Hicks, Anthony

Steven J. Harrington, fingerprint examiner with the Wisconsin Department of Justice Crime Laboratory (pp. 2-10)

Karen S. Doerfer, forensic serologist with the Wisconsin Crime Laboratory (pp. 11-43)

1		And you may be seated.
2		Next witness.
3		THE CLERK: Raise your right hand, please.
4		(Witness complies)
5		(Witness sworn by the clerk)
6		Thank you.
7		Have a seat, please.
8		(Witness complies)
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10		STEVEN J. HARRINGTON,
11		called as a witness in behalf of the State,
12		having been first duly sworn, was examined, and testified on oath as follows:
13	DIRECT	EXAMINATION BY MS. SCHWAEMLE:
14	Q	Sir, could you state your name, please, and spell your
15		first and last name for the reporter.
16	A	"Steven J. Harrington," S-T-E-V-E-N, H-A-R-R-I-N-G-T-O-N.
17	Q	And what is your occupation or profession?
18	A	I'm an analyst with the Wisconsin Department of Justice,
19		Crime Laboratory, in Madison.
20	Q	How long have you been working at the Crime Laboratory?
21	Α	Approximately 16 years.
22	Q	And what, in particular, are your duties at the Crime
23		Laboratory?
24	А	My primary duties are as a fingerprint examiner;
25		I also examine tire and footwear impressions;

1 I'm a member of the Crime Laboratory's field 2 response team; and 3 When called upon, I testify in court. What, in particular, is your training and experience in 4 Q 5 fingerprint identification and comparison? 6 Prior to my employment with the Crime Laboratory, I was Α 7 employed as a fingerprint examiner with the Wisconsin Department of Justice, Crime Information Bureau. 8 9 The Crime Information Bureau contains the 10 Central State Inked Fingerprint Card Files. 11 And, there, I received my initial training in 12 fingerprint comparisons and identifications, beginning in 13 1971. 14 Since that time, I have attended a number of formal training programs and courses in the comparison 15 16 and identification of fingerprints and palmprints. 17 0 And, since that time, have you been performing fingerprint identification and comparisons, as a regular 18 19 part of your duties at the Crime Laboratory and at the 20 Crime Information Bureau? 21 Yes, I have. Α 22 Mr. Harrington, I want to show you what's been marked as 0 23 Exhibit Number 37, and ask if you have ever seen that 24 item before. 25 Α Yes, I have.

1 Q What, in particular, is it?

A Exhibit 37 is a plastic City of Madison Police Department
evidence bag, containing standard inked fingerprint and
palmprint cards, bearing the name "Anthony Hicks."
Q And you refer to those as "inked" finger and palmprints.
How is an "inked" finger or palmprint different from a
"latent" finger or palmprint?

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8 A An "inked" fingerprint or palmprint is an outline of the 9 ridge detail which is present on the fingers and palms of 10 all individuals. The inked print is intentionally taken, 11 to permanently record the ridge detail that is present on 12 the fingers and palms.

A "latent" fingerprint or palmprint is an outline of the ridge detail which is present on the hands. However, it is commonly a term used to refer to prints that are left, by chance, on an object that has been handled, as opposed to the "inked" print, which is intentionally recorded.

19 Q Mr. Harrington, every time an object is handled, as I 20 handle objects right now (indicates), do I necessarily, 21 or does one necessarily, leave a latent finger or 22 palmprint?

23 MR. NUNNERY: Objection, your Honor.
24 Suggestive and leading.

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It's a hypothetical.

1 MS. SCHWAEMLE: It's not a hypothetical. 2 THE COURT: I will overrule that objection. 3 You may answer the question. 4 Α No. 5 BY MS. SCHWAEMLE: 6 0 And why not? There have to be a number of conditions present for a 7 Α 8 fingerprint to be transferred to the surface of an object 9 which has been handled or touched: 10 There has to be either a moisture or some 11 sort of substance present, either on the fingers or the 12 object touched, that would allow for the transfer of the 13 outline of the print; and 14 The receiving surface of the object touched 15 would have to be a relatively-smooth surface, that would 16 allow for a clear impression of the finger when it 17 touches the surface. 18 There are also a number of other 19 possibilities that would eliminate the possibility of a 20 clear fingerprint or palmprint being placed on an object 21 when it's touched. 22 Have you, in your experience as a fingerprint analyst, Q 23 ever seen a latent finger or palmprint on a piece of 24 cloth, for instance? 25 Α Yes.

1 Q What kind of cloth?

2 Α I've seen latent prints visible on fabrics such as 3 bedding, or smooth, relatively flattop, fabric surfaces. 4 0 And, in those situations, what are those latent prints 5 made with? In other words, how is the impression left? 6 I can recall, offhand, seeing visible impressions left in Α 7 blood, or in a greasy-or-oily-type substance, on fabric 8 surfaces. 9 Absent those kinds of substances -- blood, or paint, or Q 10 greasy or oily substances -- are you able to lift latents 11 from porous surfaces, like cloth?

12 A Generally speaking, no.

13 Q Mr. Harrington, I also want to show you Exhibit Number 18 14 and Exhibit Number 26. Are those items that you were 15 asked to examine in -- with respect to this particular 16 case?

17 A Yes.

I want to refer you, first, to 18, which is before you. 18 Q 19 Can you tell us what, if any, examinations you conducted 20 on that particular item, and what result you received. 21 I examined Exhibit 18 which, is a perfume bottle, for the Α 22 presence of latent fingerprints or palmprints. 23 Q And were you able to locate any latent finger or 24 palmprints?

25 A I did not locate any fingerprints or palmprints suitable

1 for identification. 2 Q And, when you say "...suitable for identification," what 3 do you mean by that? 4 Α The outline of a fingerprint, for example, is not a straight line, continuous ridge outline. The ridges tend 5 6 to form a good deal of curvature or specific patterns. 7 And, within the ridges, there are a number of 8 characteristics, which typically are called "points of 9 identification." There could be characteristics such as 10 ridge endings, dividing ridges, short ridges, dots. 11 By observing these ridge characteristics, and 12 the relative location of the ridge characteristics to 13 each other, it is possible to compare and subsequently 14 identify a fingerprint. 15 When I say that there are insufficient 16 ridge -- ridges or ridge characteristics present to allow 17 for a comparison or identification, I'm saying that I don't believe that there is anything of a latent 18 19 fingerprint value on that object. 20 Q I want to now direct your attention to the other item 21 that I placed before you, and that Number is 26. Did you 22 also have occasion to examine that, or what's contained 23 in that plastic bag, in connection with this case? 24 Α Yes. 25 Q What is contained in that exhibit?

1 Α Exhibit 26 contains two latent fingerprint or palmprint 2 lifts. 3 And did you have occasion to compare those latent lifts Q 4 with the known inked fingerprints of Mr. Hicks, that you 5 have before you? 6 Α Yes. 7 Q And what was the result of your comparison? 8 Α I did locate, on Item 26, the latent lifts, latent 9 fingerprints and palmprints, suitable for identification. 10 I compared them with the inked fingerprints and 11 palmprints on Item -- or Exhibit 37, the inked 12 fingerprint cards reportedly from Anthony Hicks. 13 And I did not effect an identification. 14 Q When you say you "...did not effect an identification," 15 what does that say about who made those latents in --16 that were made by SI Ness? 17 Α In my opinion, the latent fingerprints and palmprints 18 observed on Exhibit 26 were not made by the same person 19 that made the inked fingerprints and palmprints on 20 Exhibit 37. 21 Mr. Harrington, perhaps it goes without saying, but are Q 22 fingerprints and palmprints unique to each individual? 23 Α Yes. 24 (Pause) 25 MS. SCHWAEMLE: Thank you, sir.

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1		I have nothing further.
2		THE COURT: Mr. Nunnery,
3		Thank you.
4	CROSS	-EXAMINATION BY MR. NUNNERY:
5	Q	Mr. Harrington, approximately how many trials, criminal
6		trials, have you testified in?
7	A	I believe the number is in excess of 100.
8	Q	And, with respect to Exhibit 26, the two latent
9		palmprints are clearly identifiable. Is that correct?
10	A	In my opinion, yes.
11	Q	And, also, Mr. Harrington, the State did not produce any
12		additional inked prints for you to examine, did they?
13	A	That's correct.
14	Q	And, Mr. Harrington, in your business of doing
15		fingerprinting, is there a way of doing elimination
16		prints of a suspect?
17	А	(No response)
18	Q	Strike that. Let me rephrase that.
19		If one wanted to, hypothetically, eliminate a
20		suspect, would it require additional fingerprinting?
21	Ă	Yes.
22	Q	Would it not have been helpful to know what other
23		individuals were in the apartment when the prints were
24		lifted?
25	A	Yes.

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1 And the more individuals that you have fingerprinting Q 2 from can either eliminate one suspect or another. Is 3 that correct? 4 Α In my opinion, it could -- it could lead to that 5 conclusion, yes. 6 (Discussion had off the record) 7 MR. NUNNERY: Bear with me, Mr. Harrington, please. 8 (Pause) 9 BY MR. NUNNERY: 10 With respect to Exhibit 26, were you told where that Q 11 print came from? 12 Α Not that I recall. 13 Assuming, hypothetically, that that print came from the 0 14 telephone in Exhibit 19, taking the fingerprints of any 15 and all individuals who may have used that phone -- would 16 that have been helpful in further eliminating one 17 suspect, versus another? 18 Α That is possible, yes. 19 (Pause) 20 MR. NUNNERY: No further questions, your Honor. 21 THE COURT: Thank you. 22 Ms. Schwaemle. 23 MS. SCHWAEMLE: Nothing further. 24 THE COURT: Thank you, sir. Appreciate your 25 testimony. You may step down.

1		(Witness excused)
2		State's next witness.
3		(Witness summoned)
4		THE CLERK: Raise your right hand, please.
5		(Witness complies)
6		(Witness sworn by the clerk)
7		(Witness assumes stand)
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9		KAREN S. DOERFER,
10		called as a witness in behalf of the State,
11		having been first duly sworn, was examined, and testified on oath as follows:
12	DIRECT	EXAMINATION BY MS. SCHWAEMLE:
13	Q	Could you please tell us your name and spell your last
14		name.
15	A	"Karen S. Doerfer," D-O-E-R-F-E-R.
16	Q	And, Ms. Doerfer, is your occupation or profession?
17	Α	I'm a forensic serologist at the Wisconsin Crime
18		Laboratory, in Madison.
19	Q	How long have you been employed in that capacity?
20	A	Over 16 years.
21	Q	And what does a forensic serologist at the Crime
22		Laboratory do?
23	А	I analyze physical evidence for the presence of blood,
24		hairs, fibers and semen;
25		I then identify those substances, as to their

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1 origin, and make further attempts to individualize them; 2 I then prepare a written report regarding my 3 findings; and 4 I testify in a court of law, as an expert 5 witness. 6 Q And, Ms. Doerfer, what training and education do you have 7 that prepares you, or qualifies you, to do those things 8 that you described? 9 I received a bachelor of science degree in biology and Α 10 microbiology, and public health, from the University of 11 Wisconsin-Oshkosh; 12 I worked for two years at the Wisconsin 13 Department of Agriculture, as a microbiologist; 14 I have worked at the Crime Laboratory for 16 15 years, during which time I underwent a six-month 16 probationary training period; 17 I also attended the FBI Academy, in hairs and 18 fibers and, also, serology; and 19 Also, during my years of work at the Crime 20 Laboratory, I have attended various seminars and 21 workshops. 22 Q And do you engage in those types of comparisons and 23 analyses that you have described as a regular part of 24 your duties at the Crime Laboratory? 25 Α Yes, I do.

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1 Q That's what you do every day? 2 Α Yes. 3 0 Ms. Doerfer, I want to show you, among other things, two items that have been marked Exhibits 24 and 28, and ask 4 5 if you recognize those. 6 Α Yes, I do. 7 0 What are they? State's Exhibit 24 is a Wisconsin Crime Laboratory Sexual 8 Α 9 Assault Evidence Collection Kit, reportedly from a 10 ;" and 11 State's Exhibit 28 is a Wisconsin Crime 12 Laboratory Sexual Assault Evidence Collection Kit, 13 reportedly from an "Anthony Hicks." 14 Q And did you, at some point, receive those items from 15 Detective Anderson? 16 Α Yes, I did. 17 Along with those items, did you also receive from Q 18 Detective Anderson Exhibits 3, 4, 5 and 28? 19 And you can take a look at those. 20 Α (Witness complies) 21 Q Did you receive ---22 I received all of these exhibits at the Crime Α Yes. 23 Laboratory. I noticed, when you were examining those, Ms. Doerfer, 24 0 25 that you're looking for something in particular. What

1 are you looking for? 2 The evidence tag that I placed on the clothing, which Α 3 bears: 4 The Crime Laboratory case number; 5 Item designation; 6 Date; and 7 My initials. 8 Q I want to also show you what's been marked as Exhibit 9 Number 29, and ask if you also have seen that item. 10 Α Yes, I have. 11 0 And does that Exhibit 29 bear: 12 Your initials; 13 Date; 14 Item designation; and 15 Case number? 16 Α Yes, it does. 17 In particular, the date that you look for -- what date is Q 18 that? 19 It, generally, is the date which I start examining the Α 20 item or receive it at the Crime Laboratory. It depends 21 on if it ---22 The outside container, which these were 23 contained in, is the date that I received it; 24 The inside date is the date which I began 25 examining it.

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And, with respect to that particular Exhibit 29, what are 1 Q 2 those dates, the date of receipt and the date of your 3 examination? 4 Α The date of receipt would be December 5th, 1990; 5 The date of examination, or when it was 6 begun, was December 10th, 1990. 7 Referring, now, back to the Sexual Assault Evidence 0 8 Collection Kits in this case -- I don't want to have to 9 go into those -- in each of these instances, what is 10 contained in those boxes, in those Evidence Collection 11 Kits? 12 The kit, in its entirety, would consist of: Α 13 A whole blood sample; 14 Vaginal and cervical smears and swabs; 15 Oral and anal smears and swabs; 16 Pubic hair combings: 17 Pubic hair standards; 18 Head hair standards; and 19 A saliva standard. 20 Q In addition to the items that you have before you there, 21 and that you have identified, did you also receive, from 22 Detective Anderson, some bedding, in the form of a 23 comforter and pillowcase? 24 Α Yes, I did. Let me ask you, first, with respect to it, whether or not 25 Q

1 you performed any, or attempted to perform any, 2 `serological examination on any of the items of evidence 3 that you received, and how you did that. 4 Α First of all, I would identify semen on any item that I'm 5 looking at; 6 I do a visual examination for the various 7 items, whether it be a swab or smear, or a piece of 8 clothing or bedding; 9 Recover hairs; and 10 Then look for stains that are characteristics 11 of semen or -- I'm also looking for bloodstains; 12 And I'd look for stains which would be --13 which I would be able to further identify, as blood of 14 human origin; and 15 If I identify semen, based on the 16 visualization of sperm, I would then make attempts to 17 further individualize it, or do serological testing. 18 Q With respect to the vaginal and cervical smears that you examined in the Sexual Assault Evidence Collection Kit of 19 20 , were you able to identify or locate any 21 semen or sperm? 22 Α No, I was not. 23 There were also, I believe, some swabbings in that 0 24 exhibit, in that kit. Were you able to locate or 25 identify any sperm or semen in those swabbings? Reg March State Barrow

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1 Α From the buttocks? 2 Q From the buttocks. 3 Α No, I was not. 4 0 With respect to the items of clothing and bedding that 5 you examined -- the bedding you don't have before you --6 were you able to locate or identify any evidence of sperm 7 or semen? 8 Yes, I was. Α 9 Q And on what items did you locate those? 10 А On a comforter. 11 0 And what kinds of analyses -- after you located on the 12 comforter those items, what kind of analyses did you 13 attempt to perform? 14 Α I attempted to do serological testing, which would 15 determine, or could determine, the blood type of the 16 semen that was present. 17 And the results were inconclusive, due to a 18 lack of sufficient material for typing purposes. 19 Can you describe to us, in fact, what it was that you Q 20 identified on that comforter. 21 There were actually -- there was the spermatozoon, which Α 22 is one sperm; and 23 Also, some spermatozoa, with heads, which are 24 just the head portion of the sperm. It is lacking in the 25 tail.

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1 Q When you conducted your analysis, Ms. Doerfer, did you 2 exhaust all of that spermatozoon evidence that you 3 identified? 4 Α No, I did not. 5 0 What did you do with the rest of it? 6 I only looked at one of the small stains that was Α 7 present. 8 I kept the other one. And I believe it was 9 sent off for DNA testing. 10 I want to direct your attention to Exhibit Number 5, Q 11 which is your Item H, and ask what, if any, serological 12 analyses and results you received in examining that item, 13 which is the pantyhose. 14 (Pause) 15 I identified blood of human origin on the pantyhose. Α 16 And I also identified amylase, which is 17 consistent or indicative of saliva, from the pantyhose. 18 In examining the comforter, in addition to the semen Q 19 stains that you have talked to us about, did you locate 20 any other items of evidentiary value when you examined 21 the comforter? 22 Α Yes, I did. 23 What were those? 0 24 Α There was a Negro head hair recovered from the comforter, 25 also.

1 Did you effect or conduct any analysis of that hair? Q 2 Α Yes, I did. 3 0 What kind of an analysis is that? 4 Α I did a microscopic comparison with known standards from 5 Anthony Hicks. 6 Q Did you recover any other hair samples from the items of 7 evidence that you were asked to examine? 8 Α Yes, I did. 9 0 And from which of those items did you recover hair 10 samples? 11 There were hairs recovered from the sweepings, which were Α 12 a vacuumed area around the bed. 13 Q And, with respect to Exhibit Number 27, did you recover 14 any hair from that particular item? 15 Α Yes, I did. 16 And what -- where did you recover hair from in that item? Q 17 I recovered a Caucasian head hair from the inside of the Α 18 pair of black pants in Exhibit 27. 19 (Exhibit 38 marked for identification) 20 0 Ms. Doerfer, I have had marked, as Exhibit 38, a 21 photograph that you brought with you. Can you describe 22 for us what that photograph depicts. 23 Α There are two photographs here. 24 The photograph on this side (indicates) is 25 the microscopic comparison, or a visual aid, to give you

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an idea of the different microscopic characteristics that are present in the hair.

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And, in this particular one (indicates), on the left side, you see -- this is the hair that was recovered from the inside of the pair of black pants, a Caucasian head hair.

7 And that was compared to standard hairs 8 reportedly from (indicates).

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9 And you can see that there are a lot of
10 similarities in these two hairs.

11And the results of that comparison was that12the questioned hair from the pants was consistent with13the standard hair from the pants.

14And, on the other side, there's -- this is15just one of the questioned hairs that was recovered from16the foot area of the bed. They were vacuum sweepings.

17And the one on the left side is the18questioned hair from the sweepings.

19The one on the right side is the known20standard from Anthony Hicks.

And the results of my comparison determined
that the hairs were consistent. The questioned hair was
consistent with the standard hair.

24There were a total of three hairs from that25one particular item, the sweepings from the foot of the

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1 bed, that would be consistent with the standard. 2 This is just one photograph of one small area 3 of the hair (indicates), to give you an idea of what the 4 hairs looked like. 5 0 I guess, for our continued and future benefit, could 6 you ---7 I have written, on here (indicates), "Hicks Known Standard" and "Fortier Known Standard." Could you 8 9 stick that on the respective fronts, so we know what 10 we're talking about. 11 Α (Witness complies) You indicate that Exhibit 38, with respect to the suspect 12 0 13 hair of -- that you examined, that particular suspect 14 hair on the right came from the vacuum sweepings? 15 Α Yes, it did. 16 Q And it was one of how many that compared, consistent? 17 Α Three. 18 0 Did you also recover -- did you also do a comparison with 19 the hair that you located on the comforter? 20 Α Yes, I did. And how did that compare with the known? 21 Q 22 That was a head hair. Α 23 That was consistent with Anthony Hicks' 24 standard head hair. 25 Q That was a head hair.

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1 And this particular hair, that is depicted --2 is that also head hair, or something ---3 Α No. That's pubic. 4 Were all of the vacuum sweeping hairs, that were 0 5 consistent, pubic? Or were some of them head? 6 Let me refresh my memory with my notes. Α 7 Q Fine. 8 (Pause) 9 А They were all pubic. 10 There were a total of four pubic hairs, that 11 were Negro, that were -- three were consistent with 12 Anthony Hicks, and one was similar. 13 Q Can you tell us, when you -- what kinds of 14 characteristics you look at when you examine a hair 15 sample for consistency or inconsistency. 16 There are numerous characteristics that are present in Α 17 the hair. 18 And, as you can see, they vary greatly 19 between a Caucasian hair and a Negro hair. 20 I will, first, start with the Negro hair. 21 It's probably easier to see what I'm talking about. 22 You can see lots of little brown specks in here (indicates), real dark specks. Those are pigment 23 24 granules. And they can vary within an individual. They can either be large clumps or, as in this hair, barely --25

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you can hardly see them (indicates), as anything really distinct. They appear more as streaking, rather than clumping, in the Negro hair.

And they vary across the diameter shaft, as to how they're concentrated in the hair (indicates), and then, also, along the hair shaft (indicates).

7 And, frequently, in some Negro hair, you can 8 find a totally opaque area, which means that it's so dark 9 and concentrated with pigment that the light that is 10 coming through, with the comparison microscope, will not 11 allow me to see any of the detail in the hairs.

And, in this case, there is -- there's light enough, or it's distributed lightly enough, that the hair -- or the light will shine through.

15 Also, this is pretty much typical of pubic 16 hair. You can see, in the middle, there's a real dark 17 black area here (indicates). That's called the 18 "medulla." And that can vary within hairs. That can be 19 continuous, meaning it's all the way along the shaft of 20 the hair, or the length of the hair, or it could be broken, or scattered, or it can appear to be light. 21 You 22 can see the globules in there (indicates), or the outlining of the medulla (indicates), but it's not black, 23 24 like that (indicates).

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And, also, which is characteristic of Negro

hair, you can see sort of a shading on the outside (indicates), or a yellowish cast. That is frequent in Negro hair.

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And, also, maybe, a little bit of gapping along the cuticle area, or where pigment is absent, in this area (indicates).

7 Also, in pubic hair, there is a lot of -- can 8 be a lot of curliness, a characteristic which is called "buckling," which may be apparent (indicates). It's sort of like a ribbon. It's twisting. It can be flatter in some areas than in other areas.

12 And, in Negro hair, if you were to cross-section a hair, it is flatter, in comparison to a 13 14 Caucasian hair, which is more eliptical.

15 And then, in a Mongolian hair, or Native 16 American hair, or an oriental person, the hair shaft is 17 perfectly round.

18 And then those same characteristics, which 19 are easier to see in this particular hair (indicates), 20 are also present in the Caucasian hair (indicates), but 21 may be to a lesser degree.

22 In this particular hair, you do not see the medulla (indicates). It's not obvious, anyway, in this 23 24 particular section of the hair. And this is a head hair. 25 So that's probably why there may not be a medulla there.

1 In pubic hair, you generally have some sort 2 of medulla that shows up. 3 And, in a pubic hair, also, in looking at it microscopically, it tends to have a pointed tip on it. 4 5 They're shorter in length than head hairs, usually. 6 And, with head hairs, if you looked at the 7 end, the outside end, you might have a cut, a razor cut, 8 or something like that. 9 Those are, generally, some of the characteristics that can allow you to distinguish between 10 11 a head hair and a pubic hair. 12 Q In discussing that particular diagram, you talked about a 13 number of features that are characteristic of Negro hair. 14 Α Yes. 15 Does the hair of all Negroes look the same? Q 16 Α No, it does not. You used the term, Ms. Doerfer, "consistent," one being 17 Q "consistent" with the other. Is hair analysis such that · 18 19 you could ever say that they are the same? 20 Not with the microscopic comparison. Α 21 Is hair, in that sense, like fingerprints? Q 22 Α With doing strictly microscopic work? 23 (Indicates affirmatively) Q 24 Α No, it's not. 25 0 How many characteristics -- how many individual

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1 characteristics do you compare before you're satisfied 2 that one hair is consistent with another? 3 Α There's not a real number, per se. 4 What I do is: 5 Look at all the standards that I have 6 prepared from one individual, look at those hairs; 7 Get an idea of what the range of 8 characteristics is; and 9 Then do a side-by-side comparison of the 10 questioned hair to the standard hair. 11 And it's at that time, while I'm looking at 12 the hairs, that I make a determination as to whether I 13 feel it's within the range of all those characteristics. 14 There is no magic number, to say, or make me 15 determine, that it's consistent. 16 So, based on your analysis, are you able to say, to a 0 17 reasonable certainty, whether or not the unknown hair on 18 the left could have come from Diane Fortier? 19 A It could have. 20 0 And, with respect to the hair on the -- hairs on the 21 right, are you able to say, to a reasonable degree of 22 scientific certainty, that the unknown hair standard 23 could have come from Anthony Hicks? 24 Α The unknown hair? 25 Q That the unknown hair that you examined could have come

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1		from Anthony Hicks.
2	A	Yes. It could have.
3		(Pause)
4		MS. SCHWAEMLE: Thank you,
5		Ms. Doerfer.
6		THE COURT: Mr. Nunnery.
7		MR. NUNNERY: Yes.
8	CROSS	-EXAMINATION BY MR. NUNNERY:
9	Q	Good morning, again, Ms. Doerfer.
10	A	Good morning.
11	Q	We've met before.
12	A	Yes.
13	Q	You have you did a report in this case on February
14		13th, 1991. Is that correct?
15	A	That's correct.
16	Q	And, in your report, you indicated that serological
17		typing examination of the whole blood standard of
18		Anthony Anthony T. Hicks was determined. Is that
19		correct?
20	A	Yes, I did.
21	Q	And you found Mr. Hicks to be an "O" secreter.
22	A	That's correct.
23	Q	And you did a serological typing examination of Ms.
24		Fortier?
25	А	Yes.

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1 Is that correct? 0 2 Α Yes. That's correct. And you found her to be an "O" nonsecretor. 3 0 4 Α That's correct. 5 And isn't it correct that, by Mr. Hicks being a secreter 0 6 being a nonsecretor, you would be unable and Ms. 7 to correlate blood samples, saliva, in identifying 8 whether Mr. Hicks was there in the -- as the assailant? 9 There is insufficient material for reliable typing Α 10 purposes. 11 Q But, if both were secreters, hypothetically, you would 12 have been able to correlate, through her sweat, saliva, 13 or whatever, whether Mr. Hicks was there, or not. 14 Α If there's not enough material there, I can't make any 15 correlation. 16 Q Okay. Okay. So you weren't able to make any 17 correlation. 18 Α No. 19 (Pause) 20 MR. NUNNERY: Your Honor, may I see the 21 stipulation. 22 THE COURT: The which? 23 MR. NUNNERY: The stipulation. The stipulation. 24 (Discussion had off the record) 25 THE COURT: We'll have to go through it.

1 THE CLERK: Let me see if I can find it. 2 THE COURT: Okay. 3 (Pause) 4 BY MR. NUNNERY: 5 0 Now, you also indicated that there was insufficient 6 material to do the spermatozoon analysis in your Lab. 7 Α That's correct. 8 Q And you indicated that some of it was sent for DNA 9 testing. 10 Α That's my understanding. 11 Q Well, for all times material, you had custody of this 12 material ---13 Right? 14 --- or the State Crime Lab did. 15 Right? 16 Yes. Α 17 Q So you do know that some of this material was sent for 18 DNA testing. Is that correct? 19 Α That was my understanding, yes. 20 Q Were you responsible for that material being sent out? 21 Α No. It was sent back to the agency, the submitting 22 agency. And I believe they sent it. 23 Q So you didn't have custody of it. 24 Α Not after that point. 25 Q But you were in court when Mr. Hicks was requesting that

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1 a DNA test be run on him. 2 Α That's correct. 3 MS. SCHWAEMLE: Objection. 4 Relevance, if Mr. Hicks was in court requesting a DNA testing be done. 5 6 THE COURT: I'll leave it stand. 7 Go ahead. Keep going. 8 I'm still trying to find this for you, Mr. 9 Nunnery. 10 BY MR. NUNNERY: Have you had an opportunity to review that DNA test? 11 0 12 A No, I have not. 13 (Pause) 14 MR. NUNNERY: Okay. 15 Your Honor, I don't need it. If she hasn't 16 reviewed the report ---17 THE COURT: Okay. 18 MR. NUNNERY: --- I can't ask her any questions. THE COURT: We'll try to find it, in any event. 19 20 MR. NUNNERY: Okay. 21 (Pause) 22 BY MR. NUNNERY: But, with respect to your serological exam, examining the 23 Q 24 victim's saliva, blood, the comforter, pillowcase, and 25 all the other evidentiary material, you were never able

1 to make any correlation that Mr. Hicks was the assailant 2 in this case, were you? 3 (Pause) 4 Α I'm not sure I understand your question. 5 0 You didn't have sufficient evidentiary material to 6 correlate any of the blood samples, saliva, or any of 7 your tests, tying Mr. Hicks to this crime, did you? 8 Α That's correct. 9 (Pause) 10 Q Now, Ms. Doerfer, you have been to the Forensic Science 11 Research And Training Center, at the FBI Academy, in 12 Quantico, Virginia. Is that correct? 13 Α That's correct. 14 Q And, at the McCrone (ph.) Institute, you know a "Richard 15 E. Bisbing"? 16 Α Yes, I do. 17 0 And are familiar with some of his work? 18 I know of him. I met him when ---Α 19 Q He's spoken very highly of you. 20 Α Thank you. Oh. 21 Q Now, let's kind of educate the jury a bit here. 22 Biologically, man is broken down into 23 basically three groups: 24 Mongoloids; 25 Negroids; and

1 Caucasaurs (sic). 2 Is that correct? 3 Α "Caucasian ---" 4 "Caucasaurs." 0 "--- Caucasoid"? Is that what you're saying? 5 Α 6 0 Yah. What is the biological term for it? 7 A Negroid; 8 Mongoloid; and 9 Caucasian. 10 Q But the scientific names are: 11 Caucasaur (sic); 12 Negroid ---13 Α "Caucasoid." 14 "Caucasoid." I'm sorry. Q 15 Α That's how you pronounce it. 16 Q And, as such, each of these groupings have various 17 characteristics, with respect to hair. 18 Α. That's correct. 19 Now, you would agree that each hair is a piece of tissue 0 20 which could conceivably possess the biochemical 21 individuality of blood or the structural individuality of 22 fingerprints. Would you agree with that? 23 Α No. Not regarding the fingerprints. 24 Q Okay. 25 Α With the individual's quality of blood, it would have to

1 be the hair root portion.

2 Q Now, as to the hair root, in your gathering, with the
3 pubic hairs, did you have any hair roots of the victim
4 and of Mr. Hicks?

5 A I'd have to look at my notes, if I even made mention of 6 that at the time.

(Pause)

8 Okay. The only mention I have in my notes is 9 that, on the pink -- or on the comforter, there was a 10 Negro hair fragment -- or there were two Negro hair 11 fragments, and one of them had a root.

12I did not make any note as to whether the13hair which I determined, or compared to Hicks -- I didn't14note whether it had a root on it, or not ---15QNow, Ms. Doerfer ---

16 A --- and nothing on the others, either.

17 Q Okay. I'm sorry.

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18 --- root tissue has -- hair root tissue has a
19 very significant meaning to you. Is that correct?
20 A I, personally, don't find there's a lot of different
21 characteristics in the root.

As part of our collection process, in the Sexual Assault Kits, we ask for "pulled" and "cut" hairs. So, therefore, we can do a microscopic comparison without the root.

1 Q Yah. But, if you have the root tissue of Diane Fortier 2 and the root tissue of Mr. Hicks, there does exist a 3 definitive exam, which can be made to say, for a fact, 4 with certainty? 5 Α It would have to be DNA testing. And we don't do that. 6 But that exam exists, does it not? Q 7 Α Yes, it does. 8 Q And you did not do that exam in this case, did you? 9 We don't have the capability of it. Α 10 My question, Ms. Doerfer: You did not do that exam in 0 11 this case, did you? 12 Α No, I did not. 13 But you did send the DNA analysis on the semen. Q 14 Α I didn't, personally, send it. 15 0 But you would agree, Ms. Doerfer -- and I apologize, 16 again -- that, had you simply done the DNA root tissue 17 analysis, and sent that out, that would have confirmed, 18 one way or the other, whether that head hair was, in 19 fact, Mr. Hicks' and whether the other one was, in fact, 20 Ms. 21 I don't know that, for sure. Α But you do know that a DNA test could confirm that, one 22 Q 23 way or the other. 24 Α It could confirm, or it could eliminate. 25 Now, with respect to Negroid hair, if I may, the hair Q

1 from the Negroid mankind group, the three component parts 2 of the hair are the "cuticle ----" 3 Can you show that to the jury, please. 4 Α The "cuticle" would be this (indicates), what I 5 indicated, earlier, had a yellow cast to it, the very 6 outside portion of the hair. 7 And the "medulla"? 0 8 Α The black area in the center of the hair shaft 9 (indicates). 10 0 And the "cortex"? 11 Α The "cortex" is the remaining area, which contains most 12 of the pigment. 13 0 Now, on Mr. Hicks' sample, at the base of the middle 14 portion ---15 The middle portion is the "cortex"? This is the "medulla" (indicates); 16 Α 17 This is the "cortex." 18 0 The "medulla." At the base of the medulla, if you look 19 closely there, do you not see some small circles around 20 the medulla? 21 Α (No response) 22 Q Along the line of the medulla, at the base. 23 It appears that ---Α 24 Are you talking right along here (indicates)? 25 Q Yes.

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It appears that it might be part of the medulla. 1 Α Some of 2 it is dispersed a little bit into the cortex area. 3 Q But you do not see those small circles on the medulla on 4 the other portion, do you? 5 Not in that particular area. Α 6 I guess it all appears to be -- the medulla 7 is just dispersed a little bit into it. 8 Q My question to you, again, Ms. Doerfer: On the hair that 9 you found from the combings (sic), you do not see those 10 little small circles, do you? 11 Α Not "combings," in ---12 Q The little circles I asked about -- you don't see that on 13 the -- on the hair from the sweepings, do you? 14 Could you point specifically to what circles you're Α 15 talking about, so we're talking about the same thing. 16 (Mr. Nunnery complies) 0 17 That's just part of the medulla. Α 18 I understand that. 0 19 My question to you: On the combings (sic) 20 from the sweeping, you don't see that similarity, do you? 21 Α You're referring to "combings" from "sweepings." I want 22 to be talking about the same sample. They're just 23 "sweepings." They're not "combings."

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Q Ma'am, with respect to this sample (indicates), you do
not see those small circles along the base of the

1 medulla, do you? 2 Α Well, I can ---3 Q You can make the testimony whatever you want it to be. 4 But I'm asking you to testify what you see. That's all 5 I'm asking. 6 Α I'm looking at this side (indicates) and, also, this side 7 (indicates) ---8 Q Yes. 9 Α --- because they are -- appear to be opposite here. 10 And I see little areas, out here (indicates), 11 that are protruding, as far -- or dispersed, as to what 12 they are on this side (indicates). 13 Q I think that it will speak for itself. 14 So you are saying that same similarity on Mr. 15 Hicks' hair exists on the other one? 16 Α It's just one of many similarities that are used for 17 comparison purposes. 18 Q Now, all Negroid hair, physiologically speaking, is 19 structured in that manner, in terms of the cortex, the 20 medulla and the cuticle. Is that correct? 21 Α They -- all hair will have those three components. 22 0 Yah. But all Negroid hair -- maybe, not the same 23 coloring -- has that kind of separation or existence. 24 Α My understanding is it would. Okay. 25 Q

1 It won't look exactly like that. Α 2 Q I know it won't look exactly like that ---3 Α Okay. 4 Q --- but, structurally, it's made that way. Isn't that 5 correct? 6 Α Yes. 7 And, in fact, my hair, as a Negroid, would have that same Q 8 similar structure. Is that correct? 9 Α Yes. 10 Mr. Hicks' hair would have that same similar structure. 0 11 Α Yes. 12 And you cannot, as you do in fingerprinting, say, for a Q 13 fact, that that's Mr. Hicks' hair, can you? 14 А No, I cannot. 15 And you cannot say, for a fact, that the hair on the left Q 16 belongs to can you? 17 Α No, I cannot. 18 In fact, taking your own hair, if it goes through a 0 19 microscope, it's going to have the same physical 20 characteristics as , because you are a 21 Caucasoid. Isn't that correct? 22 Α All hair has basically the same structure. 23 My question to you: The physical structure of yours will 0 24 have the same features and characteristics as Ms. 25

It's going to have the three same characteristics, being 1 Α 2 the cortex, medulla, and the cuticle. 3 And some will vary because, like I indicated 4 earlier, the medulla may not appear in some hairs. 5 There's going to be variation. 6 However, those are, basically, the three 7 components of hair. 8 (Pause) 9 If fact, Ms. Doerfer, there is no way to definitively Q 10 prove that the hair from Mr. Hicks' hair excludes all 11 others, does it, in your comparison? 12 (Pause) 13 Α Could you repeat that. 14 In your analysis, you can ---Q 15 Strike that. 16 You cannot testify that, based upon Mr. 17 Hicks' hair and the known sample, you can exclude all 18 other blacks, can you? 19 Α No, I cannot. 20 And, likewise, with the sample of Ms. Q you 21 cannot say that you can exclude all other whites, can 22 you? 23 Α No, I cannot. 24 (Pause) 25 MR. NUNNERY: No further questions, your Honor.

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1 THE COURT: Thank you. 2 Ms. Schwaemle, do you have further questions? 3 MS. SCHWAEMLE: Yes. Thank you. 4 REDIRECT EXAMINATION BY MS. SCHWAEMLE: 5 0 Ms. Doerfer, in your experience as a -- in doing hair 6 comparisons like this, do all Negro pubic hairs look 7 alike? 8 No, they do not. Α 9 Do all Caucasian head hairs look alike? 0 10 Α No, they do not. 11 And, before you can get up on this stand and say that one 0 12 hair sample is consistent with another, approximately --13 approximately -- what number of characteristics do you 14 have to find similar, or consistent, before you're able 15 to say, "In my opinion, these are consistent and could 16 have come from the same person"? 17 Α All of the microscopic characteristics that I look at. 18 0 And all of the characteristics that you looked at, in 19 this case, are approximately how many? 20 Α (No response) 21 I don't want you to list them, again. You went through a Q 22 detailed list originally, I think. 23 I don't have an exact number. It's just every, you Α 24 know -- in doing the comparison, all the characteristics, I felt, from the questioned hair were within the range of 25

1 those in the standards. 2 You may find one hair that exactly matches a 3 particular hair in a standard. 4 However, other hairs within that standard may 5 have different characteristics, and so it may fall within 6 the range of all those characteristics. 7 Does the Wisconsin State Crime Lab presently have the 0 8 capability of performing DNA testing? 9 Α No, we do not. And as you indicated, before you can do -- based on your 10 0 11 training and experience, do you have an opinion about 12 whether or not you can do DNA testing on hair without a 13 hair root? 14 Α It's my understanding, no. 15 0 That you cannot. 16 Α Right. 17 And, in the standards that were collected, you indicate 0 18 that there's "pulled" hair in those standards? 19 Α Yes. 20 0 Does that generally include a root? 21 Α Yes, if it's pulled. And, in the unknowns, do you necessarily have a root? 22 0 23 Α No. 24 Q And in fact, in this case, with respect to the hair 25 standard of , did you have a root? Did you

1 have a root structure? 2 Α In the standard? 3 Yes. Q 4 Α There were probably some roots, and some without roots, 5 because that's part of our protocol in collecting the hairs -- that there are some "pulled" and some "cut." 6 7 0 In doing your examination, do you have a kind of a check 8 list, called a "Microscopic Examination Of Hair Standards"? 9 10 Α Yes, I do. 11 And, with respect to the examination of Q 12 did you prepare such a check list? 13 Α Yes, I did. 14 Is one of the items on that check list "Root ---" 0 15 MR. NUNNERY: Your Honor, may I approach the bench? 16 THE COURT: Surely. 17 (Counsel approach the bench) 18 (Discussion had off the record and out of hearing of the jury) 19 MR. NUNNERY: Go ahead. 20 BY MS. SCHWAEMLE: 21 Is one of the items on your check list, Ms. Doerfer, a Q 22 "Root Structure"? 23 Α Yes. 24 Q In your notes, does it indicate whether 25 had a root structure?

1		(Pause)
2	A	Yes, it does.
3	Q	And what does it say?
4 .	A	It says it's at the "anagen" stage, A-N-A-G-E-N.
5	Q	And, with respect to Mr. Hicks, does it indicate whether
6	,	the ones you had for Mr. Hicks had a root structure?
7	A	Yes.
8	Q	What did
9	A	Some did.
10	Q	Approximately how many times, in your experience at the
11		Crime Laboratory, have you conducted hair comparisons?
12	A	Oh, thousands. Hundreds, maybe. I don't know.
13		(Pause)
14		MS. SCHWAEMLE: Thank you.
15		That's all I have.
16		THE COURT: Further questions?
17		MR. NUNNERY: No further questions, your Honor.
18		THE COURT: Thank you. You may step down.
19		(Witness excused)
20		State's witness.
21		MS. SCHWAEMLE: Finally, your Honor, there is a
22		stipulation that is entered into, by the defense and the
23		State, regarding the fact that evidence was submitted for
24		DNA analysis.
25		The stipulation speaks for itself.

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