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2 MR. KLEIN: The People call Detective Charles
3 Fraas.

4 D E T. C H A R L E S A. F R A A S, Shield #446,
5 from the Scientific Investigation Bureau of the Nassau
6 County Police Department, called as a witness on behalf
7 of the People, having first been duly sworn by the Clerk
8 of the Court, was examined and testified as follows:

9 DIRECT EXAMINATION
10 BY MR. KLEIN:

11 Q Detective Fraas, how long have you been with the
12 Nassau County Police Department?

13 A Sixteen years.

14 Q How long have you been assigned to the Scientific
15 Investigation Bureau?

16 A A little over fifteen years.

17 Q Could you describe what your present duties are
18 with the Scientific Investigation Bureau.

19 A Yes, sir. My current duties include the
20 examination and analysis of physical evidence, for the
21 presence of blood, hair, semen, and other body fluids.

22 Q Can you describe for the jury what your training
23 and experience is, with respect to those duties.

24 A Yes. I have a Bachelor's Degree in biology, from
25 Hofstra University. In addition to that, I have six months

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2 of training under my immediate supervisors on basic
3 serological and hair examination techniques.

4 In addition to that, I have two weeks of training
5 at the New York City Medical Examiner's Office, on advanced
6 bio-chemical methods of analysis of blood and hair. I have a
7 week training at the FBI Academy, on forensic microscopy of
8 hair; a week of training at the University of Connecticut, on
9 the forensic microscopy of hair and fibers; two weeks of
10 training at the FBI Academy, on bio-chemical methods of
11 analysis of blood, hair and body fluids.

12 In addition to that, I attended numerous seminars
13 and other schools, sponsored by the American Academy of
14 Forensic Science, Northeastern Association of Forensic
15 Science, and various other organizations in the area.

16 Q Are you a member of any professional organizations
17 in your field?

18 A Yes, sir.

19 Q What are those?

20 A The Northeastern Association of Forensic Science,
21 and American Academy of Forensic Science.

22 Q Have you had occasion, previously, to testify in
23 criminal cases, concerning hair analysis?

24 A Yes, sir.

25 Q Approximately how many times have you done that?

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2 A I would say in excess of fifty times.

3 Q Have you testified for the defense, as well as the
4 prosecution?

5 A Oh, yes, sir.

6 Q Now, could you describe for the jury what hair
7 comparisons, or hair analysis, consists of.

8 A Yes, sir. Hair comparison is basically a
9 microscopical examination. And the very nature of hair
10 comparison is that you are examining two samples, side by
11 side, a known sample that is removed from someone's scalp or
12 pubic area; and at the same time, a questioned sample or
13 sample removed from a scene, or an item of evidence.

14 Each sample is mounted on a microscope, two
15 microscopes, side by side, for the two samples, and viewed
16 simultaneously in the same viewing field.

17 Q Can you describe for the jury what the separate
18 components of human hair are.

19 A A hair has three basic overall anatomical regions.
20 The outermost portion is called the cuticle. The central
21 portion is called the medulla. And the material that fills
22 in the medulla to the cuticle, is called the cortex.

23 Q What types of characteristics do you look for, when
24 making this microscopic examination?

25 A I look for any number of characteristics, including

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2 the presence of the cuticles, the clarity, the appearance of
3 it. Is the inner margin defined; are the scales protruding.
4 How long are the scales.

5 As I progress into the innermost portions, I
6 examine the pigment granules, for various characteristics,
7 and overall appearance of it. The presence or absence of the
8 medulla and how that appears; whether it's translucent or
9 opaque, and a number of other characteristics.

10 Q Detective Fraas, I show you what's been marked for
11 identification as People's Exhibit 34. Do you recognize that
12 exhibit?

13 A Yes, sir; I do.

14 Q What do you recognize that to be?

15 A This is the envelope containing the scalpular
16 samples removed from Theresa Fusco.

17 Q Who did you receive that from?

18 A If I can check with my report. That was received
19 from Officer Birdsall, at SIB, back on December 11, 1984, at
20 four o'clock in the afternoon.

21 Q The marking -- are there any markings on that, that
22 you made?

23 A Yes, sir. My SIB number, initials, and my
24 notations, "Sample K-1."

25 Q You put K-1 on that particular envelope, to denote

1 that particular envelope?

2 A Yes, sir.

3 Q I ask you to look at People's Exhibit 35 for
4 Identification. Do you recognize that?

5 A Yes, sir.

6 Q What do you recognize that to be?

7 A A questioned sample number 8, associated with this
8 Homicide investigation. The envelope contained hair samples
9 that were removed from the front seat floor area of the van.

10 Q And where did you receive that envelope from?

11 A Again, this was received from Officer Birdsall, on
12 March 26, 1985, six o'clock in the evening, at SIB.

13 Q And did you make any markings on that?

14 A Yes, sir. SIB number is placed on here, and the
15 notation, Q-8. Questioned sample number 8.

16 Q I take it you received a number of envelopes on the
17 26th of March, from Officer Birdsall?

18 A Yes, sir.

19 Q Did you place a K with a number on each one of the
20 envelopes?

21 A Yes, sir; I did.

22 Q Now, did you have an occasion to examine the hairs
23 contained in envelope K-1, which is People's Exhibit 34, with
24 the hair contained in Q-8, envelope Q-8, which is People's
25

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2 Exhibit 35?

3 A Yes, sir.

4 Q Did you do that hair analysis that you've
5 described, using the microscope?

6 A Yes, sir.

7 Q Can you describe what if anything your findings
8 were with respect to that examination.

9 MR. WOODS: I would object.

10 THE COURT: Read back the question.

11 (Whereupon the pending question was read back
12 by the court reporter)

13 THE COURT: Sustained.

14 Q Where did you perform the examination?

15 A In the Scientific Investigation Bureau.

16 Q That's at police headquarters?

17 A Yes, sir.

18 Q Did you examine hairs from both of those envelopes?

19 A Yes, sir.

20 MR. KLEIN: I offer those into evidence, those
21 envelopes.22 MR. WOODS: I have no objection to the
23 envelopes.

24 THE COURT: 34 and 35.

25 (Whereupon People's Exhibits 34 and 35,

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2 previously marked for Identification, only, were
3 now received and marked in Evidence)

4 Q Now, Detective Fraas, based upon your training in
5 the area, together with your examination of the hairs on
6 those two envelopes, do you have an opinion with respect to
7 that examination?

8 MR. WOODS: Objection.

9 THE COURT: Overruled.

10 A Yes, sir; I do.

11 Q What is that opinion?

12 A My opinion is that the questioned hair sample
13 removed from the van, could have originated from the scalp of
14 Theresa Fusco.

15 Q That's based upon a comparison of the hairs from
16 K-1 to Q-8?

17 A Yes, sir.

18 Q Could you describe for the jury what if any
19 physical characteristics you saw, that led you to that
20 opinion.

21 A Yes, sir. Included in the characteristics that led
22 me to my conclusion, are the fact that both hairs are
23 Caucasian. They're both scalp hairs, and brown. The
24 questioned sample certainly fits within the range,
25 length-wise, from the known sample. The tips on both the

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2 questioned sample and the known sample, are both cut --

3 Q (Interposing) What do you mean by that, the tips
4 cut?

5 A The tips of the hair aren't shredded, split or
6 braided. They're somewhat freshly cut. The root, in both
7 hair samples, are somewhat stretched with follicular tags
8 attached. That's some sort of dermis or cellular material
9 attached to the root portion.

10 Q From the scalp, you mean?

11 A Yes, sir. The diameter of the questioned sample is
12 approximately sixty microns. And the range of diameters in
13 the known samples, are between fifty-six and ninety-six
14 microns. The individual hairs taken singularly, in the known
15 sample, exhibit very little diameter variations from the root
16 to the shaft. And that also is consistent in the questioned
17 sample. The cuticle appearance in both the questioned and
18 known samples, show some variation, and thickness in the
19 individual hairs. And the inner margin of the cuticle,
20 microscopically, is not consistently defined in all the hairs.
21 And not consistently defined along the entire shaft in each
22 hair.

23 Q Is that true with respect to the questioned hairs
24 and the known hairs?

25 A Yes, sir.

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2 Q Go ahead.

3 A The cuticle does give an overall clear appearance.
4 And the scales which are comprised in the cuticle, are
5 somewhat serrated in appearance; especially in the areas that
6 exhibit some artificial treatment. In both the questioned
7 sample and the known sample, there seems to be some sort of
8 artificial treatment that was applied to the hair. I
9 wouldn't call it a strong dye, or a heavy bleaching. But
10 something along the lines of perhaps a residue of a perm.

11 Q Now, with respect to that, did you find -- where
12 did you find the presence of the artificial treatment on the
13 questioned hair and the known hair?

14 A In the distal portions of the hair, or the areas
15 most distant from the root portion.

16 Q What about the pigment of the hairs?

17 A The pigment granules are defined as coarse in
18 appearance. Medium density, oblong to round shape. And the
19 pigment granules are distributed evenly and along and across
20 the shaft. Distributed evenly in that regard, with some
21 striking of the pigment granules. The medulla is classified
22 as fragmented, meaning that the medulla is -- it occupies
23 less space than a continuous medulla; sometimes opaque, and
24 sometimes translucent in appearance.

25 Q Is this in both the questioned and the known hairs?

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2 A Yes, sir. The corticle cells are obscured; the
3 cells that are present in the cortex portion of the hair.
4 The overall appearance of the hair is rather straight.

5 Q This is -- these are all present in both the known
6 sample and the questioned sample?

7 A Yes. Those characteristics apply to both.

8 Q Did you find anything with your microscopic
9 examination, that showed that the questioned hair was
10 inconsistent with the known sample?

11 MR. WOODS: Objection.

12 THE COURT: No. I'll permit it. Overruled.

13 A No, sir. The range of characteristics that are
14 exhibited in the known sample, are exhibited also in the
15 questioned sample.

16 MR. KLEIN: I have no further questions.

17 THE COURT: All right. I'm going to recess
18 for lunch.

19 Do not discuss the case among yourselves. Do
20 not discuss it with anyone else.

21 Do not permit anyone else to discuss it with
22 you.

23 We'll see you at two o'clock.

24 (Whereupon there was a luncheon recess)

25 * * *

that you all stopped and looked at the area where Theresa Fusco was allegedly found?

A That's where Mr. Kogut told us to stop. Yes, sir.

Q Is that where you stopped; right by the wood?

A Yes, sir.

MR. WOODS: I have no further questions.

MR. KLEIN: No redirect.

THE COURT: Thank you, detective.

Call your next witness.

MR. KLEIN: The People call Police Officer Wayne Birdsall.

P O L I C E O F F I C E R W A Y N E

B I R D S A L L, Shield #603, assigned to the Scientific Investigation Bureau of the Nassau County Police Department, called as a witness on behalf of the People, having been first duly sworn by the Clerk of the Court, was examined and testified as follows:

DIRECT EXAMINATION
BY MR. KLEIN:

Q Police Officer Birdsall, how long have you been a member of the Nassau County Police Department?

A Thirteen years, this June.

Q You mentioned that you're assigned to the Scientific Investigation Bureau. How long have you been