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Deposition of Toby Wolson

Toby Wolson

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1 *IN THE COURT OF THE STATE OF OHIO*

2

3 *CASE NO.: 312322*

4

5 ALAN J. DAVIS, SPECIAL ADMINISTRATOR
6 OF THE ESTATE OF SAMUEL H. SHEPPARD,

7 *Plaintiff,*

8 vs.

9 STATE OF OHIO,

10 *Defendant.*

11 -----

12 *TRANSCRIPT OF PROCEEDINGS*
13 *DEPOSITION OF TOBY L. WOLSON, M.S.*

14

15

16 Taken before *Raymond Pagan, Jr.*, Court
17 Reporter and Notary Public in and for the State of
18 Florida at Large, pursuant to Notice of Taking
19 Deposition filed in the above cause.

20

21 - - - - -

22

23

24 Monday, January 17, 2000
25 3050 Biscayne Boulevard
 Miami, Florida
 9:00 a.m. - 12:30 p.m.

COPY.

1 APPEARANCES:

2
3 *On behalf of the Plaintiffs:*

4 **FRIEDMAN & GILBERT**

5 1700 Standard Building

6 1370 Ontario Street

7 Cleveland, Ohio 44113

8 **BY: TERRY H. GILBERT, ESQUIRE**

9
10 *On behalf of the Defendants:*

11 **CUYAHOGA COUNTY PROSECUTOR'S OFFICE**

12 The Justice Center, Courts Tower

13 1200 Ontario Street

14 Cleveland, Ohio 44113

15 **BY: A. STEVEN DEVER, ESQUIRE**

P R O C E E D I N G S

Thereupon,

TOBY L. WOLSON, M.S.,

after first having been duly sworn by the Notary Public, was examined and testified as follows:

THE WITNESS: I do.

DIRECT EXAMINATION

BY MR. GILBERT:

Q. Good morning, Mr. Wolson. My name is Terry Gilbert. I represent the plaintiffs in this lawsuit. We will be taking your deposition and he your cross-examination. If you have any questions about my questions, feel free to, you know, jump up any time and have me clarify any questions.

A. Yes.

Q. State your name for the record.

A. Toby Wolson. W-o-l-s-o-n.

Q. Where do you currently reside?

A. Miami, Florida.

Q. Your address for your business is?

A. 1975 Northeast 208 Terrace.

Q. What is the name of your business?

A. Noslow, N-o-s-l-o-w, Forensic Consultation. It's my name spelled backwards.

1 Q. What is your current occupation?

2 A. Well, I work full time as a criminalist
3 in the Miami Dade forensic biology section, and I
4 also have a consulting practice.

5 I'm here as a consultant rather than
6 representative of Miami-Dade Police Department.
7 It's all relevant. That's where I get my
8 training and experience.

9 Q. How long have you had your private
10 consultation business?

11 A. I have been consulting since 1993.

12 Q. How long have you been with the Dade
13 County lab?

14 A. Seventeen and a half years. This is a
15 more recent CV if you like.

16 Q. This CV you just handed me it's up to
17 date?

18 A. To the best of my knowledge, yes.

19 Q. I have one here that was -- I guess you
20 faxed this to the Cuyahoga County prosecutor's
21 office.

22 What is the difference between March
23 and now?

24 A. As a forensic biologist I'm constantly
25 undergoing additional training, going to classes,

1 meetings, conferences, so it's necessary to
2 upgrade my CV to reflect any new training that I
3 have had along the way.

4 Since it's been a year since I faxed
5 that CV you have to Mr. Boland, I'm sure there
6 have been a few changes.

7 Q. What is a forensic biologist?

8 A. Forensic biologist does the analysis of
9 the body fluids left behind in criminal
10 situations mainly at the crime scene, clothing of
11 the people involved, things of that nature.

12 Q. Within forensic biology are there
13 different sub-specialties?

14 A. It's not that there are
15 sub-specialties, there are related areas, but not
16 all forensic biologists are trained in them.

17 I also am a Court qualified forensic
18 hair examiner, blood stain pattern analyst, and
19 in terms of forensic biology, I'm currently DNA
20 analyst, reporting and testifying analyst, in
21 that area. Prior to that I was a forensic
22 serologist, s-e-r-o-l-o-g-i-s-t, doing that type
23 of analysis. For approximately five years I have
24 been a DNA analyst.

25 Q. During the last five years how much of

1 your time is spent in the various sub-specialties
2 that you talked about?

3 A. Forensic hair comparisons, very little
4 of my time. I try not to do it. I don't like
5 it.

6 Blood stain pattern analysis, I'm the
7 primary analyst for this county. When I'm not
8 available, one of my co-workers will handle it.
9 For the most part I handle the majority of the
10 blood stain analysis. It's hard to put a
11 percentage.

12 It's feast or famine. Sometimes
13 nothing for months and sometimes a bunch of cases
14 together.

15 Q. In terms of DNA?

16 A. Right. That's my full time function,
17 blood stain pattern analysis I do as cases come
18 up.

19 Q. So you spend most, virtually all of
20 your time on the DNA lab?

21 A. Right. Majority of the time is DNA
22 analyst.

23 Q. Where is the DNA lab?

24 A. It is part of the crime laboratory
25 located in headquarters building of Miami-Dade

1 Police Department over in west Dade.

2 Q. Does your lab in terms of the general
3 criminalistic labs in Miami-Dade, does it have
4 all the required accreditations?

5 A. It is an ASCLD accredited lab, yes.

6 Q. How about the DNA lab?

7 A. The whole lab is ASCLD. We are up for
8 reinspection for the third renewal in three
9 weeks.

10 Q. When was the last time you did a blood
11 stain analysis?

12 A. In terms of going to Court, or in terms
13 of going to a crime scene? Can you be more
14 specific?

15 Q. Let's talk about actually doing a crime
16 scene pattern analysis.

17 A. Last scene I was on, I was there more
18 for public relations. Was a couple of days
19 before Christmas in December. I'm also -- maybe
20 this will lend to it.

21 I'm an instructor in the area of blood
22 stain analysis. Twice a year I teach here in
23 Miami for my agency which they market worldwide.
24 Last one I did was December. I also do an
25 advance course here and two to three intro

1 courses as a consultant each year. This year I
2 have done six courses.

3 Q. When was the last time you testified?

4 A. As a blood stain pattern analysis?

5 Q. Correct.

6 A. November.

7 Q. What was that case about?

8 A. Fatal hit and run as a result of a drag
9 race.

10 Q. Have you ever testified on behalf of a
11 criminal defendant in a criminal case?

12 A. Yes, I have.

13 Q. Where has that been?

14 A. I have done it several times here in
15 Miami as in the side job that I have with the
16 Miami-Dade Police Department, and I have also
17 done it as a private consultant on a couple of
18 occasions.

19 Q. For the most part your work is on
20 behalf of law enforcement?

21 A. It's not that it's on behalf of law
22 enforcement, but I work for a law enforcement
23 agency. It tends to be more prosecution nature
24 than defense.

25 As a scientist any attempt to be

1 unbiased, I testify for whoever subpoenas you.

2 Q. Now, part of your expertise, you
3 certainly seem to have quite a bit of expertise
4 and I wouldn't question your background. It's
5 pretty well clear you have been in this field for
6 a long time.

7 A. Yes.

8 Q. Can you tell me with respect to the
9 interpretation of blood stains, what
10 qualifications you believe someone must possess
11 in order to do that?

12 A. Well, I think the initial starting
13 point is to attend a basic blood stain analysis
14 course. It's necessary to learn about the
15 patterns, to learn what type of dynamics and
16 forces are concerned in creating the patterns,
17 and how to interpret those patterns to
18 extrapolate back to those dynamic forces. At a
19 minimum you should be going in to some type of
20 workshop that covers all the basic pattern, areas
21 of blood stain pattern analysis that involves
22 hands-on experimentation.

23 I don't think being lectured and shown
24 pictures is the best way to go in this particular
25 field. It's not the same in doing and seeing as

1 a result of what you tried and what you did, the
2 type of patterns that are created.

3 Unfortunately, that course will not make you an
4 expert.

5 Q. What would it take to be an expert?

6 A. You start out with the course that
7 gives you the basic tools if taught properly.
8 After that you have to go out and work in this
9 area. It is not an area you will become
10 proficient if you are not working in it.

11 Q. How long do you have to work in it
12 along with other people, I suppose, to get that
13 expertise?

14 A. I think that depends on the analyst.
15 Some come along faster than others, but whatever
16 is suitable for that particular individual, as
17 well as a lot of laboratories have guidelines of
18 training that has to be followed, whatever that
19 lab's guidelines might be.

20 Q. You are now speaking of blood stain
21 pattern analysis?

22 A. Yes, I am.

23 Q. The interpretation of blood stains
24 involves other scientific elements and
25 requirements; is that right?

1 A. Well, I find as a forensic biologist,
2 it is not looking at the patterns, it's looking
3 at the analysis, forensic analysis related to
4 these patterns, be it the DNA, the serology
5 analysis, medical examiner protocols, you know,
6 it's kind of like pieces of a puzzle. More
7 pieces you can recover and put together, the
8 clearer the picture becomes. You can't just
9 restrict this analysis to looking at the
10 patterns.

11 Q. Ultimately, what does a criminalist in
12 the area of blood analysis and interpretation,
13 what ultimately are they trying to do?

14 A. In terms of blood stain pattern
15 analysis?

16 Q. That's correct. Blood stain pattern
17 analysis.

18 Ultimately, what is the goal for all
19 this?

20 A. The goal is to look at the evidence
21 that is there and put it together in a fashion
22 that sticks with the laws of science and
23 interpret it to tell what happened to create
24 those particular patterns.

25 Q. Okay. Let me ask you this: In terms

1 of getting to those answers, is it necessary for
2 the analyst to be on the crime scene as soon as
3 possible?

4 A. I find it's beneficial to attend the
5 crime scene. I also know from quite a few years
6 of experience it doesn't happen on a regular
7 basis.

8 Most blood stain pattern situations
9 aren't realized after the fact after it has been
10 surrendered that they need a blood stain pattern,
11 and you work from documents, notes, documentation
12 that was done involving the crime scene.

13 Sometimes that can be very bad. It depends how
14 well they did in documenting it. Other times it
15 provides the necessary information to do the
16 analysis.

17 Q. If you had a choice to be on the crime
18 scene or look at photographs and notes of others,
19 what would be your preference?

20 A. I would choose to probably tie the two
21 together.

22 My standard procedure, if at all
23 possible, is to attend the crime scene and pull
24 the materials together as I would in a crime
25 scene I don't attend and work the same

1 methodology.

2 Being on the crime scene does help
3 understand how things appear, the lay out of the
4 particular scene, you know. I might see
5 something as a forensic biologist that the crime
6 scene people handling the scene don't see. It's
7 a beneficial perspective I frequently find.

8 Q. How important is documentation at the
9 crime scene?

10 A. Well, the better the documentation is
11 done the more information that is provided and
12 the less objective the analysis becomes
13 essentially.

14 Q. Now, you mentioned the qualifications
15 to be a blood interpreter.

16 A. Yes.

17 Q. Mainly workshops and experiences on the
18 job; is that right?

19 A. And whatever you can supplement. I
20 find it's extremely beneficial in the teaching of
21 workshops, I learn a lot from my students. I
22 look at a bunch of different patterns on a
23 regular basis, as well as having to explain
24 things. Answering questions is beneficial too
25 because it keeps me thinking what is going on and

1 why things happen.

2 Q. In the field of blood stain
3 interpretation, do you recognize the work of Paul
4 Kirk?

5 A. Well, the only materials I have had an
6 opportunity to read concerning Paul Kirk's work
7 is from the transcript of the trial in 1966.
8 There has been a lot of research and publication
9 that's been done since the '70's, and I think a
10 lot of days blood stain pattern analysis relies
11 heavily on the work that has been published since
12 the early '70's rather than the materials before
13 that.

14 Q. And have you read Paul Kirk's
15 publications?

16 A. No, I haven't. Those are rather aged
17 publications and science tends to change on a
18 rapid basis. It tends to be more beneficial to
19 read through the materials that are more recent
20 as well as some of the historic, but I have not
21 read his.

22 Q. You know he had one of the major
23 textbooks in the field of blood stains
24 interpretations in the '50's and '60's?

25 A. I know he had, but I don't know if it

1 dealt with blood stain pattern analysis, but I am
2 aware he had published.

3 Q. Do you recognize the work of Herb
4 MacDonald?

5 A. Herb issued his publication three
6 separate times. It's a good reference source.
7 We used to hand it out in some of my workshops.
8 A lot of his research has helped forward this
9 field of study. There are areas in his field of
10 study that are not uniformly agreed upon.

11 Q. Is this a science in the constant
12 change state of change and reevaluation over
13 time?

14 A. It's not in the constant state of
15 change and reevaluation as with most sciences.
16 As technology improves, improvements come along
17 that assist this particular form of analysis.
18 There is always changes going on with any type of
19 science.

20 Q. You would agree with me there is a
21 subjective element in the interpretation of
22 visual observations?

23 A. There can be. The subjectivity I
24 usually find is a factor of the analysis as well
25 as the quality of documentation, the training,

1 the experience level. It's going to be more
2 subjective with some analyst than others.

3 Q. Do you recognize the work of Bart
4 Epstein?

5 A. I know Bart's work. I know Bart
6 personally. He has done quite a bit of study in
7 this area. In fact the workbook he co-authored
8 with Terry Labor is the book I use in workshops I
9 use.

10 Q. Is this the workshop (indicating)?

11 A. Yes, Blood Stain Pattern Analysis.

12 Q. He's recognized as a colleague in your
13 field that you respect?

14 A. Yeah, I respect Bart. I known him for
15 a long time.

16 I tell you right off the bat, Bart and
17 Terry taught the original shop I went to.

18 Q. He's a bit older than you, right?

19 A. I think Bart's about ten years older
20 than me.

21 Q. You trained under Bart Epstein in terms
22 of his workshop?

23 A. Initially was taught by Bart and Terry
24 Labor. I had considerable amount of training
25 since then.

1 Q. I understand. I also note here there
2 is the name Mark who wrote a forward to this
3 manual.

4 Do you know Mark?

5 A. I known mark for 15 years.

6 Q. I notice that you actually worked on
7 some kind of project with him.

8 A. I believe he came and taught a class
9 years ago in our laboratory, but I've known him.
10 The forensic community is a small community. You
11 know people when you attend meetings.

12 I know Mark when he was back in the
13 laboratory system in Indiana. Before that he was
14 in Michigan. I came out of Michigan State, the
15 university, and interned in the lab there and
16 they used to talk about Mark.

17 Q. Do you know the history of this
18 specialty of blood stain analysis?

19 A. I know some of it. I am not an expert
20 on it or not per se an expert. I am not as well
21 briefed on it as somebody like Herb MacDonald who
22 spent much of his career researching it and
23 finding the articles and the materials involved
24 with it.

25 Q. You indicated you didn't read much of

1 Paul Kirk's work because a lot of changes
2 occurred since then.

3 A. Yes.

4 Q. Do you recognize he was one of the
5 pioneers in terms of blood pattern analysis?

6 A. I understand that he did early work in
7 it and wrote some things on it. I am familiar
8 with that or aware of that aspect of it.

9 Q. Okay. Do you know Peter DeForest?

10 A. I have met Mr. DeForest or Dr. DeForest
11 on several occasions. In fact years ago he
12 reviewed as a consultant a forensic hair exam I
13 had done in my job here.

14 Q. Is he recognized as an eminent
15 criminalist in the field?

16 A. He does a lot of research and
17 publications and all, so he's recognized in that
18 aspect, yes.

19 Q. Let's talk about this case. I had
20 asked someone to ask you to bring all the source
21 material that you used in developing your
22 opinions in this case.

23 A. Yes.

24 Q. Have you brought those with you?

25 A. Yes, I have.

1 Q. Can you produce those so we know what
2 we are dealing with?

3 A. Yes. There is a lot. Mostly
4 transcripts.

5 MR. DEVER: Mr. Wolson, if you can
6 refer to your report, indicate that if
7 there is anything additional other than
8 what it appears on the report that you
9 used, maybe save some time.

10 THE WITNESS: The report lists
11 everything I was provided as of the date I
12 got the report and I haven't written
13 anything additional.

14 BY MR. GILBERT:

15 Q. Let's look at your report. I have some
16 questions.

17 MR. GILBERT: I am not sure I have
18 these items.

19 MR. DEVER: Mark one up.

20 MR. GILBERT: Plaintiff's No. 1.

21 (Thereupon, the referred-to document was
22 marked Plaintiff's Exhibit No. 1 for
23 identification by the court reporter.)

24 BY MR. GILBERT:

25 Q. Before you is Exhibit No. 1. Is that

1 your report?

2 A. This is a copy of the report I e-mailed
3 to Dean Boland, which should match the hard copy
4 I sent him also.

5 Q. Now, let me get in some background
6 questions.

7 How were you contacted in order to be a
8 consultant in this case?

9 A. I received a phone call. I didn't even
10 mark down the date because I receive lots of
11 phone calls. I received a phone call in early
12 1999 asking me if I did consultation in blood
13 stain pattern analysis and related areas by
14 Mr. Boland. I told him I did and he requested a
15 copy of my CV and my fees for doing
16 consultations. I provided him with that
17 material.

18 Q. Okay.

19 A. At a later date he contacted me again
20 and said they would like to retain my services to
21 look at this particular case.

22 I received a letter, I'm not sure of
23 the date of the letter, acknowledging that they
24 were going to retain me as an analyst in this
25 case. I received the letter on April the 30th,

1 1999.

2 Q. Your fees are \$200 an hour minimum
3 charge, expenses, and \$1600 per today is the cap;
4 is that right?

5 A. If I am -- that's travel cap. I find
6 because like many consultants you start the clock
7 ticking when you leave your house and stop it
8 when you come home. It's unreasonable to charge
9 for 24 hours. I cap it at eight hours.

10 Q. So \$200 an hour and cap of \$1600 and
11 your traveling?

12 A. Correct.

13 Q. That is your standard fee?

14 A. Yes, it is.

15 Q. Do you know how Mr. Boland was referred
16 to you?

17 A. I have no idea.

18 Q. When you had your initial conversations
19 with Mr. Boland, did you indicate to him what it
20 was you needed in order to provide an expert
21 opinion in this case?

22 A. I gave him a list of things that I
23 would like to review if they decided to have me
24 look at the case. Things that asked standard on
25 cases when I do them.

1 As time goes on sometimes I will
2 realize there are other materials I need.
3 Whoever I'm working for there are materials that
4 they want me to look at. That list sometimes
5 expands.

6 Q. Look at your report there. Item one
7 you list offense report by Bay Village Police
8 Department.

9 Do you have that with you?

10 A. Yes, I do.

11 Q. Can I take a look at that?

12 A. Sure.

13 Q. Now, number four is preliminary draft
14 of trace evidence report, 29 pages.

15 Do you have that there?

16 A. (Witness hands over document.)

17 Q. All right. This 29 page draft of trace
18 evidence report, in your understanding is this
19 the draft that later became item number three?

20 A. Yes. It appears to be similar, the
21 wording and discussion, layout and all to the
22 best of my knowledge. I assume it was a
23 preliminary draft. It looks like the final
24 report I was provided.

25 Q. Is there anything different in terms of

1 this preliminary draft versus the final draft
2 that you were able to determine?

3 A. To be honest I didn't pay close
4 attention to the preliminary draft because I know
5 that changes take place and wordings take place.
6 I am more interested in the final draft.

7 Q. You look --

8 A. It doesn't necessarily mean that I used
9 it. I would have read it, but I'll put more
10 weight in the final than the preliminary because
11 of changes. You know, you write a preliminary
12 how you are going to issue the wording for the
13 final report.

14 Q. Put that there for a minute.

15 A. (Witness complies.)

16 Q. What is the vital statistics report?

17 A. That is a report that is identified as
18 vital statistics report. If you would like to
19 see it.

20 Q. Did you place any reliance on your
21 document in terms of your report?

22 A. Not that I recall.

23 A lot of these reports what they do is
24 they give me an idea how the crime scene appears,
25 what people's perceptions were and all to help me

1 piece it together.

2 Q. You have the photographs that were sent
3 to you on November 15, 1999?

4 A. Yes, I do.

5 Q. We will put those out there.

6 Number 11, the document describing the
7 examination of State's Exhibit 26-A.

8 A. Yes, that's November 26, 1999.

9 Q. We will get into that later.

10 You had various computer scanned
11 images?

12 A. There were two CDs of images that were
13 provided to me.

14 Q. Did you look at those?

15 A. Yes, I did.

16 Q. Did that include the crime scene as
17 well?

18 A. The crime scene, the watches, models of
19 head showing injuries, several things they
20 provided me with on the same day I received the
21 26-A report with the CDs. They provided me those
22 that show small thumbnails of the images on them.

23 Q. You received Bart Epstein's report; is
24 that right?

25 A. Yes, I did.

1 Q. Is there any reasons why there were two
2 different dates sent to you?

3 A. Yes. The original fax appeared to me
4 that one of the pages may have been messed up in
5 transmission. I asked him to send it to me the
6 second time to make sure I had the complete
7 report.

8 Q. You looked at the DNA materials that
9 were sent to you?

10 A. Yes, I did.

11 Q. From the work of Mohammad Tahir?

12 A. Yes.

13 Q. Do you know him?

14 A. We had met on a couple of occasions.

15 Q. Are you aware of his work on DNA?

16 A. I am not familiar with much of
17 Mohammad's work. I can't comment on it. I know
18 he has published and that he does work in the DNA
19 area, but I am not familiar beyond that point.

20 Q. Are you aware of the DNA advisory board
21 of the Federal Bureau of Investigation?

22 A. As a DNA expert, how can you not be?

23 Q. Do you know he's a member of the DNA
24 Board?

25 A. I am not aware.

1 Q. Are you aware of the Twigdam?

2 A. It's Swigdam. They changed their name.
3 Yes, I am.

4 Q. Let me ask you on this report that you
5 prepared; is there anything outside of what is
6 contained in your report that you have reflected
7 on or have an opinion on that is not contained
8 herein?

9 A. I hope that the report covers all my
10 opinions. This was such an extensive case, it's
11 always possible something was overlooked. I
12 tried to be inclusive.

13 The only thing that is brought in from
14 the outside to the best of my knowledge in terms
15 of information, when you read the section dealing
16 with F, blood stain patterns on Sheppard's pants,
17 I did additional research in articles concerning
18 the benzidine versus the luminal.

19 Q. In terms of looking at any other
20 evidence in this case or physical evidence in
21 this case, what you have listed here that you
22 have examined is what you are prepared to testify
23 to and nothing more?

24 A. What is listed here is everything
25 provided to me by date as of this date and that

1 is what I wrote the report based on.

2 Q. Were you asked by anyone from the
3 prosecutor's office to look at certain things?
4 Did you have a consultation with any members of
5 the prosecutor's office and asked you to look at
6 specific items in this case?

7 A. They have called and I have called them
8 and they called me and I asked specific items and
9 they had questions and I had questions what I
10 thought on it. There was nothing that definitely
11 look at this part and pay heavy attention to it
12 versus the other stuff.

13 Q. There were quite a bit more physical
14 items that were looked in to this case besides
15 what you examined; is that right?

16 A. By other analysis?

17 Q. Let's look at the trace evidence report
18 of Mary Cowan.

19 If you look at that would you agree
20 there were items examined forensically that you
21 did not include -- you did not evaluate or offer
22 an opinion on; is that right?

23 A. That is correct.

24 Q. You didn't look at the hair tissue; is
25 that right?

1 A. That's correct.

2 Q. You didn't look at the sheet issue?

3 A. Could you specify what you mean the
4 sheet issue.

5 Q. There was an evaluation on page three.
6 There is an evaluation of the sheet?

7 A. As I said, I read the report. I may
8 have made notes possibly on the sheet and hair
9 comparisons, but they were not --

10 Q. Significant.

11 A. They weren't things that seemed to
12 apply to the evaluation that I was doing.

13 Q. Did you look at any reports regarding a
14 t-shirt that was found approximately ten days
15 after the murder?

16 A. Not that I recall.

17 Q. Okay. Did you ever see a report in
18 which Mary Cowan attempted to determine whether
19 there was blood found on a t-shirt that was
20 ripped along one side of the armpit area that was
21 found in the water about a week later; did you
22 check that out?

23 A. I don't recall seeing a report
24 concerning that.

25 Q. Did you examine the issue of the sand

1 found in the cuffs and pants of Dr. Sheppard's
2 trousers? I mean the cuffs and pockets of
3 Dr. Sheppard's trousers, did you make any
4 interpretation regarding that?

5 A. No, I didn't.

6 Q. Did you look at Mary Cowan's analysis
7 of a stain on the trousers and compare it to a
8 stain on the bed sheet?

9 A. Are you talking about the particular
10 stain that people refer to as hemolyzed on the
11 trousers and sheet?

12 Q. Right. Did you do an evaluation on
13 that issue?

14 A. Not as in depth as others did. I
15 looked at things like her comment on the height
16 on the trousers in relation to the bed, and I
17 looked at the pictures, assuming I'm picking the
18 right stain in the bed in relation to things of
19 that nature. The trousers I found the DNA
20 information of interest.

21 Q. We will get in to that.

22 In terms of the issue of the hemolyzed
23 blood on the trousers as to whether or not the
24 blood came first and then the water or water came
25 first and then the blood, did you look at that

1 issue?

2 A. I wasn't provided, to the best of my
3 knowledge, pictures of the trousers. I wouldn't
4 have been able to evaluate.

5 At this point I have not been able to
6 evaluate that aspect. I have not seen photos of
7 the trousers.

8 Q. Did you read Paul Kirk's discussion of
9 that in his testimony?

10 A. If I recall it was his opinion that the
11 pants were wet then the blood came second.

12 Q. Correct.

13 A. If I recall Mary Cowan had the opposite
14 opinion: That the blood was there and then it
15 got wet.

16 Q. Do you have an opinion regarding who is
17 right on that issue?

18 A. Without having seen photos, I can't
19 make any type of conclusion.

20 Q. The analysis that Paul Kirk did, do you
21 have any dispute as to the methodology he used or
22 logic that he used when he came up with his
23 opinion?

24 A. I don't per se know the methodology or
25 logic he used. I don't recall that being

1 elaborated on in the materials that I read.

2 Q. Did you look at Dr. Kirk's affidavit
3 that was prepared in this case back in 1955?

4 A. No. The only thing I had of Dr. Kirk's
5 was a transcript from the 1966 trial.

6 Q. If you go to page two of your report.

7 A. Okay.

8 Q. With respect to A: Position of Marilyn
9 Sheppard's body.

10 A. Right.

11 Q. You concluded based on the crime scene
12 photographs showing where Marilyn Sheppard's body
13 was positioned that the blood stains on the bed
14 and surrounding areas were consistent with
15 Marilyn Sheppard being struck where she laid; is
16 that right?

17 A. That's the way everything appeared
18 looking at the photos.

19 Q. Would you agree with me that the blood
20 that you found on the surrounding areas on the
21 bed was produced in the course of the brutal
22 assault on her; is that correct?

23 A. Well, the patterns that appear to be
24 present on the bed appear to be impact patterns.
25 Those would be consistent with something hitting

1 in to the blood source. In this case we have to
2 assumed the blood source was her head.

3 Q. Do you have an opinion as to whether
4 her body was moved subsequent to the beating?

5 A. I didn't see anything to indicate that.

6 Q. Based on your review --

7 MR. DEVER: Are you done with your
8 answer?

9 THE WITNESS: Based on the material I
10 was provided with, I can only go based on
11 those materials.

12 BY MR. GILBERT:

13 Q. We can agree that everything you have
14 done here is based on those materials. All your
15 opinions are based at least in terms of what you
16 saw in this case was from the materials you were
17 provided; is that right?

18 A. That's correct.

19 Q. The materials you were provided with,
20 there is nothing that indicates to you that her
21 body was moved after the beating?

22 A. There is nothing I saw in the materials
23 that indicated that.

24 Q. Do you happen to have any of the
25 photographs of the room?

1 A. Those were provided to me as well as
2 the two CD rooms on November 16, 1999. I did
3 print out some of the materials that were scanned
4 either by myself or on the CDs. Most of them I
5 scanned the photos and printed them out also so I
6 have a record.

7 Q. Just taking one of the pictures here of
8 the position of Marilyn Sheppard's body.

9 You would agree with me that there is a
10 large soaking stain below and adjacent to her
11 head?

12 A. There is a lot of bleed out, blood
13 staining on the mattress, yes. This is labeled
14 as set No. 3, 1107, the picture we are talking
15 about.

16 Q. Does that confirm your opinion that
17 that's where she was beaten?

18 A. What that confirms, looking at the
19 bleed out, is that after blood flow begins, the
20 blood flow has to be in relation to that area for
21 a long period of time.

22 What I was looking at in terms of the
23 beating is the impact pattern you can see on the
24 bedding and surrounding areas which appear to
25 point back to the approximate area her head is

1 positioned.

2 Q. So you agree that the blood stain
3 pattern radiated from her head at that position;
4 is that correct?

5 A. Well, that appears to be the case, that
6 her head was somewhere in this (indicating)
7 position.

8 Q. When the beating concluded could you
9 say within a reasonable degree of certainty
10 that's where her body was, in that position when
11 the beating concluded and remained that way until
12 that photograph was taken?

13 A. Well, looking at the patterns they
14 indicate that. But with all that bleed out is it
15 possible the bleed out covered up patterns of
16 blood that indicate there was movement? I don't
17 know.

18 Q. It's a reasonably safe call that if
19 there was movement, it was not appreciable; is
20 that right?

21 A. All I can tell you is the impact
22 patterns appear to radiate out from this position
23 here (indicating), and that indicates that at
24 least during the beating that created those
25 patterns. This (indicating) was probably her

1 position.

2 Q. Showing you another photograph. Thank
3 you for calling my attention to the numerical
4 sequence here.

5 This is set No. 3, 1109.

6 A. This is a close up of it approximately
7 from the neck of the victim down to apparently
8 her waist area, which is covered by a blanket or
9 a sheet, and it shows her left hand laying across
10 her stomach, shirt pulled up and right arm is
11 extended with the hand down under the blanket or
12 sheet that's covering the lower torso.

13 Q. Let me ask you: You see blood stains
14 on Marilyn Sheppard's abdominal area?

15 A. In terms of patterning, there appears
16 to be a few stains, but her abdominal area does
17 not appear to be overly bloody from these
18 pictures.

19 The thing that stands up for me is the
20 covering. The materials laying over her lower
21 body don't appear to be blood stained.

22 Q. Well, if I told you that was put on
23 there later on to cover up her private parts,
24 would that help you in understanding that?

25 A. Yes. That would be a reasonable

1 explanation.

2 Q. Would you agree with me at least from
3 this photograph there are potential blood smears
4 on her abdominal area?

5 A. There appears to be, could be blood
6 stain areas.

7 Q. This is a black and white photograph.
8 Without actually either seeing a color
9 photograph or seeing it firsthand, you can't say
10 for sure if it's blood or not?

11 A. Right.

12 Q. Let's assume it's blood. If it is
13 blood, it looks like smears, does it not?

14 A. It looks like some type of contact
15 place between her and her abdomen.

16 Q. In your evaluation in this case, did
17 you do any observation about the origin of those
18 smears?

19 A. No, I didn't.

20 Q. Showing you what is marked as set
21 No. 3, 1108. Another photograph closer up in
22 that area.

23 Does it help you in any way to identify
24 the nature of those assumed blood stains?

25 A. No. Speaking from experience on these

1 things, when the victim is this bloody, it's not
2 unusual to find smears on their body, especially
3 if you see a bloody hand in close relationship to
4 the area you are talking about.

5 Q. It's possible the bloody hand could
6 have caused the smears?

7 A. Anything bloody coming into contact,
8 but the hand is closer to it.

9 Q. You didn't indicate that earlier?

10 A. That is right.

11 Q. Could you know whether or not anyone
12 connected in this case back in 1954 looked at the
13 origin and nature of those stains in relationship
14 to this crime?

15 A. I don't recall seeing discussion of
16 those in those materials.

17 Q. Calling your attention to her hand.

18 A. Yes.

19 Q. Do you see on her left hand below the
20 wrist area some streaming of what looks like
21 blood?

22 A. There appears to be a large possible
23 blood stain with possible flow pattern moving
24 towards her fingers.

25 Q. Did you do an analysis of that?

1 A. No, I didn't.

2 Q. You are not prepared to give an opinion
3 as to the origin or nature of that stain?

4 A. Not at this time.

5 Q. Would that be something that had been
6 at the crime scene or crime scene investigation
7 under your direction; would that be something you
8 would look at?

9 A. I think it depends on the crime scene,
10 so --

11 Q. What are the potential causes of such a
12 stain?

13 A. Well, one potential cause is if there
14 is a large amount of blood deposited in that area
15 of the hand and it's in a position to allow the
16 blood to flow in the direction of gravity, you
17 might see a pattern like that.

18 Other potential causes I can't have any
19 at this point, but I think we can come up with
20 some experimentally if necessary.

21 Q. You are aware that Mrs. Sheppard's
22 watch was found at the scene of the crime?

23 A. Yes, I am.

24 Q. So a competent investigator would
25 perhaps think there might be a relationship

1 between a watch and that hand or that wrist in
2 terms of understanding the crime scene; is that
3 correct?

4 A. It's possible, but again this looks
5 more, looking at the picture, 1108, that we are
6 talking about -- those look more like flow
7 pattern other than something dragged across the
8 blood to create those streaks in it.

9 Q. You don't feel you have enough
10 information to make an opinion?

11 A. It's not a good picture of it, so we
12 can't see the detail to help determine if it's a
13 flow pattern versus a bloody object or something
14 being dragged through the blood or bloody object
15 being dragged across the hand.

16 Q. Could be though?

17 A. Well, without enough detail, I can't
18 tell you.

19 Q. That is something that somebody would
20 do to test on or try to look at that and make
21 some informed judgments at the time if there is a
22 watch belonging to her; a murdered woman with no
23 watch and the watch is found in an unlikely
24 place, one would want to see if there is a
25 connection between the two?

1 A. I think we could attempt to ascertain
2 if she was wearing the watch at the time of the
3 beating, but it may not be possible to make that
4 determination.

5 Q. Okay. On B of page two.

6 A. Commission of assailant during
7 bloodshed.

8 Q. I think, correct me if I am wrong, that
9 you would agree from looking at Paul Kirk's notes
10 and testimony and photographs that he took and
11 measurements he took at the crime scene in the
12 murder room, you would agree that there was a
13 void in an area where it was obstructed by the
14 blood pattern impact?

15 A. What it is that there is a void based
16 on a review of the photos and notes, one
17 reasonable explanation what causes a void is
18 there was an intermediate target splattered by
19 the blood and that was removed.

20 If you go by that assumption, because
21 there is blood on all the -- blood on the walls
22 and ceiling, according to the notes, and the
23 photos show an extensive amount of blood.
24 Explanation is there was an intermediate target,
25 but nothing that excludes beyond a reasonable

1 doubt that blood didn't get thrown in that
2 direction. I would have to agree reasonable
3 explanation there was something there that was
4 removed after bloodshed.

5 Q. You say that if the assailant was
6 standing at the foot of the bed while striking
7 Marilyn Sheppard's bed obstructing the northeast
8 corner this would be it?

9 A. Right. I'm agreeing under that
10 scenario that could explain that void, yes.

11 Q. Of all the material that you reviewed
12 in this case, and given your experience, can you
13 tell me what else could have caused that void
14 other than a perpetrator or a assailant in this
15 case?

16 A. I know from my experience as well as in
17 the literature that the blood is pushed in the
18 direction the blood flies in depends on the
19 impact to it. It is possible to not have the
20 blood pushed in all directions. In fact it's in
21 the literature.

22 I had one case that I can think of, the
23 assailant on a bloody crime scene appeared to be
24 pretty much blood free. There is always that
25 possibility that no blood was pushed in that

1 direction. It's not the norm for that to happen.

2 Q. I am not asking about your other cases,
3 I'm asking about this case.

4 What is the most reasonable explanation
5 for what was obstructing, what entity was
6 obstructing that impact, that velocity blood?

7 A. Assuming that blood was put in flight
8 in all directions, then the most reasonable
9 intermediate target would be, my opinion, was
10 whoever was doing the beating.

11 Q. Did you have any criticism of Paul
12 Kirk's conclusion that there was a void?

13 A. No. I agree.

14 Q. You agree with that?

15 A. Yes.

16 Q. Assuming that the assailant was
17 obstructing the access of the blood to that area
18 of the wall that we are talking about, the
19 northeast corner of the bedroom --

20 A. Yes.

21 Q. -- assuming that for a moment. Can you
22 based on what you saw of the amount of impact
23 blood in that room and the amount of blood on her
24 body and amount of blood on the bed, do you have
25 any idea how much blood you would expect to see

1 on the clothing of the assailant?

2 A. No.

3 Q. There would be a lot, wouldn't there?

4 A. Again, it depends on what direction the
5 blood is being pushed in by the force of the
6 impact. If a majority of blood is being pushed
7 away from the assailant, I would not expect to
8 see a lot. If there was a lot of blood, if it
9 was pushed, a lot of blood, then we would see a
10 lot. I don't know those variables.

11 Q. Well, you saw the blood to the one side
12 of the void, and you saw the blood on the other
13 side of the void?

14 A. That's correct.

15 Q. And the amount of blood on each side of
16 the void and number of spatters, were they of
17 similar amounts?

18 A. No. I think there's more blood in the
19 pictures to the bedroom door side of the scene
20 than there is to the side of the windows at the
21 foot of the bed.

22 Q. Because it's a further distance?

23 A. Either because it's further distance or
24 forces in flight were more in the other
25 direction.

1 Q. You would agree with me that there
2 would have to be blood on the assailant given the
3 violent nature of that crime and amount of blood
4 that was flying all over the place?

5 A. I would agree we would most likely
6 expect to find blood on him, but there are no
7 guarantees that would be the case. It's
8 documented in the literature that can happen.

9 Q. Was there anything in this case that
10 you can say you can guarantee?

11 A. This is blood stain pattern analysis,
12 there is not a lot of guarantees in it.

13 Q. I know you are basically saying as we
14 go through this that there are things likely, but
15 you can't rule out the other side and that kind
16 of thing?

17 A. Right. When you do this analysis, what
18 you try to do is look at all the scenarios
19 possible and see which evidence supports and
20 denies the scenarios and rule out whatever
21 possible.

22 Q. Given that caution that you express,
23 and I understand that, let's deal in likelihoods
24 as opposed to absolutes.

25 A. Okay.

1 Q. The likelihood is that the person that
2 committed this crime and created that void would
3 have blood on him; would you agree on that?

4 A. Well, I think there is a better than
5 not chance they would have gotten blood on them.

6 Q. Did you look at the height of the blood
7 stain patterns on the wall and then the doors
8 adjacent to the bed, you know, where the wardrobe
9 doors are, did you look at the height and length?

10 A. That's one of the factors I would have
11 taken a look at.

12 Q. Look at 1085.

13 A. That shows the doors.

14 Q. Looking at that.

15 A. Okay.

16 Q. Do you see how high and how low the
17 blood pattern goes?

18 A. The majority of the blood deposited on
19 the doors occur from the middle on down
20 height-wise. Most of it below the level of the
21 door knobs.

22 Q. And it went below the height of the
23 bed, right?

24 A. Yes, some of it is going to be below
25 the height of the bed.

1 Q. If blood was going below the height of
2 the bed and it was also flying in the direction
3 where the void is, would you expect to see blood
4 from the point where the bed is and the
5 perpetrator is on up?

6 A. I am not sure I understand what you are
7 asking me.

8 Q. Right. I didn't artfully ask that
9 question.

10 If the perpetrator was standing next to
11 the bed beating Marilyn Sheppard, would you
12 expect to see blood from the point where her legs
13 are exposed beyond the height of the bed?

14 A. That's a possibility, yes.

15 Q. Generally speaking -- is it doctor or
16 Mister?

17 A. Mister.

18 Q. Mr. Wolson, I would call you "Terry",
19 but we are both in the same boat here.

20 A. But my name is "Toby".

21 Q. Toby, when you are in a crime scene, do
22 you look for different origins of blood?

23 A. If that's what is called for in that
24 particular crime scene, yes.

25 Q. If you were doing this crime scene

1 here, would you look for different origins of
2 blood?

3 A. You know it's kind of like Monday
4 morning quarterbacking.

5 Q. Isn't that what this case is about?

6 A. For some people it is. For me it's
7 looking at the available evidence and looking at
8 it from a scientific point of view.

9 Would it have been beneficial to
10 reconstruct these patterns? I don't know.
11 Sometimes you don't learn anything you can't see
12 just by looking at the patterns.

13 They are impact patterns. They appear
14 to be consistent with low blood source, low in
15 height such as laying on the bed. They appear to
16 be consistent with originating from the bed.

17 Are we looking to find out what we
18 already can tell or something that we can't tell?
19 I don't know if these patterns reconstructing
20 them would have been different.

21 BY MR. GILBERT:

22 Q. Let's talk about other blood in the
23 room.

24 A. Okay.

25 Q. Would you want to look for other

1 origins of blood other than patterns on the wall?
2 Would that be a standard inquiry to be made in
3 the course of a crime scene investigation?

4 A. Yes, I would be looking for patterns or
5 blood that stands out as not fitting in because
6 those may tell me something additional of the
7 circumstances of the evidence, incident, or
8 something that took place in relation to the
9 incident.

10 Q. If there is another origin of the blood
11 not of the victim's, that can tell you something
12 about a potential perpetrator; is that right?

13 A. It's possible if you were to find more
14 than one blood type on the scene. That in many
15 cases would be important information.

16 Q. Important because it could identify the
17 perpetrator?

18 A. Not by identifying the perpetrator, but
19 give you information where they may have been
20 within the scene.

21 Q. Isn't that what DNA work is all about,
22 to try to find -- try to identify sources of
23 blood?

24 A. Sure. When we are doing DNA analysis,
25 we are trying to find out if we have more than

1 one person's DNA and where is it within that
2 particular crime situation.

3 Q. Before DNA we had blood grouping?

4 A. Blood grouping, but clearly was not as
5 probative to as to DNA analysis.

6 Q. Agreed. The same reasoning went behind
7 blood grouping as DNA which is a more
8 discriminating way of identifying the source of
9 biological fluids?

10 A. That's correct. You are trying to find
11 information about the contributors.

12 Q. This was a crime that involved a
13 violent confrontation between two people; is that
14 right?

15 A. It appears so, yes.

16 Q. One would look to see if there was any
17 kind of injury on the part of the perpetrator; is
18 that right?

19 A. I would look for some type of
20 patterning that might assist me in showing that
21 they were injured and do analysis of the samples,
22 if present.

23 Q. Do you know whether or not in this case
24 there was any blood grouping worked on in the
25 crime scene, the murder room?

1 A. There was.

2 Q. By the original investigators?

3 A. There appears to be some attempt by
4 Mary Cowan. Many of her results are based on her
5 report, so she chose to say "inconclusive".

6 Q. Show me where that was in the actual
7 crime scene room.

8 A. I know from her reports or maybe in
9 conversations with the prosecutor, Mr. Dean, I
10 don't recall offhand, some typing was tried that
11 stood out on the closet door, on the stains of
12 Sam Sheppard's pants.

13 Q. I'm talking about the room.

14 In the room, the bedroom where Marilyn
15 Sheppard was murdered, do you know whether or not
16 there was any blood grouping work done in that
17 room?

18 A. I'm going to have to refer to my notes
19 on Mary Cowan's analysis.

20 Q. Go ahead.

21 A. The sheet was tested so that's from the
22 room.

23 Q. Okay. That was done in order to get a
24 type of the victim or was it? Do you have any
25 idea why that was done?

1 A. No, I don't know. Apparently, Dr. Kirk
2 attempted blood grouping on the stains from the
3 closet door.

4 Q. I know that. I'm talking about the
5 original Cuyahoga County officials involved in
6 the forensic analysis of this case, whether or
7 not any blood grouping work was done in the
8 bedroom where the violent confrontation occurred.

9 A. I'm almost done.

10 Q. Okay.

11 A. My notes don't appear to indicate what
12 type of blood typing or Mary did in the room as
13 it stands right now.

14 Q. Looking at D. Blood stains in the
15 closet door.

16 You indicated that the two blood stains
17 that had an appearance different from the blood
18 stains that were surrounding them.

19 You saw that?

20 A. There are two stains that appear to be
21 larger than the stains on the door, yes.

22 Q. You also observed they do not appear
23 consistent with the surrounding impact patterns?

24 A. That's correct.

25 Q. You indicate that that indicates that

1 the blood stains were deposited on the closet
2 door by some other mechanism other than the
3 forceful impacts of the murder weapon and blood
4 source; is that right?

5 A. That's what I wrote on my report.

6 Q. You stand by that?

7 A. I have no reason not to.

8 Q. Now, when you see blood stains in a
9 crime scene like this that appear to be of a
10 different origin than the impact spatter, what do
11 you do?

12 A. Under current standards?

13 Q. Under current standards.

14 A. I would collect those stains and
15 analyze them.

16 Q. You would do DNA work, right?

17 A. That's correct.

18 Q. Back then was the forensic science
19 capable of doing blood grouping at that time on
20 those stains?

21 A. They apparently were doing blood
22 grouping, but the methodology absorption is
23 rather primitive and doesn't always tell you the
24 blood group.

25 Q. But you would agree that that would

1 have been an area you would have looked in to?

2 A. Under today's standards, yes.

3 Q. Why?

4 A. Because my experience dictates that
5 stains that stand out sometimes are not from our
6 victims from the crime scene.

7 Q. That might provide some information or
8 lead to information regarding a perpetrator,
9 right?

10 A. If analysis shows that the victim did
11 not contribute to that sample, yes.

12 Q. In fact, today, under today's
13 standards, oftentimes you look at biological
14 fluids that may be from the perpetrator in a
15 violent crime; is that right?

16 A. I think that's always been the case,
17 even under the old means of technology. That's
18 why you are doing this.

19 You are looking for transfers of
20 biological material between the victim and the
21 defendant and the crime scene and the victim and
22 the defendant and whatever.

23 Q. Especially in rape cases, right? There
24 is physical contact between victim and assailant,
25 there is always a chance there may be deposits of

1 blood, seminal fluid, saliva, all things that can
2 be tested?

3 A. That is correct.

4 Q. You concede that the two blood stains
5 that were different could have originated from an
6 injury to the assailant?

7 A. I can't exclude that possibility.

8 Q. Did you consider what kind of injury
9 could that have come from?

10 A. The stains don't tell me what kind of
11 injury if you assume it's from an injury. It
12 tells me if it was from the assailant and they
13 were injured they left blood behind.

14 Q. In terms of blood crime scene, is that
15 something you can get into?

16 A. I don't think you can tell other than
17 some type of injury that allowed blood flow to
18 create those stains.

19 Q. It could have come from a finger or
20 appendage?

21 A. Could have been any kind of injury that
22 allowed blood to flow and hit the door.

23 Q. Do you know how that blood -- you
24 looked at those stains close up from photographs
25 as well as from a distance?

1 A. There are close-up pictures of them.

2 Q. Can you tell me how that stain got
3 deposited there? Not the source of the injury
4 necessarily, but the nature of the transfer, if
5 that's the right word.

6 A. Transfer usually refers to direct
7 contact, whatever the blood source is. Doesn't
8 appear to be transfer. I can't tell you if it's
9 blood dripping or put in flight that doesn't hit
10 anything and is falling back if it was cast off
11 of an item. There is not enough there to
12 differentiate what the mechanism was that
13 deposited those stains.

14 Q. The only way to really specifically
15 deal with the origin of that stain nowadays would
16 be through DNA testing; is that right?

17 A. It would be very helpful in a situation
18 like this, yes.

19 Q. Now, the pillow; what can you say about
20 the pillow?

21 A. As the report indicates the photographs
22 reveal impact blood stains on both sides
23 consistent with the position of the pillow being
24 changed during bloodshed. Present on both sides
25 are large blood stains being in direct contact

1 with the blood source. The large stains could
2 not be identified from this particular
3 documentation.

4 Q. You have the photographs here of the
5 pillow?

6 A. They are in this pile we have gone
7 through. No, they were digitized.

8 One second. I printed those digital
9 images out. Those are the two digital images of
10 the pillow.

11 MR. GILBERT: Maybe we should mark
12 these now. We will do a Xerox.

13 (Thereupon, the referred-to document was
14 marked Plaintiff's Exhibit Nos. 2 and 3 for
15 identification by the court reporter.)

16 BY MR. GILBERT:

17 Q. Showing you Exhibit 2 and 3. Two is
18 the pillow; is that right?

19 A. Yes, it is.

20 Q. Do you know what side are we talking
21 about? Was that the side facing down on the
22 sheet?

23 A. I would have to look back at the
24 overall room photographs to determine if we can
25 tell you which side it is, something that shows

1 the pillow. I can't at this moment. I can't
2 give you an opinion.

3 Q. But you agree that the pillow, the
4 pillow's position was changed during the course
5 of the bloodshed?

6 A. It appears that's the case, yes.

7 Q. Did you read this report by James
8 Wensol, the photographer?

9 A. Yes, I did.

10 Q. Do you know what he concluded?

11 A. (No response.)

12 Q. Let's make it clear. He is not a blood
13 stain pattern analysis guy, is he?

14 A. Not that I know.

15 Q. Did you read his conclusions?

16 A. Yes, I did, but I don't recall offhand
17 what they were.

18 Q. Okay. We will get into that in a
19 minute.

20 When you talk about the transfer
21 patterns, what are you referring to?

22 A. These large bloody areas you see on
23 both sides, those are most usually caused by
24 coming in direct contact with the blood.

25 Q. Basically all you looked at was the two

1 large areas separated by some space; is that
2 right?

3 A. Yes.

4 Q. Can you tell us how those stains got
5 there?

6 A. All I can tell you is that the most
7 common cause of those is that it's by direct
8 contact by a liquid blood source. As to what the
9 liquid blood source was or what it was on, I
10 can't tell you that. I don't think there is
11 enough detail in these photographs to tell you
12 that.

13 Q. What are the different possibilities?

14 A. For what?

15 Q. The pattern.

16 A. There is just not enough definition
17 here. Everything would be kind of guessing,
18 wouldn't it?

19 Q. Right. When you look at stains like
20 that, you are really guessing at this point.

21 For my own edification I would like to
22 know what are the various sources of that
23 pattern, of that kind of a pattern.

24 A. It's a nondescript pattern. I can't
25 tell you what it was transferred from.

1 Sometimes when you look at these
2 patterns they have a shape that gives you an idea
3 what they were transferred on, sometimes they
4 don't, like this (indicating). Other times you
5 might have the weapon or whatever was coated with
6 blood and you can compare the shape of that to
7 see if it's a possible transfer. We don't have
8 it in this particular situation.

9 All I can tell you is that these are
10 transfer-type patterns. What they were
11 transferred from? I don't know.

12 Q. But in general transfer patterns can
13 come from a bloody face; is that one possibility?

14 A. Anything coated with liquid blood that
15 comes in contact with another surface can.

16 Q. Well, how about the bloody pool on the
17 sheet?

18 A. Possibly. If there is a bloody pool on
19 the sheet and these came in contact, that's a
20 possibility.

21 Q. How about the folding of the pillows to
22 itself?

23 A. If there was blood on one of the
24 surfaces and it was wet, that is a possibility.
25 The key point here what I can see, we don't know

1 the mechanism or transfer. There is not enough
2 definition.

3 You can come up with a million and one
4 possibilities and we can't say exclude or not.

5 Q. Did you look at this area over here
6 (indicating)?

7 A. Referring to the large stain in the
8 center?

9 Q. Yes. Where there is some kind of
10 border and some apparent symmetry there I guess.

11 A. One edge of that large stain looks kind
12 of rounded, but I don't know if there is symmetry
13 there.

14 In these pictures there is not the
15 detail I need to give you much more than I have
16 said.

17 Q. You got this 12 page report from -- or
18 not 12 pages -- nine page report from -- they
19 didn't copy the whole thing -- from Wensol.

20 A. I received a copy of it, yes.

21 Q. He did some experiments, right?

22 A. That's what he says in the report.

23 Q. You didn't supervise these experiments,
24 did you?

25 A. No.

1 Q. You had nothing to do with it?

2 A. That is correct.

3 Q. Do you know what they did?

4 A. I know that he tried to evaluate blood
5 trails, that he tried to evaluate the patterns on
6 the pillow, he tried to evaluate the pattern on
7 the watches, a lot of it using the use of
8 computers and digital images.

9 Q. In terms of the pillow experiments, did
10 you review what he did?

11 A. He looked at drying times, if I
12 remember correctly.

13 Let's find the page where he talks
14 about it.

15 Q. Okay.

16 A. Weapon imprint on the pillow starts on
17 page eight of his report. Let me refresh my
18 memory and review what he wrote.

19 Q. Have you reviewed that?

20 A. Yes, I just read it.

21 Q. What did he do?

22 A. Well, he looked to see the various
23 explanations that people have given over the
24 years concerning the patterns on this pillow, and
25 to see if he could shed some light on them

1 through experimentation using blood, large
2 volumes of blood. What type of transfers we may
3 get if it was sitting on a pool of blood or
4 something that is bloody if it was transferred
5 from various different instruments such as a
6 1950-style flashlight. Could it result as a
7 result of the pillow folding itself? He tried to
8 examine the different explanations for these
9 patterns provided to date.

10 Q. You do experiments from time to time,
11 correct?

12 A. When necessary.

13 Q. Was this a valid experiment?

14 A. It sounds like it based on what he
15 wrote and all. It sounds like he attempted to
16 control the science and do a good scientific
17 experiment. I have no reason to think he didn't.
18 Not having been present to witness this, I can't
19 tell you what he did or didn't do.

20 Q. Did you believe that he simulated, used
21 all the possible variables that could have been
22 involved in this crime scene in terms of the
23 fabric, different possibilities and that type of
24 thing?

25 A. It's not indicated in this report how

1 many of the variables he attempted to control in
2 terms of the total numbers.

3 Q. Do you agree with his conclusions?

4 A. Well, I have no reason to disagree with
5 his conclusions for most of this based on what he
6 is saying. Not having seen his test results and
7 data, I can't say necessarily whether it's right
8 or wrong.

9 Probably the area that I have a
10 difficulty that he does write in his conclusion
11 is 10 millimeters of blood dried for a time
12 period greater than two hours. It's extremely
13 difficult to set drying times. You can't do it
14 in a good fashion.

15 What we can tell based on what he is
16 saying is that the only way he didn't get
17 transfer back to the bed when the pillow was
18 flipped was that the stains were dried.

19 Assuming that information is correct,
20 when this pillow was flipped, barring we don't
21 see transfer back to that, the stains were dry or
22 very near dry, so they didn't transfer blood back
23 when the pillow was flipped.

24 The time it takes I don't think we can
25 say it was one hour or two hours. All we can say

1 is that it appears to be dry or nearly dry at the
2 time it was flipped.

3 Q. No one knows whether or not the pillow
4 was weighted and flushed against the sheet of the
5 bed?

6 A. No.

7 Q. There is no indication whether that
8 pillow had sufficient weight on it to leave a
9 pattern on the sheet?

10 A. There is no indication that weight
11 would be required with the size of the stain
12 pattern neither. It may or may not.

13 Q. He seems to be saying, if I am not
14 mistaken, this murder occurred and two hours
15 later somebody put transferred blood on that
16 pillow; is that what he is saying?

17 A. I think when you interpret, yeah, he
18 might be trying to say one of these large stains
19 on one side of the pillow was deposited at a
20 considerable period of time after the incident
21 occurred.

22 Q. You can't make that determination, can
23 you?

24 A. It depends on the crime scene really if
25 you can make that determination or not. I don't

1 think we have enough in these pictures for us to
2 tell us that at this point.

3 Q. But you looked at the pillow, the
4 pictures, and based upon your experience, all
5 that deposit was consistent with the pillow being
6 changed during bloodshed which is during the
7 course of the beating?

8 A. What I am saying is that there is
9 impact patterns on both sides of the pillow. The
10 only way that can happen is both the surfaces
11 being exposed to the blood source while the blood
12 is being put in flight.

13 Q. That would be more of an indicator than
14 Jim's test?

15 A. We are talking about different things
16 here: One is position of the blood while being
17 put in flight, the other is looking at transfer
18 patterns. They don't necessarily shed light on
19 each other.

20 Q. You believe that the pattern, the
21 impact pattern on both sides of the pillow
22 indicated that it had -- both sides of the pillow
23 had to have impact spatter during the course of
24 the blows to her body; is that right?

25 A. What it tells me is that both sides of

1 the pillow were targets, and we are assuming it
2 was during the course of the beatings to our
3 victim here. We have no reason to assume
4 otherwise.

5 Q. All right. Can you give me a rational
6 explanation how blood would have been put on that
7 pillow over two hours later, how that could have
8 happened?

9 A. Well, you know, if it's being moved or
10 if it's repositioned and comes in contact with
11 liquid, wet blood, that could account for those
12 patterns.

13 Q. That's a speculative kind of scenario,
14 right? There is nothing in this case that
15 suggests to you that somehow blood was put on
16 that pillow two and a half hours after the murder
17 was concluded?

18 A. There is nothing to indicate that, but
19 there is nothing that says it didn't happen
20 either. This would be one of those questions we
21 don't have one way or the other as far as I can
22 see.

23 Q. You cannot tell the instrument that was
24 used in this case, can you?

25 A. I don't see anything in these

1 particular photos that lends itself to that.

2 Q. Now, looking at F. The blood stain
3 patterns on the pants.

4 A. Yes.

5 Q. You indicated that apparently your
6 observations or analysis in this case is based
7 solely on the analysis of Mary Cowan's; is that
8 right?

9 A. That's what I had to rely on.

10 Q. But her description of what she found,
11 what she documented as being potential stains, I
12 think she said they were brown, reddish
13 distribution?

14 A. Reddish, brown streaks, yes.

15 Q. Seeing reddish, brown streaks doesn't
16 mean it's blood?

17 A. No. There are a lot of things that are
18 reddish brown.

19 Q. The description of the streaks on the
20 pants, did you look at that?

21 A. Yes, I did.

22 Q. Was there a pattern?

23 A. Well, the description she gave really
24 doesn't indicate the pattern aspect of it. The
25 description she gave was basic areas that she saw

1 these streaks in as well as the appearance of the
2 streaks: Were they wide, narrow, that nature,
3 but I don't recall specifically a pattern type to
4 it.

5 Q. Obviously, your science is blood stain
6 pattern analysis, right?

7 A. Yes.

8 Q. The word "pattern" is significant?

9 A. We are looking at the relationship of
10 the drops to one another.

11 Q. You want to look at a number of spots
12 to see the idea of the relationship between one
13 another; is that right?

14 A. In the best case scenario, yes.

15 Q. There is nothing about her description
16 what she saw on the pants that indicates a
17 pattern; is that correct?

18 A. It's a pattern because she's indicating
19 there may be blood there, but there was nothing
20 that told what the pattern looks like is what I
21 am saying.

22 Q. You can't say whether it was based on
23 her observations whether or not it was consistent
24 with velocity impact?

25 A. Well, the streaks and all she refers to

1 are very small.

2 If you assume those were the results of
3 blood that had been diluted out or maybe
4 something with the fabric that made it spread out
5 into streaks being small indicates a hire force
6 incident, but there is nothing in there really
7 that clearly defines what she was looking at.

8 Q. Small is only one element of the
9 analysis, right?

10 A. Yes.

11 Q. Before you could make a call, you would
12 need more information; is that right?

13 A. I would need to see as much as possible
14 to make a good call.

15 Q. There is not enough here to make a
16 call?

17 A. There is not enough here to say it's a
18 forceful impact pattern, if that's what you are
19 asking.

20 Q. Now, we have a stain on the right front
21 pocket between the pocket and the midpoint.

22 How many stains do you see here that
23 you are talking about? I'm trying to figure it
24 out.

25 A. She doesn't necessarily give clear

1 numbers. What is listed here is luminescent when
2 treated with luminal.

3 Q. You don't know what they are?

4 A. They are in the area of the right
5 front, between the pocket and the midpoint that
6 they were left front, right side, slightly
7 towards the back of the leg, the left leg and
8 left leg cuff. But more exact than that, no, I
9 don't.

10 Q. Now, based on her descriptions of the
11 red streaks, were they of sufficient size to do
12 any kind of testing at that time?

13 A. Doesn't sound like it.

14 Q. Doesn't sound like it?

15 A. No. The manner testing being used at
16 that time was absorption inhibition that took
17 substantial amounts of blood to test.

18 Up until PCR analysis with DNA, very
19 small drops of blood we couldn't do it much more
20 than it's blood, or we could say have enough to
21 say human blood. It's a recent development when
22 you work with small amounts.

23 Q. The size of the red streaks, assuming
24 visually that for the moment, it's blood, okay.
25 Would you be able to confirm whether it's blood

1 or not, human blood?

2 A. Not knowing how big the streaks were,
3 it's hard to say whether there would have been
4 enough material there to do that.

5 Q. To even get a confirmation?

6 A. Every test uses up sample. If it had
7 been diluted or weakened by other fluid, you
8 might not have enough to do it.

9 Q. But you say in your report on page four
10 at the top that trace amounts of blood may have
11 been present in those areas.

12 A. Right.

13 Q. You say that, but just when I asked you
14 a few questions ago, you didn't think there was
15 enough to make a call.

16 A. What I am saying is that there is
17 presumptive testing that there may have been
18 blood present. Presumptive is that. You have a
19 positive test for something that may be blood.

20 Q. You can't call it blood though,
21 correct?

22 A. It's just indicative of possibly being
23 blood.

24 Q. You can't call it blood though as a
25 scientist?

1 A. Without further testing to confirm it,
2 the most you can say is it may be blood as I say
3 in the report.

4 Q. In the area of blood analysis, the
5 presumptive test at that time was what; what were
6 the presumptive tests?

7 A. According to her notes she used several
8 different tests. Back at that time probably the
9 one that many labs relied on was the benzidine
10 test, which was kind of the standard methodology
11 at that time until they discovered it was
12 carcinogenic, and they moved to other tests. She
13 used some other reagent and other materials in
14 this case to test samples in various places also.

15 Q. She did not get a benzidine, positive
16 benzidine test on the pants stain?

17 A. That's what her testimony indicates,
18 yes.

19 Q. But she did get a luminal reaction?

20 A. That is correct.

21 Q. You say a review of the forensic
22 literature indicates that benzidine -- liminal is
23 more sensitive than benzidine in detection of
24 trace amounts of blood; is that correct?

25 A. That is correct.

1 Q. Wouldn't it also be true to say that
2 luminal is also sensitive to other items that may
3 not be blood?

4 A. Well, as with all of these presumptive
5 tests, they do give false positives for non-blood
6 items.

7 Q. That's why you need a secondary test to
8 confirm?

9 A. That is why you hope you can do that,
10 yes.

11 Q. I know you said you weren't sure of the
12 size of those stains, but if the red streaks were
13 visually visual and assumed to be blood, wouldn't
14 you expect to get a benzidine reaction?

15 A. She says in her testimony she used a
16 microscope to see them which tells me they may
17 have been very minimal in nature.

18 There is, according to the literature,
19 a big difference in the sensitivity of the two
20 reagents. It's possible to get a positive
21 reaction with the very sensitive reagent and no
22 reaction at all with the second reagent.

23 Q. Ultimately, you would love to have the
24 pants to look at?

25 A. Make life easier, yes.

1 Q. Let's talk about the watch.

2 You looked at the watch and you saw
3 several areas of contact blood stains; is that
4 right?

5 A. Yes.

6 Q. Can you show me where those are?

7 A. This is picture set No. 344. You can
8 see that there is some type of smearing through
9 here (indicating), which is down by the six and
10 seven on the face of the watch. There appears to
11 be substantial amounts of blood on the watchband
12 in correlation to number six.

13 Q. Anywhere else? Anything underneath the
14 watch, underneath the band?

15 A. The backside of the band?

16 Q. Backside.

17 A. I don't recall any pictures on the
18 backside of the band.

19 Q. Did you see any descriptions of blood
20 on the backside of the band?

21 A. I don't recall.

22 Q. Any descriptions of blood in between
23 the links?

24 A. Dr. Kirk did an extensive examination,
25 according to his testimony, of the watchband.

1 Q. What do you remember him finding?

2 A. He points out areas where he could see
3 small amounts of blood through the examination of
4 the watchband.

5 Q. Do you remember what his conclusion was
6 about that?

7 A. If I am correct, much of it was a
8 result of transfer to the watch from the blood
9 source, direct contact of the blood source rather
10 than being thrown there from being a target for
11 impact pattern.

12 Q. Do you have any reason to disagree with
13 him?

14 A. Some of the conclusions he gave in his
15 testimony concerning the watch I don't
16 necessarily agree with.

17 Q. What is that?

18 A. One of the things he talks about some
19 of the small stains that appear to be consistent
20 with impact spatter on the rim of the watch, the
21 face of the watch, having his opinion been the
22 result of partially dried or clotted blood that
23 kind of smeared in that fashion to make it look
24 like stains consistent with blood patterns. I
25 never seen that.

1 My experience with very small stains is
2 when you see them, they are usually -- there is
3 always an indication that was a target for
4 forceful -- it had to be close to the time when
5 the blood was put in flight.

6 Q. Where do you see the small stains?

7 A. Here up by the 11 through the 12. You
8 can see small areas what appear to be small blood
9 drops, a couple areas here (indicating) on the
10 edge of the watchband.

11 Q. Anywhere else?

12 A. There are some other pictures of the
13 watch, but I am not quite clear if those are this
14 watch looked at a later date after blood was
15 removed or much of the blood was removed or
16 experimented, but it's of the watchband. And
17 there are areas that show blood on the watchband.
18 If this is the watch again on the leading edge,
19 here you have a very small blood splatter too.

20 Q. How much in that picture?

21 A. No scale to indicate exact size, but in
22 relation to the area of the watchband it hooks on
23 to, it's clearly very small. Picture labeled
24 B-18.

25 Q. B-18-I?

1 A. B-18-1. I added numbers, but there
2 were others labeled B-18.

3 Q. Do you find these photographs reliable
4 in order to do blood stain pattern analysis?

5 A. Some of them are better than others,
6 and they show some of the blood that is present
7 on the watch. So, you know, they are usable.
8 Some aren't, some are, depends on the
9 photographs.

10 Q. Which of the photographs did you use to
11 base your decision on?

12 A. That's one of the ones I used. I
13 looked at them all. If I have to pull one out to
14 show you it more in detail, 45. Set No. 3, 45.

15 Q. Three, forty-five?

16 A. It's not real. It shows blood on it.
17 As I said, I looked at these that I am not real
18 clear if this is the actual watch looked at a
19 later date or somebody doing experiments. I have
20 always forgotten to ask that question.

21 Q. You never asked about the dates of
22 these photographs, did you?

23 A. I forgotten to ask that question every
24 chance I have had, yes.

25 Q. Can you tell me how many spots you can

1 see?

2 A. Assuming that they are blood, I can see
3 what appears to be six, possibly seven spots
4 along that upper edge.

5 MR. DEVER: Set No. 44?

6 THE WITNESS: Set 3, No. 45.

7 MR. DEVER: Sorry.

8 THE WITNESS: I made a digital copy of
9 it right there (indicating).

10 BY MR. GILBERT:

11 Q. You counted how many?

12 A. Six or seven along the upper edge along
13 the 11 and 12 in the Universal Geneve.

14 Q. There are different variations?

15 A. Correct. Different variations in the
16 size.

17 Q. That's on the rim?

18 A. On the rim and the edge of the
19 watchband.

20 Q. Where is the edge of the watchband?

21 A. This here (indicating), there
22 (indicating) and there (indicating), it appears
23 to be smaller stains.

24 Q. Were you able to measure those stains?

25 A. No.

1 Q. Were you able to indicate any
2 directional analysis?

3 A. No. These pictures are not clear
4 enough. Other than the one stain from picture
5 B-18-1, which appears to show direction, the rest
6 are just not clear enough.

7 Q. That's only one stain though?

8 A. That's the only one that appears to
9 have a clear shape to it based on the pictures
10 that we have here.

11 Q. If there were small stains round in
12 diameter that are inside of the watchband on the
13 other side of where one would normally wear the
14 watch -- follow my question?

15 A. On the backside.

16 Q. If there were small stains round in
17 diameter of blood, would that affect your
18 opinion?

19 A. I would have to question then if I saw
20 what appears to be impact pattern on the
21 obstructed area if the watch was worn at the time
22 that blood was put in flight.

23 Q. So that would affect your opinion that
24 there may be spatter on the face of this watch on
25 the rim that you have indicated earlier if you

1 found a similar spot on the other side?

2 MR. DEVER: Can we have clarification
3 what you refer to as other side? The
4 underside of the watch?

5 MR. GILBERT: On the underside of the
6 watchband.

7 MR. DEVER: Okay.

8 THE WITNESS: If we are looking at my
9 watch, we are talking about the area
10 against my skin?

11 MR. GILBERT: Correct.

12 THE WITNESS: It couldn't change my
13 interpretation on the front side, but it
14 would make me question if the watch was
15 worn at the time that blood was deposited
16 on the backside. It's an unobstructed
17 area. The front would still have the same
18 type of pattern and say that it still was a
19 possible target for forcible impact pattern
20 spatter. There might be a more expanded
21 interpretation by adding the backside.

22 MR. DEVER: I'll put this here.

23 BY MR. GILBERT:

24 Q. Can you say there is a pattern here?

25 A. Well, as I said, everything is a

1 pattern. Are all the patterns interpretable and
2 meaningful?

3 Q. What can you say?

4 A. This appears to be some random
5 apparently small drops, possible drops of blood.
6 When we see those small drops, they are
7 consistent with being a forcible impact pattern.

8 Q. What you are saying --

9 A. This is a portion of whatever the
10 patterning was. Very small portion in that.

11 Q. What you are saying is suspect pattern,
12 suspect impact stains, right?

13 A. Well, it's consistent with what I
14 expect to see when something is a target for
15 forceful impact.

16 Clearly this is only a portion of the
17 pattern and pictures that are not of the clearest
18 nature.

19 Q. Seven stains is not enough to produce a
20 pattern; is that correct?

21 A. Seven stains I would call enough of
22 part of a pattern.

23 Q. Part?

24 A. Not the whole pattern.

25 Q. If you were going to call something

1 based on reasonable scientific certainty, you can
2 not say that those small diameter stains are
3 definitely a result of velocity impact spatter,
4 can you?

5 A. High force impact.

6 Q. High force impact pattern?

7 A. They are consistent if they were a
8 target to it.

9 Can I exclude all possibility with this
10 limited patterning on it? No.

11 Q. Your answer is no?

12 MR. DEVER: Objection to that. He
13 answered the question.

14 BY MR. GILBERT:

15 Q. You do not have enough information to
16 say with a reasonable degree of scientific
17 certainty that the stains that they are talking
18 about, the small diameter stains you observed on
19 those photographs, are high force impacts?

20 A. What I am saying is they are consistent
21 with being a target for forcefully impact -- for
22 forceful impact splatter pattern.

23 Q. They could be inconsistent, right?

24 A. There is more here to lead me, based on
25 my experience and training, to say they are

1 consistent than to say they are inconsistent
2 with.

3 Q. Other mechanisms that can cause small
4 stains such as that other than high force
5 velocity impact?

6 A. Yes, but they are not very realistic.

7 Q. How about fibers?

8 A. Blood dripping off the fibers?

9 Q. Correct.

10 A. I have heard people say that, but I
11 never seen it.

12 Q. How about hair?

13 A. Again, I have never seen it quite like
14 this.

15 Q. Just because you never seen it, doesn't
16 mean it's not possible?

17 A. Doesn't mean it's not so, but I have
18 seen a lot in the years I have been doing this.
19 What this tells me, if you come up with another
20 source, another explanation, is it a reasonable
21 explanation?

22 My experience dictated I never
23 encountered a pattern that looks like this from
24 blood dripping off of fibers or hairs. And you
25 know a lot of the time in blood stain pattern

1 analysis based on your experience coupled with
2 your training --

3 Q. This could not come from dripping
4 blood?

5 A. Not that I've ever seen. Not drops
6 that small.

7 Q. As an expert witness, do you testify as
8 to matters that are based on reasonable
9 scientific certainty?

10 A. I am not going to testify on things
11 that I can't back up with these evidence and
12 materials that I have in front of me, so yes.

13 Q. You know the term "reasonable
14 scientific certainty"?

15 A. Yes.

16 Q. What does that mean to you?

17 A. Within using the scientific techniques
18 and principles available as well as your training
19 and experience are your conclusions within those
20 limits.

21 Q. All you can say really here with
22 respect to the seven or so small diameter blood
23 stains on this watch is that it's consistent with
24 a target for blood splatter; is that right?

25 A. Consistent with having been a pattern

1 for forceful impact splatter.

2 Q. That one little area there is the only
3 place you saw that?

4 A. In these pictures, yes.

5 Q. How about the band?

6 A. The band there is a lot of areas that
7 appear to have very small drops on them. Most of
8 them are within the little crevasses, and they
9 form the spots, but again they are small.

10 Could that be a forceful impact? I
11 can't exclude that idea.

12 Q. You are not sure of that?

13 A. The fact we have only seen that in
14 those crevasses is a peculiar aspect of it. I
15 would expect to see it on the flat surfaces too.

16 Q. That could be the causes of only being
17 in the crevasses?

18 A. I don't know.

19 Q. If I told you that that watch -- that
20 these pictures here were from 1966, 12 years
21 later, and that there had been various tests on
22 that watch after the original photographs, would
23 that help you?

24 A. If those tests removed blood and the
25 easiest blood to access would be the flat areas,

1 yes, that could be a reason.

2 Q. That could be residue from contact
3 smears?

4 A. I don't know.

5 Q. Could be?

6 A. I don't have pictures to show before or
7 after. I can't tell you if it's residue from
8 contact smears or it was a target for impact
9 pattern.

10 Q. Okay. None of these pictures do you
11 see any spots other than in the crevasses; is
12 that right?

13 MR. DEVER: Make sure for
14 clarification there are two series of
15 photographs talked about here. The band
16 photographs are taken from the 1966 trial,
17 the previous photos you had identified,
18 Mr. Wolson, as picture 44 from set three,
19 and picture 45 from set three are
20 photographs that were taken by the Cuyahoga
21 coroner in July 1954.

22 Is that correct, Terry, so we have
23 clear understanding what he is talking
24 about?

25 MR. GILBERT: What I am showing him

1 here is the photographs of the watchband
2 that was taken in 1966.

3 THE WITNESS: What's your question
4 now?

5 BY MR. GILBERT:

6 Q. Do you find any stains other than in
7 the crevasses?

8 A. It's possible that there are some on
9 the sides where the band falls apart. It could
10 be there, but it's hard to tell. These pictures
11 don't give you good definition of that.

12 Q. For the most part they are in those
13 crevasses?

14 A. Most that I am seeing that stands out
15 in these pictures are the little crevasses.

16 Q. You can't say what those are?

17 A. They appear to be blood. I don't know
18 if they were tested, and I can't say other than
19 what they appear to be.

20 Q. Would you agree with me that in looking
21 at all the original 1954 photographs, including
22 the one that you had digitalized, that most of
23 the blood that you see on this watch is from
24 contact?

25 A. There are large areas of contact, yes,

1 or transfer, however you want to call it.

2 Q. Do you know whether Mary Cowan was able
3 to do any blood grouping successfully on that
4 watch?

5 A. I know she attempted it and it was
6 inconclusive on the IBO typing, but on the MNs --

7 Q. What is that typing?

8 A. She said it was consistent with M,
9 which is also consistent with Marilyn Sheppard's
10 MNs type.

11 Q. Is that a discriminating test?

12 A. Not that I recall. In fact, the typing
13 for MNs was pretty much abandoned as time
14 progressed in terms of doing forensic analysis.

15 Q. It's pretty meaningless?

16 A. Well, it shows that they had a common,
17 possibly common type blood. I don't know the
18 population statistics associated with that to
19 tell you if it's meaningful, if it's a rare type
20 or not.

21 Q. MNs characteristics are found in A and
22 B and O and AB?

23 A. MNs system is another system
24 independent of the A, B, O system. Where it was
25 most beneficial it helped give us an idea if a

1 person was a secretor or a non-secretor, because
2 that system if they were secretor, we would see
3 certain characteristics present in the MNs
4 system.

5 Q. Would a BO typing, would that have been
6 more discriminating than the MNs system back
7 then?

8 A. Not knowing the numbers associated with
9 the presence of M or N or the S, I can't tell
10 you.

11 Q. Do you know the population genetics for
12 O?

13 A. Approximately 46 percent of the
14 population.

15 Q. So the M is a different test, it's not
16 a subtype; is that right?

17 A. That is correct.

18 Q. Going over the blood test in the house.

19 A. Let me find my report again. Page
20 four.

21 Q. You generally agree, do you not, that
22 the stains that were documented through the house
23 were consistent with the blood trails; is that
24 right?

25 A. It appears to be some type of blood

1 trails, yes.

2 Q. You discuss whether the causes of blood
3 trail are either from an injury or from a
4 dripping weapon; is that right?

5 A. That is correct.

6 Q. And you lean in favor of the idea that
7 this trail was caused by an injury, bleeding
8 injury; is that right?

9 A. No.

10 Q. You don't?

11 A. I, quite frankly, am in the middle
12 whether it was a bleeding injury or from a
13 weapon, because there are things that I would
14 expect to see in a bleeding injury that I don't
15 see, and things I would expect to see in a
16 dripping weapon I don't see. I'm in the middle
17 of this one.

18 Q. What more information would you have
19 liked to have had to be able to determine -- was
20 there anything more that wasn't there that you
21 would have liked to have known to decide that
22 question?

23 A. We don't have any clear definition if
24 there was anyone other than Ms. Sheppard
25 bleeding. We don't have that. We don't have a

1 murder weapon. That would be a factor. So
2 probably those are the two key things that I
3 think would affect the evaluation of these blood
4 tails.

5 It's apparent that something was
6 dripping blood in the area of the house away from
7 the murder scene, and what was dripping, and why
8 it was dripping, we don't really know.

9 The other thing you have to consider
10 here is that we don't even know that this
11 dripping blood -- the assumption is because we
12 have a violent crime scene upstairs in the house
13 is that this blood belongs to that violent crime.
14 We don't know that for sure.

15 Maybe this blood is from something else
16 that took place in that house at a relatively
17 recent time to the homicide also. So there are
18 things we don't know about this trail that we
19 will never know. And there is not enough, clear
20 enough in my opinion, in favor of one way or the
21 other.

22 If we assume it's from that homicide,
23 there is not enough information to tell us it's
24 definitely somebody bleeding versus blood
25 dripping off of the murder weapon. In fact, I

1 find conflicting information there between the
2 two in the descriptions of the trails that lend
3 to that inability to say it's somebody bleeding,
4 moving through the house, rather than dripping
5 off of the murder weapon.

6 Q. You indicate though, I quote you, the
7 length of the apparent blood trail in the
8 Sheppard house is long which is consistent with a
9 trail due to injury.

10 A. In most cases, yes. If you read my
11 paragraph, I am not saying I disagree it's due to
12 injury. I'm saying there is not enough
13 information to say it's due to injury and not due
14 to blood dripping off of the weapon.

15 Q. Now, were you aware when that blood
16 trail was documented?

17 A. My understanding from reading the
18 materials it was documented in the days following
19 the homicide as a return to the crime scene and
20 examined it on several separate occasions.

21 Q. Would you disagree it was some 19 days,
22 20 days after the murder?

23 A. I would have to look it up in my notes
24 to see what the dates are.

25 Q. If that was the case, would that be a

1 long time to go back and document the blood
2 stains?

3 A. Not if the scene had been preserved.

4 Q. What if it was not preserved?

5 A. Well, you can go back, but you will
6 have to deal with the questions whether there
7 were alterations and this didn't come after
8 everything was done and this was some other
9 situation.

10 The only way to answer those would be
11 how well the original documentation was.

12 I have been back to crime scenes a
13 considerable time after the incident, and we look
14 at the materials from that original incident to
15 verify that the stains and patterns aren't
16 changed.

17 Q. Assuming the crime scene has been
18 maintained properly?

19 A. That is always an assumption, even when
20 you are there on a fresh crime scene.

21 Q. You talk about because you don't know
22 the murder weapon that you can't tell how long a
23 trail can be produced by a dripping murder
24 weapon?

25 A. Because we don't know the

1 characteristics of the murder weapon, we don't
2 know where the blood was deposited from them, if
3 it had pools that leaked out, was the absorption
4 material considering -- like something like the
5 flashlight that people brought up. We don't know
6 the details. Those characteristics would clearly
7 affect how much the blood could hold onto and
8 allow it to drip off.

9 Q. All right. Have you done studies on
10 this; have you done experiments?

11 A. For this particular case, no, but in
12 the course of teaching they do have blood trails
13 and they do drippings off of whatever to see what
14 the possible things are that might affect the
15 blood trails. I have seen many blood trails.

16 Q. You would agree with the act of source
17 bleeding the trails are longer than with an
18 instrument?

19 A. I would agree that we would expect
20 that, but not knowing what the instrument is in
21 this case, we can't say that that is necessarily
22 the situation.

23 Q. Eventually blood stops from an
24 instrument?

25 A. Can stop from a wound too.

1 Q. I understand.

2 If you dip something in to a vat of
3 blood, eventually because of the blood
4 characteristics it's going to stop; is that
5 right?

6 A. You would expect at some point for the
7 trail to stop unless there is something that
8 allows blood to be added to it as it continues
9 on.

10 Q. You make note of the description of
11 blood stains and trails having diameters of 25
12 point 2 inches and less.

13 A. Yes.

14 Q. What does that mean to you?

15 A. I think that's important because my
16 experience with blood trails as a result of
17 someone injured moving around those blood trails
18 had stains with much larger diameters. The
19 diameter of the blood dripping off of them are
20 characteristics of where it drips off of,
21 dripping off of fingers and body parts. I never
22 seen blood stains that small.

23 Q. What about on carpeting, does it
24 absorb?

25 A. That might affect it. Carpeting, in my

1 experience with modern carpet is, they keep the
2 stain from expanding out to a very large size.
3 Even there, you know, when I have my classes work
4 with carpet, we still seep stains a quarter of an
5 inch, sometimes larger.

6 Ms. Cowan in her report refers to a lot
7 of small stains on the stairs where there is no
8 carpet, by what I saw from the pictures. So that
9 I find very uncharacteristic of blood dripping as
10 a result of an injury.

11 As well as if you read further, the
12 other thing I think is important, and I got this
13 out to be quite honest, was reading the
14 photography report, it occurred to me there is no
15 indication of blood being in the drawers, the
16 medical bag. If somebody is bleeding and dumping
17 those and coming in contact with those, I would
18 anticipate seeing some blood transfer.

19 Q. How do you know there is no blood on
20 those items?

21 A. I can only go by the notes and
22 observations by the people on the crime scene.
23 They appear to be thorough.

24 Q. Where do you see that? Show me.

25 A. I'm saying in terms of reading the

1 reports, how many times they went to the crime
2 scene, it seems inconceivable -- not
3 inconceivable -- unlikely. They were extremely
4 thorough with the carpet and stairs and bedroom,
5 but the drawers dumped in ransacking the house
6 were overlooked as if there were blood there.

7 Q. Are you aware that the drawers were put
8 back in to the areas where they were found?

9 A. No.

10 Q. You don't know the crime scene was
11 changed between the time --

12 A. I don't know.

13 Q. I want you to show me there was an
14 examination. You make the observation that there
15 was an absence, apparent absence of blood in any
16 of the drawers which were opened and dumped on
17 the floors and rooms around the house.

18 A. Nobody makes note of it in their
19 evaluation.

20 Q. Let me finish the question.

21 Tell me where there is any indication
22 that those areas were examined for blood.

23 A. I have to go by the notes and all and
24 there is no notes referring to blood being in
25 those drawers. My assumption is they did not see

1 them there.

2 Q. Isn't that a dangerous assumption? You
3 are going back to a crime scene 45 years ago and
4 assuming they are doing everything right?

5 A. Isn't it dangerous they were thorough
6 everywhere except for the drawers?

7 Q. I am not saying they were thorough.

8 MR. DEVER: Ask the question.

9 BY MR. GILBERT:

10 Q. You are making an opinion in this
11 report based on an assumption that there was a
12 thorough investigation at the crime scene in
13 1954.

14 A. Because my reading of the materials and
15 all to me is what I would expect to see as a
16 thorough evaluation of the crime scene.

17 Q. Show me where you see -- what materials
18 are you saying there was a thorough evaluation of
19 the crime scene?

20 A. Mary Cowan's testimony concerning the
21 crime scene as well as her report, her 28 page
22 report. That is, the testimony was very thorough
23 in describing things as well as the report is
24 phenomenal in its descriptive nature what she did
25 and how she did it.

1 Why would she be thorough in that work,
2 but yet not be thorough when it comes to those
3 drawers?

4 Q. She didn't get there until three weeks
5 after the crime.

6 A. The blood just disappeared?

7 Q. I am not saying the blood disappeared
8 on the floor, but you are talking about movable
9 items, right, papers?

10 A. That's right, they are movable. If
11 they have blood on them, it should be there,
12 moved or not moved, a day after, three weeks
13 after.

14 Q. Is there any indication in any of the
15 reports where you saw there was an examination of
16 the drawers or anything that was dumped on the
17 floors in the rooms around the house? Cite me
18 anything you see where there is a note that we
19 examined this for any evidence.

20 A. There is no specific notation
21 concerning that examination.

22 Q. Even in crime scene investigations
23 today, in reports that you see on a routine
24 basis, do you see negative findings of
25 examination of physical items?

1 A. Not always. It depends on the
2 determination of the analysis how relevant it is
3 to the particular report. Perceived of not any
4 importance, they may not write it into the
5 report.

6 Q. Where do you see in this case that
7 there was even a detection of a blood trail?

8 A. In the days following the homicide when
9 they returned to the house to examine it.

10 Q. And you know when that was?

11 A. I can look at the reports and testimony
12 and all to see what dates. They were after the
13 fact.

14 Q. How do you know that those drawers and
15 contents of the drawers were still there when
16 they went back?

17 A. I don't. Even without the drawers,
18 still it's very uncharacteristic what I expect to
19 see from dripping as a result of an injury.

20 Q. Did you see drippings around the den?

21 A. But again, Mary Cowan's description of
22 the drops in the second testimony from the 1996
23 (sic) trial, Mr. Bailey asked her the size of the
24 drops and it was very specific walking her
25 through that crime scene and giving measurements

1 of the drops involved, and everywhere she cites
2 the sizes, very small drops.

3 There was a second testimony. Let me
4 double check that to make sure I gave you the
5 right testimony. I have my notes right in front
6 of me.

7 I'm sorry. It was in the first trial
8 transcript that she was very specific about the
9 size of the drops within the different areas that
10 she examined.

11 Q. You are not going to rule out the
12 possibility of a blood trail from a wound based
13 on the size alone; is that right?

14 A. I think I said that here. I can't rule
15 out that possibility.

16 Q. All right. The blood could hit another
17 object and break up as it falls from a bleeding
18 wound, that kind of thing?

19 A. Nothing to indicate that in this
20 scenario.

21 Q. What scenario?

22 A. Not scenario, in the descriptions
23 given. Nothing to indicate that the discussion
24 is single blood drops. We wouldn't expect to see
25 single as to break up as it is hitting things.

1 If it was the case, the stairs that didn't have
2 carpeting, that that was taking place.

3 Q. Would walking over the stains have any
4 bearing on the size ultimately discovered?

5 A. I wouldn't expect that once they dry.

6 Q. You indicated earlier that somebody
7 bleeding could have stopped the bleeding somehow
8 at some point?

9 A. People when they injure themselves
10 usually like to stop the bleeding.

11 Q. That could account for the lack of
12 blood being in areas you might have expected it
13 to be?

14 A. Well, I think it's inconsistent with
15 what we are seeing around it. Based on the Mary
16 Cowan's information, blood on the floor in the
17 areas.

18 How does it get on the floor and not
19 the drawers if they stopped themselves from
20 bleeding?

21 Q. Why wouldn't there be blood from a
22 dripping weapon if that was the source on those
23 items?

24 A. Well, if the weapon isn't held over the
25 items and not dripping in to them.

1 Q. We are engaging in speculation?

2 A. Speculation here. I'm telling you the
3 things that led to my --

4 Q. We are pretty much done with the blood
5 spatter part of this.

6 There really isn't anything here that
7 you can say with any degree of certainty that you
8 found in this case? Any of the opinions you have
9 could not be stated with any high degree of
10 certainty; is that correct?

11 A. I wouldn't necessarily put it in that
12 light. I would say more because this is 40 plus
13 years after the fact we are working from photos,
14 working from notes, and we are working from all
15 sorts of materials that may not be complete. You
16 would have to leave yourself some room to say the
17 things I don't know about could change these
18 opinions.

19 I think the opinions I give are
20 pretty -- I'm pretty confident based on my
21 training and experience I see here are pretty
22 accurate.

23 Q. You are very clear that Marilyn
24 Sheppard was where her body was, was where she
25 was -- where she was beaten?

1 A. Consistent with that.

2 Q. You are pretty clear on that one?

3 A. Consistent based on what we are looking
4 at.

5 Q. You are pretty clear about the void?

6 A. Yes.

7 Q. The right or left handed idea, I don't
8 have any problem with. We don't have to go over
9 that.

10 You are fairly clear that those two
11 stains in the closet door came from a different
12 mechanism, correct?

13 A. They are consistent with something
14 other than impact.

15 Q. The pillow you can't see a whole lot
16 there, right, on the pillow that will give us any
17 kind of information?

18 A. No, not from these pictures.

19 Q. The alleged small stains on
20 Dr. Sheppard's pants, you can't say one way or
21 the other what it is?

22 A. It's consistent with positive
23 presumptive test for the presence of blood.

24 Q. Presumptive only?

25 A. Yeah, because the test used is a

1 presumptive test.

2 Q. You are pretty much on the fence -- we
3 have gone over the watch. We beat that one to
4 death.

5 As far as the stains in the trails,
6 so-called trails, you are pretty much on the
7 fence on that one, could go either way, you are
8 right in the middle? That's what you said.

9 A. Pretty much because there is
10 conflicting information there.

11 Q. You looked at the DNA samples in this
12 case?

13 A. I looked at photos of the stripes.

14 Q. Basically you concluded that you
15 didn't -- in some of these stains you didn't see
16 the C and the S dot appear?

17 A. That's correct.

18 Q. Doesn't mean it wasn't there?

19 A. It's noted very weak to the
20 development, may not be visible in the
21 photographs.

22 Q. And Dr. Tahir saw them and reported
23 them inclusive and had people in his lab follow
24 the protocol and check off on it.

25 Assuming that to be true, any reason to

1 doubt it?

2 A. I have no reason to believe if he saw
3 them and co-reader saw them, that they weren't
4 there.

5 Q. You indicated earlier that you thought
6 the DNA, the PCR, polymarker examination of the
7 blood stain from the closet door was interesting.
8 You mentioned that earlier?

9 A. I did? Okay. I don't recall that, but
10 I might have.

11 Q. I think you did. You don't talk about
12 that in your report.

13 What was interesting about that?

14 A. What I think was interesting in all the
15 DNA, there is DNA that is not consistent with the
16 principal people alleged to have been involved:
17 Richard Eberling, Sam Sheppard, Marilyn Sheppard.
18 You have DNA that doesn't match any of them as
19 far as we know, and it's prevalent across almost
20 every single sample. That indicates to me these
21 samples are contaminated with DNA from other
22 sources.

23 Let's pass the S dots or control dots
24 being present. Wherever they are not present,
25 they are uninterpretable results. We don't know

1 what they are missing.

2 I can't necessarily exclude somebody,
3 but we can't say who is included or we can't
4 exclude anyone under those conditions, because if
5 the control dot failed, we don't know what other
6 dots failed.

7 Q. Assuming that the controlled dots
8 failed.

9 A. I'm laying the basis here. Let's just
10 assume for arguments sake that he had controlled
11 dots that worked out on all of these. You have
12 the problem with positive control failed on many
13 of these experiments. When the positive control
14 fail, there is a problem with the analysis.

15 Q. What is the positive controls?

16 A. Positive control is known DNA samples
17 that comes with these kits. It's to assess how
18 the implication, the typing process worked. If
19 that sample fails, your test results are
20 uninterpretable. It indicates there was a
21 problem with the technology.

22 Let's get past that. Let's assume
23 these are good strips and we have good profiles
24 here. Every sample indicates there are people
25 not known to be involved in this case,

1 contamination with the sample switch. They
2 didn't know what we would be able to do or how
3 scientific our technology would be, it's not
4 surprising.

5 Q. Okay.

6 A. I think it's a bias when you
7 selectively say okay, I got a guy here, he's a
8 41 -- 4141 sample. We are going to pay attention
9 to that. Ignore the two and the three dots
10 present because they don't fit our scenario.
11 That is not scientific, that is not good science.
12 That's a bias. You take them all or don't take
13 any of them.

14 Q. Who is saying that?

15 A. I don't think he's not necessarily
16 ignoring them, per se, but when you read through
17 his report, I can't exclude Richard Eberling. He
18 can't. He can't exclude a lot of people being
19 4141.

20 Can there may be DNA from other people?
21 We don't know here. He doesn't deal with the
22 subject.

23 His report gives you an idea that it's
24 probative information. It's not probative when
25 you are dealing with contamination. In fact,

1 it's suspect information when we you are dealing
2 with potentially contaminated items. It's
3 suspect when you are dealing with failure of
4 positive controls.

5 Q. Where do you say failure positive
6 controls?

7 A. I can only go through the photographs.

8 Q. What if say --

9 MR. DEVER: Can he finish his answer?

10 THE WITNESS: Some of these positive
11 controls appeared to have failed. Now, if
12 he saw them and his co-reader saw them; I
13 have to say they worked. Everything I feel
14 is what I see.

15 I was not provided his notes. I would
16 have loved to see the notes. They are
17 relevant information. I can only go by the
18 photos.

19 Based on the photos, there appears to
20 be controlled dots missing and positive
21 controls are failed. So interpretation is
22 based on that. But if you ignore that and
23 assume everything worked, you have a real
24 problem with all this DNA that doesn't
25 match Sam Sheppard, Marilyn Sheppard or

1 Richard Eberling. You are looking at HLA
2 DQ 4141. That's really common.

3 There is not a lot of people, a lot of
4 people would fall into that typing. Either
5 having the 41 as a single 41 because they
6 are homozygous or 4141. Or 41 combined
7 with one of the other seals, 341, 241, any
8 combination. That 41 is real common. Let
9 me clarify. I'm big fan of DNA. I do this
10 daily for a living.

11 BY MR. GILBERT:

12 Q. Do you agree with me that exclusions
13 are important in DNA analysis?

14 A. Exclusions are important when you have
15 good test results, yes.

16 Q. Assume that all the controls and S dots
17 and C dots were here and it was a mixture of a
18 sample, mixture sample, and you would expect to
19 see the suspect's DNA or the victim's DNA in that
20 sample?

21 A. If they are both contributing DNA to
22 the sample?

23 Q. No. If you would expect it to see the
24 victim's DNA in a sample or the perpetrators DNA
25 in a sample. Assume that.

1 A. I am not clear what you are trying to
2 explain.

3 Q. Let's take a hypothetical.
4 You find blood in the murder room near
5 her body, okay, and a DNA test is done and it's
6 not her blood, is that significant?

7 A. Yes, that would be significant. Well,
8 if you assume that that blood is there from that
9 particular crime, that would be significant
10 because that indicates you have somebody else
11 contributing to the crime scene.

12 Q. Let's say you have a suspect in mind
13 and you know his DNA. That same sample connected
14 with the crime scene excludes him as well; is
15 that significant?

16 A. Well, again you go back to the idea if
17 you assume that blood stain is part of that
18 crime, that could be significant.

19 Q. Okay. Is it your call to make that
20 decision?

21 A. As to what is significant or not
22 significant?

23 Q. Yes.

24 A. No, as a scientist I put my --

25 Q. Why do you put that qualification in?

1 A. What qualification?

2 Q. Whether something is connected to the
3 crime scene or not?

4 A. As a scientist isn't it also part of my
5 job to point out we don't know all of the
6 variables involved? Here is my analysis, now you
7 have to determine by one means or another if it
8 is relevant or not.

9 Q. Well, you did say that if the analysis
10 by Dr. Tahir is correct regarding the DNA of
11 Marilyn and Sam Sheppard, their DNA types are
12 excluded from the mixture which was on the
13 Exhibit B- 3-B-1.

14 A. The pants?

15 Q. Right. Is that significant?

16 A. Yeah.

17 Q. Why?

18 A. Look who is bleeding the most in this
19 crime scene, Marilyn Sheppard. You get what is
20 described as large blood stain, you would assume
21 that's the victim's blood. The victim is not in
22 that blood.

23 If we have somebody other than the
24 bleeder bleeding enough to have bled that big,
25 don't you think that they would have had to go

1 for treatment for the injuries or somebody
2 noticed that they had severe injuries? We are
3 talking about a big blood stain that doesn't
4 match the victim or her husband.

5 I'm more concerned about the fact it
6 doesn't match her when you consider this was
7 described as a large blood stain and she is the
8 most logical source for that blood stain.
9 Everyone refers to being a hemolyzed stain.

10 Q. We don't know that that is the
11 hemolyzed stain, do we?

12 A. No. Reading through everything, the
13 impression I got from all the documentation
14 that's the hemolyzed stain especially from Mary
15 Cowan describing it. There is allegedly
16 corresponding hemolyzed stain on the bed.
17 Everything indicates you would expect that to be
18 her blood. Her DNA is not in it.

19 Q. What is your observation about that?

20 A. Just what they say, she's excluded and
21 he's excluded.

22 Q. Does that indicate there is a possible
23 third party bleeding in that crime scene?

24 A. I have no idea what it indicates. If
25 you wanted to give hypothesis, I'm sure you can

1 think of numerous hypothesis you can say not
2 excluded. We are dealing with --

3 Q. That's a matter for the trier of fact;
4 is that right?

5 A. I guess.

6 Q. The jury or judge, not you?

7 A. Not mine. Mine is to tell what it
8 means.

9 Q. That is significant what you expect to
10 see in this crime scene?

11 A. Not seen her DNA?

12 Q. Yes.

13 A. Yes. That strikes me as significant,
14 yes.

15 Q. Did you also see that Dr. Sheppard and
16 Marilyn Sheppard were excluded from the wood
17 chip?

18 A. Yes, I did.

19 Q. Is that significant, assuming it's
20 related to the crime?

21 A. Assuming it's related to the crime
22 scene, if you assume it's in the side of the
23 actual crime, I guess that would be significant.

24 Q. Do you have an opinion as to the
25 vaginal smears, what significance those have?

1 A. Again, if you assume that the
2 controlled dots and positive controls were good,
3 then we've got DNA from people there that don't
4 match your three principles in this case. Again,
5 there is an indication that contamination --

6 Q. You did see there was a male fraction?

7 A. Based on looking at the strips and all.

8 Q. What does that indicate?

9 A. When you are doing an analysis of
10 suspected samples with semen in them, your
11 extraction process is different from say blood or
12 saliva. It's differential extraction. What you
13 are left with at the end of the extraction, one
14 was a male fraction, which is a misnomer, it's
15 sperm fraction, and the female which is the all
16 non-sperm cellular material.

17 Q. The answer to my question was a male
18 fraction is essentially a sperm?

19 A. Provided there is sperm present. If
20 they did a good job, sometimes the differential
21 extractions don't work overly well and you have
22 so-called female or victim fraction in it.

23 Q. Assuming for the moment that this wood
24 chip, the stain on the wood chip on the basement
25 stairs -- are you with me so far?

1 A. Yes.

2 Q. -- was part of a trail caused by a
3 dripping weapon.

4 A. I'm listening.

5 Q. Dripping, you would expect to see blood
6 originating from the victim on that dripping
7 weapon, would you not?

8 A. That would be a reasonable expectation,
9 yes.

10 Q. If it is not, that would be
11 inconsistent with that; is that correct?

12 A. Inconsistent with what?

13 Q. That it's from a dripping weapon,
14 assuming the source of the dripping weapon is
15 from the victim.

16 A. Let's say the blood dripping from the
17 weapon, but the person carrying is injured too,
18 there is nothing to indicate that, but that is a
19 possibility.

20 Q. If there was a known sample taken from
21 the blood trail that was not consistent with the
22 blood of the victim, would that change the
23 analysis as to whether it came from a trail or
24 from a bleeding wound?

25 A. If there was a known sample and it was

1 inconsistent with the victim and there were
2 multiple stains, I wouldn't base it on just one
3 stain taken from a trail at length. I would take
4 several stains from it. One stain alone still
5 leaves questions if it's related to that crime
6 scene.

7 Q. Isn't it true that Mary Cowan never
8 typed any of the blood from the so-called blood
9 trail?

10 A. Yes. That's my understanding. But it
11 also appears to be because the stains were too
12 small.

13 Q. Do you know if there was any attempt to
14 do that?

15 A. I don't recall.

16 Q. Do you know whether or not these
17 stains, based on the size that you were able to
18 determine from the report, whether in your
19 estimation that blood grouping could have been
20 done on these stains?

21 A. I doubt it, not using absorption. That
22 required fairly sizable stains to do.

23 Q. Would you be comfortable with your
24 analysis of the watch knowing that lay people had
25 handled that evidence before it was turned over

1 to the authorities?

2 A. Well, assuming once the watch is dry
3 that it is probably going to be difficult to
4 change the patterns, I probably would still make
5 the same comments. But I mention also that it
6 had been handled by lay people because that could
7 be a factor. I would still have the same
8 observations and thoughts about those
9 observations and opinions about them.

10 Q. Did you read the testimony of Roger
11 Marsters?

12 A. No, I am not even familiar with that
13 name.

14 MR. GILBERT: I have no further
15 questions at this time. I need to make
16 copies of some of these things that I don't
17 have.

18 MR. DEVER: Off the record.

19

20

21 (Witness excused.)

22

23 (Thereupon, at 12:30 o'clock p.m. the
24 deposition was concluded.)

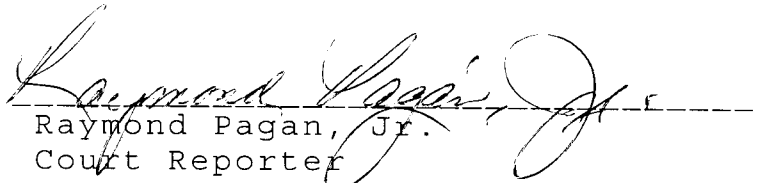
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CERTIFICATE OF OATH

STATE OF FLORIDA)
COUNTY OF DADE)

I the undersigned authority, certify that the
witness, **TOBY L. WOLSON, M.S.**, personally appeared
before me and was duly sworn.

WITNESS my hand and official seal this
28th day of January, 2000.


Raymond Pagan, Jr.
Court Reporter
Notary Public - State of Florida



Raymond Pagan, Jr.
Commission # CG 858053
Expires July 26, 2003
Bonded Thru
Atlantic Bonding Co., Inc.

C E R T I F I C A T E

State of Florida)

County of Dade)

I hereby certify that I have read the foregoing deposition given by me, and that the statements contained therein are true and correct to the best of my knowledge and belief, with the exception of attached corrections, if any.

Dated this ____ day of _____, 2000.

TOBY L. WOLSON, M.S.

The foregoing certificate was subscribed to before me this ____ day of _____, 2000, by
TOBY L. WOLSON, M.S..

Notary Public, State of Florida
My Commission Expires:

ERRATA SHEET

RE: ESTATE OF SAM H. SHEPPARD VS. STATE OF OHIO

DEPOSITION OF TOBY L. WOLSON, M.S.

The following corrections, additions or deletions were noted on the transcript of the testimony which I gave in the above-captioned matter, held on: 01/17/00.

PAGE: LINE: SHOULD READ:

I have read my deposition in this matter and entered any changes in form or substance as reflected above.

DATE

SIGNATURE

SUBSCRIBED AND SWORN TO before me on
this ____ day of _____, 2000, at Dade
County, Florida.

(Notary Public)

My Commission Expires:

ESQUIRE DEPOSITION SERVICES
1021 Ives Dairy Road, Suite 214
Miami, Florida 33179

C E R T I F I C A T E

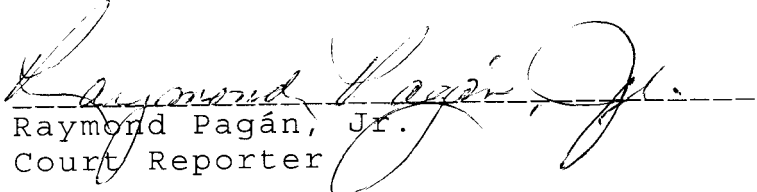
STATE OF FLORIDA)
COUNTY OF DADE)

I, **RAYMOND PAGAN, JR.**, Court Reporter, do hereby
certify that I was authorized to and did
stenographically report the foregoing deposition in
stenotype; and that the foregoing pages, numbered
from 1 to 118, inclusive, are a true and correct
transcription of my shorthand notes of said
deposition.

I further certify that I am not a relative, employee,
attorney, or counsel of any of the parties, nor am I
a relative or employee of any of the parties'
attorney or counsel connected with the action, nor am
I financially interested in the action.

The foregoing certification of this transcript does
not apply to any reproduction of the same by any
means unless under the direct control and/or
direction of the certifying reporter.

Dated this 28th day of January, 2000.



Raymond Pagan, Jr.
Court Reporter

01/29/00

TOBY L. WOLSON, M.S.
1975 N.E. 208 Terrace
Miami, Florida 33179


RE: Estate of Sam Sheppard vs. State of Ohio

Please take notice that on Monday, January 17, 2000 you gave your deposition in the above-referenced matter. At that time, you did not waive your signature. It is now necessary for you to come in to our office to read and sign your deposition.

Please come to our office, 1021 Ives Dairy Road, Building 3, Suite 214, Miami, Florida between the hours of 9:00 a.m. and 4:30 p.m. Monday through Friday. No appointment is necessary. Notice that this address may be different than the one where you gave your deposition.

If you do not appear to read and sign your deposition within thirty (30) days, the original will be forwarded to the attorney who requested your appearance for the deposition for filing with the Clerk of the Court. If you wish to waive your signature at this time, you may sign your name in the blank at the bottom of this page and return it to us. Your thirty (30) days begins from the date of this letter.

Very truly yours,


ESQUIRE DEPOSITION SERVICES

I do hereby waive my signature

Said deponent did () did not () appear read and sign deposition.



1975 NE 208th Terrace
Miami, Florida 33179
Voice/Fax: 305-931-2631
E-mail: noslow@shadow.net

Noslow Forensic Consultations

January 7, 2000

To: Dean Boland
Assistant Prosecuting Attorney
Cuyahoga County Prosecutor's Office

Case: Sheppard Civil Lawsuit
Victim: Marilyn Sheppard
Suspect: Sam Sheppard

Evidence Received:

The following items, received from Mr. Dean Boland on August 23, 1999, were reviewed:

- 1) Offense Report: Bay Police Department, serial #: 54-195 (9 pages)
- 2) Report of Autopsy: Marilyn Sheppard, Case #: 76629, 7/4/54 (10 pages)
- 3) Cuyahoga County Coroner's Laboratories - Trace Evidence Department Report, Case #: 76629 (28 pages)
- 4) Preliminary draft of trace evidence report (29 pages)
- 5) Vital Statistics Report, Case #: 76629 (7 pages)
- 6) Indianapolis - Marion County Forensic Services Agency - Laboratory Examination Report, Case #: 76629, 2/3/97 (2 pages)
- 7) Indianapolis - Marion County Forensic Services Agency - Laboratory Examination Report, Case #: 76629, 4/21/99 (3 pages)

The following item, received from Mr. Eric J. Weiss on November 8, 1999, was reviewed:

- 8) Trial transcript of the testimony of Dr. Paul Kirk (108 pages)

The following items, received from Mr. Dean Boland on November 15, 1999, were reviewed:

- 9) Photographs of Sam Sheppard's watch (8 photographs)
- 10) Photograph of Marilyn Sheppard's watch (1 photograph)

The following items, received from Mr. Eric J. Weiss on November 26, 1999, were reviewed:

- 11) Document describing the examination of State's exhibit 26A (4 pages)
- 12) CD labeled 76629-02: containing scanned images of the crime scene photographs and items of evidence (51 images)

Evidence Received: (cont.)

- 13) Computer printout of the images on CD 76629-02 (3 pages)
- 14) CD labeled 76629-04; containing scanned images of the crime scene photographs and items of evidence (50 images)
- 15) Computer printout of the images on CD 76629-04 (3 pages)
- 16) Photographs taken at the crime scene and of items of evidence (51 photographs)

The following item, received from Mr. Dean Boland on November 30, 1999, was reviewed:

- 17) Report written by Mr. Barton Epstein (6 pages)

The following item, received from Mr. Dean Boland on December 6, 1999, was reviewed:

- 18) Report written by Mr. Barton Epstein (6 pages)

The following items, received from Mr. Andy Nichol on December 17, 1999, were reviewed:

- 19) Trial transcript of the testimony of Mary Cowan in the first trial (169 pages)
- 20) Trial transcript of the testimony of Mary Cowan in the second trial (119 pages)

The following item, was reviewed on December 28, 1999:

- 21) "The Killer's Trail" a documentary which was broadcast on public television

The following items, received from Mr. Dean Boland on December 29, 1999, were reviewed:

- 22) Computer printout images of the HLA DQ-alpha and polymarker DNA test strips (8 pages)
- 23) Cuyahoga County Coroner's Office Photography Department Report (10 pages)

Observations and Opinions:

A) Position of Marilyn Sheppard's body:

Examination of the crime scene photographs showing Marilyn Sheppard's body in relation to the bloodstains on the bed and the surrounding areas are consistent with Marilyn Sheppard being struck where she lay.

B) Position of Assailant during Bloodshed:

Examination of the crime scene photographs which show the Sheppards' bedroom as well as a review of Dr. Paul Kirk's notes and testimony reveal that the walls in the northeast corner of the bedroom, by the foot of Marilyn Sheppard's bed, exhibited a bloodstain void. The notes, testimony, and photographs indicate that bloodspatter was present on all the walls of the bedroom as well as the surrounding furniture.

Observations and Opinions: (cont.)

Assuming the notes, testimony, and photographs are accurate, the void is consistent with the presence of an intermediate target for the bloodspatter, which was removed after bloodshed ceased. If the assailant was standing at the foot of the bed while striking Marilyn Sheppard's head, obstructing access of the blood to the walls in the northeast corner of the bedroom, this would result in the observed bloodstain void.

C) Right or Left Handed Assailant:

The bloodstain patterns that were present on the walls and the furniture in the Sheppards' bedroom are consistent with being impact bloodstain patterns. No evidence was observed which would indicate if the assailant held the murder weapon with their left hand or right hand while striking Marilyn Sheppard.

D) Bloodstains on the Closet Door:

Two bloodstains that had an appearance different from the bloodstains that were surrounding them were present on the closet door in the Sheppards' bedroom. The majority of the bloodstains that were present on the closet door are consistent with impact bloodstain patterns. The two larger oval bloodstains do not appear to be consistent with the appearance of the surrounding impact bloodstain patterns, indicating that these bloodstains were deposited on the closet door by some other mechanism than forceful impacts of the murder weapon into the blood source. No evidence was observed which would indicate the origin or mechanism by which the two bloodstains were deposited on the closet door. The theory that the two bloodstains are from injuries to Marilyn Sheppard's assailant can not be excluded.

E) Bloodstain Patterns on the Pillow:

Photographs of the pillow that was present on Marilyn Sheppard's bed revealed impact bloodstain patterns on both sides which are consistent with the position of the pillow being changed during bloodshed. Present on both sides of the pillow were large bloodstains that are consistent with the pillow having been in direct contact with a liquid blood source. The source of the transfer patterns could not be identified with the documentation that was provided.

F) Bloodstain Patterns on Sam Sheppard's Pants:

No photographic documentation was provided of Sam Sheppard's pants. Review of Mary Cowan's analysis report and testimony from both trials revealed the presence of a large bloodstain on the left front of the pants by the knee. Mary Cowan's testimony in the second trial revealed that she treated the pants with luminol to determine if trace amounts of blood may have been present on the pants. The luminol revealed luminescence on: the right front between the pocket and the midpoint, left front, right side slightly toward the back, back of the left leg, and on the right leg cuff. Microscopic examination of these areas revealed reddish brown stains, many of which appeared as streaks. Testing of these areas with benzidine reagent resulted in negative test results. A review of the forensic literature concerning the sensitivities of benzidine reagent and luminol for the detection of trace quantities of blood revealed that luminol is more sensitive than benzidine reagent for the detection of trace amounts of blood.

Observations and Opinions: (cont.)

Mary Cowan's examination of Sam Sheppard's pants indicates that trace amounts of blood may have been present on the right front between the pocket and the midpoint, left front, right side slightly toward the back, back of the left leg, and on the right leg cuff.

G) Bloodstain Patterns on Sam Sheppard's Watch:

The photographs and scanned images of Sam Sheppard's watch revealed several areas of contact bloodstains. Also present on the watch were several small diameter bloodstains consistent with the watch being a target for impact spatter, which was caused by high force impacts into the blood source.

H) Bloodstains Deposited around the Sheppard's House:

Present in the Sheppards' house were numerous bloodstains consistent with being a blood trail. Blood trails result when blood drips from a surface or object as it moves in a horizontal motion through the crime scene. Two common causes of blood trails are blood dripping from an injury while the person moves through the crime scene, or blood dripping off a blood saturated surface such as the murder weapon. The blood trails that result from injuries can be very long trails because the dripping blood can be replenished until the bleeding is stopped. Blood trails that are the result of blood dripping from a saturated surface tend to be shorter in length because the quantity of blood is limited to that which is on the object. The length of the apparent blood trail in the Sheppard house is long, which is consistent with a trail due to injury. It is not possible to exclude beyond reasonable scientific certainty that the trail was not caused by blood dripping off the murder weapon. Blood dripping off the murder weapon as the cause of the blood trail cannot be excluded because: 1) the murder weapon was never identified or recovered and its surface characteristics are unknown, 2) Mary Cowan's description of the bloodstains in the trail as having diameters of .25 inches and less, and 3) the apparent absence of blood in any of the drawers which were opened and dumped on the floors in rooms around the house.

I) DNA Analysis of Evidence Samples:

The photographs of the HLA DQ-alpha and polymarker DNA analysis test strips were examined and compared to Dr. Mohammad Tahir's reports dated February 3, 1997, and April 21, 1999. Not all of the evidence that was analyzed by Dr. Tahir appeared to be present in the photographs. The DNA test strip labels were not always clear as to which evidence sample they represented. It is noted that very weak dot development may not be visible in the photographs of the DNA test strips.

The bloodstain from the closet door (1-C) appeared to correspond to the DNA test strips labeled "76629 1-C". The "C" dot on the HLA DQ-alpha strip and the "S" dot on the polymarker strip were both missing. When the control dots fail the DNA results cannot be interpreted.

Observations and Opinions: (cont.)

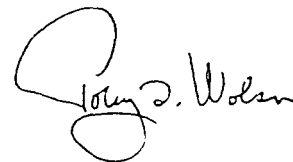
The bloodstain on Sam Sheppard's pants (b-3-b-1) appeared to correspond to the DNA test strips labeled "b-3-b-1." The DNA profile of the bloodstain on the pants is consistent with being a mixture of DNA types. If the analysis by Dr. Tahir is correct concerning the DNA types of Sam Sheppard and Marilyn Sheppard, their DNA types are excluded from the mixture. If the analysis by Dr. Tahir is correct concerning the DNA type of Richard Eberling, his DNA type cannot be excluded as a constituent of the mixture. In addition, the DNA mixture exhibits DNA types that do not match the DNA types of Sam Sheppard, Marilyn Sheppard, and Richard Eberling.

The bloodstain on the wood chip (3) appeared to correspond to DNA test strips labeled "3 (wood chip)." The "C" dot on the HLA DQ-alpha strip and the "S" dot on the polymarker strip were both missing. When the control dots fail, the DNA results cannot be interpreted.

The apparent semen sample from the vaginal smear (A-59-1) appeared to correspond to the DNA test strips labeled "vag m-f." The "C" dot on the HLA DQ-alpha strip and the "S" dot on the polymarker strip were both missing. When the control dots fail, the DNA results cannot be interpreted.

The observations and opinions expressed in this report are based on the evidence that was reviewed through January 7, 2000. The submission of any additional evidence may affect these observations and opinions.

Respectfully,

A handwritten signature in black ink, appearing to read "Toby L. Wolson". The signature is fluid and cursive, with the first name "Toby" and last name "Wolson" clearly distinguishable.

Toby L. Wolson, M.S.
Forensic Biologist