then anybody can look
11 at what is a photograph of a real land shoulder impression
12 and see that what he's pointing to could not possibly be a
13 land shoulder impression, his credibility as an expert, the
14 weight of his testimony as an expert, is decreased.

15 And the jury receives an instruction that you can
16 give the testimony of an expert such weight as you feel it
17 deserves, and no more. And this is why I am spending a day
18 and a half on cross-examining this gentleman, because his
19 credibility and his expertise is in issue, as far as the
20 defendant is concerned.

21 His statement that he saw a bullet, and he looked
22 at a bullet, and from his examination of a bullet, he could
23 tell --

24 THE COURT: So far as the picture is concerned, then
25 you believe that you will be able to -- the Kirschke pictures,
26 you will be able to prove, by the expert whom you will
27 present, that a certain area on the pictures is a land
28 shoulder impression?

1 MR. KAY: But this is irrelevant, what it is on the
2 Kirschke picture. It's what it is with our bullet, the
3 Hinman bullet.

4 The Kirschke bullet is irrelevant.

5 THE COURT: Is that what you mean, Mr. Denny?

6 MR. DENNY: Well, I plan to --
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1 THE COURT: Or that you will be able to show --

2 MR. DENNY: I plan to show it by Mr. Christansen, by
3 Sergeant Christansen, that what appears here in Exhibit I
4 is a land shoulder impression.

5 THE COURT: I can't see the relevance, when the
6 photographs were not used by -- neither the Kirschke
7 photographs nor the photographs he took, at court order --
8 were used by him in order to arrive at an opinion.

9 MR. DENNY: Well, your Honor, the jury --

10 THE COURT: And you yourself say that the photographs
11 ordered were a very poor quality -- or, you infer that.

12 The Sergeant says he is not an expert in photo-
13 micrography, and you have established that on your cross
14 examination.

15 I think this is a point at which the Court must
16 say that some utilization of the Court's discretion must take
17 place. I -- I can see what you are driving at, but --

18 MR. DENNY: Well, your Honor, the only thing I will
19 say -- and then I will cease any further argument on the
20 matter, because I have an idea that it's futile; but again,
21 simply for the record -- this jury is asked to determine the
22 credibility of an expert witness.

23 I certainly intend to introduce these photo-
24 micrographs into evidence, so the jury --

25 MR. KAY: They already have been.

26 THE COURT: Which?

27 MR. DENNY: That is, the 99 series and the defendant's
28 blow-up of the 99 series.

4b-2

1 THE COURT: Very well.

2 MR. KAY: They have already been admitted, I think.

3 THE COURT: Yes.

4 MR. DENNY: All right. Now, the jury, then, is going to
5 be able to look at these.

6 THE COURT: All right. I'm following you so far.

7 MR. DENNY: And the jury is going to say, "Oh, boy.
8 Well, the expert, you know, the expert says that's (indicating)
9 a land shoulder impression, or could be, on Exhibit 99-A.

10 "And gee, he circled this thing on 99-3. Well,
11 he's an expert, and so he says that's a land impression, so
12 that must be a land impression.

13 "And golly, he circled this thing on number four
14 and said that's a land impression, so -- you know, he's an
15 expert, so it must be a land impression."

16 THE COURT: All right. He testifies that certain things
17 on the photographs 100-A through -G, that certain things
18 are land impressions; certain things are other markings that
19 he identifies on the 100 series.

20 MR. DENNY: And I --

21 THE COURT: Now, you have got that in the record, so --

22 MR. DENNY: All right. And I want to show --

23 THE COURT: Where are you going to go from here?

24 MR. DENNY: I want to show -- by other exhibits which
25 they can look at and compare, true land impressions -- that
26 there is no way for any expert to look at these photographs
27 and say, "Oh, that's a land impression," because there's just
28 not enough detail on these pictures to do that, and to make

b-3

1 that opinion.

2 MR. KAY: Well --

3 MR. DENNY: It is an opinion.

4 THE COURT: Isn't that a matter of argument for you to
5 make?

6 MR. DENNY: But your Honor, if the --

7 THE COURT: The sergeant has already expressed himself
8 that, in his opinion, the pictures -- 100-A through -G -- do
9 reflect that.

10 MR. DENNY: Well, your Honor, if the jury has another
11 picture of another bullet, with particular clear land
12 impressions, to compare themselves -- which I think they
13 should have --

14 THE COURT: Then they will know that it's possible to
15 make a better picture.

16 MR. DENNY: Then they will know what a land impression
17 looks like, and know that these --

18 THE COURT: They will know what a land impression looks
19 like on a better picture.

20 MR. DENNY: They will know what a land impression looks
21 like on a bullet.

22 THE COURT: A picture of a bullet.

23 MR. DENNY: That may be so. But the mere fact that
24 you have poor resolution, perhaps, or a bit out of focus doesn't
25 change the definition of the land impression.

26 THE COURT: I think anyone can see that the pictures
27 in 100 are not the quality that somebody with a better camera
28 and with more expertise in photography could make.

4b-4

1 MR. DENNY: Well, your Honor, I -- I have said that I
2 would stop arguing, and if the Court is going to make its
3 ruling, I will obviously abide by the ruling.

4 THE COURT: The point is, if you simply wish to have a
5 better photograph to show that perhaps the work of the
6 Sheriff's laboratory was slipshod or inexperienced, in producing
7 the photomicrographs, the Court believes that that would be
8 admissible.

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9 MR. DENNY: Well, your Honor, I would love to have --
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1 THE COURT: And the Court believes it would be
2 admissible, if you can establish evidence that the Sergeant--
3 by other opinion -- that the Sergeant is incorrect when he
4 expresses an opinion that the markings on 100 are not what
5 he says they are.

6 But you must also remember that it would simply
7 be attacking his credibility as an expert, since -- in
8 determining the markings as shown in 100, because he didn't
9 utilize the photograph in 100 in arriving at his opinion.

10 MR. DENNY: That's not the point at all, your Honor.
11 I am not seeking to attack his opinion on that.

12 I am seeking to attack his expertise in identify-
13 ing them now as land shoulder impressions.

14 THE COURT: Well, he has already --

15 MR. DENNY: At any rate, your Honor, I would be happy
16 if the Sheriff wanted to take that bullet back and make some
17 good photomicrographs, if he can, that show land shoulder
18 impressions. Because he can't.

19 THE COURT: Well, he has already expressed himself as
20 to what he believes these markings are in 100. Whether he's
21 right or wrong, I would submit to you, can be established
22 perhaps by showing other evidence of other opinion as to what
23 the markings are -- if indeed, anyone can determine from
24 those photographs, --

25 MR. DENNY: That's what I will do, your Honor.

26 THE COURT: -- photographs in 100, what they are.

27 I'm sorry. I didn't hear your last remark.

28 MR. DENNY: I said: That is what I will do.

1 THE COURT: Well, I certainly believe that you can do
2 that.

3 MR. DENNY: I do, too.

4 THE COURT: But I think it's time-consuming at this
5 time to have him examine the Kirschke photographs and in any
6 way compare them with what he has in 100.

7 MR. DENNY: May we have a few extra minutes, your Honor,
8 even though the jury has been out a little bit longer than
9 was indicated?

10 THE COURT: Yes, you may. Since we consumed such time
11 here, you may have a few moments.

12 (Short pause in the proceedings.)

13 MR. DENNY: No. Your Honor -- Steve, don't leave for
14 just a moment.

15 Your Honor, perhaps for ease of the clerk's
16 handling these, it would be better if we could simply
17 withdraw these --

18 THE COURT: The Kirschke photographs?

19 MR. DENNY: -- as -- well, I don't know. I think they
20 still -- because if there's any question in the record, can
21 we simply mark them for identification by reference, and then
22 return them to the clerk's office?

23 That's what I intended to do. They're marked
24 by reference, then.

25 MR. KAY: I think they already were.

26 THE COURT: Do you have the case number on it?

27 MR. DENNY: It's on the back there.

28 MR. KAY: I think that's how Mr. Denny had them marked

1 in the beginning.

2 THE COURT: Would the reporter, then, pick up the case
3 number?

4 MR. DENNY: It's 222633.

5 (Mid-morning recess.)
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1 THE COURT: The defendant is present with his --
2 Mr. Denny is here, his counsel. All jurors are in the box.

3 Let's proceed.

4 Q BY MR. DENNY: Now, Sergeant Christansen, I think
5 we had stopped about along the way on photograph No. 100-E.
6 That is photograph No. 5 in the series. And you had marked
7 what you said appeared to be a land shoulder impression on the
8 test bullet, the bottom bullet on No. 5. And I think you had
9 said that possibly on the evidence bullet there might be a
10 land shoulder mark above that, directly above that; is that
11 right?

12 A Yes, sir.

13 Q All right. Would you mark that with the red
14 marking pen with a second oval?

15 (Witness complies.)

16 Q BY MR. DENNY: All right. And then, going on
17 to photograph No. 6, which is 100-F.

18 Do you see what appears to be, on the test bullet,
19 any sort of land shoulder impression?

20 A Yes, sir, this area here (indicating).

21 Q Well, you've indicated what appears to be a light
22 line on the left with a dark line a little bit to the right of
23 it, striation marking about a third of the way into the
24 picture to the left; would you circle that?

25 A Yes, sir.

26 (Witness complies.)

27 Q BY MR. DENNY: All right. And do you see anything
28 that appears to be a land shoulder impression on the evidence

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1 bullet?

2 A Well, I see what could be a land shoulder on the
3 evidence bullet.

4 Q But you would not say with any definiteness that
5 it was?

6 A No, sir.

7 Q Well, do you want to circle that area anyway and
8 perhaps put a question mark there?

9 (Witness complies.)

10 Q All right. All right, sir.

11 Now, if I may go back just a moment.

12 THE COURT: Mr. Denny and Mr. Kay, very briefly.

13 (Whereupon, proceedings were had at the bench
14 among Court and counsel, outside the hearing of the jury,
15 which was not reported:)

16 (Whereupon, the following proceedings were had in
17 open court within the presence and hearing of the jury:)

18 Q BY MR. DENNY: Mr. Christansen --

19 May I approach the witness again, your Honor?

20 THE COURT: Yes, you may.

21 Q BY MR. DENNY: Sergeant Christansen, I'm sorry,
22 I have a volume, Identification of Firearms by Gunther. And
23 you have indicated that he is at least one of the recognized
24 authors in the field, is that right?

25 A Yes, he has written in the field.

26 Q All right. On Page 23 thereof, Figure 23, there is
27 a photomicrograph of what appears to be a copper-jacketed
28 slug or bullet; is that correct?

1 A Yes, sir.

2 Q Does that show the land shoulder impressions that
3 would have been made by the lands of the gun from which that
4 bullet was fired?

5 A Yes, quite distinctly.

6 Q Quite distinctly.

7 Now I don't like to mark up somebody else's
8 book, would you just lightly mark an arrow to the -- does it
9 show both land shoulder impressions, by the way, the driving
10 edge and the non-driving shoulder?

11 A Yes, it does.

12 Q All right. Would you draw an arrow, just a single
13 arrow to the middle of the land shoulder impression which shows
14 the driving edge?

15 (Witness complies.)

16 Q BY MR. DENNY: And perhaps just right above it,
17 a "D" for driving edge.

18 (Witness complies.)

19 Q BY MR. DENNY: And then, would you make another
20 arrow, perhaps midway down the shoulder of the land shoulder
21 impression of the non-driving edge and mark that "ND"?

22 (Witness complies.)

23 Q BY MR. DENNY: All right. Perhaps you'd better
24 mark the arrow with a "D" just a little bit heavier so it is
25 a little bit more visible.

26 (Witness complies.)

27 MR. DENNY: All right, your Honor, again with the proviso
28 that a -- either a photograph of this or a Xerox copy will be

1 made available, may this be marked and received as defendant's
2 next in order so the jury may be permitted to see it?

3 THE COURT: It will be M for identification. It will
4 be received as M.

5 MR. DENNY: I wonder, your Honor, if I could just pass
6 before the jurors with this or perhaps pass the book down with
7 the admonition that they not read any of the material but
8 simply look at the picture?

9 THE COURT: Very well, you may, very quickly, ladies
10 and gentlemen.

11 (Whereupon, there was a pause in the proceedings
12 while the book was passed throughout the members of the jury.)

13 Q BY MR. DENNY: Now, again, going to Volume 1 of
14 Mathews Firearms Identification, the work which you said you
15 have used in the past for the specifications of the various
16 guns.

17 You indicated that among the guns whose bullets you
18 personally checked to determine that they were compatible with
19 or similar to the bullet fired from -- or the evidence
20 bullet, the bullet recovered from the home, were bullets from
21 the Star and the Walther, is that right?

22 A Yes, sir.

23 Q 9-millimeter automatics?

24 A Yes, sir.

25 Q All right. Now, I've taken the liberty of making
26 a Xerox copy of Page 139 and Page 140, and so you might check
27 them. You want to check to make sure that they are accurate
28 reproductions of the book itself?

1 All right, Page 140.

2 A Uh-huh.

3 Q Then, again, they set forth those two pages, the
4 60 or some 9-millimeter automatic pistols with six lands and
5 grooves, right-hand twists; is that right?

6 A Yes, sir.

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1 Q As well as certain others, with fewer or more
2 lands and grooves and different twists; is that right?

3 A Yes, sir.

4 Q All right. Now --

5 All right. Your Honor, may these two pages,
6 simply for the purposes of identification, be marked as
7 Defendant's N for identification?

8 THE COURT: So ordered. N for identification.

9 Q BY MR. DENNY: Now, going to the Walther -- and
10 you'll find that on page 140 -- what are the widths of the
11 lands set forth there, as far as the specifications go?

12 MR. KAY: It's irrelevant.

13 MR. DENNY: This goes to the --

14 THE COURT: Sustained.

15 MR. DENNY: Well, your Honor, excuse me. This goes
16 to the identification in his --

17 THE COURT: Well, do you wish to argue at the bench?

18 MR. DENNY: Yes, I do, your Honor.

19 (Whereupon the following proceedings were had
20 at the bench among Court and counsel, outside the
21 hearing of the jury:)

22 MR. DENNY: Your Honor, part of the means of identify-
23 ing the bullet, as one being compatible with that fired from
24 the Radom -- or Radom -- is Sergeant Christansen's statement
25 that, based on his observation of the evidence bullet, the
26 bullet recovered from the Topanga Canyon home, that this
27 bullet -- that he could see on the bullet land impressions;
28 and that the land impressions that he saw led him to form

N id.

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1 the opinion that it had a land to groove ratio of 1 to 1;
2 that is, that the lands were as wide as the grooves.

3 He then further stated in his report, as he has
4 testified here, that comparable guns -- or, comparable bullets
5 on file from guns with comparable ratios were, among others,
6 the Radom, the Star, and the Walther.

7 I intend to show, by this series of questions,
8 that the Walther has a ratio of about 52 mils to 134 mils --
9 or two and a half to one -- or, that is, one to two and a
10 half, land to groove ratio;

11 That the Star has a ratio of 60 mils to 126 mils,
12 or approximately 1 to 2 ratio.

13 THE COURT: Well, why don't you go directly to it,
14 Mr. Denny, --

15 MR. DENNY: I am going to --

16 THE COURT: -- and ask him about it?

17 MR. DENNY: Well, he is not going to be able to say that,
18 your Honor, without going through the mathematics, to show it;
19 and I am going to go through the mathematics with him --
20 which I have prepared here -- to facilitate and expedite this.

21 THE COURT: How long do you think that would take? An
22 hour?

23 MR. DENNY: No, your Honor. It shouldn't take more
24 than about ten minutes or 15 minutes at the most.

25 THE COURT: Why don't you try asking him directly whether
26 -- about this ratio?

27 MR. DENNY: Your Honor, he is not going to be able to
28 say -- and I want to be able to establish it with certainty,

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1 before this jury -- as to what the ratios are of the Star,
2 the Walther and the Radom, because the ratio of the Radom is
3 not 1 to 1; the ratio of the Radom is 84 mils to 102 mils,
4 which is about 8 to 10.

5 MR. KAY: Well, the ratio of which Radom? Which
6 particular Radom?

7 MR. DENNY: Any Radom.

8 MR. KAY: Well, that's not true, because, you know,
9 we don't know, in this book, which one this guy is --

10 THE COURT: All right. The Court will let you pursue
11 it.

12 MR. DENNY: Okay.

13 THE COURT: But let's do it with as much dispatch as
14 can be --

15 MR. DENNY: I'm going to attempt to. That's why I
16 prepared these things, your Honor, to facilitate it.

17 (Whereupon the following proceedings were had
18 in open court, within the presence and hearing of the
19 jury:)

20 Q BY MR. DENNY: Now, Sergeant Christansen, again
21 looking at special qualifications for the widths of lands
22 of the Walther -- and the only Walther that's shown as a
23 9 millimeter Walther, six lands and grooves, with a right-
24 hand twist, is the Model PP; is that right?

25 A Yes, sir.

26 Q All right. The -- can you, from the width of
27 the lands, determine, without some further arithmetic, what
28 the width of the grooves is?

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A Not without some further arithmetic, sir.

Q All right. And that further arithmetic requires you to determine what the circumference of the -- the circumference of the grooved diameter is; is that right?

A Yes.

MR. DENNY: All right. May I have just a moment, your Honor?

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THE COURT: Yes, you may.

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1 (Pause in the proceedings while a discussion off
2 the record ensued at the counsel table between Mr. Denny and
3 Mr. Kay.)

4 MR. DENNY: Your Honor, I have here a rough drawing
5 of -- well, I have a rough drawing. And may that be marked
6 as defendant's next in order? I believe O?

7 THE COURT: So ordered. O for identification.

8 Q BY MR. DENNY: Now, Sergeant Chirstansen, showing
9 you this drawing, what does that appear to represent to you?

10 A It's a line drawing of what appears to be a gun
11 barrel.

12 Q All right. And the -- the circular portion
13 appears to be the mouth of the gun barrel; is that correct?

14 A That's correct, yes, sir.

15 Q All right. And then, the raised portions, the six
16 raised portions appear to represent the lands?

17 A Yes, sir.

18 Q And then the recessed portions the grooves?

19 A Yes, sir.

20 Q And then the lines going, twisting back along the
21 barrel, represent what, would you say?

22 A The shoulders of the lands and grooves.

23 Q All right. And in this case, the two shoulders
24 are represented, one shoulder in red and one shoulder in blue.

25 And what would that indicate to you?

26 A Uh --

27 Q Distinguishing between the shoulders?

28 A Oh, probably to distinguish which was the driving

1 shoulder.

2 Q All right. And with the twist indicated on the
3 barrel here, which would be the driving shoulder?

4 A The shoulder indicated in -- hmmm -- the shoulder
5 indicated in blue.

6 Q That's a right-hand twist, is it not? As the
7 bullet comes out?

8 A (No response.)

9 Q Well, either as you look down the barrel this way,
10 or if you figure it coming out this way (indicating), it
11 imparts a right-hand -- as the bullet is coming out, it is
12 coming this way (indicating), from down to up, would it not be?

13 A All right. Whichever way you want it.

14 Q All right. So the red shoulder would be the driving
15 shoulder, and the blue shoulder would be the --

16 MR. KAY: Well, I'll object to whichever way Mr. Denny
17 wants it. It's up to Sergeant Christansen, I think, to answer
18 the question, whether it's a right or left twist.

19 I think, by his motions up there, Sergeant
20 Christansen was indicating that it was a left --

21 THE COURT: Well, don't argue, Mr. Kay. Just state an
22 objection, if you have an objection.

23 Q BY MR. DENNY: All right. Sergeant Christansen,
24 not leaving it up to me, but leaving it up to you, what would it
25 represent to you? A right-hand twist with the driving shoulder
26 indicated in red?

27 A I can't tell from your drawing.

28 Q All right. Now --

1 Your Honor, perhaps we can use this simply for
2 illustrative purposes.

3 May we do that before the jury at this time?

4 THE COURT: Well, with further foundation, you may.

5 Q BY MR. DENNY: Well, in determining the width of
6 grooves, knowing the width of lands, if you have the width of
7 the bore -- when they talk about, in the specifications, the
8 width of the bore, what are they talking about?

9 A The distance from the top of one land to the top of
10 the opposing land.

11 Q All right. Could you draw a line between the top of
12 one land to the top of another land, with arrows pointing to
13 each top of the land? And perhaps write on there "width of
14 bore"?

15 A (Witness complies.)

16 Q All right. Now, then, in order to determine the
17 width of the grooves, you have to get the circumference of
18 the second circle that is made of the bottoms of the grooves;
19 is that right?

20 A I'm not sure.

21 Q Well, that's the only way you can determine the
22 width of the grooves, isn't it?

23 A Well, the width of the groove would be the distance
24 from shoulder to shoulder.

25 Q All right. Well, if I may, perhaps you could come
26 down here, before the jury.

27 (Pause in the proceedings while a discussion off the
28 record ensued at the counsel table between Mr. Denny and Mr. Kay.)

7-1

1 Q We are talking about the Walther PP, the Model PP
2 now that you are talking about, is that right, the specs?

3 A Yes, this is the specifications that you have
4 indicated from the chart.

5 Q All right. And the Walther PP is the model that
6 you had reference to when you said that it had similar
7 dimensions as far as the land to groove ratio -- or let me
8 strike that and use your own language.

9 Bullets on file in this office with similar
10 characteristics to the recovered bullets include those fired
11 from Astra, Browning, Luger, Radom, Star and Walther
12 semi-automatic pistols.

13 So when you talked about the Walther in that
14 context, you were talking about the Walther PP, is that
15 right?

16 A Probably not.

17 Q Probably not?

18 A No, sir.

19 Q And why do you say probably not?

20 A Because the Walther P-38 in 9 millimeter caliber
21 is much more common, at least we run into a lot more of them.

22 Q Well, the P-38 that you talked about is listed
23 on page 139, put out by several different manufacturers,
24 is that correct?

25 A I don't know. It was put out in war time
26 Germany. I don't know how many manufacturers made the
27 weapon.

28 Q Is that the Carl Walther Waffenfabrik listed on

7-2

1 page 139 under German Model P-38.

2 THE COURT: I don't understand the question.

3 He said it was put out in war time Germany. He
4 doesn't know the manufacturers.

5 MR. DENNY: Well, he indicated the P-38 by Walther.

6 THE COURT: To your knowledge was there just one
7 manufacturer?

8 THE WITNESS: No, sir. There were probably more.
9 However, Walther held the patent and, normally, for identi-
10 fication purposes, it is called a Walther.

11 Q BY MR. DENNY: In other words, shown here in
12 Mathews' work are three manufacturers of the German Model
13 P-38, the Mauser Werke, Spreewerk G.m.b.H. Metallwaren and
14 Carl Walther Waffenfabrik -- my German not being so good --
15 is that correct?

16 A Yes.

17 Q Now, those then were the manufacturers of the
18 P-38?

19 A Yes, sir.

20 Q All right. And so when you were talking about a
21 Walther, you were then talking about the Walther P-38 as
22 distinguished from the Walther Model PP put out by Carl
23 Walther Waffenfabrik?

24 A I didn't specify models.

25 Q I know you didn't. That's what I am asking you.
26 You said you were probably not referring to this one, the
27 Walther Model PP?

28 A That is correct.

7-3

1 Q But the Walther P-38, is that right?

2 A Yes, sir.

3 Q All right.

4 Well, let's go to the Star.

5 Which Star were you referring to as shown on
6 page 140?

7 A No particular model. There are many models
8 that are so close. The weapons I referred were as an aid
9 to the investigator.

10 Q All right, sir.

11 Well, then, the Star, having 1, 2, 3, 4, 5, 6,
12 7, 8, 9 different models, the land width ranges anywhere from
13 36-thousandths of an inch to 70-thousandths of an inch, is
14 that right?

15 A Yes, sir.

16 Q And they vary all the way in between?

17 A Yes, sir.

18 Q All right. So would you say that a fair average
19 of those would be about 60-thousandths --

20 MR. KAY: Well, that's irrelevant. Irrelevant.

21 THE COURT: Sustained.

22 Q BY MR. DENNY: Well, when you said that bullets
23 on file with similarities or with characteristics similar to
24 the evidence bullet included the Star, you were sort of
25 saying, as an average, take any Star and it has --

26 A No, sir, I did not say take any Star. I said it
27 included bullets fired in Stars.

28 Q Ah, all right, which Star?

1 A I don't know. I didn't specify. I don't think
2 the average investigator in the field would be able to
3 identify one Star model from the other, in any case.

4 Q Well, there's quite a distinction, though, in
5 difference in the land widths of the Star models, are there
6 not?

7 A Yes, there are.

7a fls.

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1 Q And so when you say it is similar to just any
2 Star, are you referring to one with narrow land widths or one
3 with the widest possible land width?

4 A I'm referring to some of those that we have test-
5 fired and have bullets on file in our office. I cannot
6 differentiate between models.

7 Q Well, do you know, then, which models have a one-
8 to-one ratio, land to groove width?

9 A No, I do not.

10 Q But that was one of the key things in this
11 evidence bullet as far as identification purposes, that it had
12 a one-to-one land to groove ratio; isn't that correct?

13 A Yes, sir.

14 Q All right. And insofar as you can tell, can you
15 determine whether any of the Stars models have a one-to-one
16 land groove width ratio?

17 MR. KAY: Irrelevant.

18 THE COURT: Overruled.

19 THE WITNESS: I can't tell from this chart, no, sir.

20 Q BY MR. DENNY: Can you tell whether the Radom
21 vis 35 has a one-to-one land to groove width ratio?

22 A Not from the information given on this chart.

23 Q You need further information?

24 A Yes, sir.

25 Q All right. Let me see if I can provide that.

26 THE COURT: Mrs. Obradovich -- incidentally --

27 JUROR BRADOVICH: Your Honor.

28 THE COURT: Is there a question?

7a-2

1 JUROR OBRADOVICH: About this thing.

2 THE COURT: Would you do it this way, would you write it
3 down? Just take a page off -- incidentally, you can all do that
4 at any time.

5 JUROR OBRADOVICH: I can't understand something.

6 THE COURT: Well, don't say it. Don't say what you
7 can't understand or don't ask any questions. Our system,
8 fortunately, or unfortunately, depending on the way you view it,
9 doesn't allow that. But if you write a question down, hand it
10 to Mr. Kuczera, and I'll look at it and ask both counsel and
11 perhaps either or both counsel will choose to explain it for
12 you or have it explained for you.

13 MR. KAY: Your Honor, Mr. Denny appears to have put up
14 a piece of paper with some figuring on it that he's done. I'm
15 going to object to that. That hasn't been admitted into
16 evidence.

17 MR. DENNY: Well, your Honor, may I have it marked for
18 identification and have it used purely for illustrative
19 purposes to try and aid and speed in the progress of the trial
20 here which I think it will do?

21 THE COURT: Anything that will do that, the Court is
22 willing to accept.

23 MR. DENNY: That's fine, your Honor. That will be O
24 for identification.

25 THE COURT: It will be P, I believe.

26 MR. DENNY: P, we're up that far, all right.

27 THE COURT: Before you recount all of it, would you have
28 the Sergeant look at it?

P ID

1 MR. DENNY: Yes. Would you care to look at it?

2 THE COURT: All right. Would you look at it and if there
3 are calculations there that you understand or do not under-
4 stand --

5 MR. DENNY: Your Honor, may we go off the record for a
6 moment while I speak to Sergeant Christansen?

7 THE COURT: Yes.

8 MR. DENNY: All right.

9 (Whereupon, Mr. Denny, Mr. Kay and the witness
10 conferred off the record out of the hearing of the jury:)

11 THE COURT: We'll let you gentlemen confer after the
12 recess. Before you do, however, let me direct your attention,
13 Sergeant, to what Mr. Denny has referred to as a rough drawing.

14 Actually, what does that represent, the end of a
15 barrel?

16 THE WITNESS: Yes, sir. The end of a barrel, of a
17 rifled weapon.

18 THE COURT: Would you explain to the jury what is -- this
19 is rather late to be doing this.

20 Would you explain to the jury what is a land?

21 How do you spell it, first?

22 THE WITNESS: Land, l-a-n-d.

23 THE COURT: Show -- show -- is a land depicted in that
24 rough drawing?

25 THE WITNESS: Yes, the end of the lands are.

26 THE COURT: What is the lands?

27 THE WITNESS: The lands are the raised portions in the
28 center of the bore.

1 THE COURT: The barrel of the pistol or rifle is not
2 absolutely smooth. It has raised surfaces and lowered
3 surfaces, is that right?

4 THE WITNESS: Yes, sir.

5 THE COURT: So the raised surfaces are the lands?

6 THE WITNESS: Yes, sir.

7 THE COURT: All right. Now, the -- show the jury the
8 grooves.

9 THE WITNESS: The grooves are the lowered portions
10 between the lands.

11 THE COURT: All right. What's the word "bore" mean?
12 And we're speaking of the --

13 MR. DENNY: Pistols.

14 THE WITNESS: Bore is a term that merely means the
15 hole or the diameter of the hole through the center.

8 fol

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1 THE COURT: What does the phrase "ratio of lands to
2 grooves" mean?

3 THE WITNESS: Ratio, as I use it, means the comparative
4 width of the land and the groove.

5 And if I say 1 to 1, it means they are approxi-
6 mately the same width.

7 THE COURT: We still have two or three minutes. I
8 think that answers most of the inquiries that I received by
9 messenger here.

10 (Laughter.)

11 MR. DENNY: That's why I had made the diagram, because
12 I thought there might be some questions.

13 Your Honor, before we get into the mathematics
14 here, I think it may be a good time for a break.

15 THE COURT: Would it inconvenience anyone to reassemble
16 at 1:00 o'clock? We will move along a little faster if we
17 come back at 1:00 o'clock.

18 Does anyone have any luncheon plans that that
19 would greatly disturb?

20 Very well, we'll recess, then, until 1:00
21 o'clock. I'll see you at that time.

22 During the recess, you are admonished that you
23 are not to converse amongst yourselves, nor with anyone
24 else, nor permit anyone to converse with you on any subject
25 connected with the matter, nor to form or express any
26 opinion on it until it is finally submitted to you.

27 1:00 o'clock.

28 (Whereupon, at 11:58 o'clock a.m. an adjournment
was taken until 1:00 o'clock p.m. of the same day.)

9-1

LOS ANGELES, CALIFORNIA, THURSDAY, JANUARY 27, 1972 1:00 P.M.

- - - -

THE COURT: The record will show the jurors to be present. The defendant is present with his counsel, Mr. Kay, for the People.

ROBERT P. CHRISTANSEN,
the witness on the stand at the time of the noon recess,
having been previously duly sworn, resumed the stand and
testified further as follows:

CROSS-EXAMINATION (Continued)

BY MR. DENNY:

Q Sergeant Christansen, before we get into any kind of mathematics, you indicated that on the evidence bullet, People's 31, you did find one land impression from which you were able to determine the width, the approximate width of the land, one of the lands of the gun out of which that bullet was fired; is that correct?

A Yes, sir.

Q And only one; is that correct?

A I believe there was only one or one that was far clearer than the others.

Q Clear enough so that you could say that looking at that, the gun from which the bullet was fired and which had impressed that impression on the bullet, had a land to groove width ratio of approximately 1 to 1?

9-2

1 A Yes, sir.

2 Q All right. Now, you said further that you were
3 not able to see that with any assistance of a 10-powered
4 jeweler's loupe that I had up there for you or anything like
5 that at the time yesterday that you were testifying; is that
6 correct?

7 A I don't recall testifying to that, but that is
8 correct.

9 Q All right. But that you could see it under
10 laboratory conditions with good lighting and your microscope
11 in your lab, is that right?

12 A Yes, sir.

13 Q There would then be no problem in your identifying
14 that particular land impression on this bullet were you to take
15 it back to the lab, subject it to microscopic examination and
16 place a mark on it; is that correct?

17 A That's correct.

18 MR. DENNY: Well, your Honor, at this time I would ask
19 that the Court make such an order that he be permitted with,
20 in the company of a clerk -- I think they have to do that --
21 deputy clerk, to take the bullet to the lab, make such a
22 mark, mark it and have the clerk, the deputy clerk return it
23 to this court still in evidence.

24 THE COURT: The motion is denied.

25 MR. DENNY: Well, may I be heard? May I approach the
26 bench, your Honor?

27 THE COURT: No, you may not. You may proceed with
28 your cross-examination.

9-3

1 MR. DENNY: May I make an offer of proof as to the
2 relevancy of that?

3 THE COURT: No, the Court denies the motion. You may
4 put it on the record later. Go ahead with your cross-
5 examination.

6 MR. DENNY: Well, your Honor, may I put it on the
7 record before the Sergeant is excused?

8 THE COURT: Yes, you may.

9 You may approach the bench.

10 MR. DENNY: Thank you.

11 (Whereupon, the following proceedings were had
12 at the bench among Court and counsel, outside the hearing
13 of the jury:)

14 MR. DENNY: Your Honor, I have maintained consistently
15 from the first time that I was given the opportunity to
16 examine this bullet that it is not possible to see the land
17 shoulder impressions, any land shoulder impressions or, at
18 least, to see two consecutive land shoulder impressions under
19 any magnification, from 10 magnification to 20 magnification,
20 to see the width of the lands on this bullet.

21 Sergeant Christansen has said two or three times
22 now that he did see that. That he is able to see it. That he
23 would be able to see it under a microscope.

24 At this time I feel it is relevant in the extreme.

25 One, as to his testimony as an expert and his
26 credibility; and

27 Two, to enable me and my expert to check on his
28 expertise and his testimony, since he has not previously

1 identified it in any way, either on the pictures or on the
2 bullet itself, to have him specifically identify what
3 single land impression.

4 And he says there's only one on that evidence
5 bullet he saw that he says led him to believe that he could
6 divine from looking at it the land to groove ratio was 1 to 1.
7 It is -- it is a key matter as far as his testimony showing
8 that this gun -- and I'll say, your Honor, the reason I'm
9 taking as long as I am with this witness, is that in my
10 opinion this gun is the only possible corroborative evidence
11 that the People have of Ella Bailey's testimony.

12 I contend that Ella Bailey is an accomplice, and
13 an accomplice as a matter of law. And they have to corroborate
14 her testimony. And the only corroboration that they have
15 which is independent of witnesses who I think I will be able
16 to impeach, purporting to relate admissions, the only
17 purportedly independent corroboration is Sergeant Christansen
18 who testifies that Bruce Davis' gun may have or could have
19 fired this bullet.

20 And his credibility, therefore, is the key issue
21 in the corroboration that would be necessary.

9a fls.

9a-1

1 THE COURT: Well, in the Court's opinion the salient
2 points you brought out could have been brought out in half
3 the time this cross examination has taken. But aside from that,
4 the man has expressed his opinion. You have photographs and
5 he hasn't been able to point it out on the photographs. He
6 states --

7 MR. DENNY: Well, of course he's said they're bad
8 photographs. The fact he can't point it out on the photo-
9 graphs, the People can then argue the photographs are bad, he
10 can't point them out on the photographs.

11 But he saw them under the microscope with his naked
12 eye and he saw that one land impression and it is there and
13 the jurors are not going to be able to see it.

14 THE COURT: It is a question for the jury to decide.
15 And you have an expert witness who presumably will say it
16 can't be identified, and it is a matter to be determined.

17 MR. DENNY: Well, your Honor --

18 THE COURT: People?

19 MR. KAY: I have to object to it. I can't see any
20 relevance. I have to agree with the Court, for a man that
21 said it could be any of 60 different types of 9-millimeter
22 Radoms --

23 THE COURT: Not Radoms, but 60 different types or makes.

24 MR. KAY: -- which there are probably a million of, I
25 think we've just spent an extraordinary amount of time on this.
26 This is going into -- we've been a day and a half already.

27 MR. DENNY: Your Honor, it is not only relevant to that,
28 but he has testified that he was able to determine from looking

9a-2

1 at the bullet, the evidence bullet at the time he first
2 examined it that it was fired from a gun with a worn barrel.

3 And, also, it was an undersized bullet.

4 Now, leaving apart the question of whether it was
5 an undersized bullet, the People have, both in the Beausoleil
6 case and in the Manson case, made a good deal out of the
7 testimony that Sergeant Christansen was able to say in January
8 when he examined this gun that it was the bullet -- strike
9 that.

10 Sergeant Christansen, when he examined the bullet
11 without the gun in January of 1970, was able to say at that
12 time that it was fired from a gun with a worn barrel. And,
13 heavens above, look, Mr. and Mrs. Juror, this gun has a worn
14 barrel.

15 Now, his credibility as an expert is in issue.

16 THE COURT: Well, the Court cannot see that having him
17 mark the bullet, and then having -- presumably having your
18 expert look at the bullet where it is marked --

19 MR. DENNY: Having me, your Honor. Having me, under the
20 Sixth Amendment, the right --

21 THE COURT: Excuse me just a minute.

22 The Court cannot see that having you or having
23 your expert examine the bullet after he has marked it to show
24 where he believes the lands and the grooves are that he looked
25 at, can in any way assist the jury. There will still be the
26 conflict, presumably, between --

27 MR. DENNY: Your Honor, I am then going --

28 THE COURT: -- between your expert and his expert.

1 MR. DENNY: Your Honor, I am then going to ask the Court
2 for permission to have the bullet photomicrographed by photo-
3 micography so that we can look at that particular land
4 impression that he says is the land impression with good
5 photomicography. And then --

6 THE COURT: Well, the motion at this time --

7 MR. DENNY: -- and let the jury see that.

8 Your Honor, if I may say, it deprives this
9 defendant the right of adequate counsel, for me not to be able
10 to determine from a personal examination of that bullet what
11 land impression -- and it is just a single land impression --
12 that this witness says is the land impression.

13 There are --

14 MR. KAY: You have the whole bullet.

15 MR. DENNY: There are 360 degrees of that bullet and I
16 have looked at each of the 360 degrees and have been unable
17 to do so. And if he can point it out, that will aid counsel
18 in representing this defendant and presenting evidence to the
19 jury because --

20 THE COURT: All right, the motion is denied.

21 (Whereupon the following proceedings were had
22 in open court within the presence and hearing of the
23 jury:)

10 fol

10-1

1 Q BY MR. DENNY: Sergeant Christansen, I wonder if
2 you could come down to the board here, and using the red
3 grease pencil, is it possible, Sergeant, from knowing the
4 bore of a gun -- and let's pick up this Exhibit O again, so
5 the jury will have an idea of what we are talking about when
6 we are talking about the bore.

7 Now, knowing the bore (indicating) of the gun,
8 the distance between the tops of opposite lands, knowing
9 that distance, and knowing the depth of the grooves on
10 opposite sides of the lands, is it possible to determine the
11 circumference of the lower portion of the grooves of the gun?

12 A This is outside the field of my expertise. I
13 imagine it would be possible for a mathematician.

14 Q Well, are you stating, sir, that as a firearms
15 expert, you cannot determine the outer portions of the
16 inside of a barrel? A gun barrel? The bore of a gun?

17 A Yes, I am stating this.

18 Q And that that is not one of the qualifications
19 of an expert, to be able to determine what the specifications
20 are, by a little arithmetic?

21 A I have never heard this listed as one of the
22 qualifications of an expert.

23 Q Well, sir, is it not simple enough to simply
24 get the diameter, and then find the circumference by a
25 multiplication, a simple multiplication?

26 MR. KAY: Irrelevant, your Honor.

27 THE COURT: Sustained.

28 Q BY MR. DENNY: Well, in order to determine --

10-2

1 strike that.

2 If you are going to attempt to determine
3 mathematically what the width of the grooves is, and you
4 know what the width of the lands -- or each land -- is,
5 can you determine the width of the groove, mathematically?

6 MR. KAY: Irrelevant.

7 THE COURT: Overruled.

8 THE WITNESS: No, sir. I cannot.

9 Q BY MR. DENNY: It takes a mathematician to do
10 that?

11 A Yes, sir.

12 Q May I have the pencil?

13 Well, to find a circumference, C, don't you
14 simply multiply the diameter by pi?

15 MR. KAY: This is irrelevant, your Honor.

16 THE COURT: Sustained.

17 Q BY MR. DENNY: All right. You may -- well,
18 let's keep you down here a minute.

19 Looking again at the specifications set forth
20 in Mathews' book, in -- now part of the two-page exhibit,
21 N for identification, first of all, when you indicated that--
22 and without looking at this point to respond to my question--
23 when you say that among the guns with similar characteristics
24 as the gun which may have fired this evidence bullet, there
25 was the Browning semi-automatic pistol.

26 Which Browning did you have reference to? Any
27 particular type Browning?

28 A I don't recall. Probably the Browning High

1 Power; the Browning Model thirty -- thirty-five or thirty-
2 seven.

3 Q Well, you said you had bullets on file, is that
4 right?

5 A Yes, sir.

6 Q And you don't recall how that bullet that's
7 on file was designated, as far as --

8 A No, I don't know at this time.

9 Q -- from what type --

10 A No, sir.

11 Q And in the specifications here, on page 139 and
12 about the middle, under Browning, would that be classified
13 as the Browning HP?

14 A Yes, sir.

15 Q So that it would have a width of lands varying
16 from 70 one-hundredths of an inch -- I'm sorry -- 74
17 one-hundredths of an inch to 90 one-hundredths of an inch;
18 is that right?

19 MR. KAY: Irrelevant.

20 THE COURT: Sustained.
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10a fls.

10a-1

1 Q Well, sir, of the guns that you said had similar
2 specifications to the gun that might have fired the evidence
3 bullet, is the fact -- on looking over the specifications in
4 People's -- strike that.

5 In Defendant's -- is that M, the pages from
6 Mathews, the authoritative work?

7 (Continued) -- that the land widths of the guns
8 that you have reference to -- that is, the Astra, the Browning,
9 the Walther, the Star -- those land widths as shown by the
10 specifications range anywhere from 36 thousandths of an inch
11 up to over 90 thousandths of an inch?

12 MR. KAY: Irrelevant.

13 MR. DENNY: Your Honor, that --

14 THE COURT: Overruled. You may answer.

15 THE WITNESS: Yes, that's true.

16 Q BY MR. DENNY: All right. Now, if a land -- oh,
17 and the land width for the Radom -- and again, when we are
18 talking about the land width, we are talking about this raised
19 portion (indicating); is that correct?

20 A That's correct.

21 Q All right. The land width for the Radom, as shown
22 by those specifications, is anywhere from 80 thousandths of an
23 inch to 87 thousandths; is that right?

24 A Yes, sir.

25 Q And is that more easily referred to as 80 to 87
26 mils? Do they refer to the type of measurements, --

27 A I've never heard of this reference.

28 Q -- one thousandth of an inch as a mil?

1 A I've never heard this reference before.

2 Q You've never heard the designation in thousandths
3 referred to as mils?

4 A No, sir.

5 Q The Latin term for a thousand?

6 MR. KAY: Asked and answered.

7 THE COURT: Sustained.

8 Q BY MR. DENNY: All right. So that if you are
9 talking about a gun with 36 thousandths of an inch width of
10 land, and you say, "That's similar to a gun with 87 thousandths
11 of an inch width of land," they're actually quite dissimilar
12 in width of land, are they not?

13 A Yes, they are.

14 Q All right. And 60 thousandths of an inch, that's
15 quite dissimilar from 87 thousandths of an inch; is that
16 correct?

17 A Yes, sir, it is.

18 Q A third or something as large; is that right?

19 A Yes, sir.

20 Q Or a third smaller?

21 And yet you indicated in your report that all of
22 these guns, ranging from 36 thousandths of an inch up to 90
23 thousandths of an inch, were similar or had similar character-
24 istics to the gun that fired that evidence bullet; is that
25 right?

26 MR. KAY: I'm going to object to that as mischaracterizing
27 his testimony. He said the bullets that he had filed in the
28 Sheriff's Office, not --

1 THE COURT: Just raise the objection. Don't argue.

2 Read the question, please, again.

3 (Whereupon, the record was read by the reporter
4 as follows:

5 "And yet you indicated in your report that
6 all of these guns, ranging from 36 thousandths
7 of an inch up to 90 thousandths of an inch, were
8 similar or had similar characteristics to the gun
9 that fired that evidence bullet; is that right?")

10 MR. DENNY: Well, let me rephrase it --

11 THE COURT: The objection will be sustained.

12 MR. DENNY: -- to take care of the objection.

13 THE COURT: Yes.

14 Q BY MR. DENNY: You indicated that there were
15 bullets on file, fired from guns with specifications of which --
16 now shown by Defendant's M -- disclose that they range from
17 36 thousandths up to 87 or 90 thousandths of an inch; is that
18 correct?

19 A No, sir.

20 Q All right, sir. Now, may I have that back again?

21 Now, using this exhibit, People's 100-A, although
22 the number is up and down, as far as lengthwise on the
23 picture, actually the picture should be placed sideways to
24 show how it was viewed in the comparison microscope; is that
25 correct?

26 A Yes, sir.

27 Q And having placed it so the number is at the left;
28 is that the proper placement?

1 A Yes, sir.

2 Q All right. And then, number two, again, should be
3 turned so that the number is at the left; is that right?

4 A Yes. Yes, the same relative position.

5 Q And again, using the enlargements, Defendant's
6 H-1, that should be placed so that the number is to the left;
7 is that right?

8 A Yes, sir.

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11-1

1 Q And using H-2, that should be placed so that it
2 is to the left, is that right?

3 A Yes, sir.

4 Q We each have a weapon.

5 (Laughter.)

6 Now, sir, I think my notes reflect, and I think
7 your testimony was, you put the evidence bullet on the right
8 and the test bullet on the left; is that correct?

9 A Yes, sir.

10 Q So that, again, looking at picture No. 1 in the
11 series, either the People's Exhibit or the larger defense
12 exhibit, the evidence bullet is on the right, the test
13 bullet is on the left?

14 A Yes, sir.

15 Q And looking at picture No. 2, the evidence
16 bullet is on the right, the test bullet is on the left;
17 is that correct?

18 A Yes, sir.

19 Q And you indicated that the nose of the bullet
20 itself was facing to the right, is that correct?

21 A That's correct.

22 Q Well, looking, now, at picture No. 1, the
23 darkened area here shows the curvature of the nose of the
24 bullet, does it not, on the left, on the far left side?

25 A No, sir. I believe that curvature is from the
26 lens of the camera.

27 Q It is your testimony that the curvature is from
28 the lens of the camera?

11-2

1 A Yes, sir, if we're speaking about the same
2 curvature (indicating), on both sides.

3 Q No, I don't mean that. There is obviously a
4 circular picture that is outlined in black, is that right?

5 A Yes, sir.

6 Q I'm now pointing to this darkened area on the
7 left-hand portion of that which is shown through the
8 microscope. This darkened area here (indicating), the
9 darkened area in the same picture up above, but more clearly
10 shown on this photograph, the enlargement, the defense
11 exhibit.

12 Isn't that the nose of the bullet facing towards
13 the left?

14 A I don't believe so.

15 Q Well, let's look, then, at picture No. 2.

16 And on the right-hand side of picture No. 2
17 there is a straight line down and a darkened area which
18 seems to fade off into the background.

19 Isn't that the base of the bullet?

20 A I'm not sure. It does appear to be.

21 Q Sir, taking the evidence bullet, People's 31
22 out of its two envelopes, and are there not visible or
23 can you see visibly on both of the exhibits No. 1, on the
24 left-hand lower third of the picture, what appears to be
25 two definite scratch marks going in a diagonal position
26 on the bullet?

27 A Yes.

28 Q All right.

11-3

1 (Whereupon, there was a pause in the proceedings
2 while Mr. Denny viewed a bullet through a loupe.)

3 MR. KAY: Your Honor, at this time I'm going to object
4 to Mr. Denny continually rolling his fingers across the bullet.
5 I'm sure that he is aware that that erases striae.

6 THE COURT: I'm not sure he is aware of that because I
7 am not aware of that. But if he is, stop rolling your fingers
8 across it.

9 Q BY MR. DENNY: Sergeant Christansen, will what I
10 am doing now erase striae on the bullet?

11 A I imagine, theoretically, if it were continued
12 long enough, it would. But it would take a great deal of
13 motion to do it, I think.

14 (Laughter.)

15 THE COURT: What are you here on, Mr. Porter?

16 (Whereupon, an unrelated matter was called and
17 heard before the Court.)

18 THE COURT: You may proceed with your next question,
19 Mr. Denny.

20 MR. DENNY: If I may just have a moment more, your Honor.

21 THE COURT: Do you need a recess?

22 MR. DENNY: No, I don't, your Honor.

23 Q Now, again, this is the test bullet?

24 A Yes, sir.

25 Q On the left?

26 A Yes, sir.

27 Q All right. And showing you the test bullet,
28 People's 99, looking at a black or blue dot that appears to

1 be there, with this jeweler's loupe, will you look just
2 below and to the left slightly of that black dot and tell me
3 if you can see the two --

4 THE COURT: Blue dot?

5 Q BY MR. DENNY: -- or bluish, bluish dot, and see
6 the two marks which appear here in the lower third of the
7 picture on the left-hand side of the exhibit No. 1?

8 MR. KAY: Well, your Honor, I'm going to object. I think
9 it is irrelevant what he can or cannot see through Mr. Denny's
10 little pocket microscope.

11 MR. DENNY: Well, he's indicated, your Honor, he can
12 use a 10-power loupe.

13 THE COURT: Overruled.

14 A Yes, I do see marks that appear similar to those.

15 Q BY MR. DENNY: All right. And those marks, then,
16 appear on the shoulder, of the shoulder facing to the left,
17 is that correct?

18 A Yes, towards the nose portion of the bullet.

11a fls.

11a-1

1 Q All right. So that looking at the pictures, then,
2 and seeing that particular setup, would you like to change your
3 testimony as to the direction in which the bullets were facing
4 on the spindles when you put them on?

5 A No, sir. I would like to state that the bullets
6 might have been put on the spindles with the nose first. This
7 is a possibility, although not normally the way I do it.

8 Q I'm sorry, you say with the nose first?

9 A The nose embedded in the wax rather than the base.

10 Q Well, in this case you indicated that the pictures
11 as they are set up here before the jury --

12 A Yes, sir.

13 Q -- show exactly what you see through the micro-
14 scope, is that right?

15 A No, sir.

16 Q Or show the position, at least, of the bullets?

17 A Yes.

18 Q All right. And the position in this case indicates
19 that the nose is forward, the nose to the left in Exhibit 1,
20 is that correct?

21 A If these are the same marks, and they do appear to
22 be, yes.

23 Q All right. They do appear to be the same marks,
24 all right.

25 Now, taking the evidence bullet, People's 31,

26 There are some very distinct scratches on what
27 will be the evidence bullet as disclosed in photograph No. 2,
28 is that correct?

11a-2

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A Yes, there are scratches towards the base there, yes.

2

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Q And they're on a diagonal line?

4

A Yes.

5

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Q And rather heavy, heavy enough so that they make a rather dark mark?

7

A Yes.

8

Q On both of the exhibits.

9

All right, I'll hand you the bullet itself and my loupe, and handing it to you with a portion facing you.

11

12

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14

Would you like to look at the base of the bullet around that portion facing you to see if you can see the scratches, the diagonal scratches that appear on the exhibit picture 2?

15

A I see scratches that appear similar in nature.

16

17

Q Well, they are on the same angle and appear to be the same distance apart, is that correct?

18

A Yes, sir.

19

20

Q All right. And they are on the base of the bullet, is that right?

21

A Yes, they are towards the base of the bullet.

22

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Q All right. So, then, the bullets were set up in the microscope to take the pictures with the nose facing to the left and the bases of the two bullets facing to the right, is that correct?

26

A Yes, sir.

27

28

Q All right. So that you would like to change your testimony in that respect, is that right?

1 A Yes. If I stated positively that they were set
2 up with the bases to the left, I would like to change my
3 testimony.

4 Q All right. Now, again, so the record is clear,
5 you have indicated on the People's exhibits in the 100 series,
6 100-A through F, all those areas where you say you could
7 identify what you would call either actual or possible land
8 impressions; is that correct, land-shoulder impressions?

9 A No, sir, I never said I could identify a land-
10 shoulder impression. I said that some could be. They were
11 similar in appearance, somewhat.

12 Q All right. But you have circled in red all of
13 those that even could be, is that right? As far as you are
14 able to determine from these pictures?

15 A As far as I am able to determine from the pictures,
16 yea, sir.

17 Q All right.

18 Well, I wonder, now, if you would do the same on
19 the defendant's exhibits in the H series showing the area
20 circled in red.

21 All right, there were none in picture No. 2, is
22 that right?

23 A No, sir.

24 Q Picture No. 3, there was an area?

25 (Whereupon, the witness so indicated on the
26 photograph.)

27 Q BY MR. DENNY: All right, picture No. 4, there
28 was an area?

1 (The witness so indicated on the photograph.)

2 Q BY MR. DENNY: Picture No. 5, there was an area on
3 both the test and the evidence bullet, right?

4 (Whereupon, the witness so indicated on the
5 photograph.)

6 Q BY MR. DENNY: Picture No. 6 there was an area you
7 indicated on both the test and the evidence bullet, is that
8 correct?

9 A Yes, sir.

10 Q All right. And, again, to recapitulate just
11 briefly, these pictures, as they're numbered, 1, 2, 3, 4, 5, 6,
12 show the full circumference of both the test and the evidence
13 bullet as they're taken land No. 1, land No. 2, land No. 3,
14 land No. 4; is that right?

15 A Yes, sir.

16 Q All right.

17 Now, we've already described the fact that
18 picture No. 1 shows the nose of the bullet in the shoulder.
19 We'll just keep referring to them as picture No. 1, whether they
20 are the People's exhibits or the defense exhibits; all right?

21 A All right.

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11b-1

1 Q Now, by the way, when you take pictures in this
2 form, photomicrographs to show the circumference of two
3 bullets, is it the normal procedure to take those pictures
4 in the same plane as far as the -- each bullet is concerned?

5 In other words, if you started midway along the
6 evidence bullet, is it proper procedure to continue around,
7 land one, two, three, four, five, six, midway through the
8 bullet?

9 A I don't know whether there is any set procedure
10 on that, sir.

11 Q Well, is it proper procedure, or do you know, to
12 go sort of back and forth along the length of the bullet as
13 you are going around it?

14 A I don't know which would be the proper procedure,
15 sir.

16 Q Well, what did you do in this case?

17 A Went back and forth.

18 Q Any particular reason?

19 A Yes, sir. We were trying to get something to
20 show other than just the bare piece of metal.

21 Q And it was pretty hard to do, wasn't it?

22 A Yes, it was.

23 Q All right. So let's go, then, to what we'll
24 designate as land impression No. 2.

25 And, actually, there's no land impression there
26 on photograph No. 2, is that right?

27 A Nothing that I can identify as such in the
28 photograph, sir.

11b-2

1 Q All right. But you did identify a land impression
2 on No. 3, is that right?

3 A A possible land impression.

4 Q A possible land impression on the evidence
5 bullet?

6 A Yes, sir.

7 Q I'm sorry, on the test bullet.

8 A The test bullet.

9 Q That's about midway through the test bullet, is
10 that right?

11 A Yes, sir.

12 fls.

12-1

1 Q All right. Now, Sergeant Christansen, you also
2 indicated, didn't you, that no two lands in any one gun will
3 make the same impression on the bullet fired from that gun?

4 A Yes, I did.

5 Q So that land No. 2 could not make the same
6 impression as land No. 3, fired out of this test barrel; is
7 that right?

8 A That's correct.

9 Q All right. And the pictures show essentially
10 land No. 2 and land No. 3; is that right?

11 A Yes, sir.

12 Q All right. Now, let me put the pictures, one
13 above the other, here.

14 Now, Sergeant Christansen, we just spent some
15 time looking through the loupe to see those scratches on
16 No. 2; is that right?

17 A Yes, sir.

18 Q The scratches that appear on the base of No. 2?

19 A Yes, sir.

20 Q And those very same scratches appear on No. 3,
21 don't they?

22 A Yes, they appear to.

23 Q In fact, the photographs are duplicates, aren't
24 they?

25 A They appear to be, yes, sir.

26 Q Do they then portray two different land
27 impressions?

28 A I thought they did.

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Q Do they?

A I don't know. I don't know if there are more of these scratches around the circumference of the bullet or not.

Q Aren't they, in all respects, photographs 2 and 3, duplicates, one of the other?

A They do appear to be, yes, sir.

Q Well, is there any difference that you can see in them?

A Not that I can see, no, sir.

(Pause in the proceedings while Mr. Denny leafed through the exhibits.)

Q BY MR. DENNY: Now, showing you the negatives in Defendant's D --

THE COURT: While you are looking through those negatives, I'll call a case.

(Proceedings had on an unrelated matter.)

THE COURT: Go ahead, Mr. Denny.

I'm sorry to interrupt, ladies and gentlemen.

MR. KAY: Would this be a good time for a short recess? I see that most of your calendar is --

THE COURT: All right. You have been sitting for about an hour. We will call a number of things that we had to pass over this morning.

And during this recess, you are obliged not to converse amongst yourselves, nor with anyone else, nor permit anyone to converse with you on any subject connected with this matter, nor to form or express any opinion on the

12-3

1 matter until it is finally submitted to you.

2 (Proceedings had on unrelated matters.)

3 THE COURT: All right. Let's see, Joyce, you can
4 take a five-minute break, but only five minutes.

5 MR. DENNY: Your Honor?

6 THE COURT: And I'll take five, and --

7 MR. DENNY: I wonder if --

8 THE COURT: And then we'll get the jury back.

9 MR. DENNY: Your Honor, I wonder if, before the jury
10 comes in, either we could have a hearing here on the motion
11 on which I have another expert waiting, or if we could do
12 the same thing we did yesterday and have it in chambers,
13 if the jury does come in.

14 I would like, if possible, to get him in and
15 out.

16 THE COURT: All right. I'll hear it in chambers in
17 about two or three minutes.

18 MR. DENNY: Thank you, your Honor.

19 (Proceedings had an unrelated matter.)

20 (Mid-afternoon recess.)
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1 (Whereupon the following proceedings were had
2 in the chambers of the Court out of the presence and
3 hearing of the jury:)

4 THE COURT: The record will show that we are in
5 chambers, all counsel in chambers.

6 And who is this gentleman?

7 MR. DENNY: Your Honor, this is Mr. John Aldrich.

8 At this time I would like to renew my motion
9 made yesterday for a jury view. The Court did not indicate
10 what the reason was for its ruling, but I thought that it
11 may have been because of the lack of evidence as to what
12 the cloud conditions were at the time of August 26th through
13 29th, 1969, what the condition of the sky was other than the
14 fact that there was a full moon.

15 I have, therefore, called upon Mr. Aldrich who
16 is a meteorologist of some 42 years experience with the
17 United States Weather Bureau, who has determined what those
18 conditions were.

19 I would like to present evidence on that in
20 renewal of my motion for a jury view, which I feel is most
21 important to this case. I would like to have him sworn and
22 present that evidence.

23 THE COURT: I'll let you present that evidence, but
24 aside from the -- aside from the weather conditions, the
25 possible difference between weather conditions now and as
26 they existed on the night of, oh, what is it, 27th through
27 the 29th of August, 1969, aside from the weather aspects,
28 the Court found other reasons to refuse your motion.

13-2

1 MR. DENNY: Well, you see, I'm not -- I'm sorry.

2 THE COURT: And I'll hear from you.

3 MR. DENNY: All right, Mr. Aldrich, would you be
4 sworn, please, by the clerk? Stand and be sworn by the
5 clerk.

6 THE CLERK: Would you raise your right hand, please.

7 You do solemnly swear that the testimony you
8 may give in the cause now pending before this court, shall
9 be the truth, the whole truth, and nothing but the truth,
10 so help you God?

11 THE WITNESS: I do.

12 THE CLERK: Please state your name for the record.

13 THE WITNESS: John H. Aldrich, A-l-d-r-i-c-h.

14
15 JOHN H. ALDRICH,
16 called as a witness by and on behalf of the defendant, having
17 been first duly sworn, was examined and testified as
18 follows:

19
20 DIRECT EXAMINATION

21 BY MR. DENNY:

22 Q All right, you may be seated, Mr. Aldrich.

23 Mr. Aldrich, would you tell the Court how long
24 you have been, up until the time of your retirement, with the
25 United States Meteorology Service or however that is
26 properly designated?

27 A I was with the U. S. Weather Bureau until --
28 a total of more than 42 years.

1 Q From when to when, sir?

2 A Well, it is from 1927 to 1970.

3 Q Where were you employed by the Weather Bureau
4 at the time you retired?

5 A At the Weather Bureau forecast center in Los
6 Angeles.

7 Q And for how long had you been so employed?

8 A I have been assigned to the Weather Bureau in
9 the Los Angeles area since 1941 or 29 years.

10 Q All right, now, sir, what are your background and
11 qualifications in the field of meteorology other than simply
12 the fact that you have worked for the Weather Bureau for
13 42 years?

14 MR. MANZELLA: Can we stipulate that he's an expert?

15 THE COURT: Let's stipulate to his expertise.

16 MR. MANZELLA: People would stipulate that he is an
17 expert in --

18 MR. DENNY: All right, fine.

19 Q BY MR. DENNY: Now, sir, are you familiar -- well,
20 during the time before your retirement, you worked here in
21 the Los Angeles area, and did that include the Van Nuys
22 area?

23 A Yes, for the last 25 years of my service I was
24 in charge of a group of aviation forecasters who were
25 engaged in forecasting an area and terminal weather.

26 Q Area and terminal weather?

27 A Area and terminal weather conditions for aviation
28 for Southern California from the Mexican border north to the

1 Tehachapi Mountains and up through the Owens Valley and
2 up through the Owens Valley and eastward to Las Vegas.

3 Q All right.

4 THE COURT: Briefly, Mr. Aldrich, your background,
5 generally, has -- has made you an expert, would you say,
6 in weather forecasting?

7 THE WITNESS: Yes. I have satisfied the American
8 Meteorological Society to confer on me the status of
9 consulting meteorologist which requires -- it is a very
10 rigorous requirement.

11 THE COURT: Then, generally your work has been fore-
12 casting, is that right?

13 THE WITNESS: Yes, sir.

14 Q BY MR. DENNY: Now, sir, are you familiar with
15 the way the records of the Weather Bureau in this area are
16 both prepared and kept so as to determine the weather
17 conditions on any given date?

18 A Yes, I am quite familiar with that.

19 Q Have you, in the course of your work here,
20 prepared those records?

21 A I have taken part in the preparation of them,
22 yes.

23 Q And overseeing people who have similarly
24 prepared them under your supervision?

25 A Yes, sir.

26 Q All right.

27 Now, at my request, by virtue of a phone call
28 last night, have you, today, reviewed the records of the

1 Weather Bureau for the periods August 26th through August
2 27, 1969?

3 A And 28 and 29.

4 Q Yes, 26 through the 29th?

5 A Through the 29th.

6 Q 1969?

7 A Yes.

8 Q And are those records made in the ordinary
9 course of business?

10 A Uh, yes, these are the records of areas,
11 terminals and various points that report hourly weather
12 conditions.

13 Q All right. And you have secured copies of
14 those conditions, is that right?

15 A Yes.

16 Q Now, based on your review of those records, can
17 you state to the Court what the cloud conditions and the
18 other weather conditions were at approximately 11:00 o'clock
19 to midnight in the Chatsworth area on the days August 26,
20 27, 28 and 29, 1969?

21 A Yes, my --

22 Q Could you take it day by day for us?

23 A Yes, sir.

24 Q And, again, at about the hours indicated,
25 11:00 o'clock to midnight.

26 A Now, you were interested in the Chatsworth area?

27 Q That is correct.

28 A And the nearest I have to that is an hourly report

1 at Van Nuys Airport.

2 Q Is that the closest weather station?

3 A Yes.

4 THE COURT: Which is approximately how many miles
5 away?

6 THE WITNESS: About eight miles east of Chatsworth
7 and about 200 feet lower.

8 THE COURT: Do you know where the Spahn Ranch is in
9 Chatsworth?

10 THE WITNESS: No, I am afraid I don't.

11 How far from Chatsworth is that?

12 THE COURT: I don't know, Mr. --

13 MR. DENNY: Aldrich.

14 THE COURT: -- Aldrich. I just wondered if you knew.

15 All right, go ahead.

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1 Q BY MR. DENNY: All right, sir. Taking the 26th,
2 first, what were the weather conditions, as far as you are able
3 to say from your extrapolation from the charts there for the
4 26th of August, 1969?

5 A Well, let me preface this by saying that on all of
6 this period, that this was a typical summer type weather
7 pattern for Southern California, coastal area.

8 THE COURT: Which means what?

9 THE WITNESS: In that there were only coastal low clouds
10 and fog, and there were no high clouds, no stormy weather
11 conditions, no weather fronts or anything other than the usual
12 night and morning coastal low clouds that prevail.

13 Now, this -- the reports show clearly that there
14 were no middle or high clouds during this time; that it was just
15 all coastal low clouds.

16 Q BY MR. DENNY: Well, again, specifically, so
17 that the record is clear, could you run down just briefly and
18 quickly the dates of the 26th through the 29th, at about 11:00
19 o'clock to midnight?

20 A Yes. On the -- on the night of the 26th of August,
21 at Van Nuys, it was -- the sky was clear; the visibility was
22 five to seven miles, in haze.

23 THE COURT: In haze, you say?

24 THE WITNESS: Well, in haze, yes. There was a light
25 haze, which restricted visibility to between five and seven
26 miles. At midnight -- well, at 11:00 P. M. or midnight, it was
27 five miles visibility, and light wind, clear sky.

28 Q BY MR. DENNY: The wind was coming from what

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1 direction?

2 A Well, at 11:00 P. M., it was coming from the
3 east, six knots; and at midnight, it was -- that was calm.
4 These times are on Pacific daylight time, of course, the
5 time in use locally.

6 On the night of the 27th, the sky was also clear,
7 and the visibility was reported at four miles, in haze, and a
8 light wind from the east, five knots.

9 Q BY MR. DENNY: Now, when you describe haze, what
10 do you mean?

11 A Well, haze is just a --

12 MR. KAY: Smog?

13 THE WITNESS: -- a slight visibility restriction,
14 most likely involving some smog and some sea haze, some -- just
15 due to the amount of moisture and instability in the air.

16 It's a -- it's a slight restriction to the
17 visibility by normal coastal sea haze and local smoke mixed
18 in.

19 Q BY MR. DENNY: All right. Now, insofar as that
20 condition existing in Van Nuys, you have determined or
21 checked that Chatsworth is northwest of that location, and
22 some two hundred feet higher, is that correct, in
23 elevation?

24 A Yes, sir. In that area, the low clouds and fog
25 from the coast reach that Van Nuys-Chatsworth area from
26 either the southeast or south -- from about the southeast
27 quadrant. I mean, coming through one or more of the passes --
28 mostly through the Los Angeles River area, up from Burbank and

1 North Hollywood and from the east; but sometimes from the
2 south.

3 Q BY MR. DENNY: All right.

4 A So that I would logically -- and I think reason-
5 ably -- assume that Chatsworth was at least as good as Van
6 Nuys, if not -- and probably better, because it was higher and
7 further inland.

8 Q And when you say "better," you mean better
9 visibility?

10 A Better visibility, yes.

11 Q Lower hazes -- that is, lower --

12 A Less amount of haze.

13 Q Less haze. All right. All right.

14 Would you go, then, onto the 28th?

15 A On the night of the 28th, at 11:00 P. M., the sky
16 was clear, with visibility at seven miles.

17 That means -- "clear" means cloudless, in this
18 case, in our terminology.

19 At midnight, it was clear, visibility five miles.

20 Q Now, would this --

21 A And then in this -- sir?

22 Q Go ahead. I think you were probably going to say
23 it anyway.

24 A Well, I was going to add that between midnight
25 and 1:00 A. M. that a low cloud deck moved in over Van Nuys
26 Airport.
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Q From --?

A From the east, because the wind was from the east, four to five knots.

Q And would it have taken time for that cloud layer to continue further west on to Chatsworth?

A It would -- it would take at least another hour, maybe two hours, for the same cloud layer to reach Chatsworth.

Q All right. So that again, between 11:00 o'clock and 12:00 midnight, it would have remained clear in Chatsworth--

A Yes.

Q -- and of course, on to 1:00 o'clock; is that right?

A Yes.

Q At least 1:00?

A Yes. I would judge so.

Q All right. And on the 29th?

A On the night of the 29th, again it was clear; visibility at 11:00 p.m. was four miles. And at midnight, three miles, in haze.

Q And at 1:00 a.m., it was still clear, visibility of three miles, in haze.

Through this time, the wind was from the east, five knots.

And then at -- later on, then, low clouds and fog arrived at Van Nuys Airport, and subsequently -- probably onto Chatsworth, but not before 1:00 a.m.

Q Not before, in fact, 3:00 or 4:00 a.m.?

A Probably 3:00 or 4:00.

1 Q According to the distance and the direction and
2 rate of speed of the wind; is that right?

3 A Yes. I think with winds such as these, that it
4 would almost certainly come in from the east. That's what
5 the surface winds show throughout the period.

6 MR. DENNY: Fine. I have no further questions.

7
8 CROSS-EXAMINATION

9 BY MR. KAY:

10 Q Sir, can you say that the conditions that
11 prevailed then, on August 26th, 27th, 28th and 29th of
12 1969, those exact same conditions will prevail this weekend?

13 A Uh -- no, I don't expect that they will.

14 MR. KAY: Thank you. I have no further questions.

15
16 REDIRECT EXAMINATION

17 BY MR. DENNY:

18 Q Well, let me go into that, then, as far as you're
19 saying you don't expect that they will. Can you, with any
20 certainty, say that they will or they will not?

21 A No, sir. Two and three days ahead, even after
22 42 years, I'm afraid I can't say with any certainty.

23 THE COURT: Not in this part of the country, at any
24 event?

25 THE WITNESS: That's correct.

26 THE COURT: If you were out in the New Mexico desert,
27 perhaps?

28 THE WITNESS: Yes. There are places and times where

1 you can say with certainty.

2 Q BY MR. DENNY: Well, then, Mr. Aldrich, as far as
3 what you can say with certainty, is what has occurred in the
4 past, --

5 A Yes, sir.

6 Q -- and this is what you have testified to today;
7 is that right?

8 A Yes.

9 MR. DENNY: All right. I have no further questions.

10 THE COURT: Do the haze conditions differ from place
11 to place within the County? Let's say from a point eight
12 miles away, would the haze conditions be different?

13 A Well, considerably. Most of the restricted
14 visibility, of course, is over what we call Central Los
15 Angeles area; and central and the south part of the Los
16 Angeles area.

17 And then it spreads inland from there, and usually
18 becomes better visibility -- that is, a lesser amount of haze--
19 as it moves inland.

20 This just depends on the circulation, of course,
21 the circulation pattern, which varies.

22 THE COURT: It even gets out to Van Nuys some days,
23 huh?

24 THE WITNESS: Oh, yes. Even Van Nuys.

25 THE COURT: And does it -- it's probably rare that it
26 gets as far as Chatsworth; isn't that true? Or does it get
27 up that far now?

28 THE WITNESS: It is -- in August, it is; and around the

1 springtime, that it would have to be quite common, I think,
2 to have a deeper coastal cloud layer.

3 But in the late summer, the -- well, the whole
4 marine coastal cloud layer is lower.

5 That's why we have this fog problem then, is
6 because it's concentrated in a lower thickness, just above
7 the ground.

8 THE COURT: In the winter, because the -- in the winter,
9 the cloud cover is lower; is that it?

10 I'm just trying to pick up a little extraneous
11 information here.

12 MR. DENNY: No. I think in the summer.

13 THE COURT: In the summer?

14 THE WITNESS: In the summer, it's lower. In late summer
15 and early fall, is when the inversion is worse.

16 The inversion means, of course, the top of the
17 cloud layer. It's lower then.

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1 THE COURT: Thanks, Mr. Aldrich. Anything further?

2 MR. DENNY: No, not as far as testimony goes, your Honor.

3 I would like to be heard again, if I may, just
4 briefly, as far as argument. And that is: It is not my
5 purpose in attempting to have a jury view, to attempt at all
6 to create the houses and everything else that was there, be-
7 cause obviously they cannot do that.

8 The only thing that is relevant, as far as
9 recreation of conditions, is the light, the amount of light
10 that was available --

11 THE COURT: The Court realizes that.

12 MR. DENNY: -- on the night or nights in question.

13 I think we have testimony now that there was
14 significantly no cloud cover, nothing to inhibit the light,
15 as indicated by Dr. Kaufmann on those nights; that --

16 THE COURT: Well, the Court doesn't -- doesn't accept
17 that from Dr. Kaufmann. The Court doesn't believe that that
18 necessarily follows, from what Dr. Kaufmann, or that Kaufmann
19 is believable in that respect.

20 He is not an expert in meteorology.

21 But he is an expert -- the Court grants that he
22 is -- in his field.

23 All right. Go ahead.

24 MR. DENNY: Well, I am a little nonplused at this
25 time, because both the People and the defendant have called
26 Dr. Kaufmann and are relying on his expertise.

27 MR. KAY: Not as a meteorologist.

28 MR. DENNY: Well --

14b-2

1 THE COURT: The question of light depends on atmospheric
2 conditions, upon the angle of the moon -- although he has
3 indicated that it would be --

4 MR. DENNY: That can be recreated.

5 THE COURT: -- that because of the rather small difference
6 in the apogee and perigee on the respective dates, that it would
7 be negligible -- that is, the angle of the moon to the earth --
8 that the light difference would be negligible.

9 But there are other circumstances which enter into
10 it, and other conditions which enter into it, all of which
11 Dr. Kaufmann, I believe, cannot encompass in his expertise.

12 MR. DENNY: Well, your Honor, if I know what those are,
13 I am happy to try to meet them. But at this point --

14 THE COURT: All right. The Court at this time is not
15 going to permit the viewing of the premises on the dates that
16 you suggest by the jury. The Court finds that it would be of
17 no probative value;

18 That the circumstances and conditions which
19 existed in August of 1969 could not be approximated sufficiently
20 in January of this year to permit and allow the jury to view
21 the premises.

22 The Court believes it would be of no help to the
23 jury -- in determining any issue -- to look at the premises,
24 as you've requested.

25 Doctor, thank you -- or Mr. Aldrich, thank you for
26 educating us. And the Court appreciates your being here.

27 THE WITNESS: Very well.

28 (Whereupon, the following proceedings were had in
29 open court, within the presence and hearing of the jury:)

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1 THE COURT: Let's proceed. The defendant is present
2 with his counsel.

3 You are behind that board, aren't you, Mr. Denny?

4 MR. DENNY: Yes, I am here, your Honor, with the
5 reporter.

6 THE COURT: All the jurors are present. Mr. Kay for
7 the People.

8 You may proceed.

9 Q BY MR. DENNY: All right, now, Sergeant Christansen,
10 about the time we stopped for the recess, you were looking at
11 the negatives, part of Defendant's B negatives serially
12 numbered 2 and 3, and those, in fact, are duplicate negatives,
13 are they not?

14 A They are.

15 Q And, again, when you are before the -- up on the
16 witness stand and marking the land impressions, you said you
17 could see no land impressions on 2, but you could see them on
18 3, which is an exact duplicate of 2; is that right?

19 A Yes, sir.

20 Q All right. Well, 4, you picked out a land
21 impression, is that right?

22 A Yes, sir.

23 Q And then, 5 and 6, is that right?

24 A Yes, sir.

25 Q And that would, from your prior testimony, at
26 least, seem to be pictures of numbering them serially, land
27 impression No. 5, and then land impression No. 6; is that
28 right?

1 A Yes, sir.

2 Q But, indeed, 5 is an exact duplicate of 6,
3 isn't it?

4 A Yes, sir.

5 Q And the negatives here, would you check those
6 just to make sure.

7 (Witness complies.)

8 Q BY MR. DENNY: And those are the negatives from
9 which your 8 X 10's in the People's 100 series were produced,
10 isn't that correct?

11 A Yes, sir.

12 Q And they are exact duplicates?

13 A They are.

14 Q So that what's purported to represent two
15 different land impressions, again, numbered serially,
16 actually represents the same land impression, if indeed there
17 is any land impression shown there, is that right?

18 A Yes, sir.

19 Q Now, where's land impression No. 2 or where is
20 land impression No. 3; did that just sort of disappear
21 somewhere?

22 A No, sir.

23 Q And where is land impression 5 or land impression
24 6, if they're duplicates of each other? Did that just
25 disappear somewhere?

26 MR. KAY: Well, that assumes a fact not in evidence,
27 that you can see them.

28 THE COURT: You may answer.

1 A No, the -- I have had a chance to refresh my
2 memory on the photographic process and, in fact, some of
3 the pictures are duplicates and they do show more than one
4 land and groove marking or the area where more than one
5 land and groove marking would be on the bullets.

6 Q BY MR. DENNY: They show more than one land
7 impression?

8 A Yes, in some cases they do.

9 Q Well, now, when you got the order from the Court,
10 that order was phrased in one of two alternatives as far
11 as the number of pictures wanted and what those pictures
12 were supposed to designate; is that correct?

13 MR. KAY: That's irrelevant, your Honor.

14 THE COURT: The objection is sustained.

15 MR. DENNY: May I be heard at the bench on that again?

16 THE COURT: No, you may not. The objection is
17 sustained.

18 Q BY MR. DENNY: Well, Officer, when you prepared
19 these pictures, you prepared these pictures in accordance
20 with an order that said one picture each of each land
21 impression, isn't that right?

22 MR. KAY: Irrelevant.

23 THE COURT: Overruled, you may answer.

24 A No, sir. As I remember the court order regarding
25 these pictures, it stated that the photos would show the
26 comparisons or the alleged comparisons. I don't remember the
27 statement that it should show one photo of each land mark or
28 one picture of each groove mark.

1 MR. DENNY: Your Honor, may I approach the bench a
2 moment?

3 THE COURT: Yes, you may.

4 (Whereupon, the following proceedings were had
5 at the bench among Court and counsel, outside the
6 hearing of the jury:)

7 MR. DENNY: Your Honor, I want to introduce into
8 evidence the Sergeant's report indicating that in response to
9 the court order he has made the photomicrographs, and then I
10 also want to present a copy of the Court's order, because his
11 testimony now is that, no, he didn't follow the court order
12 and he doesn't remember what the court order was, and perhaps
13 he does remember and perhaps he doesn't. But he made, now,
14 photographs --

15 THE COURT: I think it is immaterial what the court
16 order is.

17 Mr. Denny, you are testing his expertise.

18 MR. DENNY: I am not testing his expertise alone. Now,
19 he is testifying there are two land impressions on some of
20 these pictures.

21 MR. KAY: So what?

22 MR. DENNY: And that is not what the court order said.
23 The court order said either produce six photomicrographs,
24 one each of --

25 THE COURT: Suppose he did -- suppose he did disobey the
26 court order?

27 MR. DENNY: It is not a question --

28 THE COURT: Suppose he misinterpreted the court's order?

1 MR. DENNY: That goes to his competence in the opinions
2 he's expressed now.

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1 THE COURT: It may go to the competence of the drawer of
2 the order or the maker or the signer of the order.

3 MR. DENNY: Well, that's a question for the jury to
4 determine, your Honor.

5 THE COURT: The Court at this time -- well, at some
6 point the Court must exercise its discretion as long as
7 this cross examination has gone on, and the Court believes
8 that the -- this will not be probative, whatever, and the Court
9 would deny your motion.

10 MR. DENNY: Well, your Honor, may I --

11 THE COURT: You may mark them.

12 MR. DENNY: For the record, may I have them marked for
13 identification?

14 THE COURT: Well, they may be marked together.

15 MR. DENNY: The order --

16 THE COURT: The order and --

17 MR. DENNY: -- and the response to that order dated
18 December 9.

19 THE COURT: All right, now, the response is a response
20 and if he's answered any differently in his response than he's
21 answered to you now, of course, you may pursue that.

22 MR. KAY: Huh-uh. It is --

23 THE COURT: They together will be marked Q.

24 MR. DENNY: I'm sorry.

25 MR. KAY: Q.

26 THE COURT: Q for identification.

27 MR. DENNY: All right.

28 (Whereupon, the following proceedings were had in

Q ID

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1 open court within the presence and hearing of the jury:)

2 THE COURT: The Court would appreciate, Mr. Denny, if you
3 would conclude your cross examination shortly.

4 MR. DENNY: I'm just about there.

5 Q BY MR. DENNY: Now, Sergeant, you stated some of
6 these pictures showed two land impressions, is that correct?

7 A Yes, sir.

8 Q Sergeant Christansen, I asked you before lunch to
9 mark each picture to show all the land impressions that you
10 could find, both the driving edge and the non-driving edge;
11 do you remember that?

12 A Yes, sir.

13 Q And you marked everything that you said could
14 possibly be a land impression; is that correct?

15 A No, sir. I marked everything that I thought
16 represented a land impression on the photographs.

17 Q Oh, it is your testimony now that there are some
18 other land impressions on some of these photographs?

19 A If there are, I can't identify them as such.

20 Q Well, then, when you testified that some of these
21 pictures showed two land impressions, will you show me any one
22 of those pictures that shows two land impressions?

23 MR. KAY: Well, that's assuming a fact not in evidence
24 that the pictures do show that.

25 THE COURT: If they do, Sergeant, you can show it.

26 THE WITNESS: I can't show any of them to you. I can't
27 identify any of them on the photographs.

28 Q BY MR. DENNY: Sergeant, didn't you just testify

15a-3

1 earlier in the day twice, and once again this afternoon, as I
2 put them up here, or just shortly before the break, that you
3 photographed each land impression, each single land impression
4 serially, land impression one, two, three, four, five, six;
5 so that each single land impression was represented by a
6 single photograph, numbers one through six in the exhibits here?

7 A Yes, I did.

8 Q All right. And isn't that what, in fact, you
9 attempted to do?

10 A No, it is not.

11 Q Oh, you want to change your testimony, then, that
12 you have given twice before, before this jury, as to how you
13 took those photographs?

14 MR. KAY: Argumentative.

15 THE COURT: Sustained.

16 Q BY MR. DENNY: Well, which did you do, then,
17 Sergeant Christansen?

18 Did you take six pictures serially, one through
19 six, showing the full circumference?

20 A No, sir.

21 Q What did you do?

22 A I took pictures to show the full circumference.
23 However, some of the pictures are duplicates in an attempt to
24 obtain better pictures.

25 Q If they are duplicates, Sergeant, why are not they
26 given the same serial number to show that they are duplicates?

27 A Because the numbers were placed on the photo pack
28 prior to the picture being taken and showed the order in which

15a-4

1 the pictures were taken.

2 Q Well, is there some reason, Sergeant, why you took
3 the same picture over again in the photo pack with negative
4 No. 2 and negative No. 3?

5 A Yes, there is.

6 Q What is that?

7 A Because I wasn't sure that negative No. 2 would
8 produce a clear picture.

9 Q Well, was there any difference in lighting between
10 the time that you took the picture in negative No. 1 and the
11 time you took the picture in negative No. 2?

12 A No, sir.

13 Q Or negative No. 2 and the time you took the
14 picture in negative No. 3?

15 A No, sir.

16 Q Well, what made you feel that you were not sure
17 when you took the picture in No. 2 that it wouldn't turn out
18 so you had to take another one?

19 A I am not an accomplished photographer. I wasn't
20 sure about the focus of the picture and, also, outside
21 influences, such as someone walking, in our very old and
22 decrepit building set up vibrations, and this could very well
23 have happened when the picture was taken. I don't recall the
24 exact circumstances on each one at this time.

25 Q And is that about what happened when you again
26 took a duplicate picture of No. 5 with negative No. 6?

27 A Yes, sir.

28 Q And are you testifying at this time that going one,

15a-5

1 two, and assuming two and three are the same, and then four,
2 and then five and six, and assuming they're the same -- are
3 you telling this jury that those photographs now show the
4 entire circumference of the bullets?

5 A Yes, sir.

6 Q Now, Sergeant, those dark spaces, those dark
7 areas, the darkened areas in the middle of each of these
8 pictures, those indicate an area of depression caused by the
9 lands, the lands in each case, isn't that correct?

10 A Quite possibly.

11 Q Well, is it possible or is it so?

12 A I don't know whether it is possible or it is so.
13 It is possible or it is so. It is possible. It is also true
14 that we had to use a great deal of indirect lighting on these
15 in order to have anything other than a blank piece of metal
16 showing on the evidence bullet. So this could be caused by
17 the lighting. Again, I am not a photographer, I don't know.

18 Q Well, you're not a photographer, sir, but you're
19 supposed to be an expert in the field of firearms identifica-
20 tion.

21 MR. KAY: Argumentative.

22 Q BY MR. DENNY: Well, can you read photomicro-
23 graphs?

24 A No, sir, not always.

25 Q Have you had training in the field of photo-
26 micography so that you can read photomicrographs?

27 A No, sir.

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1 Q Well, isn't that one of the prime prerequisites
2 of an expert in the field of firearms identification, that he
3 can read photomicrographs?

4 A No, sir.

5 Q Oh. And you've stated that, actually, photomicro-
6 graphs are nothing more than a visual presentation on paper
7 on what the eye sees, through the microscope?

8 A A part of what the eye sees through a microscope.

9 Q Exactly the same thing. Remember, we went over
10 it yesterday? It took us about a half an hour, just before
11 lunch.

12 The microscope that you look through, with the
13 naked eye, portrays to the camera exactly what you see
14 through the naked eye; isn't that true?

15 A Yes, sir.

16 Q All right.

17 A That is true.

18 Q All right. So that when you look through your
19 microscope, and you see in the comparison microscope this
20 picture (indicating) portrayed in picture No. 1 here, in
21 this series, that's exactly what you would see if you looked
22 through the microscope with the naked eye; isn't that right?

23 A No, sir.

24 Q It's a little bit out of focus; is that right?

25 A I don't know about the focus. Again, I'm not a
26 photographer.

27 Q Well, what -- I am asking you as a firearms
28 identification expert, sir, if that picture is a little out

1 of focus? If that photomicrograph is a little out of focus,
2 can you tell that?

3 A No, sir, I cannot.

4 Q Well, you'd want the detail a little clearer,
5 wouldn't you, if you were really trying to show land
6 impressions?

7 A I don't know, because I don't know how much
8 detail is on the bullet -- in this case, if we are using a
9 hypothetical case.

10 Q All right.

11 Officer, going again to the marks that you've
12 placed on the bullet, you've placed one mark on No. 1,
13 none on No. 2, one mark on No. -- that would be No. 4,
14 and a mark going the entire length of No. 5, indicating
15 the areas that you consider land shoulder impressions; is
16 that right?

17 A Indicating the areas that I could --

18 Q Could be --

19 A -- could show land shoulder impressions.

20 Q All right. Showing you No. 5 in particular,
21 is that the driving edge land shoulder that you've circled,
22 would you say?

23 A I don't know. I can't tell from the photograph.

24 Q Well --

25 A Probably.

26 Q All right. Then, where would the other shoulder
27 be? Above it or below it?

28 A (Indicating.)

1 Q It would be below it, wouldn't it?

2 A Yes.

3 Q And it would be in the area, the darkened area,
4 somewhere below the darkened area below it; isn't that right?

5 A Yes, sir.

6 Q All right. So, that, then the width of the land
7 impression is approximately one-half of the photograph, the
8 middle one-half of the photograph; isn't that right?

9 A Probably. Approximately, yes, sir.

10 Q All right. So that if there is anything
11 comparable, then, the width of photograph No. 4 is the area
12 of the land impression; isn't that right? The darkened
13 area that appears there?

14 A I'm not sure. I can't tell you that from the
15 photograph.

16 Q Well, you didn't move the bullet backward, away
17 from the field of view, did you? In other words, you didn't
18 move it farther away from the field of view, so you got more
19 of the bullet in, did you?

20 A No, sir. It's on essentially the same plane.

21 Q The same plane. All right.

22 So that again, the darkened area in photograph
23 No. 3, the darkened area in the middle half, that would be
24 essentially a land impression or pressure mark, the darkened
25 area; isn't that true?

26 A Probably, yes, sir.

27 Q And on No. 1, the same thing, particularly on the
28 evidence -- on the test bullet, the darkened area would be the

1 pressure mark from the land; isn't that correct?

2 A Probably, yes, sir.

3 Q All right. So you've then got one, two, three,
4 four lands, land impressions; isn't that right?

5 A Yes, sir, if -- if it's true that these are all
6 land impressions.

7 Q All right. And that doesn't, then, show the
8 full circumference of that bullet, does it?

9 A No, sir. These are all land impressions, as
10 you say.

16a fls. 11 MR. DENNY: All right. I have no further questions.
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EXAM
KAY

REDIRECT EXAMINATION

BY MR. KAY:

Q Are they all land impressions?

A I don't know.

Q All right. Now, you -- now, in response to Mr. Denny's question, you said that you --

You can take the stand again.

A Thank you.

Q I won't make you stand up.

You have said -- excuse me.

(Pause in the proceedings while the bailiff put the blackboard back in its accustomed place.)

THE COURT: Turn it around, if you would, Mr. Kuczera, please.

Thank you.

Q BY MR. KAY: Sergeant Christansen, you said in response to a question by Mr. Denny that the camera can see what your eye can see, but does the picture come out the same as what your eye can see?

A No, sir.

Q Now, Sergeant Christansen, you stated in your testimony that you relied mainly on People's 99, the test-fired bullet that you examined on direct examination for purposes of comparison with People's 31, the Hinman bullet.

Why is that?

A Because the bullet was -- appeared to be more nearly in construction similar to the evidence bullet than the other test bullets that I had available.

16a-2

1 MR. KAY: Your Honor, if it hasn't been done previously,
2 I would ask that People's 31 and People's 99 be received into
3 evidence.

4 MR. DENNY: I have no objection whatsoever, your Honor.
5 I would also ask --

6 THE COURT: They may have been admitted previously.
7 But if they have not, well, then, the Court would admit 31 and
8 99.

9 MR. KAY: And at this time, your Honor, I would ask to
10 be allowed to pass the Hinman bullet, People's 31, to the
11 members of the jury; and then after -- when the back row gets
12 People's 31, I'll pass People's 99 to the front row, so the
13 jurors will be able to see both People's 31 and People's 99.

14 MR. DENNY: Well, your Honor, I am going to object to
15 that at this time. I think that's getting very, very --

16 THE COURT: Let me see them.

17 MR. DENNY: -- funny with the evidence. They will have
18 a chance to do that in the jury room.

19 MR. KAY: I think it's very important for them to do
20 it, in connection with my redirect examination.

21 THE COURT: Well, please argue it at the bench, if you
22 wish to discuss it.

23 (Pause in the proceedings while the Court
24 examined the exhibits.)

25 THE COURT: Do you wish to be heard?

26 MR. DENNY: Yes, your Honor, I would.

27 THE COURT: All right. I'd permit it, for what it's worth.

28 MR. DENNY: Well, if the Court's inclined to permit it,

31 and
99
rec'd

1 as long as they're not lost or damaged in any way --

2 MR. KAY: No.

3 MR. DENNY: -- or rolled around among the fingers of
4 the jury, so that they might remove the striations --

5 THE COURT: Ladies and gentlemen, don't roll them un-
6 necessarily. Don't bite them, --

7 (Laughter.)

8 THE COURT: -- inhale them, or in any way mistreat them.

9 MR. KAY: I'm handing People's 31, the bullet recovered
10 from the Hinman home, to the No. 1 juror.

11 THE COURT: Pass them hurriedly along.

12 MR. DENNY: Well, your Honor, perhaps if this is supposed
13 to be some sort of comparison, they should be given the
14 opportunity to see them together.

15 THE COURT: All right. The Court --

16 MR. DENNY: I think they are identifiable.

17 THE COURT: The Court believes that's --

18 MR. KAY: I have handed People's 99 also to the No. 1
19 juror.

20 THE COURT: All right. Mrs. Sandberg has them and is
21 looking at them very carefully, without rolling them.

22 MR. KAY: People's 31 is the one that has the top that's
23 kind of dented in.

24 THE COURT: Would both counsel stipulate as to that?
25 Is that it?

26 MR. DENNY: And that it is dented in.

27 THE COURT: That 31 is the one that is identifiable.

28 JUROR SANDBERG: It has a dent, yes.

1 THE COURT: As having the foreshortened --

2 MR. DENNY: Yes. And 99 is identifiable by the
3 blackened areas around the base.

4 THE COURT: Yes.

5 MR. KAY: That's true.

6 THE COURT: That appears to be the case.

7 You will have the opportunity, ladies and
8 gentlemen, to have those in the jury deliberation room with
9 you, at the conclusion of the evidence.

10 JUROR OBRADOVICH: Which is which?

11 MR. KAY: That's (indicating) the Hinman bullet, and
12 that's the test bullet.

13 MR. DENNY: Your Honor, I wonder if we may approach the
14 bench a minute, while the jury is continuing to look at the
15 exhibits.

16b fol 16 THE COURT: Yes, you may.

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(Whereupon the following proceedings were had
at the bench among Court and counsel, outside the
hearing of the jury:)

MR. DENNY: Your Honor, I do want to take this witness
as my own. The Court did not permit me to question him as
to the exhibits C-1 through -12, I believe. But I did
establish --

THE COURT: Do you mean those pictures?

MR. DENNY: Yes. I do want to establish, because I
want to introduce those into evidence -- incidentally,
they're only marked for identification at this time --
that they are accurate representations and portrayals of
the guns pictured in Volume II of the Mathews book, which
he could so state.

He did so as to the Radom, Defendant's C-8.
And I'm sure he will so state also as to the others.

THE COURT: 26 pictures?

MR. DENNY: No, your Honor. There are 12.

THE COURT: 12 pictures?

MR. DENNY: 12 pictures. I just simply wanted to take
them out, show them to him, ask him if indeed those are the
guns that they are represented as being by the designations
that appear on the pictures themselves.

Each picture says what kind of gun it is. It's
a Colt .45, et cetera.

THE COURT: All right.

MR. KAY: I think it's irrelevant, what type of guns
they are. And also, Sergeant Christansen's available at all

16b-2

1 times. And I think the People should be allowed to put on
2 their case, until its conclusion -- unless there's an out-of-
3 state witness or something like that.

4 THE COURT: What is the purpose of this testimony?

5 MR. DENNY: Well, your Honor, as the Court well remem-
6 bers -- I hope -- Ella Jo Bailey looked at each of those and
7 said, up to a point, that they all looked like the gun that
8 Bruce Davis had.

9 And in fact, those guns range anywhere from .22
10 caliber to .45 caliber, of every make, kind and description.

11 And I want -- I want them in evidence to show
12 that. And they're relevant from the standpoint of her
13 impeachment, as to what she could see.

14 THE COURT: Well, there are many guns in the world.
15 Why stop at 12? You could --

16 MR. DENNY: Because I thought 12 was a nice biblical
17 number.

18 THE COURT: (Continuing) -- which would look like the
19 Radom.

20 MR. DENNY: Well, that's true, your Honor. That's --
21 that's part of my defense in this case. And this is why
22 I used that as -- as far as she was concerned; and this is
23 obviously why I am going to introduce them into evidence.

24 Now, if there's not going to be any objection to
25 introducing them into evidence, fine. I'll move at this time
26 to introduce them into evidence.

27 MR. MANZELLA: Your Honor, I was wondering if the Court
28 would inquire of Mr. Denny whether those pictures show the

16b-3

1 actual size of the weapons.

2 MR. DENNY: Yes. Each one of them was photographed
3 with a ruler above it. And she had that --

4 MR. MANZELLA: So those pictures -- that doesn't answer
5 the question.

6 The question is: Do the photographs show the
7 actual size of the weapon? Not to scale, with a ruler, but
8 do they show the actual size?

9 MR. DENNY: Well, the photographs are not life size.

10 MR. MANZELLA: That's what I mean. So the guns are
11 not shown to their actual size in the photograph?

12 MR. DENNY: That's true. That's true. But that has
13 nothing to do with her identification of the gun as such.

14 MR. MANZELLA: It seems to me, if you are talking
15 about .22's, which can be --

16 MR. DENNY: Well, that goes --

17 MR. MANZELLA: -- blown up to look the same size as a
18 .45 in a photograph --

19 MR. DENNY: They are the same size. In fact, the .22
20 is a little bit bigger than the .45. The Colt .22 caliber
21 automatic is about half an inch longer than the Colt .45.

22 It's on the same body, same base; it's just had
23 a different bore.

24 THE COURT: Your purpose is simply to show that guns
25 exist which look like the Radom?

26 MR. DENNY: No. My purpose is to show that he is unable
27 to distinguish between those guns -- and specifically, the
28 guns that she did see in the picture, between the Radom and

1 any of those other guns;

2 That if Bobby Beausoleil had a gun, it could have
3 been any automatic with a stubby barrel and --

4 THE COURT: The Court will permit this.

5 Let him see them as a group, rather than take
6 a half hour to go over it, and as to whether or not those
7 are automatic --

8 MR. DENNY: Well --

9 THE COURT: -- semi-automatic pistols, and whether they
10 are the --

11 MR. DENNY: The pistols --

16c fls. 12 THE COURT: -- the same general type as the Radom.

16c-1

1 MR. DENNY: Well, they say on the picture. Each picture
2 has a description of the gun.

3 I've hidden it, as they appear in the folder, but
4 I will -- when I question him about each one individually,
5 what I'll do is pull them out of the folders, and ask him,
6 "Is this in fact the Colt .45? Is this in fact the Llama
7 Model 99, as described here?"

8 THE COURT: I don't think that the details of what the
9 various guns are -- other than they're not the Radom -- is
10 important. It's not what they are, but rather --

11 MR. DENNY: All right, your Honor. I would also like
12 to --

13 THE COURT: There's no quarrel that this bullet is a
14 9-millimeter bullet, is there?

15 MR. DENNY: No, no.

16 I would also like to re-open my cross for one
17 thing, and this is: I forgot to ask him about his test
18 firing the bullets that were found with the gun -- that is,
19 the reloads, the 9-millimeter reloads.

20 THE COURT: All right. The Court will permit you to do
21 that.

22 The intended -- the Court didn't permit you to show
23 the Kirschke pictures, but the Court permitted you to use a
24 classic example of a picture of a bullet from one of the texts
25 that is a standard text. And you were going to have a picture
26 taken and --

27 MR. DENNY: Well, Joyce is going to have a Xerox copy
28 made of that, and if the Xerox copy is clear enough, we'll use

1 that.

2 If not, I'll have a photograph made.

3 THE COURT: All right.

4 MR. DENNY: And introduced in lieu of the book.

5 THE COURT: Have we heretofore marked that?

6 MR. DENNY: We have. M.

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1 MR. KAY: Also, your Honor, since I've started my
2 questioning now, I would request that Mr. Denny put his
3 questioning over until I finish mine, and then he can ask
4 questions.

5 MR. DENNY: I don't mind.

6 (Whereupon, the following proceedings were had
7 in open court within the presence and hearing of the
8 jury:)

9 THE COURT: All right, the record will show that all
10 the jurors have looked at the two bullets, 31 and 99, and
11 they're back in Mr. Kay's hands and in the evidence envelope.

12 You may proceed.

13 Q BY MR. KAY: Now, Sergeant Christansen, when you
14 recovered People's 31 from the Hinman home, and after you
15 examined it, you took it to the Crime Lab and examined it,
16 could you tell the manufacturer of this bullet?

17 A I could tell it was a foreign military manufacturer.
18 The exact manufacturer I could not tell.

19 Q All right. Now, the test-fired bullet, People's
20 99, is that foreign or domestic manufacturer?

21 A No, it is a foreign manufacturer.

22 Q And I notice, what seems to be pretty apparent,
23 that People's 31, the Hinman bullet, appears to be real
24 smooth. That it doesn't have the obvious scratches on it
25 that People's 99.

26 What's the reason for that, in your opinion?

27 A The major reason is the passing through the
28 plaster wall.

17-2

1 Q All right. So I take it that the People's 99
2 was fired in the water tank and not through wood and plaster?

3 A Yes, sir.

4 Q All right. Now, on cross-examination, Mr. Denny asked
5 you whether or not you measured the width of the lands and
6 grooves on People's 31, the Hinman bullet, and you answered
7 no.

8 Now, let me ask you this: Is this measurement
9 important for your comparison purposes?

10 A No, sir.

11 Q All right. And do you even use that particular
12 measurement?

13 A No, sir.

14 Q All right. What is the important measurement,
15 if any?

16 A The important measurement is the ratio.

17 Q The ratio of the land and the groove?

18 A The land to the groove, yes, sir.

19 Q Okay. Now, are the manufacturer's general
20 specifications of the particular gun, the Radom, People's 30,
21 are they important for you to know in order to determine
22 if People's 31, the Hinman bullet, was fired from that Radom,
23 People's 30?

24 A No, sir.

25 Q And why? Can you explain that?

26 A Yes, sir, because weapons often vary from what the
27 manufacturer specify they shall be and because we have on
28 file, uh, test bullets that have been fired in Radoms that

1 have the information that is necessary.

2 Q Now, does the quality and the accuracy of your
3 comparison vary depending on whether you use the monocular
4 or the binocular microscope in the Sheriff's Firearms
5 Identification Section?

6 A No, sir.

7 Q That's the one with the two eyepieces or the
8 one eyepiece.

9 And it doesn't make any difference, then?

10 A No, sir.

11 Q On how many occasions have you observed a
12 firearms expert in the Sheriff's Department make photomicro-
13 graphs for use in court?

14 A Once, prior to these.

15 Q All right. And were those used in court?

16 A My understanding is that they were not.

17 MR. DENNY: Object to his understanding and move that
18 be stricken as calling for hearsay.

19 THE COURT: Sustained. It is stricken.

20 Q BY MR. KAY: Now, as a result of the training that
21 you received from the American Optical Company, did you learn
22 whether or not the condition of the bullet that you were
23 photographing would have some effect on the quality of the
24 photomicrograph?

25 A Yes, sir.

26 Q And what did you learn?

27 A That the better the quality of the bullet, the
28 better the quality of the picture would be.

1 Q All right. And what's the quality of People's
2 31?

3 A Very poor.

4 Q All right. And as a result of that, do you
5 consider that these photomicrographs that are on the board
6 right now are of good quality?

7 A Fair quality.

8 Q All right. If the bullet was better, would the
9 photomicrographs be better?

10 MR. DENNY: Just a moment, I'll object to the question
11 as ambiguous. Which bullet.

12 Q BY MR. KAY: If the evidence bullet was in better
13 condition, would the photomicrographs be in better condition?

14 A Yes, I feel they would show more detail.

15 Q Does the condition of the evidence bullet deter-
16 mine how you take the photomicrograph, with the lighting and
17 such?

18 A Yes, that does.

19 Q Could you explain that?

20 A Yes. This bullet being in such poor condition
21 and the striae --

22 MR. DENNY: Well, just a moment. I'm going to object
23 to the answer in that he's testified that he is not qualified
24 as a photographer. It is beyond his expertise. I don't
25 think he could answer that question.

26 THE COURT: Sustained.

17a fls.

17a-1

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1 Q BY MR. KAY: Well, from what you learned from
2 the American Optical Company, does the condition of the evidence
3 bullet determine how you take the photomicrograph?

4 MR. DENNY: Again, that calls for hearsay.

5 THE COURT: Sustained.

6 Q BY MR. KAY: In the several thousand comparison
7 cases that you have handled for the Sheriff's Office, the
8 state and the federal governments, have you made your
9 comparisons and formulated your opinions by using a method
10 other than visual observation of the bullet in question under a
11 comparison microscope?

12 A No, sir.

13 Q All right. Now, did you base your opinion in this
14 case on these photomicrographs that Mr. Denny requested?

15 A No, sir.

16 Q All right. Do you consider them at all useful in
17 making your comparison?

18 A No, sir.

19 Q Is it significant to you in formulating your expert
20 opinion regarding whether or not People's 31, the Hinman
21 bullet, could have been fired from People's 30, the Radom,
22 that it appears in some of the photomicrographs up on the
23 board there, that some of the lines don't tend to match up
24 between the test bullet and the evidence bullet?

25 A I'm sorry.

26 Q Did you understand my question?

27 A No, I didn't.

28 Q All right. Is it significant to you in formulating

17a-2

1 your opinion regarding whether or not the bullet you recovered
2 at the Hinman home was fired from the Radom in question, People's
3 30, is it significant to you that it appears that in some of the
4 photomicrographs on the board that some of the lines don't
5 tend to match up between the test bullet and the evidence
6 bullet?

7 MR. DENNY: Just a moment, I'll object to that as
8 irrelevant, because he states he didn't use the photomicro-
9 graphs in forming his opinion.

10 THE COURT: Overruled, you may answer.

11 THE WITNESS: No, it is not significant to me.

12 Q BY MR. KAY: And why is that?

13 MR. DENNY: Well, I will object to that again as
14 irrelevant and immaterial.

15 THE COURT: Would you read the previous question to me?

16 (Whereupon, the question was read by the reporter as
17 follows:)

18 "Q All right. Is it significant to
19 you in formulating your opinion regarding whether
20 or not the bullet you recovered at the Hinman
21 home was fired from the Radom in question,
22 People's 30, is it significant to you that it
23 appears that in some of the photomicrographs on the
24 board that some of the lines don't tend to match
25 up between the test bullet and the evidence bullet?"

26 THE COURT: Mr. Denny made a motion to strike the answer,
27 and the answer should have been stricken. The Court reverses
28 its ruling. The answer is stricken. The objection is sustained

17a-3

1 to this current question.

2 Q BY MR. KAY: I take it, Sergeant Christansen, you
3 didn't base your opinion in any part upon those photographs,
4 is that correct?

5 A No, I did not base any of my opinion on the
6 photographs.

7 Q Okay. Could you see anything in any of those
8 photographs that would change your opinion?

9 A No, sir.

10 Q All right. Are these photomicrographs -- are
11 these photomicrographs -- excuse me.

12 (Whereupon, Mr. Manzella conferred with Mr. Kay at
13 the counsel table, out of the hearing of the jury:)

14 MR. KAY: All right, can we approach the bench a minute?

15 THE COURT: Yes, you may.

16 (Whereupon, the following proceedings were had at
17 the bench among Court and counsel, outside the hearing of the
18 jury:)

19 MR. KAY: Mr. Manzella had a good --

20 THE COURT: Just a moment.

21 MR. KAY: Oh.

22 THE COURT: Yes.

23 MR. KAY: I think Mr. Manzella brought a good point to
24 my attention, that we should have Sergeant Christansen's
25 answer to that question that you struck for Mr. Denny
26 reinstated due to the fact that on cross examination Mr. Denny
27 -- a good part of his cross examination was spent on showing
28 how these photographs were inconsistent or supposedly

17a-4

1 inconsistent with Sergeant Christansen's opinion. Therefore,
2 I should be entitled to show why they aren't. Have him
3 explain why they aren't.

4 THE COURT: Well, the Court thought of that when it
5 overruled the objection. But then the way the question was
6 phrased, it -- it inquired of him whether, in the forming
7 of his opinion, the differences in the photographs were of any
8 significance to him, and he had previously stated that he
9 hadn't utilized the photographs in forming his opinion.

10 You've, I think, covered that, but if you can
11 think of an any more adroit way of putting it, the Court will
12 go along with you. You haven't covered it in asking him
13 whether or not --

14 MR. KAY: Okay.

15 THE COURT: -- whether or not after having viewed the
16 photographs that they change his mind in any way. If you want
17 to ask him specifically what Mr. Denny asked him about.
18 Mr. Denny was generally testing his power of observation and
19 knowledge of photomicrographs, and these particular photo-
20 micrographs --

21 MR. MANZELLA: To ignore --

22 THE COURT: You can do that.

17b

17b-1

1 MR. MANZELLA: To ignore the fact that Mr. Denny is
2 going to argue that even a layman can see that the bullets
3 don't match, would be to, you know, really ignore reality.
4 I mean, I certainly --

5 MR. DENNY: I'm not going to --

6 MR. MANZELLA: I certainly would argue that. I
7 would --

8 THE COURT: You would what?

9 MR. MANZELLA: I look at those photographs and the
10 bullets don't look like they match. It would be silly to
11 ignore the argument. It is a great argument. Why can't we
12 cover that on cross-examination.

13 THE COURT: I didn't say that you couldn't cover it on
14 cross-examination.

15 MR. MANZELLA: He asked why they are not significant
16 and you sustained the objection.

17 THE COURT: If a man did not utilize the photographs in
18 making --

19 MR. KAY: In other words, if I left out -- if his
20 opinion --

21 THE COURT: Then, certainly the question is immaterial,
22 because he -- it assumes a fact not in evidence that it was
23 of any significance whatever.

24 MR. KAY: Well, in other words, as long as I left it
25 out, his opinion -- in other words, if I state is it of any
26 significance --

27 THE COURT: You can ask your question. I'm not going
28 to guide you.

17b-2

1 MR. KAY: You are not going to give any advice or
2 opinion --

3 If I ask --

4 MR. DENNY: No, essentially --

5 THE COURT: You can ask him to explain why the
6 photographs appear as they do in the way that Mr. Denny has.

7 In other words, I don't see why you couldn't
8 rehabilitate your witness, if you think you can.

9 MR. KAY: Uh-huh.

10 THE COURT: But the photographs were made in December
11 of 1971, and he formed his opinion five minutes after he had
12 the bullet in his hand in early '70, wasn't it?

13 MR. KAY: Well, no, no, he got the gun two months
14 later.

15 MR. DENNY: That's right. He said he formed his
16 opinion that it was fired with a gun with six lands and
17 grooves with a right-hand twist and fired from a worn barrel.

18 MR. KAY: That's right.

19 THE COURT: So I can't see that your argument concerning
20 that question is well taken, but maybe you have other
21 questions.

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22 MR. KAY: Okay.
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1 (Whereupon, the following proceedings were had in
2 open court, within the presence and hearing of the jury:)

3 Q BY MR. KAY: Sergeant Christansen, are the
4 photomicrographs accurate representations of what you saw with
5 your own eye, when you looked through the comparison
6 microscope, to make the comparison between People's 31 and
7 People's 99?

8 A No, sir.

9 Q Now, there's a book that Mr. Denny mentioned in his
10 examination of you, and -- if you'll give me a moment, the name
11 seems to have escaped me.

12 MR. DENNY: Gunther?

13 MR. KAY: What was that, Mr. Denny?

14 MR. DENNY: Gunther?

15 Q BY MR. KAY: Gunther. Do you remember him
16 mentioning that book to you?

17 A Yes, sir.

18 Q Now, is that book considered to be an important
19 modern authority in the field of firearms identification?

20 A No, sir.

21 Q All right. When was this book written?

22 MR. DENNY: Well, just a moment. That's irrelevant and
23 immaterial. The only mention I made was --

24 THE COURT: Sustained.

25 MR. DENNY: -- a picture that's in there.

26 MR. KAY: All right.

27 Q Now, do you remember the picture of -- in the
28 Gunther book, of the bullet that Mr. Denny showed to the jury?

1 THE COURT: That would be M for identification.

2 Q BY MR. KAY: M?

3 A Yes, I do.

4 Q You do remember that. Now, how does the condition
5 of that bullet compare with the bullet that you recovered from
6 the Hinman home?

7 A That bullet was in much better condition.

8 Q How much better?

9 A Well, a great deal better.

10 Q All right. Now, are the specifications on the guns
11 that you have over in the Sheriff's department, the guns that
12 you compared with -- the general characteristics of People's
13 31, with the bullets that had been fired from the guns, after
14 you recovered the gun in January of 1970, do you remember that?

15 A Yes.

16 Q Now, are those specifications the same as the
17 specifications in the book that Mr. Denny showed you, Mathews?

18 MR. DENNY: Well, I'll object to that as assuming facts
19 not in evidence. The testimony concerned bullets on hand, not
20 guns on hand, that had similar characteristics.

21 The question is phrased in "the guns that you had on
22 hand." The testimony concerned only --

23 THE COURT: I think it --

24 MR. DENNY: -- bullets.

25 THE COURT: I think it assumes a fact not in evidence.

26 You may lay a foundation.

27 Q BY MR. KAY: Well, Sergeant Christansen, the
28 specifications that Mr. Denny was cross examining you on, were

1 those on guns or on bullets? From Mathews?

2 A On guns.

3 Q And didn't Mr. Denny ask you --

4 THE COURT: The record speaks for itself, what Mr. Denny
5 asked him.

6 MR. KAY: All right.

7 Q Now, are these specifications, from your expertise
8 in the field, and your experience, are these specifications in
9 Mathews necessarily the same specifications for those guns that
10 the manufacturer has?

11 A I don't know. We don't normally reduce our
12 bullets -- or refer to these specifications in the same -- in
13 these same terms.

14 MR. DENNY: Well, I'll move that the latter portion be
15 stricken, everything after "I don't know" be stricken as not
16 responsive.

17 THE COURT: Overruled. It may remain in the record.

18 Q BY MR. KAY: Now, again, on the photomicrographs,
19 you stated that you took a couple of duplicate photographs.

20 What was the reason for this, Sergeant?

21 A There was a question in my mind about the quality
22 of the first exposure -- or the first photograph taken of this
23 spot.

24 It was an attempt to improve the quality of the
25 photographs.

26 Q All right. Now, when you say that on a particular
27 photograph, the ones that you haven't marked, that you can't
28 see a land or a groove impression, are you saying that that

1 means that there is not a land or groove impression there?

2 Or just that you can't see it --

3 A Just that --

4 Q -- in the photograph?

5 A Just that I can't see it.

6 Q All right. And on the bullet that you recovered
7 from the Hinman home, how many lands and grooves could you see
8 under the microscope, that weren't erased by the bullet going
9 through the wood and the plaster?

10 A One full land impression; portions of two groove
11 impressions, as I remember.

12 Q And the others were erased?

13 A Yes, sir.

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1 MR. KAY: May I have just a moment, your Honor?

2 THE COURT: Yes, you may.

3 (Pause in the proceedings.)

4 THE COURT: Sergeant, would you explain to us again
5 how you arrived at the ratio of the land to the groove,
6 from your examination of 31?

7 THE WITNESS: Yes, sir. I put it on a comparison
8 microscope and put other bullets on the other stage of the
9 comparison microscope, and then actually compared the width
10 of the land and groove -- or, the portion of that that was
11 visible -- with those on the other bullets.

12 Q BY MR. KAY: Sergeant, does it affect your
13 opinion in any way that, in some of those photomicrographs
14 there on the board, that it appears that some of the -- the
15 lines don't match up between the test-fired bullet and the
16 bullet you recovered from the Hinman home?

17 MR. DENNY: Again, I'll object as irrelevant and
18 immaterial, and -- in that he says he did not form his
19 opinion based on those photomicrographs.

20 MR. KAY: Well, your Honor, my question is: Does it
21 affect his opinion? Not: Did he form it on that?

22 But does it affect his opinion?

23 THE COURT: All right. I'll retract the ruling, and--
24 you may answer.

25 THE WITNESS: No, it does not affect my opinion.

26 Q BY MR. KAY: And why is that, Sergeant?

27 A Well, to begin with, I don't -- I don't say
28 that they're a mate, that they're should compare.

18a-2

1 For another thing, any bullet is going to have
2 a certain amount of accidental striae or accidental markings
3 on them that we can't always explain fully.

4 Q In other words, even on direct examination,
5 you never said definitely that People's 31, the bullet
6 you recovered from the Hinman home, was fired from the Radom?

7 MR. DENNY: Object to that. His testimony speaks for
8 itself.

9 THE COURT: Sustained.

10 MR. KAY: All right.

11 Q Sergeant Christensen, Mr. Denny has used this
12 Mathews book to ask you various questions. Is this one of
13 the books that you studied, in your training to become a
14 firearms ballistics expert?

15 A Yes, sir.

16 Q And I take it you've read both volumes, Volume I
17 and Volume II?

18 A I have read most of both volumes, yes.

19 Q All right. Now, in -- I direct your attention
20 to page 46 and 47 of Volume I of Mathews Firearms --

21 MR. DENNY: Counsel, I wonder if I could see that,
22 first, before it's shown to the witness?

23 MR. KAY: Okay. It's your book -- no, it's not your
24 book. It's Mr. Harper's book.

25 (Pause in the proceedings while a discussion
26 off the record ensued at the counsel table between
27 Mr. Kay and Mr. Denny.)

28 MR. DENNY: Well, your Honor, may we approach the bench

18a-3

1 on this?

2 THE COURT: Yes.

3 (Whereupon, the following proceedings were had
4 at the bench among Court and counsel, outside the
5 hearing of the jury:)

6 MR. KAY: Mr. Kuczera --

7 THE COURT: May I ask you, once again, not to make
8 asides to Mr. Denny about -- oh, about anything that has
9 to do with the conversation? It might be misinterpreted
10 by somebody.

11 It's easy to be blithe and --

12 MR. KAY: I wasn't aware I did.

13 THE COURT: Well, about this book, and about whose
14 book it is and so forth.

15 MR. KAY: Oh.

16 THE COURT: Try not to exchange conversation --

17 MR. KAY: Okay.

18 THE COURT: -- in front of the jury, unless it's --
19 unless you wish to whisper.

20 MR. DENNY: Your Honor, apparently Mr. Kay wants to
21 read something out of the book that he previously read
22 concerning "there has been a considerable difference of
23 opinion about such and such and such and such --"

24 THE COURT: Yes. That wouldn't be admissible.

25 MR. DENNY: And I would contend that's absolutely
26 hearsay.

27 THE COURT: Yes. Unless it's admissible under the --

28 MR. DENNY: No. Under no exception to the hearsay rule

1 would that be admissible.

2 THE COURT: Well, scientific data can come in under
3 1340, if the information is relied upon as accurate in the
4 course of a business, is the way they put it under 1340.

5 But expressions of opinion can't come in.

6 So this is essentially -- in saying what it
7 does say there, it's expressing an opinion itself.

8 MR. KAY: I think --

9 THE COURT: Well, what I am saying is, is that I think
10 data, such as sizes of a bore or the number of lands and
11 grooves of a bullet, or dimensions of a gun would be
12 admissible, since it's a standard work.

13 But I don't think that type of statement could
14 come in.

15 Is that what you had in mind?

16 MR. KAY: Um-hmm.

17 THE COURT: Well, I would have to go along with the
18 defense on that.

19 (Whereupon the following proceedings were had
20 in open court, within the presence and hearing of the
21 jury:)

22 Q BY MR. KAY: All right. Now, Sergeant
23 Christansen --

24 THE COURT: I believe the jurors can use a recess.

25 All right. I think you could. You have been
26 sitting for an hour and a half.

27 You have a friend somewhere in the courtroom,
28 ladies and gentlemen. I am reading a note.

1 We'll take a short recess. During the recess,
2 you are admonished that you are not to converse amongst
3 yourselves nor with anyone else, nor permit anyone to
4 converse with you on any subject connected with the matter,
5 nor to form or express an opinion on it until it is finally
6 submitted to you.

7 About 4:00 o'clock, reassemble.

8 (Mid-afternoon recess.)
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1 MR. KAY: I have no further questions. Thank you,
2 Sergeant Christansen.

3 THE COURT: Recross.

4 The record will show the defendant to be present
5 with Mr. Denny. Mr. Manzella, Mr. Kay for the People, and
6 all the jurors are present.

7
8 RECROSS EXAMINATION

9 BY MR. DENNY:

10 Q Now, Sergeant Christansen, what led you to the
11 conclusion that the bullet, People's 31, was a foreign
12 manufacturer as distinguished from some American manufacturer?

13 A The weight of the bullet and the type of metal
14 used in the bullet jacket.

15 Q What type of metal was used in the bullet jacket
16 of People's 31?

17 A It is a type of brass or a type of copper.
18 However, it has a more brassy appearance, at least reddish
19 appearance than the bullet jackets of any that I've seen on
20 domestically manufactured 9-millimeters.

21 Q And how about the weight?

22 A The weight is slightly heavier than any of our
23 commercial manufacturer. I don't remember the exact figures
24 now, but I did look it up in a reference at that time.

25 Q Now Mathews.

26 All right, now, Sergeant, do you remember, by any
27 chance, approximately how much heavier that bullet was than
28 those of American manufacturers?

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1 A It was very few grains; two, three, four grains,
2 in that vicinity.

3 Q All right. And was it your opinion in looking at
4 that bullet, People's 31, that it had lost some material and,
5 therefore, some weight by virtue of its passage through the
6 wood and plaster?

7 A Yes, sir, it was my opinion.

8 Q All right. Now, I think you indicated to Mr. Kay
9 that the manufacturer's specifications are not particularly
10 important and are not used by you. That the bullets that you
11 have on file are the things that are used by you in determining
12 the possible type of weapon?

13 A Yes, generally that is the case.

14 Q But just prior to that you indicated to Mr. Kay,
15 didn't you, that there is an extremely wide range in weapons,
16 and, therefore, in the marks that they will make on a bullet;
17 isn't that right?

18 A Yes, sir. I don't recall indicating that, but that
19 is a true statement.

20 Q So that if you had a bullet from a Browning High
21 Power 9-millimeter automatic, semi-automatic pistol, that
22 particular weapon, and that particular bullet that you had from
23 the weapon, might be entirely different as far as the land
24 width impressions that it left on that bullet than another
25 Browning semi-automatic High Power 9-millimeter; isn't that
26 right?

27 When I say "entirely different," I mean there
28 could be a wide range of widths of lands in the two guns?

1 A Yes, sir.

2 Q And the two bullets?

3 A Yes, sir.

4 Q And, indeed, even though the specifications may
5 give land width as 70 to 80 hundredths or thousandths of an
6 inch, because of faulty manufacture, because of wear, whatever,
7 the variation could be on either side a good deal more than
8 that, couldn't it?

9 A Yes, sir.

10 Q Down to 65 or up to 85?

11 A Yes, sir.

12 Q Is that right?

13 A Yes, sir.

14 Q So that then in checking bullets, an evidence
15 bullet with a known bullet from a known manufacturer's gun, in
16 order to determine whether the evidence bullet was fired from
17 the same type of gun, is it not necessary to have a number of
18 bullets from a number of different kinds of guns by the same
19 manufacturer to determine the range that is available?

20 A Well, it is desirable, but I wouldn't say it is
21 necessary, sir.

22 Q Well, if you have, for instance, a bullet from a
23 brand new Radom and the land impressions on that particular
24 bullet that you have in your file are 80 thousandths of an
25 inch in width -- you will stipulate to that, all right?

26 A All right, sir.

27 Q And then, you get a bullet that's fired from some
28 gun you don't know what it is, but it has a land width, when

1 you look at it in the comparison microscope, setting it up
2 with that known bullet, known Radom bullet, and then the
3 evidence bullet, the question bullet has a land width greater
4 than that width that's shown in the microscope and which you
5 know is 81 thousandths of an inch, under those circumstances
6 do you say, "Well, maybe this questioned bullet was fired from
7 a Radom"?

8 A Well, it depends on the amount of difference in
9 it. And I feel that this is the place where experience enters
10 into it.

11 Q Exactly so.

12 There is, then, a very great difference between
13 simply observation and interpretation, isn't that correct?

14 A Yes, sir.

15 Q Anyone can look and see if there are differences,
16 as -- assuming that the microscope is adjusted properly, right?

17 A Yes, sir.

18 Q But the significance of the difference or the
19 significance of the similarities depends on the degree of
20 skill of interpretation of the person looking, isn't that
21 correct?

22 A Yes, to a great degree it is.

23 Q All right.

24 Now, you've indicated that as a part of your
25 training by the American Optical Company representatives that
26 you were led to believe the better the quality of the bullet,
27 the better the quality of the picture, is that what you've
28 stated?

1 A The more detail you can get in the picture, yes,
2 generally the better quality of the picture.

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1 Q Well, that is to say, if there are very clear
2 land and groove impressions, and very clear striation
3 marks and other accidental marks, the -- that just jump out
4 at you because of their clarity, it's going to be relatively
5 easy to reproduce those with decent lighting; is that
6 correct?

7 A Yes.

8 Q But is it not also correct that you can still
9 reproduce, on a photograph -- on a photographic negative --
10 with properly arranged lighting exactly what you can see
11 clearly in focus, with the naked eye?

12 A No, sir.

13 Q Well, is it your testimony that the camera
14 sees something different, with the same lighting, than you
15 see with the naked eye, as you look through the same
16 microscope?

17 A My testimony is that the eye can adjust itself,
18 or is more flexible than the lens of the camera.

19 Perhaps more detail out on the edges or something
20 of that type.

21 Q Well, we were over this yesterday, --

22 A Yes, sir.

23 Q And if the edges are out of focus, because of
24 the fine focusing of the microscope on the top of the bullet,
25 the edges will be out of focus; isn't that right?

26 A Yes.

27 Q Now, the eye is not going to compensate for
28 that and bring them into focus, is it?

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1 A To a certain degree, yes, sir.

2 Q But the eye cannot bring into focus, through a
3 microscope, that which the microscope, through its prisms,
4 shows to be out of focus, can it?

5 A No, sir.

6 Q All right. And then, the camera will see just
7 exactly, again, what the eye sees, through those prisms of
8 the microscope; isn't that correct?

9 A No, sir.

10 Q Well, I'll leave it at what we went through
11 yesterday.

12 All right. Again, so we have it, you say that
13 the photomicrographs that we have here, both the ones that
14 you prepared and the ones that were blown up as defense
15 exhibits, "are not accurate representations of what I saw
16 through the microscope," is that right?

17 A Yes, sir, that's correct.

18 Q Well, you are not stating by that that the condi-
19 tion of the bullets changed any, between the time when you
20 looked at them through the microscope and the time when those
21 photomicrographs were taken? That's not what you are implying
22 by that, is it?

23 A No, sir, it is not.

24 Q Just simply that because perhaps of the camera
25 work, they don't show with -- with the detail and clarity
26 that you saw what was there; is that right?

27 A That's correct.

28 Q All right. Again, it's your testimony that you

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1 saw on the evidence bullet, People's 31, one full land
2 impression -- that would be both shoulders and the center;
3 is that right?

4 A I believe so, yes, sir.

5 Q And portions of two groove impressions; is that
6 right?

7 A Yes, sir.

8 Q On either side of that land impression?

9 A Yes, sir. I believe they were there.

10 There was enough there to distinguish what they
11 were, in any case.

12 Q Well, just so we make sure, when you say, "I
13 believe I saw two groove impressions," is it your memory
14 now, from what you believe you saw, that those two groove
15 impressions were on either side of the land impression you
16 believe you saw?

17 A Yes, it is. As I recollect, this was the relative
18 position of them.

19 Q All right. And throughout this little inter-
20 change we have had in the last minute or so, you have said,
21 "As I recollect, as I remember."

22 You did nothing whatsoever, isn't that right,
23 Sergeant Christansen, to mark that bullet, to show where
24 that single land impression was?

25 MR. KAY: Your Honor --

26 THE WITNESS: No, sir. I did nothing to mark the
27 bullet.

28 Q BY MR. DENNY: And you did nothing, so that a

1 jury -- or another expert or anyone under this whole heaven
2 -- could determine which was the area on that bullet that you
3 relied on in saying that it had a single land impression,
4 so that the width, you could tell, was 1 to 1 with the
5 grooves; is that right?

6 MR. KAY: Argumentative.

7 THE COURT: Objection sustained.

8 MR. DENNY: All right. I have nothing further on
9 cross.

10 I would like to take the witness as my own on
11 -- and I did think I indicated to the Court I wanted to
12 reopen cross for one moment.

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1 THE COURT: Yes, you may take the witness as your own.

2 MR. KAY: Cross or direct?

3 MR. DENNY: No. Re-open cross for one thing.

4 MR. KAY: Oh. All right.

5
6 FURTHER CROSS EXAMINATION

7 BY MR. DENNY:

8 Q Sergeant Christansen, there has heretofore
9 been marked for identification Defendant's F, some bullets,
10 when a young lady by the name of Ella Jo Bailey was on the
11 stand.

12 What are those bullets, the six bullets I've
13 dumped out before you?

14 A They are --

15 MR. KAY: Well, your Honor, this is irrelevant, and
16 outside the scope of direct.

17 THE COURT: That's true. He is asking that the witness
18 be his own; is that correct?

19 MR. DENNY: Your Honor, this is part of cross, which I
20 intend to connect up with the -- the examination of the -- an
21 investigation of this case, of the relationship to the Radom,
22 of the bullet in the house.

23 MR. KAY: I'd object on the grounds stated.

24 MR. DENNY: I could make a further offer of proof, if
25 the Court desires.

26 THE COURT: I'll overrule the objection at this time.

27 Q BY MR. DENNY: You can identify those, sir?

28 A Yes. These are four 9-millimeter caliber live

1 rounds. They are reloads. They are not factory loads.

2 Q And how do you determine that they are reloads?

3 A By the fact that they're using a cast lead
4 reloader's bullet, and by the fact that they have a reloader's
5 type of primer in them.

6 Q All right. Now, sir, when was it that you got the
7 pistol? People's 30?

8 A March 11th, 1970.

9 Q And at the time you got the pistol, People's 30,
10 was it loaded? That is, did it have six reload bullets in
11 its clip?

12 A Uh -- I don't remember whether they were in the
13 clip or not. Six reloads were submitted at the same time as
14 the pistol was submitted.

15 Q All right. Now, sir, did you make any effort to
16 test fire the gun, the Radom, People's 30, using any of those
17 reload bullets?

18 A No, sir, I did not.

19 Q Did you make any effort to determine what marks
20 would be left on both bullets, fired from People's 30, the
21 Radom?

22 MR. KAY: That's irrelevant.

23 THE COURT: Sustained.

24 Q BY MR. DENNY: Well, sir, you've talked about the
25 fact that the barrel was worn. Do you know at all what kind
26 of powder is used in those reloads? Did you make any effort --

27 A No.

28 Q -- to find that out?

1 MR. KAY: Irrelevant.

2 THE COURT: The objection is overruled. The answer may
3 remain in the record.

4 Q BY MR. DENNY: Now, sir, are there some types of
5 powder which, when fired a great deal through a gun, tend to
6 wear it down more than another kind?

7 A Yes, there are.

8 Q What kind is that?

9 A I don't know the number designation, but it would
10 be the faster burning powders, the hotter burning powders.

11 Q And you got this particular gun in March of 1970;
12 is that correct?

13 A Yes, sir.

14 Q March when? March 11th?

15 A March 11th.

16 Q March 11th. Which is a number of months separated
17 from August, obviously, of 1969; is that right?

18 A Yes, sir.

19 Q And if that gun, People's 30, had been fired a
20 number of times in the interim, with a fast burning powder,
21 would that tend to wear the barrel down greatly?

22 MR. KAY: Irrelevant.

23

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THE COURT: Overruled, you may answer.

A It would tend to wear the barrel. How greatly, I don't know.

Q BY MR. DENNY: Well, in fact, isn't it true that in test firing bullets the signature on a bullet may be different from bullet No. 1 fired, if you fire ten bullets successively without cleaning the weapon, you will have a different signature on the tenth bullet than you had on the first bullet?

A Depends on a great number of conditions.

Q Well, under any condition, under the most ideal conditions are you not going to have dissimilarities develop through the firing of ten bullets in succession without cleaning the gun?

A Yes, you will have dissimilarities.

Q And if you fire a hundred bullets without cleaning the gun, will those dissimilarities grow?

A Probably.

Q And if you fire 200 or 500, the dissimilarities grow even more and greater, isn't that correct?

A Yes, probably.

Q All right. So, Sergeant, you have no way of knowing, yourself, how many bullets may have been fired through that particular Radom from the time it was purchased by a man named Jack McMillian on July 14, 1969, until the time you got it in March of 1970, do you?

MR. MANZELLA: That assumes a fact not in evidence, your Honor.

21-2

1 THE COURT: The objection is sustained.

2 Q BY MR. DENNY: Did I say the wrong date?

3 In March, March 11 -- I'll repeat the question
4 there.

5 You don't know how bullets were fired through
6 that gun, one or a thousand, between the time when a man by
7 the name of Jack McMillian purchased that on July 14, 1969,
8 and the time it was turned over to you on March 11, 1970, do
9 you?

10 A No, sir, I do not.

11 MR. DENNY: May I approach the witness again, your
12 Honor?

13 THE COURT: Yes, you may.

14 Q BY MR. DENNY: Finally, and just briefly --

15 MR. KAY: Excuse me. I would like to inquire, is this
16 the point where Mr. Denny is having Sergeant Christansen as
17 his own witness?

18 MR. DENNY: If it makes a difference, this is, yes.

19 Q BY MR. DENNY: All right, Sergeant Christansen,
20 just briefly as to these photographs that have been marked
21 C-1 through C-12 --

22 THE COURT: Would you have him look at them as a group,
23 Mr. Denny.

24 MR. DENNY: Yes.

25 Q Would you just look at them.

26 (Witness complies.)

27 Q BY MR. DENNY: Based on your background, training
28 and experience, Sergeant Christansen, are the guns that are

21-3

1 portrayed there, depicted there in picture form, the type of
2 guns indicated in the writing to the right of each gun?

3 A Yes, they are.

4 MR. DENNY: No further questions.

5 MR. KAY: No questions.

6 THE COURT: You may step down, Sergeant.

7 MR. KAY: People would call Deputy Sheehan or does
8 the Court wish to --

9 THE COURT: Let's proceed, yes, if you have a witness.

10 MR. KAY: All right. Two, but they're very short.

11 THE COURT: Short witness?

12 MR. KAY: That's what I thought about Sergeant
13 Christansen.

14 THE CLERK: Would you raise your right hand.

15 You do solemnly swear that the testimony you may
16 give in the cause now pending before this court, shall be
17 the truth, the whole truth, and nothing but the truth, so
18 help you God?

19 THE WITNESS: I do.

20 THE COURT: Please take the stand and be seated.

21 Please state and spell your full name.

22 THE WITNESS: My name is John Sheehan, S-h-e-e-h-a-n.

23
24 JOHN SHEEHAN,

25 called as a witness by and on behalf of the People, having
26 been first duly sworn, was examined and testified as follows:

27
28 DIRECT EXAMINATION

21-4

1 BY MR. KAY:

2 Q Deputy Sheehan, what is your occupation and
3 current assignment?

4 A I'm a Deputy Sheriff assigned to patrol at
5 Malibu Sheriff's Station.

6 Q Now, did you participate in a raid on Spahn
7 Ranch, on August 16, 1969?

8 A I did.

9 Q All right. During that raid was a person named
10 Richard Alan Smith arrested?

11 A He was.

12 Q I have here a photograph which I believe has
13 already been introduced, People's 73.

14 Do you recognize the person depicted in that
15 photograph?

16 A Yes, I do.

17 Q And was that the person who was arrested as
18 Richard Alan Smith on August 16th, 1969?

19 A Yes, it was.

20 Q At Spahn Ranch?

21 A Yes.

22 Q Now, did you participate in the booking of this
23 individual?

24 A Yes, I did.

25 Q All right. And what does the booking process
26 entail?

27 A Identification of the person being booked, his
28 name, address, his physical description and an inventory of

his personal property and the charge, date and time of
arrest.

21a Fls. 3

21a-1
1 MR. KAY: Your Honor, I have here an exhibit which at a
2 prior proceeding in this courtroom was marked as People's 74.

3 May it remain as People's 74 in this proceeding?

4 THE COURT: So ordered.

74 ID
5 Q BY MR. KAY: Deputy Sheehan, I show you People's
6 74.

7 Do you recognize this, what this is?

8 A Yes, I do.

9 Q All right, what is it?

10 A It is a booking slip.

11 Q All right. And does this give the information
12 that you get from the person you're booking, the prisoner
13 you're booking?

14 A Yes, it does.

15 Q All right. Now, have you signed this in any
16 particular location?

17 A Yes, I have.

18 Q All right. And where is that?

19 A I signed it in the record of this telephone call
20 and -- I believe that's the only place I've signed it.

21 Q All right. Is this the booking slip that was
22 filled out by Richard Allen Smith after his arrest, August
23 16, 1969?

24 A It was filled out by me.

25 Q By you. And signed by Mr. Smith.

26 A Yes, it was.

27 Q And did you observe Mr. Smith, Richard Allen
28 Smith, sign his name?

1 A I did.

2 Q All right. I notice that his name is signed in
3 two locations, is that correct?

4 One under where you signed and one down at the
5 lower left-hand corner of the booking slip; is that correct?

6 A Yes, he signed it in three --

7 Q Oh, in three places.

8 One above your signature?

9 A That is correct.

10 Q One above your signature, and one below, and one
11 in the lower left-hand corner?

12 A That is correct.

13 Q And you observed him to sign in these locations?

14 A Yes, I did.

15 Q And the information that you put on this booking
16 slip, did you get this information from Mr. Richard Allen
17 Smith?

18 A Yes, I did.

19 Q All right. His address and height and weight
20 and things like that?

21 A Yes.

22 MR. KAY: Your Honor, I have here a document which,
23 in the prior proceeding in this courtroom was marked as
24 People's 51.

25 May it remain People's 51 for this proceeding?

26 MR. MANZELLA: No, I don't think that has been marked.

27 MR. KAY: Oh, excuse me. I understand it hasn't been
28 marked in this courtroom, but at a prior proceeding it was

1 marked as People's --

2 THE COURT: The Court has marked for identification
3 51 --

4 MR. MANZELLA: No, it hasn't been yet, your Honor. That
5 was in yet another proceeding.

6 THE COURT: What is it?

7 MR. KAY: Well, let's see --

8 THE COURT: Describe it generally. What is it?

9 Q BY MR. KAY: Well, what is this specifically? I
10 know you identified it in another proceeding.

11 A This appears to be a booking slip that was made
12 out at the Central Jail. Not at Malibu Station.

13 THE COURT: All right. It may be marked 51 for
14 identification.

15 MR. MANZELLA: Your Honor, we've already got a 51 in this
16 case.

17 MR. DENNY: It should be People's next in order, 101 or
18 2.

19 THE COURT: All right.

20 MR. MANZELLA: Your Honor, if I may, I request it be made
21 People's 74-A, if that would be all right.

22 THE COURT: All right, the Court identification of it
23 as 51 is stricken. The Court will allow it to be marked as
24 70-A?

25 MR. MANZELLA: 74-A, your Honor.

26 THE COURT: 74-A.

27 Let's see.

28 MR. DENNY: I wonder, Mr. Kay, if I could see those,

74-A
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1 also, both of them?

2 THE COURT: Yes, that is a reasonable request.

3 The Court would make it 74-A for identification.

4 Q BY MR. KAY: Deputy Sheehan, the one you've
5 already identified, People's 74, this was a booking slip
6 filled out at Malibu Station?

7 A That's correct.

8 Q All right. Now, People's 74-A, you identified as
9 a booking slip made out at -- downtown.

10 Where downtown was this made out?

11 A I'm not -- I'm not certain how this was made out,
12 if it was made out at the station and teletyped from the
13 station from the information taken from my booking slip or if
14 it was made up downtown. The procedures have changed.

15 Q Well, the date on -- this is also taken on 8-16-69,
16 August 16th, 1969, is that correct?

17 A This is a -- yes, this is a time, date, booked.

18 Q All right. Now, this is also for a Richard
19 Allen Smith?

20 A Yes, it is.

21 Q Okay. After a person's arrested in Malibu,
22 well, after Smith was arrested on August 16, 1969, after you
23 made your booking slip out there at the Malibu Station, was
24 he then transferred downtown to the Central Jail?

25 A Yes, he was.

26 Q All right. And then, to your knowledge do they
27 also have to make out a booking slip and a property report when
28 a prisoner gets to the Central Jail?

21b-1

A Yes, they did. I do remember that, yes.

Q All right. And that does appear to be what that is, their booking slip from downtown?

A Yes, it does.

THE COURT: Speaking of 74-A?

MR. KAY: 74-A, that's correct.

Q Now, -- and these, the booking slip 74-A, is that made in the ordinary course of business of the Sheriff's Department to keep prisoners and keep a record of who the prisoners are and the property that they are arrested with?

A Yes, it is.

Q Now, on the booking slip, is the prisoner required to sign his name?

A Yes.

Q And is he also -- is he required to sign his name more than once?

A Yes. Uh, yes, he is.

Q And is he required to sign his name as to whether or not he desires to make a phone call?

A That's correct.

Q All right, now, directing your attention to the back of 74-A, where it says "Phone call record," and there's a signature of a prisoner "Richard A. Smith"; is that correct?

A Yes, sir.

MR. DENNY: Just a moment, I'll object to that as calling for hearsay and assuming facts not in evidence and lack of firsthand knowledge.

THE COURT: Sustained.

21b-2

1 MR. DENNY: And move the answer be stricken.

2 THE COURT: The answer is stricken.

3 Q BY MR. KAY: Well, you say that the prisoner is
4 required in the ordinary course of the Sheriff's business to
5 sign his name more than once on the booking slip, is that
6 correct?

7 MR. DENNY: Asked and answered.

8 THE COURT: Yes, it has been asked and answered.

9 Q BY MR. KAY: Okay. And directing your attention,
10 then, to the back of People's 74-A.

11 Does there appear to be the signature "Richard
12 A. Smith" on -- in two different locations?

13 A Yes, it does.

14 Q Now, at some time later did you learn the
15 true identity of the person who was arrested as Richard Alan
16 Smith at Spahn's Ranch?

17 A Yes, I did.

18 Q What did you learn his identity to be?

19 MR. DENNY: Object to that as calling for hearsay.

20 THE COURT: Sustained.

21 MR. KAY: Well, I would like to approach the bench on
22 that.

23 Q Well, how did you learn his identity?

24 A I was advised --

25 MR. DENNY: Well, just a moment. Anything further than
26 that is obviously calling for hearsay.

27 THE COURT: Well, he may say by whom he was advised,
28 but he may not say what he was advised.

21b-3

1 Q BY MR. KAY: Yes, who were you advised --

2 A I was advised by the District Attorney's Office.

3 Q And, again, this photograph, People's 73 is the
4 person that was arrested as Mr. Richard Alan Smith?

5 A Yes, it was.

6 Q All right.

7 I would like the Court to take notice that in
8 this proceeding that this has already been identified as Mr.
9 Danny DeCarlo.

10 THE COURT: The record speaks for itself, Mr. Kay.

11 MR. KAY: Thank you.

12 THE COURT: And the jury has taken notice.

13 MR. KAY: I have no further questions. Thank you,
14 Deputy Sheehan.

15
16 CROSS-EXAMINATION

17 BY MR. DENNY:

18 Q Deputy, I notice in People's 74, under recent
19 injury that Mr. Richard Alan Smith appeared to have gotten
20 a black eye, is that right?

21 MR. KAY: Irrelevant.

22 MR. DENNY: It is on the record.

23 THE COURT: Overruled. You may answer.

24 A Yes, he did.

25 MR. DENNY: All right, nothing further.

26 THE COURT: Mr. Smith -- excuse me, Deputy, the
27 information that's compiled here, the booking slips, did you
28 compile it yourself, did you take the information?

21b-4

22-1

1 THE WITNESS: Yes, I did.

2 THE COURT: From the arrestee?

3 THE WITNESS: Yes, I did.

4 THE COURT: At the time, or shortly after the time of
5 the arrest?

6 THE WITNESS: Yes. He was transferred directly to the
7 station, where I got the information.

8 THE COURT: You may step down.

9 MR. KAY: The last witness, Deputy Robert Wachsmuth.

10 Thank you, Deputy Sheehan.

11 THE CLERK: You do solemnly swear that the testimony
12 you may give in the cause now pending before this court shall
13 be the truth, the whole truth, and nothing but the truth,
14 so help you God?

15 THE WITNESS: I do.

16
17 ROBERT LOUIS WACHSMUTH,
18 called as a witness by and on behalf of the People, having
19 been first duly sworn, was examined and testified as follows:

20 THE CLERK: Please take the stand and be seated.

21 THE BAILIFF: Would you state and spell your full name?

22 THE WITNESS: Robert Louis Wachsmuth; W-a-c-h-s-m-u-t-h.

23 THE REPORTER: Is Louis L-o-u- or L-e-w- ?

24 THE WITNESS: L-o-u-i-s.

25 MR. MANZELLA: May I have a moment, your Honor?

26 THE COURT: Yes, you may.

27
28 DIRECT EXAMINATION

22-2

1 BY MR. KAY:

2 Q Deputy Wachsmuth, could you please step down
3 for a second?

4 First, what is your occupation and assignment?

5 A Deputy Sheriff, assigned to the Malibu Sheriff's
6 Office.

7 Q Directing your attention to August 24th, 1969,
8 where were you assigned?

9 A I was assigned to the Malibu Sheriff's Office
10 then also.

11 Q And directing your attention to August 24th, did
12 you have occasion to go to Spahn's Ranch?

13 A Yes, sir, I did.

14 Q And while you were there, did you have occasion
15 to arrest Charles Manson and Stephanie Schram?

16 A Yes, sir, I did.

17 MR. DENNY: Perhaps the Deputy could use the microphone.
18 I think it might be of some assistance.

19 Q BY MR. KAY: Yes. Get the microphone that's
20 there (indicating).

21 THE COURT: And use the pointer, if you have occasion
22 to point to something on the picture.

23 Q BY MR. KAY: Now, I show you --

24 MR. MANZELLA: 49.

25 Q BY MR. KAY: I show you a photograph which has
26 been previously marked as 49 in this proceeding.

27 Do you recognize the person depicted in this
28 photograph?

1 A Yes, sir, I do. That's Charles Manson.

2 Q And you arrested him on August 24th --

3 A Yes, sir.

4 Q -- 1969?

5 A Yes, sir.

6 Q And I show you a photograph which has previously
7 been marked as People's No. 70 in this proceeding.

8 Do you recognize the young lady in that photograph?

9 A Yes, sir. That's Stephanie Schram.

10 Q Now, I show you an aerial photograph of the Spahn
11 Ranch area. Can you find the location on that where you
12 arrested Mr. Manson and Miss Schram on August 24th, 1969?

13 THE COURT: Step aside there, would you, Deputy, and
14 let the jurors see where you point this out?

15 THE WITNESS: Yes, sir. There's a -- I believe there's
16 a -- the building that I arrested the individuals in is
17 located possibly where the arrow is pointing, right here
18 (indicating), approximately where that red ink is.

19 Q BY MR. KAY: Now, that's just above the word
20 "Farmhouse" which is on blue tape with white lettering, and
21 there is a red marking there, and this is Exhibit 93; is
22 that correct? Is that the point, --

23 A Yes.

24 Q -- the red marking, right above where it says
25 "Farmhouse" (indicating)?

26 A Yes, it is.

27 Q Now, after you placed Mr. Manson and Miss Schram
28 under arrest, did you put them in your marked police vehicle?

1 A Yes, I did.

2 Q And then did you proceed to drive out of Spahn
3 Ranch?

4 A Yes, I did.

5 Q And would you please describe to the jury how
6 you drove out?

7 A I drove a dirt road depicted in the photograph
8 as here (indicating), coming out right here, to the Santa
9 Susanna Pass Road.

10 Q And then where -- approximately where did you
11 get on -- well, first, let me say the road that you've
12 pointed to with your marker appears to be the road that
13 goes between the main buildings in Spahn Ranch, and back
14 to where the farmhouse is; is that correct?

15 A Yes, sir. It is the road.

16 Q It's a dirt road?

17 A Yes, sir.

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1 Q Okay. Now, whereabouts on this aerial photograph
2 did you get onto the main road, Santa Susanna Road?

3 A At this point right here (indicating) where the
4 dirt road ends, and it enters into the parking area -- or
5 yard area -- to the ranch.

6 Q Okay. And then when you got to the Santa Susanna
7 Road, in what direction did you proceed?

8 MR. DENNY: Well, excuse me for interrupting, but may
9 the record reflect that the deputy has pointed to an area just
10 to the left of the blue designation on the chart, showing
11 "Spahn Ranch," just to the left of the "S" on "Spahn Ranch"?

12 Q BY MR. KAY: Is that correct? Is it on the left?
13 Or whereabouts?

14 Do you see the little --

15 MR. DENNY: Well, may the record so reflect?

16 THE COURT: Is that true? Is that where --

17 MR. KAY: Well, I'm asking him.

18 MR. DENNY: Well, that is.

19 THE WITNESS: That's correct, sir.

20 Q BY MR. KAY: Then once you got to the road at that
21 point, how did you proceed on Santa Susanna Road?

22 A I proceeded eastbound on Susanna Pass Road.

23 Q In other words --

24 A (Indicating.)

25 Q In other words, driving in front of the main
26 buildings on Spahn Ranch?

27 A Yes, sir, I did.

28 Q Okay. Thank you. You can resume the witness

22a-2

stand. Thank you.

I understand from Mr. Manzella that 49 had not been previously marked. I would ask that that be marked as People's 49.

It had been so marked at a previous proceeding.

THE COURT: All right. So ordered.

MR. KAY: Thank you. I have no further questions.

Thank you, Deputy Wachsmuth.

THE COURT: Any questions?

MR. DENNY: Yes, just briefly.

CROSS EXAMINATION

BY MR. DENNY:

Q Deputy Wachsmuth, would you come down here just a moment with the pointer, if you would?

Now, are there, then, two entrances to the Spahn Ranch that go onto Santa Susanna Pass Road?

A I believe, sir, that --

Q Do you want to take the microphone again?

A Yes, sir. I believe that there's one large area where all the vehicles can enter the Spahn Ranch, from Santa Susanna Pass, from approximately the left of the "S" on "Spahn" to the right of the "H" in "Ranch." That whole area, you could enter into the ranch.

Q Are you sure?

A Yes, sir.

Q Positive?

A Yes, sir.

22a-3

1 MR. DENNY: May I have just a moment, your Honor?

2 THE COURT: Yes, you may.

3 (Pause in the proceedings while Mr. Denny retired
4 to the exhibit room, returning shortly, whereupon the following
5 proceedings were had:)

6 Q BY MR. DENNY: I want to show you an exhibit that's
7 heretofore been marked People's Exhibit 29, I believe in
8 evidence, and I will hold it up for the jury to see. Would you
9 come on over here?

10 That squeaks when you get right under the speaker
11 there, so why don't you move back here?

12 Now, looking at that exhibit, does that refresh
13 your recollection as to whether or not you can drive in over
14 that whole area, to get into the Spahn Ranch?

15 A It does refresh my recollection.

16 Q And do you want to use the microphone again?

17 And looking at that exhibit, are there two
18 specific and very definite entrances to the Spahn Ranch, as
19 shown on that particular aerial photograph?

20 A I would say that there are -- it appears to be
21 three well used trails -- or well used paths into the ranch.

22 Q All right. Again, one would be over by the corral,
23 where the corral comes close to the road; is that right?

24 A Yes, sir.

25 Q And then two is much farther down (indicating),
26 about opposite -- oh, a building that I think has been
27 designated the Red Rock Cafe.

28 Do you recall that? Or at least the building on

22a-4

1 the far right of the group of buildings that comprise the movie
2 fronts?

3 A Yes, sir.

4 Q Is that right? And then one a little bit farther
5 to the right of that; is that right?

6 A That's correct.

7 Q And that would be a little bit farther to the
8 west; is that correct?

9 A True.

10 Q All right. Fine. Now, which one -- just out of
11 curiosity -- was it that you did go out of?

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12 A I believe I used this path here (indicating), sir.
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1 Q And indicating this path would be the middle, the
2 middle exit, is that right?

3 A Yes, sir. Yes, sir.

4 Q Okay. Fine. Thank you very much.

5 I have no further questions.

6 MR. KAY: No further questions.

7 May the officer be excused?

8 THE COURT: No questions?

9 MR. KAY: No.

10 THE COURT: Yes, he may be excused. Thank you, sir.

11 Ladies and gentlemen, the Court will excuse you
12 now as I indicated it would, until Monday. So I'll see you
13 on Monday at 9:30. Hope you all have pleasant weekends.

14 During the recess you are obliged not to converse
15 amongst yourselves, nor with anyone else, nor permit anyone
16 to converse with you on any subject connected with the matter,
17 nor are you to form or express any opinion on it until it is
18 finally submitted to you.

19 I think our time table is about the same,
20 both counsel, each side tells me that we're about -- we're
21 a little behind, but, nevertheless, intend to finish by the
22 end of February.

23 Remember the admonition that I must give you,
24 too, concerning -- and have given you in the past concerning
25 publicity.

26 It is your firm obligation not to read anything
27 in connection with this case, Mr. Davis, Mr. Manson or the
28 Manson Family.

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Okay, good night, and I'll see you on Monday

at 9:30.

(Whereupon at 4:50 o'clock a.m. the evening recess was taken, the herein proceedings to be resumed at 9:30 o'clock a.m. of the following Monday, January 31, 1972.)