

STATE OF WISCONSIN : CIRCUIT COURT : MANITOWOC COUNTY
BRANCH 1

STATE OF WISCONSIN,

PLAINTIFF,

JURY TRIAL
TRIAL DAY 13

vs.

Case No. 05 CF 381

STEVEN A. AVERY,

DEFENDANT.

DATE: FEBRUARY 28, 2007

BEFORE: HON. PATRICK L. WILLIS
Circuit Court Judge

APPEARANCES:

KENNETH R. KRATZ
Special Prosecutor
On behalf of the State of Wisconsin.

THOMAS FALLON
Special Prosecutor
On behalf of the State of Wisconsin.

NORMAN A. GAHN
Special Prosecutor
On behalf of the State of Wisconsin.

DEAN STRANG
Attorney at Law
On behalf of the defendant.

JEROME BUTING
Attorney at Law
On behalf of the defendant.

STEVEN A. AVERY
Defendant
Appeared in person.

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Reported by Jennifer K. Hau, RPR

Official Court Reporter

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1 (Reconvened at 9:12 a.m., jurors not present.)

2 THE COURT: At this time the Court calls
3 State of Wisconsin vs. Steven Avery, Case No.
4 05 CF 381. We're here this morning, uh, outside the
5 presence of the jury at this time for the
6 continuation of the trial in this matter. Will the
7 parties state their appearances for the record,
8 please?

9 ATTORNEY KRATZ: Good morning, Judge.
10 The State appears by the Calumet County District
11 Attorney, Ken Kratz, Assistant Attorney General,
12 Tom Fallon, Assistant D.A. Norm Gahn, appearing
13 as special prosecutors.

14 ATTORNEY STRANG: Steven Avery's present
15 in person, Jerome Buting and Dean Strang on his
16 behalf.

17 THE COURT: All right. I'll indicate for
18 the record that I met with counsel, uh, in chambers
19 before beginning today, uh, to discuss the schedule
20 for today, uh, and, uh, the Court also discussed
21 with counsel the, um, issue relating to the, uh,
22 victim's, uh, voicemail records, which the Court
23 reserved ruling on, uh, yesterday, uh, and I'd like,
24 uh, counsel to indicate the status of that matter as
25 they see it, uh, this morning.

1 Um, Mr. Buting, you were offering the
2 evidence, so I'll have you go first.

3 ATTORNEY BUTING: Yes, Judge. Uh, my
4 understanding is that, uh, there may or may not
5 be a -- a explanation that -- acceptable to the
6 defense as to the, uh, nature of these particular
7 records, which seem to indicate that messages
8 were listened to only through November 2 at eight
9 a.m.

10 Um, the State is going to be following
11 up on this and attempting to confirm, or get some
12 information, or actually present a -- a witness
13 from Cingular who can explain their records,
14 which clearly seem to indicate that, to me, if
15 the records are -- can be explained otherwise,
16 then we'll have that answer, and, if not, then
17 it's something that we will be raising and asking
18 the Court to permit, um -- to be admitted at
19 this -- in this trial.

20 THE COURT: Mr. Kratz?

21 ATTORNEY KRATZ: Judge, we, uh, will
22 have a combination of witnesses that will explain
23 Mr. Buting's misinterpretation of these records.
24 Uh, we intend to do that before the close of our
25 case, just as soon as those witnesses, which we

1 expect to be remote witnesses, that is, from out
2 of state, uh, are, uh, available. I'll alert the
3 Court and Counsel of that fact and we will be
4 calling them, as I mentioned, before the close of
5 our case.

6 THE COURT: All right. Uh, anything else
7 before we bring in the jurors?

8 ATTORNEY BUTING: One thing I wonder is
9 whether we might want to at least mark the
10 exhibit that we were, uh -- that's the subject of
11 this issue so that it could be not presented to
12 the jury, obviously, unless it's so ruled, but at
13 least it is part of the record?

14 THE COURT: Oh, um, I agree. I wasn't
15 aware it hadn't been marked. Uh, it definitely
16 should be.

17 (Exhibit No. 372 marked for identification.)

18 ATTORNEY BUTING: All right. So this
19 is --

20 THE COURT: What is the exhibit number?

21 ATTORNEY BUTING: It's 372, but the,
22 uh -- Exhibit is 372 and it's a, uh -- a computer
23 record of voicemails from Teresa Halbach's
24 Cingular phone covering the period of October 31
25 through November 3. I think there actually is

1 one two weeks later even, November 16. Um, a
2 record from Cingular, and the interpretation or
3 explanations of it will have to wait until we can
4 find out further information.

5 THE COURT: Very well. Anything else
6 before we bring in the jury?

7 ATTORNEY KRATZ: Your Honor, I think I
8 need that exhibit number again. I'm sorry.
9 Three --

10 THE CLERK: Three seventy-two.

11 ATTORNEY KRATZ: Three seventy-two.
12 Thank you.

13 THE COURT: All right. You can call in the
14 jury.

15 (Jurors in at 9:17 a.m.)

16 THE COURT: You may be seated. Uh, good
17 morning, members of the jury. Uh, Mr. Kratz, at
18 this time you may call the State's next witness.

19 ATTORNEY FALLON: Um, yes, Your Honor.
20 Um, the State would call, uh, to commence
21 testimony today, Special Agent Tom Sturdivant.

22 **THOMAS STURDIVANT,**
23 called as a witness herein, having been first duly
24 sworn, was examined and testified as follows:

25 THE CLERK: Please be seated. Please state

1 your name and spell your last name for the record.

2 THE WITNESS: Thomas Allen Sturdivant,
3 S-t-u-r-d-i-v-a-n-t.

4 **DIRECT EXAMINATION**

5 BY ATTORNEY FALLON:

6 Q What do you do for a living?

7 A I'm a special agent with the Wisconsin Department of
8 Justice, Division of Criminal Investigation.

9 Q How long have you been employed with the
10 Department of Justice?

11 A Since November of 1998.

12 Q What is your current assignment?

13 A I am currently assigned to the Narcotics Bureau.

14 Q And how long have you held that assignment?

15 A Approximately two years now.

16 Q And where are you based?

17 A I'm based out of Wausau.

18 Q Prior to receiving a narcotics assignment, what
19 else -- what other assignments have you held in
20 the employ of the Department of Justice?

21 A I worked in the Arson Bureau, as well as the
22 Financial Crimes Bureau.

23 Q Prior to joining the Wisconsin Department of
24 Justice, had you had other law enforcement
25 experience?

1 A Yes. I was -- I worked in the Maine State Police
2 from 1998 -- I'm sorry -- 1988 until 1998.

3 Q And that is the state of Maine?

4 A That is correct.

5 Q And what did you do for them?

6 A I was a uniformed trooper for approximately seven
7 years and a detective for three years.

8 Q Generally, what kinds of cases did you
9 investigate for the, uh, Wisconsin State Patrol
10 in Maine?

11 A The Maine State Police. I investigated a variety of
12 things from basic line patrol duties, uh, traffic
13 accidents, to investigating, uh, organized crime.

14 Q Agent Sturdivant, were you called upon to assist
15 other law enforcement entities in the
16 investigation of the, uh, death of Teresa
17 Halbach?

18 A I was.

19 Q How did you become involved?

20 A On November 8, 2005, I assisted with executing a
21 search warrant at the Avery business, and later that
22 afternoon I also assisted in looking at, um, areas of
23 interest that were marked by search teams.

24 Q All right. What types of, uh -- or what --
25 what -- what -- Excuse me. What were some of the

1 areas of interest that you, um, investigated
2 further?

3 A During that day, we looked at vehicles, we looked at
4 earthen piles, we looked at things that were marked
5 by flags that might have been discovered by the State
6 Patrol, or we were just looking at things to
7 determine if they had any evidentiary value.

8 Q Directing your attention, then, to the afternoon
9 of November 8, approximately 1:30 in that
10 afternoon, did you have, uh, occasion to, um,
11 meet with a Manitowoc County Sheriff's Officer by
12 the name of Jason Jost?

13 A I did.

14 Q Tell us about that encounter.

15 A Prior to that, we were at the command post and we
16 were asked to go out and take a look at a variety of,
17 uh, different things; the earthen piles, the
18 vehicles, and so forth. And, along the way, um, we
19 came across Jason Jost who was standing in front of a
20 red flag that had marked an item on the ground.

21 Q And where was that particular item marked?

22 A That item was, uh, located behind Steven Avery's
23 garage and south of the earthen pile, uh, behind the
24 garage, approximately 80 feet from the so-called burn
25 pit.

1 Q And we're going to show you, um, a photograph. I
2 believe it's been received as Exhibit 86.
3 Directing your atten -- uh, attention to Exhibit
4 86, we're zooming in on what has previously been
5 identified as the, uh, portion of the property
6 attributed to Mr. Avery.

7 Um, directing your attention, then, to
8 Exhibit 86, does that assist you in illustrating
9 where your attention was drawn to by, uh, Deputy
10 Jost?

11 A Yes, it does.

12 Q All right. Would you, with the laser pointer,
13 indicate, uh, where you and Deputy Jost were,
14 uh -- where your attention was drawn to?

15 A If this is -- this -- this is the earthen pile here,
16 we were standing just beyond it about, uh, eight
17 feet, um, beyond that earthen pile.

18 ATTORNEY FALLON: Would the record
19 reflect the, uh, witness has indicated with the
20 laser pointer, uh, a direction a few feet,
21 apparently, uh, eight feet south of the pile,
22 which would be the top of the picture, uh, as
23 zoomed in here on Exhibit 86?

24 THE COURT: Does the defense agree?

25 ATTORNEY STRANG: I don't have any

1 quarrel. It's up to the jury in the end.

2 THE COURT: All right. Uh, the record will
3 so reflect.

4 ATTORNEY FALLON: Thank you.

5 Q (By Attorney Fallon) After Deputy Jost do --
6 drew your attention to this particular, um,
7 matter, um, first of all, could you describe a
8 little more fully what you and he were looking at
9 at that point?

10 A Excuse me. Deputy Jost was standing in front of what
11 appeared to be, in my opinion, a piece of bone
12 fragment. It was approximately one inch in length.
13 And, um, my opinion was, and I think we kind of
14 agreed, that it was a, uh -- a -- a piece of bone
15 fragment. And after looking at that, I looked at
16 this so-called burn pit at the end of that pile of
17 gravel and also noticed other -- what in my opinion
18 were bone fragments, um, that were obvious, uh,
19 around that, uh, pile of debris.

20 Q All right. And, um, I'd like to, uh, show you
21 some exhibits now. While we retrieve one exhibit
22 already introduced, I'm going to have Agent
23 Fassbender provide some additional photos for
24 your examination.

25 First of all, though, before we look at

1 those photos, I'd like to direct your attention
2 to Exhibit No. 50 as, um -- as portrayed on the
3 scene. Do you recognize that particular area?

4 A Yes.

5 Q Is that a photograph of how the burn area looked
6 when, uh, you first, um, began to inspect it?

7 A That is correct.

8 Q All right. And I note that there is a, uh,
9 German Shepherd, uh, prominently featured in the
10 center of this photograph?

11 A That is correct. It was a large, uh, in my opinion,
12 intimidating, big German Shepherd that stood on top
13 of that pile.

14 Q All right. And, um, was that, uh, German
15 Shepherd there when you first approached the area
16 to, uh, examine the article found by Deputy Jost?

17 A Yes, he was.

18 Q All right. Now, you indicated the dog was large
19 and intimidating. Could you elaborate on that?

20 A As you walked towards the mound of dirt, the dog
21 would come out and, um -- and, at times, um,
22 aggressively, um, charge towards the people that were
23 walking towards the earthen pile.

24 Q All right. Um, I believe we have some additional
25 photographs in front of you? So would you take

1 the first one on the pile, uh, turn it over, and
2 tell us what exhibit number that is?

3 A Exhibit 363.

4 Q All right. And do you recognize Exhibit 363?

5 A I do.

6 Q And what is Exhibit 363?

7 A It is a picture of -- of the dog, the earthen pile,
8 and this is a pile of, uh, sand, rock, and stone that
9 stood probably a, uh, foot to two feet above the
10 grass where the natural landscape.

11 Um, and the left -- or the low left-hand
12 corner of this, you can see in part of the burn
13 pit, um, can see the hammer that was, uh -- was
14 at the site as well, as well as the burned out
15 frame -- uh, what appeared to me a metal frame
16 seat from a motor vehicle, and lots of
17 steel-belted, uh, wire from what I thought
18 were -- were -- were steel-belted tires.

19 Q Very well. I'm going to have, um, uh -- go back
20 to Exhibit No. 50, and, um, see if we can get a
21 perspective that I'd like you to identify.

22 Again, looking at Exhibit 50, can you
23 indicate with your laser pointer the approximate
24 location of the first bone that you and Deputy
25 Jost, um, examined?

1 A The first -- the first bone is approximately out
2 here. It's about eight feet, as I estimated, from
3 the beginning of the burn pit.

4 Q All right. So it would be in -- in -- what is in
5 our picture here, would be in the -- the front
6 foreground of the picture?

7 A That's correct. It would actually be in the grassy
8 area away from the burn pit.

9 Q And that would be, uh -- So as you indicated with
10 your pointer, the, uh, lower right-hand corner of
11 the photograph?

12 A That is correct.

13 Q Thank you. All right. Uh, again, and, um, to,
14 uh, direct your attention to the next, uh,
15 photograph, uh, which has been -- The photographs
16 have been presented to you there. What's the,
17 uh -- the next photograph that, uh, you have?

18 A Exhibit 364.

19 Q All right. And what is Exhibit 364?

20 A Exhibit 364 is a -- just a different angle, um, of
21 the earthen burn, if you will. Um, you can see the
22 doghouse within that, um, and you can see the metal
23 seat, the burned out metal seat, um, metal frame of
24 the vehicle seat if -- in my opinion.

25 Q All right.

1 A Um, and you can see the -- you can see the pile.
2 This is the pile of sand and gravel that stood above
3 the landscape, and the doghouse.

4 Q All right. And there's also a propane tank
5 prominently featured in this photograph?

6 A That is correct.

7 Q All right. And, uh, the next photograph?

8 A Next exhibit is, uh, 365.

9 Q Do you recognize Exhibit 365?

10 A I do.

11 Q Okay. And Exhibit 365 is what?

12 A Exhibit 365, um, represents what I initially saw.
13 Um, the bone was out here that I initially looked at.
14 I looked at the burn pit, walked over, this is where
15 I saw charred debris to include what I believed to
16 be, um, bone fragments, a shovel, um, the large dog,
17 a seat, a -- a tire out here, lots of, um -- in my
18 opinion, lots of, um, steel belts from burned tires.
19 I believe there was a hammer in here,
20 but, uh, this -- this is -- would be the debris
21 that I focused on right here.

22 Q Uh, does that -- uh, again, does that picture, as
23 does, uh, the last exhibit, truly and accurately
24 portray the scene before any, uh, further
25 investigation took place?

1 A Yes, it does.

2 Q All right. Now, um, you began to describe -- And
3 I think we may have interrupted you. Can you
4 estimate for us the approximate size of the area
5 where the burn is, itself, in terms of its, uh,
6 dimensions?

7 A I estimated this pile of dirt to be 30 feet by
8 30 feet. It was easily the width of this garage, and
9 I estimated it to be about 30 feet in length.

10 In the center of this pit -- We'll
11 consider this the bottom of the south side, if
12 you will, is a burn pit right here. Was a -- I
13 described that as being six feet in rectangular
14 shape. It appeared to me as though somebody had
15 taken a, um -- some sort of a construction
16 vehicle with a front end loader on it, and gone
17 in there and taken approximately six feet of that
18 out and created a concave area that looked just
19 like a -- a -- a pit.

20 Um, so it was, again, about six feet
21 wide, looked like somebody had taken a big shovel
22 from a bobcat or a front end loader and scooped
23 out dirt, and removed it, and -- and, um, dumped
24 it elsewhere.

25 Q All right. Now, I note in the -- in the far

1 background of this picture, we're going to zoom
2 in, um, is there a vehicle depicted there?

3 A Yes, there is.

4 Q All right. And was that vehicle, uh, in the area
5 as well?

6 A I do not recall.

7 Q Okay. All right. Next photograph, please?

8 A Next Exhibit is 366.

9 Q What is Exhibit 366?

10 A Again, this, uh, depicts the, uh -- a portion of the,
11 um, pile of dirt, as well as, um, I believe to be
12 that -- uh, Steven Avery's trailer, the, uh, propane
13 tank and a portion of the, uh, detached, uh, two-car
14 garage.

15 Q And, uh, in -- in the foreground in front of the
16 garage is a red box-like item? What is that?

17 A Yes. That would be the doghouse.

18 Q All right. And, again, is that, generally, the
19 layout of the scene and the burn area of -- uh,
20 when you came upon the scene, on Tuesday
21 afternoon, November 8?

22 A Yes, it is.

23 Q All right. Very well. Um -- All right. Let's
24 talk, uh, again, about what you did after you and
25 Deputy Jost examined this particular, um, um,

1 bone fragment? What did you do?

2 A After looking at the bone fragment, I then walked
3 towards this burn pit. So I walked from the bone --
4 from the, uh -- the piece of bone fragment out here
5 to the burn pit. I looked at the burn pit. I
6 observed what I thought were other bone fragments in
7 and around that burn pit. I picked up a twig. I
8 moved some leaves and other things, and I could see
9 other bone fragments within that -- within the
10 charred debris. Um, I noticed what I believed to be,
11 uh, skull fragments, uh, in that debris and
12 intertwined within the steel-belted tires.

13 Um, aside from that, I didn't do much
14 with that burn pit. Um, at that point we were
15 trying to, uh, uh, get in contact with the, uh --
16 the, uh, folks from the Crime Lab, as well as
17 some of our arson folks.

18 Q All right. And, uh, were you able to, uh, get a
19 hold of anyone in the Arson Bureau, uh, that
20 particular afternoon?

21 A Myself and another agent were, uh, trying to contact,
22 uh, the arson folks. I spoke with Kevin Heimerl. I
23 believe Deb Straus -- Straus spoke with the -- I
24 think, uh, Special Agent Fassbender, as well as one
25 of our other arson agents that happened to be, um,

1 working the investigation.

2 Q All right. And, um, you mentioned something
3 about the Crime Lab? Tell us about their
4 involvement if any?

5 A Um, and we -- we attempted, um, to get those folks to
6 the, uh -- to the scene. I understood that the Crime
7 Lab was busy retrieving or collecting other, um,
8 evidence from burn barrels and so forth, so that they
9 would not be available for a bit. Um, the arson
10 agents that we spoke with were also busy, um, with
11 other, um, investigative activities, uh, so we, uh --
12 we waited for the, uh, Crime Lab to, uh, show up.

13 Q All right. And, um, at approximately three p.m.,
14 were you assisted by members of the Crime Lab?

15 A Yes. Uh, I don't have the exact time, but at some
16 point later on, um, in the afternoon, the Crime Lab
17 did show up. Um, I believe it was John Ertl, Guang
18 Zhang, um, and Chuck Cates who arrived with a van and
19 set up a sifting apparatus, a large sifting
20 apparatus, on a tripod that required two and three
21 people to assemble it.

22 Q All right. And, um, after they came with their
23 equipment -- Well, first of all, before they came
24 with their equipment, were -- were there -- was
25 there anything removed, or any shovels taken to

1 that pit, anything disturbed in the fire pit
2 area, before the arrival of the Crime Lab, by
3 yourself or any other law enforcement officer in
4 your presence?

5 A Nothing was introduced, um, between the time that we
6 discovered the pit and the time that the Crime Lab
7 arrived. We did not have proper equipment, gloves
8 or, uh, proper clothing to, uh -- to, uh, process
9 that.

10 Q Did the Crime Lab provide the necessary equipment
11 to begin processing?

12 A They did.

13 Q In addition to, um -- Tell us about the sifting
14 apparatus?

15 A Well, the sifting apparatus is a large tripod that
16 has these large, I think they're maybe three foot in
17 length, a couple of feet wide, different strains of
18 different sizes so the debris, as you -- as you moved
19 it around, certain things would fall through, certain
20 things would remain above.

21 And so as -- After setting that up
22 and -- and getting it all set up, we then took
23 the debris from that debris pile, put it on top
24 or shoveled it on top of these screens as in
25 sifted through it, and, again, the small

1 particles would fall through, the large ones
2 would remain.

3 There were two different types of
4 strains. And we picked out what we thought were
5 bone fragments. Um, other things to include
6 metal grommets, as well as a, uh, zipper. And
7 all of those items that -- Again, we -- I'm not
8 an anthropologist. I'm not trained in that
9 field. We picked out things that we thought
10 might be bone fragments, to include teeth, and
11 placed them in a box which was then, um, taken by
12 the Crime Lab.

13 Q I'm going to have an exhibit marked, for your,
14 uh, examination, by Investigator Wiegert.

15 (Exhibit No. 373 marked for identification.)

16 ATTORNEY FALLON: Want to -- Would you
17 show Counsel, please?

18 Q (By Attorney Fallon) I'm showing you what has
19 been marked for identification purposes as
20 Exhibit 360 --

21 THE CLERK: Three hundred seventy-three.

22 Q (By Attorney Fallon) -- 373. Sorry. Do you
23 recognize that particular item?

24 A I do. It's the, uh -- the zipper that was retrieved
25 from the debris as we sifted through it and placed in

1 a larger box.

2 Q All right. Very well. I'm -- I'm going to have
3 you place that back in the box and have, uh,
4 Investigator Wiegert put it on the, uh, ELMO for
5 projection.

6 ATTORNEY FALLON: Leave it in the box
7 unless you don't think it will portray. Could
8 you zoom and adjust that light for us,
9 Investigator? Little out of focus. You'll have
10 to zoom out. Very good.

11 Q (By Attorney Fallon) Is, uh, portrayed on this,
12 uh, screen now for the benefit of our jurors, is
13 that the, uh -- the piece of zipper that you, uh,
14 discovered?

15 A Yes, it is.

16 Q Thank you. In your examination of that zipper,
17 did you notice any markings on that zipper?

18 A Yes. There were three letters on the zipper.

19 Q And do you recall those letters?

20 A I don't recall them, no.

21 Q I'll have the Investigator show you the exhibit.
22 Would a pair of reading glasses assist you?

23 A They -- they might. Thank you.

24 Q Age is a terrible thing, isn't it?

25 ATTORNEY STRANG: It's better than the

1 alternative.

2 THE WITNESS: The letters are Y, K, K.

3 Q (By Attorney Fallon) Thank you. Approximately
4 how long did this, uh, sifting, um, process, uh,
5 take?

6 A The sifting process went on until, uh, just about
7 dark. Um, because of the darkness we were, um,
8 moving along, um, rapidly, trying to get -- we were
9 trying to retrieve, um, as much of the bones that we
10 could recognize and get those things to the Crime Lab
11 for examination.

12 Q All right. And why was that?

13 A Well, at this point in time, quite frankly, we don't
14 know if Teresa Halbach is alive or dead. So I had
15 made the decision that we need to get these bones,
16 um, off to the Crime Lab to determine whether or not
17 these bones were human bones and belonged to Teresa
18 Halbach.

19 Q And, um, generally, how did you and, uh,
20 Mr. Ertl, and, uh, Mr. Zhang, and Mr. Cates, and
21 I think you were -- said you were assisted by
22 Agent Straus?

23 A No. In terms of the sifting?

24 Q Yes.

25 A The sifting involved, uh, John Ertl, Chuck Cates,

1 and -- and, uh, uh, Guang Zhang from the Crime Lab,
2 myself and -- and Deputy, uh, Jason Jost.

3 Q Okay. And, um, how did the, um -- how was the
4 material taken from the pit and brought to the,
5 um, sifting apparatus?

6 A We set up the tripod. The tripod was, uh, just a
7 short ways from the burn pit, if you will. Um, might
8 have been, uh, maybe six feet from the burn pit. So
9 you've got this tripod device set up, you've got
10 these long, um -- elongated sifting devices that were
11 supported by -- by, uh, chains, and beneath that we
12 put a brown tarp.

13 John Ertl, or someone else from the
14 Crime Lab, took the shovelful of debris up,
15 placed it on top of the sifter. As we spread it
16 out with our -- with our hands and with our
17 gloves, and we sifted through it and picked out
18 those things that we felt were either bones, in
19 some cases the metal grommets, and the, uh -- the
20 zipper that, uh -- that we could discern, uh,
21 from -- from the pile of debris.

22 Other things -- you know, things that
23 fell through were placed on -- or fell to the
24 tarp. Um, the debris that could not fall through
25 was picked up and then dumped on that tarp. So

1 everything that we sifted was collected on top of
2 that tarp.

3 Other things like, uh, maybe a seat
4 belt, a metal seat belt fastener was -- was left
5 there, a hacksaw blade, other things that came
6 out of that debris, to include the, uh -- the
7 steel-belted, uh, uh, metal from the tires, that
8 was left there as well.

9 Um, so we -- we always sifted those
10 things that fit on the shovel, um, and the things
11 that we took out of that were placed in a large
12 box that the Crime Lab -- Crime Lab had and took
13 with them.

14 So we did it relatively fast due to the,
15 uh, darkness, uh, impending darkness, and, um --
16 and -- and -- and, again, carefully picked the
17 stuff up, put it on top of the, uh -- the
18 sifters, and sifted through it, and picked out
19 what we thought, was, uh, bone material and other
20 items of interest.

21 Q What did you do with the material that was left
22 on the tarp?

23 A The material that was left on the tarp was picked up,
24 collected, folded inside the tarp. There was another
25 tarp placed over it, and then we double-bagged it and

1 placed it inside a locked van at the crime scene. It
2 was basically turned over to -- to, uh, Deputy, uh,
3 Rick, uh, um, Riemer from the, uh, Calumet County
4 Sheriff's Department.

5 Q What did you do with the, um -- the -- the, um,
6 burn pit area, itself, uh, when it became too
7 dark to continue the processing?

8 A We -- we examined the scene and removed the stuff
9 down -- down to the ground surface. We did not dig
10 in the ground. We left, um, other items that we
11 found there, the shovel, and the hammer, the hacksaw
12 blade, the screw driver, um, the seat belt fastener,
13 the burned out frame, the tire, and other things were
14 left at the scene. The scene was covered with a
15 tarp.

16 And my decision was, if this turned out
17 to be Teresa Halbach, and we -- and we called
18 Special Agent Fassbender, that we should then
19 come back and more thoroughly examine this scene.
20 But our intention at that point in time were to
21 determine whether or not Teresa Halbach was alive
22 or dead at that point in time, and that's why it
23 was important to me just to get those bones off
24 to the Crime Lab to see if -- if, in fact, that,
25 uh, we discovered Teresa Halbach.

1 Q All right. Did you have any other concerns
2 regarding, um, the evidence, or the weather, or
3 anything else that factored into your
4 decision-making that afternoon?

5 A Well, um, part of that, uh, you know -- I mean, the
6 bones could have been carried off by animals, there
7 were a lot of things that could have happened, to
8 include rain or other in climate weather. I didn't
9 know the forecast at the time. Um, but, uh, we --
10 we -- we did make some preparations to cover the --
11 the, uh, burn pit, um, and pick up as many bones as
12 we could to prevent, the -- you know, the loss or --
13 or being carried off by an animal. Um, so that was,
14 uh, that -- that's what I did.

15 Q All right. I think you can remove your gloves.
16 I'm sure they're getting a little uncomfortable
17 at this point.

18 A Didn't know if there was other evidence or not.

19 Q Um, if you would, uh, examine, again, the
20 remainder of the photographs in front of you,
21 what's the -- the next photograph on the list?

22 A Yeah. That would be Exhibit 367.

23 Q All right. And what is Exhibit 367, please?

24 A That is the hammer that was, uh, um, beside the burn
25 pit. Um, that, um, was sitting, um, up on the ridge.

1 If you're facing the burn pit, up on the right-hand
2 side.

3 Q In the gravel portion?

4 A Yes.

5 Q All right. And, um, what's the next photograph?

6 A The next exhibit is, uh, 368.

7 Q And what is Exhibit 368?

8 A That's the, uh, screwdriver that was also, uh,
9 located in the pit.

10 Q Was that actually in the burn area, itself, or
11 was that in the surrounding gravel?

12 A I believe this was down inside the pit.

13 Q And what is the next item?

14 A Uh, a masonry trowel or a little pull, if you will.
15 And this was also, uh, in the, uh, burn pit area.

16 Q And that is Exhibit 3 --

17 A I'm sorry. Exhibit 369.

18 Q All right. And, finally, what else do you have
19 there?

20 A I got Exhibit 370 and 371. Exhibit 370, that's the,
21 uh -- the spade or shovel that was sitting on top of
22 the, uh, dirt and sand just to the left of the burn
23 pit.

24 Q All right.

25 A And the final exhibit I have is 371, and that is a

1 picture of the -- in my opinion, a -- a metal frame
2 of a, uh, seat from a motor vehicle. Um, this was
3 the seat that was seated -- If you're looking at the
4 pit, to the right of the pit, um, with, uh, a -- a
5 tire and some other -- other debris, to include the,
6 uh -- more metal from, uh, steel-belted tires.

7 Q All right. Um, and, finally, I'm going to
8 redirect your attention, I guess, back to, uh,
9 Exhibit No. 50, uh, which is one of the first
10 photographs. You don't have that in front of
11 you.

12 But, um -- Now, if we could, um, I
13 believe in Exhibit, uh, 50 there is a shovel,
14 which is depicted, uh, right there. Is that the,
15 uh, shovel that we just saw a picture of?

16 A That is correct.

17 Q All right. Very well. And, uh, in terms of the,
18 um -- I believe you have an exhibit in front of
19 you, uh, a photograph, uh, with the hammer and
20 its location?

21 A Yes. The hammer would have been located
22 approximately right here to the right of the pit
23 on -- on the, um, top of the mound.

24 Q All right. And now we have zoomed in on Exhibit
25 No. 50. Is that the, uh, hammer that we've just

1 examined in an evidence photo?

2 A That is correct.

3 Q Very well.

4 ATTORNEY FALLON: I have no further
5 questions for the witness. Subject to cross, I
6 would move into evidence the exhibits that we've
7 marked and identified during Agent Sturdivant's
8 testimony.

9 THE COURT: Any objection?

10 ATTORNEY STRANG: Uh, no objection to
11 any of the exhibits, which I think are 363
12 through 371, and then, numbers 373.

13 THE COURT: Very well. Those, um, exhibits
14 are admitted. Um, Mr. Strang?

15 ATTORNEY STRANG: Thank you, Your Honor.

16 **CROSS-EXAMINATION**

17 BY ATTORNEY STRANG:

18 Q Good morning.

19 A Morning, sir.

20 Q How many days were you out at the Avery property?

21 A I was out there, uh, one day, fully, and then just,
22 uh, partially for, um, a -- a morning.

23 Q The 8th was the full day out there?

24 A Yes.

25 Q November 10 was the other day?

1 A I believe so.

2 Q You were gone in between for court obligations or
3 something?

4 A That is correct.

5 Q How many, uh, sites did -- did you see while you
6 were at the Avery property at which you found
7 actual or suspected human bone fragment?

8 A Just one.

9 Q The one you've described here?

10 A That's correct. Yes.

11 Q Now, this site, though, uh, the first fragment
12 that you saw, uh, was next to a red flag?

13 A Yes, sir.

14 Q The red flag was next to a sheriff's deputy?

15 A That's correct.

16 Q The sheriff's deputy was Jason Jost or Jost?

17 A Yes, sir.

18 Q From Manitowoc County Sheriff's Department?

19 A Yes, sir. Correct.

20 Q That red flag and Deputy Jost were about eight
21 feet south of the burn pit or the burn area
22 you've described?

23 A That's correct.

24 Q Eight feet south onto grass?

25 A That's correct. Yes.

1 Q There did not appear to be burnt ground or burnt
2 grass in the area of that first bone fragment?

3 A There was not.

4 Q Didn't look like it had been used as a burn area?

5 A No.

6 Q Did the, uh, dog leash, so far as you know,
7 extend that far south to the, uh -- to the red
8 flag of the bone fragment?

9 A It did not, to the best of my knowledge.

10 Q While we're at it, um, the dog we saw in the
11 picture, did he or she stay there the entire time
12 you folks were sifting and going through this
13 burn pit?

14 A No. It's my recollection that the dog was removed, I
15 believe, prior to the sifting. So I thought the dog
16 was removed at some time between, uh, the time that
17 we contacted the Crime Lab and the time that we began
18 our sifting.

19 Q And that was a matter of asking an officer to
20 come and remove the dog?

21 A I'm not certain who did that, but I believe the dog
22 was removed by -- could have been the animal control
23 officer.

24 Q Okay. That was a matter of just simply making a
25 phone call and getting somebody to do it?

1 A Yes.

2 Q You had some prior experience as an arson
3 investigator with -- with our Crime Lab?

4 A I had never worked with the Crime Lab at a crime
5 scene prior to that.

6 Q I'm sorry. I -- I --

7 A I misunderstood the question, perhaps, but --

8 Q I may have misunderstood the testimony. I
9 thought -- I thought I had understood you to say
10 that you had experience as an arson investigator
11 prior to November 8, 2005?

12 A I did, but I never used the services of the Crime Lab
13 or the Field Team.

14 Q My mistake. My mistake. I'm -- I said Crime
15 Lab. What I meant was DCI, Division of Criminal
16 Investigation.

17 A That's correct. Yes.

18 Q Same Wisconsin Department of Justice, two
19 different entities within the Wisconsin
20 Department of Justice; right?

21 A Yes, sir.

22 Q Crime Lab, what we'll -- we will call DCI, the
23 Division of Criminal Investigation?

24 A Yes, sir.

25 Q All right. My mistake. You're with DCI?

1 A That's correct.

2 Q The Crime Lab people help process more
3 challenging scenes?

4 A Correct.

5 Q Uh, your work, though, with DCI had -- it had
6 included a stint as an arson investigator?

7 A Yes, sir.

8 Q Had you ever dealt with what -- what's called a
9 body cremation or a suspected body cremation site
10 before this one?

11 A Yes.

12 Q On how many occasions if you remember?

13 A Uh, maybe three or four different occasions. Not to
14 this extent, though.

15 Q Okay. And I -- and when -- when I say "body
16 cremation" I mean the distinguishing those from
17 what you'd -- what I -- I would call an arson
18 site. Are you also drawing a distinction?

19 A I would -- I would draw the distinction between we
20 talking about charred remains or somewhat decomposed
21 bodies from fire scenes?

22 Q Right. And let's develop that. I want to
23 develop that with you just a little bit more, all
24 right?

25 A Yes.

1 Q An -- an arson scene, uh, sometimes,
2 unfortunately, will -- will involve one or more
3 human fatalities?

4 A Correct. Yes.

5 Q In your experience with an arson scene, what has
6 happened is either you suspect, or someone
7 actually has, set fire deliberately to some
8 structure or property?

9 A Yes.

10 Q In your experience, as an arson investigator,
11 sometimes a murder has occurred in the structure
12 or at the scene and fire is set to try to dis --
13 disguise the murder?

14 A Correct. Yes.

15 Q In other situations, the fire is set and someone
16 inside the property perishes in the fire?

17 A Yes.

18 Q Whether intended by the arsonist or not?

19 A Yes.

20 Q What is common to arson scenes involving a
21 fatality, in your experience, is that, typically,
22 if there's a death, that body simply lies where
23 it falls, so to speak?

24 A Yes.

25 Q Uh, the -- the person may have died before a fire

1 was set, but the arsonist has set the fire and
2 left?

3 A Yes.

4 Q Or if the arsonist has started the fire and
5 somebody's unfortunate enough to be in the
6 building, or not be able to get out, the person
7 falls where the smoke or the flames overcome
8 them?

9 A As well, correct.

10 Q Uh, so, typically, in an arson scene that would
11 involve the recovery of charred human remains,
12 those remains, again, typically, in your
13 experience, simply are -- are in place and have
14 not been tampered with unless firefighting
15 personnel inadvertently have disturbed that
16 scene?

17 A There is typically a body or a -- somewhat of a, um,
18 um, body remain because, typically, that body remains
19 on a surface and is protected. In this case, um --
20 I'm sorry. And -- and, you know, in the arson scenes
21 I've been in, if the body remains on a surface, the
22 body is somewhat protected, um, so that there is a --
23 there is, um, somewhat, uh -- or often a -- a --
24 could be a complete body, could be a partially
25 decomposed body.

1 Q Sure. And in this -- I -- I don't mean to be
2 unnecessarily in a cob here, uh, this morning,
3 but, um, it -- when you say "protected", there
4 may be fallen debris or other materials from the
5 burnt property that are atop the body.

6 A That's correct. Typically, whatever the body is
7 lying on, or if there's something lying on the body,
8 that body will be protected. There will be a body.
9 My experience, of all the arsons I've been to, that
10 body is always protected on at least one side, and
11 you will see -- or have a body or a partially
12 decomposed body.

13 Q Right. Not something that's been re -- reduced
14 entirely to charred bone?

15 A Correct.

16 Q So when you say "protected", you'll have tissue
17 on at least one side of the body?

18 A Tissue, clothing, whatever's protected.

19 Q Sure. Because, for example, if someone falls
20 facedown on the floor, uh, the -- the -- the
21 thermal injury, the heating, has no access to,
22 then -- to the -- what would be the front side of
23 my body if I'm lying facedown on the floor?

24 A Correct.

25 Q Uh, and, again, barring inadvertent disturbing

1 of -- of that scene by firefighting efforts, um,
2 you would expect the -- the body or the remains,
3 essentially, to be contained within the area in
4 which the person fell or laid?

5 A For the most part, yes.

6 Q That's your experience --

7 A Yes.

8 Q -- for the most part in arson investigations?

9 Now, cremation, on the other hand -- And let's --
10 let's make clear that we're talking about illegal
11 cremation. We're not talking about the proper
12 disposal of a -- of a dead body. But a cremation
13 scene is different in a number of ways. One of
14 those is that cremation, as you understand it,
15 typically involves the intentional effort to
16 disguise a dead body?

17 A I'm not an expert in cremation, um, um, so it --
18 it's -- it's hard for me to say what actually goes on
19 with a cremation, but, um, you know, yes.

20 Q Cremation sites you've seen, in other words, uh,
21 you've understood, in your experience, to involve
22 someone's effort to conceal or destroy a human
23 body?

24 A Yes.

25 ATTORNEY FALLON: Your Honor, I'm going

1 to, uh, ask -- I have an objection. It might be
2 just a brief foundation question, but it's not
3 clear to me exactly how many cremation sites as
4 opposed to arson sites he's been to, and what
5 their condition was before those questions can be
6 elicited.

7 ATTORNEY STRANG: I -- I did ask. I'm
8 happy to ask again and develop that a little
9 further.

10 Q (By Attorney Strang) Maybe for Mr. Fallon's
11 benefit you can repeat the answer about the
12 number of cremation sites?

13 A Based on your, um -- what you're saying, I would -- I
14 would say that I've been to two cremation sites. One
15 being the Teresa Halbach site, as well as another
16 one.

17 Q Okay. And was the other one previous?

18 A The other one was previous, which also involved
19 sifting.

20 Q All right. And, uh, was that an outdoor site as
21 well?

22 A No. That was a vehicle, uh, scene. Body was inside
23 a motor vehicle.

24 Q All right. Um, but you viewed it as a cremation
25 site because you concluded that a deliberate

1 effort had been made to destroy a body by fire or
2 heat?

3 A I didn't consider it a cremation. I guess I
4 considered it at the, uh -- the fire scene. So...

5 Q Okay.

6 A Not being an expert in cremation.

7 Q No. No. And I -- And I'm not suggesting you are
8 an expert in cremation. I'm just trying to
9 distinguish --

10 A Right.

11 Q -- sort of a typical arson scene as you
12 understand it, where there may be a fatality from
13 a cremation sense.

14 A Yes.

15 Q A -- another distinction you made -- or you
16 make -- I think you suggested in discussing the
17 arson scene, where, uh, in the arson scene,
18 there -- there ordinarily would be at least one
19 protected side or area of the body. In a
20 cremation scene, the purpose is, uh, that -- that
21 the body not be protected and an effort made to
22 reduce the body to charred remains all the way
23 around?

24 A Not necessarily effort, but just the way the body's
25 positioned and elevated, for instance, under the

1 motor vehicle seat.

2 Q That could happen?

3 A Yes.

4 Q Um, and if the, um -- if the attempt in cremation
5 is to disguise or conceal the fact of the death
6 or the existence of the body, you may see
7 someone, then, disturbing the remains during or
8 after the fire?

9 A Yes.

10 Q Now, here, uh, you described for us the bone
11 fragment found eight feet, roughly, to the south
12 of the pit?

13 A Yes.

14 Q During the course of the day, day-and-a-half,
15 whatever it is, that you were involved in
16 sifting, uh, you also found suspected bone
17 fragments to the east of the burn area you
18 described?

19 A I'm not certain what you're speaking of. Within the
20 pit or outside the pit?

21 Q Let's go back, if we could, to Exhibit 50. Is
22 that possible? I have Exhibit 50 up?

23 A Yes.

24 Q Did you find fragments, uh, to the east, which
25 would be to the right in this photograph?

1 A This would be east, correct? Okay. The bone
2 fragment -- One was out here. There were bone
3 fragments intertwined in the steel belts, um --
4 Q Now, those belts are hard to see, um, but I think
5 the material you're referring to as -- as belts
6 almost looks like a -- a tumbleweed or a bramble
7 bush or something?
8 A Exactly.
9 Q Down in the --
10 A Crater.
11 Q Exactly. All right. Those -- You've seen burned
12 tires before?
13 A Yes.
14 Q And recognize the unraveling of the steel-belted
15 radial?
16 A Yes.
17 Q In heat. All right. And so you had bone
18 fragments to the east of the burn area?
19 A The bone fragments were concentrated within the pit,
20 but there were some bone fragments intertwined within
21 the steel belts, and I -- so the -- the -- the bulk
22 of -- of the debris, or bone fragments, were located
23 within the pit.
24 Q Sort of in a pile, in effect?
25 A Yes.

1 Q Did you find any fragments -- I understand that's
2 where the bulk were. Did you find any fragments
3 to the west of the burn area or the pit?

4 A The -- the bone fragments I concentrated on, and
5 there could have been others, but the bone fragments
6 that we concentrated on were the bone fragments
7 located in the pit.

8 Q So whether -- whether other officers picked up
9 fragments outside the immediate pit area and
10 tagged them separately, you don't know one way or
11 other?

12 A I don't know. I know that the scene was reprocessed
13 again, and that's when they could have picked up
14 those other bone fragments.

15 Q All right. Um, what is clear to you, or was
16 clear to you, when you were there on November 8,
17 is that the -- the area that appeared, uh, to
18 have been used for burning seemed to be in what
19 you're calling the pit?

20 A Yes, sir.

21 Q The pit, actually, appears to be more or less at
22 grade with the surrounding yard or lawn; correct?

23 A That is correct.

24 Q And then it looks like, uh, some dirt and -- or
25 gravel, uh -- doesn't look like topsoil,

1 necessarily, but dirt and gravel, rocks, at some
2 point were piled atop the yard or the grass?

3 A Yes.

4 Q So that -- so the dirt is what's elevated, and
5 what you're calling the pit is actually simply at
6 yard level?

7 A That's correct.

8 Q But burned on the bottom?

9 A Yes. And there's some burning along the sides as
10 well.

11 Q Signs of some heat?

12 A Correct.

13 Q All right. Now, the, uh -- You mentioned a
14 propane tank in one of these pictures. There was
15 no feed from the propane tank to this entire burn
16 area that you saw?

17 A Not to my knowledge, no.

18 Q The propane tank you understood to be for home
19 utilities and the trailer?

20 A That would be my guess.

21 Q Well, actually, more than a guess. You did not
22 see anything that looked like a -- a propane
23 feed --

24 A I did not.

25 Q -- heat source to the burn area?

1 A No.

2 Q Now, the, um -- You've learned that it was about
3 9:15 in the morning on November 8 that Manitowoc
4 Deputy Jost first alerted someone, Mr. Fassbender
5 or someone, at the, uh, site to this possible
6 bone fragment?

7 ATTORNEY FALLON: Objection. That's
8 incorrect statement of the testimony. 9:15?

9 ATTORNEY STRANG: I -- I don't think it
10 is a statement of the testimony.

11 Q (By Attorney Strang) Um, is that -- is that
12 something you learned?

13 A Absolutely not. I have no information on that.

14 Q When it happened?

15 A No.

16 Q Okay. What you know is that you got to the Avery
17 property, in general, about eight in the morning
18 on November 8?

19 A I think so. I'm not sure.

20 Q And give or take, uh, to this burn area at about
21 1:30?

22 A That's correct. My first duty was to conduct a
23 search warrant. I was standing around the command
24 post with myself, uh, Special Agent Deb Straus, and
25 uh, our supervisor, Pete Thielen (phonetic), who

1 was -- was, uh, requested to go out and take a look
2 at different things that had been discovered.

3 Q Sure. And, obviously, then, you have no way of
4 knowing at all who had been near this general
5 area described in Exhibit 50 for the three days
6 or so preceding November 8 at about 1:30 in the
7 afternoon?

8 A I had no prior information with respect to that until
9 I arrived, um, on scene.

10 Q Fair enough. Now, um, you mentioned in -- in
11 passing, um -- I'm going to go back to it just so
12 people didn't miss it, you -- you very candidly
13 told the jury, briefly, that you're not an
14 anthropologist?

15 A That's correct.

16 Q Uh, an anthropologist, you understand, to be a
17 scientist engaged in the study of the behavior
18 and culture of human beings, generally?

19 A Yes.

20 Q Neither are you an archaeologist, meaning a
21 subspecialty within the field of anthropology?

22 A Correct.

23 Q Archaeologists would be concerned with, among
24 other things, the, uh, preservation and recovery
25 of burial sites?

1 A Yes.

2 Q This is not something in which you have any
3 expertise at all?

4 A Absolutely none.

5 Q All right. Um, neither have you had any training
6 in human skeletal anatomy?

7 A None.

8 Q Okay. Uh, so what you -- what you did, and I
9 want to get into the -- And you call this a
10 recovery?

11 A If you'd like, yes.

12 Q Is that -- or do you have a -- a term you'd
13 prefer?

14 A No, that's fine.

15 Q Okay. Uh, so let -- let's get into the recovery
16 efforts on the afternoon of November 8. You get
17 there at about 1:30, and from that time on you're
18 at least in the area?

19 A Yes, sir.

20 Q Here? Um, but before doing anything, you want
21 the Crime Lab folks?

22 A That's correct. Yes.

23 Q That takes about another hour-and-a-half, give or
24 take. It's around three o'clock that the Crime
25 Lab team appears here?

1 A Yes.

2 Q Now, um, there -- there -- there isn't a delicate
3 way to say this, but, um, if what you were seeing
4 here was human bone --

5 A Yes.

6 Q -- whether it's Teresa Halbach or not, the --
7 the -- the -- the person whose bones they are is
8 beyond aid?

9 A Yes.

10 Q Um, so to the extent that people are hoping
11 Teresa Halbach is still alive or didn't know
12 about her fate at that point, uh, those searches
13 would have, and could have, continued elsewhere
14 outside of this burn area?

15 A I think they were.

16 Q There would have been no reason here to worry
17 about a living person in the immediate area
18 depicted in Exhibit 50?

19 A No.

20 Q When you folks, uh, started in on the recovery
21 effort, you focused on this six-by-six -- roughly
22 six-by-six rectangular area that you described
23 for us?

24 A That's correct. Yes.

25 Q All right. Um, now, you did not set up a -- a

1 grid, a stringed grid around that area?

2 A We did not. No.

3 Q You did not set up a contamination path to

4 control how people were going into or near that

5 area?

6 A No.

7 Q Uh, what you did was, uh, found that most of the

8 fragments, or things of interest, were sort of --

9 I don't know if pile is the right word -- but

10 sort of in the center of that six-by-six foot

11 area?

12 A The items I thought were bone fragments were the

13 items within this six-by-six pit. Yes.

14 Q And they were more or less centrally deposited?

15 At least the bulk of them? Is that --

16 A Most of them, in my opinion and my recollection, were

17 within the pile, yes.

18 Q All right. Um, so you folks, uh, set up the

19 sifting apparatus somewhere to the side or close

20 by?

21 A Sifting apparatus was set up just in front, maybe

22 just off to the right of the pile.

23 Q All right. You did -- You did not take

24 photographs up close of fragments in place?

25 A No, we did not.

1 Q Uh, in fact, you didn't take any of the
2 photographs you're seeing today?
3 A I -- I did not. No.
4 Q Do you -- Do you know whether the photographs
5 even were taken on November 8?
6 A These photographs here?
7 Q That you've identified?
8 A I don't know when they were taken.
9 Q Yeah. And clearly some of them show items in
10 the -- in a garage somewhere? Uh, you know, an
11 evidence garage? But you --
12 A Yes.
13 Q You don't know when any of the photographs were
14 taken?
15 A I do not. No.
16 Q The scene, though, was -- was generally as you
17 recall seeing?
18 A Yes, sir, it was.
19 Q All right. And, um, I think you observed some
20 additional suspected charred bone material both
21 within and around the debris pile --
22 A Correct.
23 Q -- which you've described?
24 A Yes.
25 Q So the sifting screens are set up just to the

1 south, and then what you folks do is you
2 undertake some shoveling?

3 A That's correct. Yes.

4 Q You go in -- do -- with that shovel or one of
5 your own?

6 A No. The Crime Lab brought out, uh, shovels to
7 process the scene.

8 Q And they also brought out some smaller sort of
9 hand trowels or scoops?

10 A I believe so. Yes.

11 Q So you -- you folks sort of wade in and scoop up
12 or shovel up --

13 A Well, I would --

14 Q -- a shovelful and take it to the sifter?

15 A I believe it was John Ertl and another Crime Lab
16 technician, if you will, that actually shoveled up
17 the debris and placed it on top of the sifter.

18 Q Okay. It's just -- just in the normal manner of
19 shoveling and then carried over and put it on top
20 of the sifting screen?

21 A Yes. We walked up, scooped up a shovelful of
22 debris, and placed it on top of the, uh, sifting
23 screen.

24 Q And, again, there's -- there's -- there's no
25 attempt to photograph fragments in place before

1 that?

2 A There were -- there -- I -- I took no photographs.

3 That's correct.

4 Q Okay. Uh, no attempt to mark, you know, as with

5 nail polish or some other, uh, color spot, any of

6 the fragments in place?

7 A There was not. No.

8 Q Okay. So you -- you go -- you -- you described

9 for us going through, uh -- you know, the shovel

10 goes to the sifting screen and that would be

11 probably the screen with the largest mesh first?

12 A Yes, sir.

13 Q You shake the screen on its chains that's

14 suspended from this tripod?

15 A Yes.

16 Q Sort of, you know, this kind of a motion?

17 A Exactly.

18 Q And then that falls down to a tarp or to a -- to

19 a -- a second sifting screen with smaller mesh?

20 A I believe there might have been a second smaller

21 sifting screen, which then the debris fell through

22 onto the ground tarp. Yes.

23 Q All right. And then you think there was a third

24 sifting screen somewhere with the finest mesh?

25 A No. Just -- just two screens.

1 Q Okay. Fair enough.

2 A Just picked out the things that we thought might be

3 bone fragments.

4 Q And the -- the things that are too small to get

5 caught in either of the two screens with the --

6 the second one with smaller mesh, go through to

7 the tarp?

8 A That's correct.

9 Q So the second, uh, sifting screen also would be

10 shaken a little bit?

11 A That's correct. Yes.

12 Q To -- to get stuff to fall through?

13 A Yes.

14 Q And what's left in the -- in the screen you would

15 examine by -- by eye and hand?

16 A Yes.

17 Q And if something looked like a pebble or a rock,

18 presumably you would leave it?

19 A If it didn't look like a bone fragment or a metal

20 grommet or a zipper or something, it was left to be

21 re-examined if, in fact, that turned out to be Teresa

22 Halbach.

23 Q Sure. And the things that to the eye looked like

24 they might be important, conceivably, you would

25 pluck out and put in the box?

1 A Correct.

2 Q And there, again, it -- it simply would go in the
3 box. There wasn't an identification or a -- a
4 nail polish dot or anything like that done at
5 that point?

6 A No, there was not.

7 Q All right. And then what was left on the tarp,
8 though, you -- you did keep?

9 A That's correct. Yes.

10 Q Yeah. The tarp you bundle up, sort of fold up,
11 and then double-bag in black, plastic garbage
12 bags?

13 A Yes.

14 Q Put that in a locked truck?

15 A Correct. Yes.

16 Q And all of that eventually goes to the Crime Lab?

17 A I don't know where it went to.

18 Q Okay. But -- but the purpose was to keep all of
19 this material so that it go -- could go to
20 someone who might identify it, if possible,
21 whether these are human bones?

22 A The intent was to protect it and keep it if it needed
23 to be re-examined.

24 Q During the time that you spent there at the scene
25 in Exhibit 50, you were not aware of a forensic

1 anthropologist being present at anytime?

2 A No.

3 Q Weren't involved in calling a forensic

4 anthropologist?

5 A I was not. No.

6 Q No photos were taken by anyone at the site during

7 the sifting process, itself?

8 A I did not take any photos. I'll take responsibility

9 for that and I'll take the criticism that comes along

10 with it. No.

11 Q Well, I -- I don't know that I'm really here to

12 criticize you. Uh, I -- you know, I understand

13 you're on cross-examination and --

14 A Yes, sir.

15 Q I -- I'm simply trying to elicit the fact --

16 A (Inaudible.)

17 Q Yeah. And when you say you didn't take any

18 photos, you didn't see anyone else taking --

19 A I did not. No.

20 Q -- photos either? Um, now, the -- the nature of

21 the sifting process, obviously, is to sort of

22 shake or rearrange whatever's in the sifting tray

23 from its original position?

24 A Correct.

25 Q Although the shovel would have done that as well,

1 obviously?

2 A Well, the sifter allows us to spread the debris out,
3 you know, because there's -- there were ashes in
4 there, there's other things in there that will fall
5 through, and allows to more closely look at those
6 items.

7 Q Right. Understood. But when I say -- You know,
8 by the time they get to the sifting tray, they've
9 already been scooped up with a shovel that picks
10 up whatever the shovel will hold?

11 A That's correct.

12 Q And from whatever area the person with the shovel
13 decides to next strike the shovel?

14 A Yes.

15 Q Were you in -- Were you involved on Thursday,
16 November 10, yourself, in sort of going back
17 and -- and reprocessing or continuing this?

18 A No. I -- I did sift, um, other material here at the
19 Sheriff's Department that we had collected.

20 Q But that was somewhat later or was --

21 A Yes, it was.

22 Q Not on -- not on November 10?

23 A Not on scene. No.

24 Q Okay. Um, I -- I probably covered this, but I --
25 but I just want to nail it down because I think I

1 asked you about potential sites of human bone
2 fragments on the Avery property. Um, were you --
3 were you sent to any potential sites or sites
4 where potential human bone was found off of the
5 Avery property?

6 A I was not. No.

7 Q Were you aware of any such sites?

8 A I was not.

9 Q Okay. That's all I have for you at the moment.
10 Thank you.

11 A Thank you.

12 THE COURT: Mr. Fallon, any, uh, redirect?

13 ATTORNEY FALLON: No redirect.

14 THE COURT: Very well. The witness is
15 excused.

16 THE WITNESS: Thank you.

17 THE COURT: Members of the jury, I think
18 we'll take our morning break at this time. I'll
19 remind you again, as usual, not to discuss the
20 case, uh, during the break.

21 (Jurors out at 10:27 a.m.)

22 THE COURT: Then, counsel, let's be
23 ready to go at quarter to eleven.

24 (Recess had at 10:28 a.m.)

25 (Reconvened at 10:54 a.m.)

1 THE COURT: Mr. Fallon, are you going to be
2 taking the next witness as well?

3 ATTORNEY FALLON: Yes.

4 THE COURT: You may call your witness.

5 ATTORNEY FALLON: State would call
6 Dr. Don Simley.

7 THE CLERK: Please raise your right hand.

8 DONALD SIMLEY,
9 called as a witness herein, having been first duly
10 sworn, was examined and testified as follows:

11 THE CLERK: Please be seated. Please state
12 your name and spell your last name for the record.

13 THE WITNESS: My name is Donald O. Simley,
14 S-i-m-l-e-y, II.

15 **DIRECT EXAMINATION**

16 BY ATTORNEY FALLON:

17 Q Good morning.

18 A Morning.

19 Q What do you do for a living?

20 A I'm a general dentist in Madison, Wisconsin.

21 Q And, uh, how long have you been a, uh, general
22 dentist in Madison?

23 A Uh, since 1976 when I graduated from Marquette.

24 Q Uh, generally, what does, uh, uh, that type of
25 practice entail?

1 A Uh, just the general taking care of, uh, individual
2 patients with their restorative needs and their oral
3 hygiene.

4 Q Does that include any orthodontia work or is --
5 just regular dental care?

6 A Uh, no, sir. Uh, just gen -- general dental care.

7 Q Do you have any areas of specialization within
8 the field of dentistry?

9 A Yes, sir.

10 Q And what would that be?

11 A Uh, forensic dentistry or forensic odontology they
12 call it also.

13 Q All right. And, uh, for the benefit of those of
14 us who don't spell well, could you tell us how to
15 spell odontology?

16 A Odontology is o-d-o-n-t-o-l-o-g-y.

17 Q Now, you mentioned the word "forensic dentistry"
18 or "forensic odontology". Could you tell us what
19 that is?

20 A Forensic dentistry, uh, is just the application or
21 science of dentistry to the field of law. And there
22 are a number of different areas that we can become
23 involved in in forensic dentistry.

24 Uh, the most common area that I've
25 become involved in is -- is in dental

1 identifications. Routine dental identifications
2 of individuals that are usually not identifiable
3 by traditional means.

4 Uh, also involvement is in mass
5 disasters, uh, bite mark evidence, child abuse
6 cases, uh, dental malpractice in negligence, in
7 trauma or injury that are involved in litigation.
8 Although, the last two areas I -- I usually don't
9 get involved in very often. But the other areas
10 we certainly do.

11 Q And how did you get involved in this particular
12 case, Doctor?

13 A On November 9, I believe it was, of 2005, I received
14 a phone call from Special Agent, uh, Dol -- Dorlin --
15 Duranda Freymiller from DCI, Division of Criminal
16 Investigation, uh, requesting assistance in the
17 identification of an individual who was burned.

18 Q And what were you asked to do, generally?

19 A Uh, to attempt to identify the remains of this
20 individual.

21 Q And, uh, why are you here today?

22 A Uh, to offer my opinion on, after my examination and
23 analysis of the evid -- analysis of the evidence, uh,
24 to give an opinion as far as what I found.

25 Q All right. Well, before we get to your opinion,

1 Doctor, let's, uh, find a little bit about your,
2 um, background if we may. Um, you indicated you
3 received a degree in -- in dentistry from
4 Marquette; is that correct?

5 A Yes, sir.

6 Q And when did you receive that degree?

7 A That was in 1976.

8 Q And prior to receiving your dental degree at
9 Marquette, did you receive an undergraduate
10 degree?

11 A Yes, sir.

12 Q And in -- from what institution?

13 A That was Elmhurst College in Illinois. That was in
14 1972.

15 Q And what was the degree in?

16 A Uh, it was a BS degree.

17 Q Bachelor of Science?

18 A Bachelor of Science. Yes, sir.

19 Q Um, after receiving your, uh, uh, Doctor of
20 Dental Surgery -- Is that what it is?

21 A Yes, sir.

22 Q From Marquette? Did you pursue any additional,
23 um, training?

24 A Uh, I became interested in -- in forensic sciences
25 and started taking classes in 1979 at the Armed

1 Forces Institute of Pathology out in Washington, DC.

2 Q What kind of institution is that?

3 A Um, they just have an annual course in forensic
4 dentistry. Uh, that's one of the -- supposed to be
5 one of the premier courses in forensic dentistry.

6 Q Um, did you receive any certificates associated
7 with that particular course?

8 A Yes, sir.

9 Q And what certificate did you receive?

10 A It's just a certificate in forensic dentistry.

11 Q Um, currently, um, do you heard -- do you hold
12 any certifications in the field of forensic --
13 forensic dentistry?

14 A Yes, sir.

15 Q What, uh, certifications do you hold?

16 A I'm board certified in forensic dentistry from the
17 American Board of Forensic Odontology.

18 Q All right. What does it mean to be board
19 certified?

20 A Well, you have to undergo kind of a rigorous, uh,
21 examination. You have to submit an application. Um,
22 and then you have to take an examination before a
23 national board.

24 Q All right. And, um, if you know, how many board
25 certified forensic dentists are there in the

1 state of Wisconsin?

2 A There's only two of us. An individual in Milwaukee
3 and myself.

4 Q And are you aware of approximately how many, uh,
5 are board certified in North America?

6 A There are approximately around a hundred dentists
7 that are board certified in the United States and
8 Canada.

9 Q Are -- are -- Do you belong to any professional
10 organizations that are particularly germane to
11 the field of forensic dentistry?

12 A Yes, sir.

13 Q And what are those?

14 A There's a number of them. Um, the American Society
15 of Forensic Odontology; uh, I'm a Fellow in the
16 American Academy of Forensic Sciences; I'm a member
17 of the Wisconsin Association for Identification; I'm
18 a member of the Wisconsin Coroners and Medical
19 Examiners Association; uh, I'm a member of the
20 National Disaster Medical System. Uh, under that is
21 a subgroup of what they call DMORT, which is the
22 Disaster Mortuary Operational Response Team. And I
23 think those are the ones that pretty much pertain to
24 the forensic sciences.

25 Q All right. If you could, uh, tell us, what is

1 the, uh, National Disaster Medical System? I
2 think you used the acronym DMORT?

3 A Under the NDMS -- NDMS, the National Disaster Medical
4 System, is DMORT, which stands for the Disaster
5 Mortuary Operational Response Team, which is a
6 subdivision of -- of the NDMS.

7 Q All right. And what -- what kinds of, uh -- what
8 type of involvement do you have with that
9 organization?

10 A That's pretty much for mass disaster involvement.
11 Um, if a plane crash would go down -- If a
12 jurisdiction would have more individuals to identify
13 than their local jurisdiction can handle, uh, they
14 would call in DMORT.

15 Q All right. And have you actually been involved
16 in any disaster response operations?

17 A Yes, sir.

18 Q And what have you been involved in?

19 A Uh, I went out to New York after the World Trade
20 Center and spent two-and-a-half weeks out there. And
21 af -- after Katrina, went down to New Orleans and
22 spent two-and-a-half weeks down there at temporary
23 morgues.

24 Q And was that all part of our country's, uh,
25 national disaster response -- coordinator

1 response to those incidents?

2 A Yes, sir.

3 Q How long have you been, uh, board certified by
4 the American Board of Forensic Odontology?

5 A That was in 1993.

6 Q Have you maintained that certification?

7 A Yes, I have. You have to recertify every five years.

8 Q Um, are you a member of any disaster response
9 teams, um, confined to the midwest part of our
10 country?

11 A Yes, sir.

12 Q And what are those?

13 A I'm co-leader of the Wisconsin Dental Association's
14 Dental Identification Team. Um, I'm a member of the
15 Cook County, in Chicago, their Mass Disaster Dental
16 Identification Team. Uh, Lake County, Illinois, just
17 north of Chicago, has a team also. And Minnesota.

18 Q All right. Um, have you ever testified in a
19 court of law regarding a dental identification
20 issue or a bite mark issue?

21 A Yes, I have.

22 Q Approximately how many times?

23 A I believe there are 31 times that I've testified.

24 Q And have you been asked to render what people
25 refer to as expert opinions regarding the

1 identification of either a bite mark or of human
2 remains?

3 A Yes, sir, I had.

4 Q Um, I believe you have in front of you Exhibit
5 374?

6 A Yes.

7 Q And, uh, what is Exhibit 374?

8 A Uh, this is a copy of my Curriculum Vitae or CV.

9 Q All right. Uh, and, uh, it's current as of what
10 date?

11 A January 1 of '07?

12 Q All right. Is that a true and accurate copy of
13 your, uh, Curriculum Vitae, uh, detailing your
14 experiences, history and training?

15 A Yes, sir, it is.

16 ATTORNEY FALLON: Subject to, um,
17 cross-examination later on, we would move for the
18 Exhibit, uh, 374, move its admission.

19 THE COURT: Any objection?

20 ATTORNEY STRANG: No, I -- No,
21 there's -- there's no objection.

22 THE COURT: All right.

23 ATTORNEY FALLON: Thank you.

24 THE COURT: The exhibit's admitted.

25 Q (By Attorney Fallon) Doctor, um, you indicated

1 you first received a call in this case on
2 November 9. Um, how did you actually become
3 involved?

4 A Well, Special Agent, uh, Freymiller called me and
5 asked if I would be willing to assist in the
6 examination and identification of these remains. Uh,
7 on the same date another individual from the Division
8 of Criminal Investigation, Special Agent, uh, Matthew
9 Joy, brought, uh, a box of -- of evidence to my
10 office for me to examine.

11 Uh, I also talked with -- I believe he's
12 an assistant district attorney from Calumet
13 County, Jeff Froehlich, and he asked me,
14 specifically, if the remains that I examined were
15 human or nonhuman, which I said they were human.
16 And, also, asked some, uh, questions regarding my
17 expertise and qualifications.

18 And at the same time I also discussed,
19 uh, what I had found so far with, uh, Sheriff
20 Pagel.

21 Q All right. And all in all, um, were there
22 several, uh, deliveries of items for -- submitted
23 to you for examination?

24 A Yes, sir, there were.

25 Q Approximately how many different deliver?

1 A There were six deliveries, of, uh, dental fragmentary
2 evidence, and then one delivery of -- of dental
3 records.

4 Q And, overall, approximately how many items were
5 you asked to identify? Approximately?

6 A There were 52 items of potential evidence.

7 Q And what did these items consist of?

8 A Of the 52 items, there were 24 dental fragments that
9 I was asked to look at. Um, of the 52 -- Sometimes
10 when you have a -- a -- a burned piece of wood, uh,
11 it -- it may look like a burnt piece of tooth,
12 because there wasn't a whole tooth, uh, as we can
13 visualize, that the crowns of the teeth had been
14 destroyed.

15 So when I was asked to look at was, uh,
16 the 52 pieces, there were 24 that were actually
17 tooth fragments. Not a whole tooth, but 24 tooth
18 fragments. There were three bone fragments, uh,
19 all from the lower jaw, and there were 24 pieces
20 of wood, and then there was one piece of -- of
21 plastic that looked like a crown of a tooth, but
22 when we were able to clean it up, we were easily
23 to tell it was a piece of plastic.

24 Q All right. Um, now, you mentioned something
25 about, uh, not unusual for wood to be mistaken

1 for teeth. Can you kind of explain that?

2 A When -- When the remains of an individual are -- are
3 burned to the extent that they were in this
4 particular case, you get a lot of fragmentation of
5 the teeth.

6 And so if you've ever had a wisdom tooth
7 extracted or another tooth extracted, and you see
8 the -- the crown of the tooth sticking up and you
9 have the root structure, when you have the degree
10 of, um, destruction or devastation that's
11 associated with the intensity of the temperature
12 of the fire and the prolonged duration of -- of
13 exposure to the fire, uh, this dental evidence
14 can become very brittle, it can fracture,
15 fragment, and, um, due to the burning aspects, it
16 can become charred and blackened. And so you can
17 have a piece of wood, a small piece of wood, that
18 can look very similar, and almost exactly alike,
19 to -- to some of the root fragments that are
20 associated there, also. And when the recovery
21 was taking place, it's difficult for somebody
22 who's not a -- a dentist to -- to discern between
23 some of these, uh, fragmented, burned dental
24 structures and, uh, burned pieces of wood.

25 In fact, even with me looking at them,

1 sometimes -- I mean, I can't always tell, and
2 that's why I rely on x-rays to really make a
3 definitive decision on some of them. Some of
4 them I could look at very easily and discern and
5 some of them I had to rely on the x-rays to
6 discern.

7 Q All right. And, uh, while we're at that, can you
8 describe in more detail the condition of the
9 tooth and bone fragments that you were asked to
10 examine and you were able to determine as tooth
11 and root fragments?

12 A Again, they were, um, blackened, they were charred,
13 uh, they were very brittle, they were very
14 fragmented, um --

15 Q In terms of a level of destruction, uh, based on
16 your experience in terms of your disaster relief
17 effort -- efforts and other forensic, uh,
18 experience, um, how badly damaged were these, uh,
19 fragments?

20 A Um, again, I've been doing this work since 1981.
21 And, I mean, I -- I've seen other cases very similar
22 to this, but, um, even most burn victims that I see
23 from -- from car fires or house fires, they're not
24 burned to the extent that these indi -- these
25 individual dental fragments were burned. They're

1 right up there at the top of the list as far as the
2 worst I've seen.

3 Q All right. Are you familiar with a term called
4 "fracture matching"?

5 A Yes, sir.

6 Q Tell us what that is.

7 A Again, with some of these dental fragments that I
8 examined, if I can take two pieces of a tooth, and if
9 I can fracture match them back together, in other
10 words, if I can say that they came from a common
11 source, I would put them back together.

12 Um, again, some of these fragments
13 are -- are very, very brittle, where if I take my
14 fingers and -- and just squeeze them, I could
15 destroy that piece of evidence, and if that
16 evidence is lost, it could preclude an
17 identification from being made.

18 So to pervert -- preserve that evidence,
19 if I could fracture match those pieces back
20 together and keep -- say that they came from a
21 common source, I would put them back together and
22 use a little cyanoacrylate or Super Glue and fix
23 them together. Um, and then that preserves the
24 evidence, it makes it stronger, makes it more
25 durable and less likely to be damaged or

1 destroyed.

2 Q Okay. And, uh, were you able to engage in this
3 fracture matching process with, um, the tooth
4 fragments and bone fragments that you received?

5 A There were -- On one particular date there were two
6 root fragments that I could fracture match back
7 together. I put those back together.

8 And there was a piece of bone fragment,
9 uh, that was also associated with that box or bag
10 of evidence that I received in that particular
11 day, and I could actually re-associate that now,
12 two root fragments that are -- are super glued
13 back together as one now, and I could
14 re-associate that with the bone fragment and put
15 back to the bone.

16 And then there was another date when
17 there were two other root fragments that I could
18 super glue back together. So there were two
19 roots that I could put back together and then
20 that one root back with the bone.

21 Q Um, of -- After you were done with your fracture
22 matching process, were any of the fragments
23 suitable for comparison?

24 A Yes, sir.

25 Q And what was, uh, suitable for comparison? What

1 did you have to work with?

2 A The best evidence that I had was the evidence that
3 was recovered, uh, the second time I was -- the
4 evidence was delivered to my office, and that was by
5 Special Agent Jim Holmes, and that was the -- the
6 fragments that I was able to fracture match back
7 together and the associated fragment of bone, which
8 was from the lower right quadrant, and that was the
9 best piece of evidence for comparison.

10 Some of the other dental fragmentary
11 pieces of evidence, even after x-rays and
12 studying these things for a long time, I mean,
13 you really couldn't even tell exactly which tooth
14 it was. Um, so this was the best piece.

15 Q All right. Now, um, in effort to make a dental
16 comparison, I'm assuming you had to have
17 something to compare this fracture fragment with?

18 A Correct.

19 Q What did you have?

20 A Special Agent Holmes, on, uh, November 10 of '05,
21 brought dental records to my office for comparison.
22 Uh, the record specifically were x-rays, which are
23 the main type of dental record that I look for in a
24 comparison.

25 And there was a -- a panorex x-ray from

1 2001. A panorex x-ray, um, is an x-ray that goes
2 around the outside of the mouth and picks up
3 everything from ear to ear.

4 There were also 16 bitewing x-rays. The
5 kind that when you normally go in to see your
6 dentist, and they take an x-ray, and they have
7 you bite down on the film, and they shoot the
8 x-ray in from the side, uh, is a bitewing x-ray,
9 which shows the most amount of tooth structure
10 with the least amount of x-rays. So it shows the
11 top and bottom teeth. It doesn't show the root
12 structure, the end of the root structure, but it
13 sometimes shows some of the root structure. And
14 those x-rays ranged from 1998 to 2004.

15 Um, and then there were other x-rays
16 that I received at a later date. Uh, on that
17 same date, on November 10, I was looking for some
18 additional x-rays, and I called the dentist
19 involved, a Dr. Krupka, I believe his name was,
20 and --

21 Q Who was Dr. Krupka, by the way?

22 A That was the -- the treating dentist for Teresa
23 Halbach.

24 Q Okay.

25 A And all the x-rays were labeled with the name Teresa

1 Halbach.

2 Q All right. And so you then received the
3 additional x-rays to assist in making this
4 comparison?

5 A Well, I -- I called him and asked if they had any
6 other x-rays, and they did have some older x-rays
7 from 1997. They had four bitewing x-rays. But he
8 said they were positioned a little further down in
9 the mouth, and so they actually showed more root
10 structure, uh, specifically, in the lower right
11 quadrant, which is the area I was concerned about,
12 and so he sent those to me and I received those on
13 the -- November 15.

14 Q All right. So you indicated you were concerned
15 with the, uh, uh, lower right quadrant. Uh, were
16 you able to specifically identify the tooth or
17 root fragment that you were, uh, focusing your
18 comparison on?

19 A Yes, sir, I did.

20 Q And what was that?

21 A That root fragment was from the lower right second
22 molar. And we refer to that as Tooth No. 31. Um,
23 there's what they call a universal numbering system,
24 and so that if I'm talking to a dentist in New York
25 City, or in Los Angeles, or in Florida, and I talk

1 about Tooth No. 31, they'll know I'm talking about
2 the lower right second molar.

3 Um, all the teeth have numbers from --
4 There's 32 teeth in the mouth. And from the
5 upper right, which would be Tooth No. 1, the
6 upper right wisdom tooth. The lower right wisdom
7 tooth would be Tooth No. 32. And the upper right
8 central incisor would be Tooth No. 8. So we have
9 a numbering system that we refer to. So this
10 specific tooth was a -- a lower right second
11 permanent molar.

12 Q All right. Now, uh, Doctor, did you have
13 occasion to have, uh, the Crime Lab assist you in
14 preparing a Power Point, uh, presentation to
15 further illustrate your, um, comparison process?

16 A Yes, sir, I did.

17 Q All right. Um, I believe it's -- is there a
18 exhibit in front of you that's, uh, marked?

19 A Just the CV.

20 Q Just the CV?

21 ATTORNEY FALLON: I believe the Court --

22 ATTORNEY KRATZ: I'm showing these now,
23 Exhibits 376 and 377.

24 Q (By Attorney Fallon) Um, Doctor, uh, first of
25 all, if you would identify Exhibit, uh, 376. Uh,

1 377, please?

2 A 377 is a, uh, copy of the pictures that are used in
3 the Power Point presentation.

4 Q All right. And, uh, if we now -- if we could
5 direct your attention, then, to the screen, we
6 have a depiction -- Um, one second.

7 ATTORNEY FALLON: We're going to provide
8 the Court with a copy. Very good.

9 Q (By Attorney Fallon) Um, Doctor, on the screen we
10 have a -- an item depicted. I believe there's a
11 laser pointer to your right --

12 A Yes, sir.

13 Q -- there if need be?

14 A Um-hmm.

15 Q Can you tell us what, uh, we're looking at here,
16 Tooth No. 31, and the word "buccal". What --
17 what does that mean?

18 A Well, again, Tooth No. 31 is -- uh, refers to that
19 lower right second molar, and buccal refers to the
20 side of the tooth. Each tooth has, like, five
21 surfaces that we can examine. We have the cheek
22 side, the tongue side, the biting surface, and then
23 what they call the mesialer, towards the front of the
24 mouth, the distal, towards the back of the mouth.
25 The buccal surface is the cheek side aspect that

1 we're looking at here.

2 Q All right.

3 A So the tooth that I'm looking at is right here. We
4 have two roots that are associated. This would
5 actually be where the roots would be for Tooth No.
6 30, which would be the first molar, which was not
7 recovered. So this fragment actually comes from the,
8 uh -- this bony fragment here comes from the second
9 molar, or second bicuspid, goes back to beyond the
10 second molar.

11 Q All right.

12 A But the cheek side aspect, or the buccal aspect,
13 sometimes it can be difficult to -- When you take
14 x-rays on a fragment, you have to make sure that the
15 x-ray film is on the tongue side. So it's very
16 critical to be able to identify which is the cheek
17 side, which is the tongue side, and -- and sometimes
18 on burned fragments they can be very difficult.

19 In this particular case, it would
20 really -- is -- is pretty easy for me to do that
21 because usually the cheek side aspect is a part
22 that's going to be destroyed and burned the
23 worst.

24 Q Why is that?

25 A Well, in a burn victim, as the -- Again, with the

1 intensity and the temperature of the fire, and the
2 prolonged duration of exposure, the -- actually, the
3 cheek will be destroyed first and then -- Again, the
4 crowns -- Again, if we look to the part that would be
5 in the mouth here, would be up here, and that part is
6 missing. So the crown has been destroyed and
7 essentially all the crowns have been destroyed in
8 this evidence. There was one portion of a crown that
9 was recovered and that was on a cuspid, or an
10 eyetooth, uh, which was really non -- not critical at
11 all in the comparison or identification here.

12 But the cheek side aspect is -- is
13 further protected from the bone. The roots of
14 the teeth are going to be protected from the
15 bone. The crown has been destroyed. But once
16 that fire -- Again, with the intensity and the
17 temperature of the fire, and the prolonged
18 duration of exposure, and the cheek is now gone,
19 we now just have the bone structure protecting
20 that tooth.

21 The crown doesn't have the bone support
22 protecting the crown of that tooth. The part
23 that's in the mouth. So that part has been
24 destroyed. But the root structure is being
25 further protected, insulated, uh, from the, um --

1 from the, uh, effects of the fire.

2 Q All right. In looking at that, how -- where,
3 exactly, is the -- would we call that the jaw
4 bone or not, or --

5 A That's a portion from that lower right corner of the
6 mouth. The lower white crad -- quadrant.

7 Q Could you point on the exhibit what part is bone
8 and what part is root fragment, just so that
9 we're clear?

10 A This is root fragment from Tooth No. 31. The rest of
11 this is all bone.

12 Q All right. Next one. All right. We have, uh,
13 another slide here, 231, lingual. What does that
14 mean?

15 A Lingual is the tongue side aspect. And this is where
16 it was, again, very easy, uh, to determine which was
17 tongue side, which was cheek side, because the tongue
18 side, while it's -- while it's blackened, where it's
19 been burned, but it's completely intact, as opposed
20 to the cheek side aspect, or the buccal aspect, that
21 was -- was rough and had burned -- burned away down
22 to the root structure in there.

23 Q All right. Excellent. And what are we looking
24 here on the third slide marked "occlusal"?

25 A "Occlusal" means the biting surface. So now we're

1 looking down directly on the tooth. And, again, the
2 crown has been destroyed, so what we're looking at is
3 really the top of the roots of the teeth. And the
4 fracture matching was done in here where originally
5 that was two roots, and, again, I fracture matched
6 them and super glued them back together. And, again,
7 the cheek side aspect has been destroyed up in here,
8 and the tongue side aspect is still intact.

9 Q All right. Excellent. And what are we looking
10 at here?

11 A This is the 2001 panorex x-ray that Special Agent
12 Holmes brought to me on, uh, November 9 -- or 10,
13 and, again, it -- it goes from ear to ear. I mean,
14 the -- one ear would be over here, the other one
15 would be over here, and it shows all the teeth.

16 The one that I'm concerned about is this
17 lower right quadrant, or lower right corner, and
18 the tooth that I'm going to be comparing is Tooth
19 No. 31.

20 Q All right.

21 A Tooth No. 32 had been removed after this x-ray had
22 been taken.

23 Q All right. And, um, what are we looking at on
24 the next slide?

25 A Uh, this is just a cropped picture of just 31.

1 Q All right.

2 A And it just shows Tooth No. 31.

3 Q All right. Again, now, what is, uh, postmortem

4 x-ray Tooth No. 31? Please explain.

5 A Uh, postmortem x-ray is one of the x-rays that I had

6 obtained. There were, like, 46 x-rays that I had

7 taken of all the remains and this is one of the

8 x-rays that I had taken on Tooth No. 31 after the --

9 the roots had been fracture matched back together and

10 have been placed in the bone.

11 Q And just so that we're all clear, postmortem

12 means?

13 A Postmortem is after death. Antemortem is prior to

14 death.

15 Q All right. The next slide, please. This would

16 be the, uh, Slide No. 7, top of page three, um,

17 what are we looking at here?

18 A Uh, this shows that cropped picture of Tooth No. 31

19 from the 2001 panorex. So this would be an

20 antemortem film over here, and this is the postmortem

21 x-ray over here. What I'm doing is comparing the

22 root structure that's associated with Tooth No. 31 to

23 the postmortem.

24 And it's not just one root structure,

25 it's actually two root structures. Uh, one

1 tooth, but there's -- there's two structures
2 associated with it. We have the mesial root, or
3 the front root, and the distal root, or the back
4 root.

5 And there are a number of things I can
6 look at here and compare. And, again, the
7 panorex x-ray does show the whole root down here.
8 But I can see it -- a little bend to the root
9 down here on the mesial root, on the distal root,
10 also has a slight curvature, and I can see the
11 same curvature here and the same bend over here.

12 Q All right.

13 A The pulp tissue in the middle of the tooth we also
14 can compare. And we'll see that later on --

15 Q All right.

16 A At --

17 Q Okay. And -- and what are we looking at on, uh,
18 the next slide?

19 A What I've done here is just to take, uh, and
20 superimposing one x-ray on top of the other, and the
21 one on the left just shows what it's going to look
22 like if it does not match. Uh, where I -- I put the
23 postmortem x-ray on top of the antemortem x-ray, and
24 just had it slightly askew or just off a little bit,
25 and we can see that the pulp tissue -- The pulp is

1 the blood vessel nerve in the middle of the tooth, so
2 if you have a root canal done, they go in and they
3 remove that pulp tissue, and the lines don't line up
4 over here, uh, the width between the roots is not
5 consistent.

6 Whereas, if I slide it over just a
7 little bit, that pulp tissue is very consistent,
8 uh, the width between the roots is very
9 consistent. Again, this back root is very
10 consistent, and it's -- it's -- the dimension of
11 the root, itself, the dimension of this root, the
12 space in between the roots, and the pulpal tissue
13 that I'm looking at.

14 Q All right. Thank you. All right. Now, we have
15 another slide, uh, a panorex postmortem slide.
16 What are we looking at here? These are all with
17 respect to tooth 31?

18 A Correct.

19 Q Okay.

20 A This is actually the same picture that we just saw.
21 It's just an enlargement. Again, showing, again
22 that -- what it's going to look like if it doesn't
23 match or doesn't line up.

24 Q All right. And, um, next slide?

25 A And, again, where it, in my opinion, is -- is very

1 consistent, uh, where, again, you can put one on top
2 of the other and you can -- you can superimpose one
3 x-ray on top of the other, and see how the x-ray --
4 that crown of the tooth up here, again, has been
5 destroyed. That's on the antemortem film. The
6 postmortem, but it comes up and it just -- it's one
7 solid line as it comes up.

8 Q All right. Next slide, please. All right. We
9 have an antemortem bitewing, um, displayed here.
10 What does this tell us?

11 A This was the -- Again, it was the oldest of the
12 bitewings. It was a 1997 bitewing, but it was the
13 one that showed the most tooth structure. And so
14 that's what I was concerned about. So it doesn't
15 show the end of the root down here, but it shows more
16 than the other bitewings, which may have come up
17 about here.

18 Q All right.

19 A And this is just a -- a cropped version of -- of that
20 particular x-ray, that bitewing x-ray, so this is the
21 part that we're zeroing in on on that Tooth No. 31.

22 Q All right. Next one. And we're looking at --

23 A And this is the postmortem x-ray, again, that we saw
24 before.

25 Q All right. And now we have an antemortem and

1 postmortem, uh, slide? Please explain.

2 A Okay. Again, this is the cropped antemortem picture.
3 This is the one from the bitewing x-ray. Again, it
4 does not show the entire root structure down here,
5 but it shows a fair amount of it. And, again, we can
6 compare the pulp tissue in the middle of the tooth,
7 uh, there's actually a little constriction of the
8 pulp up here. A little constriction of the pulp
9 down -- up here, and then it gets a little bit wider,
10 gets a little bit wider here. Uh, the bend to the
11 root here. We can see the bend of the root over
12 here.

13 So this x-ray, again, it's cutting off
14 part of that root there, so this x-ray's probably
15 coming across right about in here. But it does
16 show that bend in there.

17 Q All right. Excellent. What are we looking at at
18 these particular slides?

19 A Um, same thing I did with the panorex x-ray. Um,
20 I've superimposed one on top of the other, and I
21 have, again, the antemortem film, I have a postmortem
22 film on top of it, and, again, just showing what it
23 would look like if it does not match, if the pulp
24 tissues and the root structures do not, uh, coincide.

25 And then I slide it over a little bit,

1 and, again, it -- it -- it's the -- the way it
2 comes up into the tooth over here, the way the --
3 the -- Again, this part of the tooth is missing,
4 but it's a perfect match as it comes across down
5 here, uh, to the end of the roots down here. You
6 can see where the root kind of just goes from the
7 postmortem into that antemortem film. Uh, the
8 pulpal tissues line up nicely, the width between
9 the roots, uh, everything is very consistent.

10 Q All right. And to the final slide then?

11 A Uh, there's two more that -- It just -- just shows,
12 again -- This is the -- the same pictures that we
13 just looked at, but a larger version of it where it's
14 blown up, where it does not match. And on the next
15 one, uh, again, it's just a larger version of -- of
16 when you can take those fracture matched pieces, and
17 pieces that I've re-associated, put back together,
18 and then compare them to the antemortem, uh, x-rays,
19 and, uh, everything lines up.

20 Q Now, do you have, um -- Investigator Wiegert is
21 going to bring you a --

22 ATTORNEY FALLON: Uh, first, would you
23 show, uh, Counsel before you --

24 Q (By Attorney Fallon) And you've been handed an
25 exhibit. What number is that for the record?

1 A No. 375.

2 Q All right. Would you, uh, examine Exhibit 375,
3 please?

4 A This is the -- the fragment that I -- I compared, um,
5 with --

6 Q Would you take it out and hold it?

7 A Sure.

8 Q Display it for us, please?

9 A This is the original bag that I received this
10 particular evidence in that was received on -- from
11 Special Agent Holmes on November 11, and it has that
12 section of the mandible from the lower right
13 quadrant. There's actually another fragment in there
14 of the -- what they call the coronoid process, which
15 is the top part of the -- the lower jaw, and another
16 root fragment in there, but this is the fragment that
17 was critical to the comparison for that Tooth No. 31
18 and that -- that lower right quadrant of the lower
19 jaw.

20 Q So what you have there are the remains of Tooth
21 No. 31 from which you made your comparison?

22 A Correct.

23 Q All right. Now, Doctor, do you have an opinion
24 on whether the root fragments from tooth 31
25 recovered from the burn pit are consistent with

1 the dental x-rays of Teresa Halbach obtained from
2 Dr. Krupka?

3 A Yes, sir.

4 Q And what is that opinion?

5 A In my opinion, the remains are very consistent.

6 Q All right. And, uh, were you able to obtain a
7 positive identification?

8 A I'm kind of reluctant to use the word "positive".
9 Uh, there were -- there were not a lot of remains
10 that were recovered. Uh, there were no crowns that
11 were critical, there were no dental fillings that I
12 could compare. Uh, when I make a positive
13 identification, and I do use that term quite
14 frequently in reports, a positive identification to
15 me would indicate to the exclusion of all others in
16 the world. Um --

17 Q So you would be one -- you would have to be one
18 hundred percent beyond any doubt for you to make
19 a positive identification?

20 A Correct. I'm very conservative on my opinion, and I
21 just was reluctant to use the word "positive".

22 Q How close were you to making a positive
23 identification in this particular case?

24 A Um, I was very close. I mean it -- it -- it was --
25 when you can superimpose, uh, evidence, one on top of

1 the other, and they look to be as one fragment, um,
2 you can't get much closer.

3 Q All right. Um, Doctor, the opinion that the
4 fragments from tooth 31 are very consistent with
5 the dental x-rays that you obtained from Teresa
6 Halbach displaying tooth 31, do you hold that
7 opinion to a reasonable degree of scientific
8 certainty?

9 A Yes, sir, I do.

10 Q All right.

11 ATTORNEY FALLON: Um, subject to
12 Counsel's right to cross-examination, I would
13 move into evidence, the, uh, actual CD-ROM of the
14 Power Point presentation. Um, the, um, handout
15 of -- which is Exhibit 377. I believe the Power
16 Point ROM is 376. His, uh, CV has already been
17 received, and, uh, would move into evidence the,
18 uh -- the root fragment which he's displayed.

19 THE COURT: Any objection?

20 ATTORNEY STRANG: I -- I don't -- No,
21 there -- there's no objection. The 376 is a
22 CD-ROM; is that right?

23 ATTORNEY KRATZ: It's the disk, itself.

24 ATTORNEY STRANG: Okay. No -- no
25 objection to --

1 THE COURT: Very well. Um, those exhibits
2 are admitted.

3 ATTORNEY FALLON: Pass the witness.

4 THE COURT: Mr. Strang?

5 **CROSS-EXAMINATION**

6 BY ATTORNEY STRANG:

7 Q I don't have a lot for you. I've just -- I've
8 got a few questions in -- in one area that you
9 brought up, um, with us, Dr. Simley, on direct
10 examination, and that's the -- the heat.

11 Um, are you able, as a matter of your
12 experience and learning, uh, to tell us what --
13 what, um, temperature range would be required to
14 render, uh, to the State, you saw them, the 24
15 tooth fragments that you examined here?

16 A No. Um, the only thing I would say is that, uh,
17 again, I, during the course of my 26 years of
18 involvement in forensic dentistry, seen a number of
19 individuals from, uh, car accidents, um, house fires,
20 and under the understanding that temperature ranges
21 there can be over a thousand degrees Fahrenheit, and,
22 uh, this individual -- either -- either the prolonged
23 duration of exposure or a higher temperatures, uh, I
24 don't like to get into temperatures, but, again,
25 this -- this is more than the average burn victim

1 that I normally see.

2 Q All right. Have you, uh -- have you also
3 examined at least the dental remains of burn
4 victims in which the, uh, fire was fed by a
5 volatile fuel? Jet Fuel A, or 8 gas or some --
6 some other -- You know what I mean by a volatile
7 fuel?

8 A Yes, sir. Yes, sir. Yes, I have.

9 Q Uh, roughly how many times have you done that?

10 A Tell you the truth, I -- I -- I don't -- I'm not
11 always privy to that information, um, but I know that
12 there's one other case that I can think of where
13 there were five individuals involved, and I know
14 there were accelerants used there. Uh, again,
15 remains look very similar from my point of view, but
16 I'm the lay person when you talk -- when you talk
17 about there.

18 Q Sure. Um, by an accelerant, we're talking about
19 a -- a flammable fluid of some sort?

20 A Correct.

21 Q Okay. And would -- would the -- the burning that
22 you see here, the level of -- it's called thermal
23 destruction or thermal damage --

24 A Okay.

25 Q -- that you see here, be high -- worse than,

1 about the same as, or not as bad as, the
2 instances in which you've seen, uh, dental
3 remains where there was a -- you know, a fire fed
4 by some accelerant, as you say?

5 A To me, they -- they would look about the same as --
6 as what I have seen with accelerants used.

7 Q Can you -- Based -- Drawing on your experience
8 and your learning, can you give us -- I think --
9 I think -- It sounded like you wanted to shy away
10 from a -- from a temperature estimation or range;
11 is that right?

12 A Probably be fairly safe to say that, yes.

13 Q Safe because you just don't feel competent to do
14 that or --

15 A Well, I know that the temperature ranges -- Again,
16 from what I understand on -- on house fires and --
17 uh, again, a thousand to twelve hundred degrees. I
18 think in cremation you're looking at around eighteen
19 hundred degrees Fahrenheit or so. Um, are -- are
20 these -- Again, from a temperature point of view, uh,
21 they certainly appear to me -- Again, uh, there are
22 other people more qualified to answer that question
23 than myself, but, uh, from my point of view, they're
24 more than the typical house fire, which would either
25 put the temperature range either higher or the

1 prolonged duration of exposure longer.

2 Q Let's take those in -- in the two -- two separate

3 categories --

4 A Fine.

5 Q -- you started with.

6 A I agree.

7 Q When you use the term "cremation", which we were

8 using earlier this morning, you mean a, uh -- a

9 lawful cremation?

10 A Correct.

11 Q Uh, which you know to occur in a -- in a closed

12 chamber of some kind?

13 A Correct.

14 Q Fed by, um, jets or an --

15 A Yes, sir.

16 Q -- active accelerant?

17 A Yes, sir.

18 Q Okay. And that, you understand, to produce a

19 temperature range something close to eighteen

20 hundred degrees Fahrenheit?

21 A Correct.

22 Q Do you have an understanding about how long the

23 lawful, you know, the ordinary cremation process

24 takes if that's how someone, you know, or a

25 relative likes to dispose of remains?

1 ATTORNEY FALLON: Objection, foundation.

2 Q (By Attorney Strang) I -- I -- I -- I mean this

3 to be a foundational question.

4 A From what I understand, about an hour-and-a-half or

5 so --

6 Q Okay.

7 A -- of cremation.

8 Q And that -- that -- that's knowledge you've

9 acquired through your work as a forensic

10 odontologist?

11 A Through continuing education and lectures and talking

12 to funeral directors, yes.

13 Q Fair enough. Okay. And so about an

14 hour-and-a-half, give or take. I'm sure, um, we

15 can assume that all people are different sizes

16 and structures; is that correct?

17 A Right.

18 Q Uh --

19 A I've never actually seen a cremation, though.

20 Q Sure. And about eighteen hundred degrees

21 Fahrenheit, although we can -- we can agree that

22 all crematory facilities are going to be a little

23 bit different too?

24 A Correct.

25 Q Okay.

1 A And I think the individuals can make a difference on
2 the temperatures also.

3 Q Sure. So I'm -- I'm looking for ball parks
4 just --

5 A Right.

6 Q -- based on your training and experience. Uh,
7 and then if we're -- if we're talking about a
8 house fire, you've -- you've sounded comfortable
9 using a range of about a thousand to twelve
10 hundred degrees Fahrenheit generated by a typical
11 house fire?

12 A Again, there -- other people that are more qualified
13 than myself to -- to render that opinion. But from
14 what I've talked with other individuals, and from
15 what I've heard, that seems like a -- I think a
16 fairly reasonable --

17 Q A reasonable --

18 A -- estimation.

19 Q -- range?

20 A Yes.

21 Q Okay.

22 A But, again, that's out of my area of expertise.

23 Q Understood. And I don't want to -- don't want to
24 take you farther --

25 A No, that's fine.

1 Q -- than you can go. Uh, and then let's go to the
2 second category or factor, uh, variable that you
3 described, which is time of exposure to this sort
4 of intense heat or thermal, uh -- dynamic thermal
5 energy; all right? Um, I take it, then, that if
6 what you were seeing here, uh, in range, in
7 temperature range, may be closer to the cremation
8 sort of temperature range?

9 A I'm -- Again, I think that gets closer to putting an
10 actual degree on it and I -- I -- I hate to do that.

11 Q All right. But if not that, then a longer period
12 of time exposed to maybe a lower level of heat?

13 A From the dental remains that I saw, it -- it's one or
14 the other, I think, and I think there arson
15 investigators that can probably give a better idea as
16 far as the, uh, temperatures involved. But, again,
17 from my point of view, um, it either had to be an
18 extremely hot fire or -- or prolonged duration of
19 exposure.

20 Q And by "prolonged duration of exposure" can
21 you -- can you give us any estimate, and -- and
22 just tell me if you can't, uh, but can you give
23 us any, uh, estimate of a time, or a duration, if
24 we posited a fire of something in more -- you
25 know, in the thousand to twelve hundred degree

1 Fahrenheit range?

2 A I -- I don't think I could. No, sir.

3 Q Fair enough. Thanks.

4 A Sure.

5 THE COURT: Any redirect?

6 ATTORNEY FALLON: Uh, no redirect for
7 this witness.

8 THE COURT: All right. You are excused,
9 sir.

10 ATTORNEY FALLON: Could, uh, counsel
11 approach to decide how we're going to --

12 THE COURT: Sure.

13 ATTORNEY FALLON: -- use the remainder
14 of our time?

15 (Discussion off the record.)

16 ATTORNEY KRATZ: State's going to call
17 Karen Halbach, Judge.

18 THE COURT: Very well.

19 THE CLERK: Please raise your right hand.

20 **KAREN HALBACH,**

21 called as a witness herein, having been first duly
22 sworn, was examined and testified as follows:

23 THE CLERK: Please be seated. Please state
24 your name and spell your last name for the record.

25 THE WITNESS: Karen Halbach, H-a-l-b-a-c-h.

DIRECT EXAMINATION

BY ATTORNEY KRATZ:

Q Good morning, Mrs. Halbach. Thank you for
agreeing to testify on -- on such short notice.
I have a couple of easier questions for you and I
have some difficult questions.

The first questions that I need to talk
to you about regard your daughter, Teresa. Could
you tell us, please, first of all, how many --
um, many children you've had?

A Five.

Q And where, within those five, um, did Teresa
fall?

A She was -- She was the second oldest.

Q We've heard from your son, Mike. Uh, do you have
any other sons?

A Yes, I have. My oldest is a boy.

Q His name?

A Tim.

Q What does Tim do for a living?

A He's an attorney.

Q And you have two other daughters; is that right?

A Yes.

Q We've heard from one of them in this trial; is
that correct?

1 A Yes.

2 Q What's her name?

3 A Katie.

4 Q And how old is Katie?

5 A Fifteen.

6 Q And you have a younger daughter?

7 A Yes.

8 Q And what's her name?

9 A Kelly.

10 Q How old is Kelly?

11 A Thirteen.

12 Q Is -- When your oldest daughter, um, Teresa -- we

13 have a -- a picture up here in court -- was

14 killed, how old was she?

15 A Twenty-five.

16 Q Tell the jury about, um, your relationship with

17 Teresa? And I'll -- How often would you talk to

18 her?

19 A Um, at least once a week. She'd come over a lot on

20 the weekends to spend time with us and her two

21 sisters. Um, she took pictures for us. She did our

22 family picture, and she was always taking pictures of

23 the girls and around the farm. She liked to take

24 pictures a lot.

25 And we'd spend a lot of time together.

1 We'd go out, out to eat, or -- it seems like the
2 kids were always over on a Sunday afternoon, and
3 we'd talk, sit around the island in our kitchen
4 and talk a lot. We did spend a lot of time
5 together.

6 Q Was Sundays a day that the family would typically
7 get together?

8 A Yeah. Yes.

9 Q In fact, the Sunday before Teresa -- Teresa's
10 death, a Sunday, the one day before her death on
11 the 30th of October, do you recall all getting
12 together for a birthday party that day?

13 A Yes. It was my father's birthday on Halloween, but
14 we got together that Sunday before and celebrated his
15 birthday at his house.

16 Q Okay. So Teresa was actually killed on your
17 dad's birthday?

18 A Yes.

19 Q I think you told us, um, Mrs. Halbach, that
20 Teresa lived close to you in -- in physical
21 proximity. Who owned the property in which she
22 lived?

23 A My husband and I do.

24 Q And do you know at the time of her death who she
25 lived with?

1 A Uh, with a friend, Scott Bloedorn.

2 Q Sometime on the 3rd of November of 2005, did you

3 receive a telephone call from a gentleman by the

4 name of Tom Pearce?

5 A Yes, I did.

6 Q Could you describe that call for the jury,

7 please?

8 A He called about one o'clock in the afternoon and he

9 told me he was worried about Teresa because, not only

10 had she not shown up for work Tuesday or Wednesday,

11 but he had tried calling her on her cell phone, and

12 it said the voicemail was full, and that concerned

13 him because her cell phone was her business phone.

14 She used that. It was easiest for her. And then

15 I -- I said that concerned me, too. I was worried

16 about her then, too.

17 Q Were you familiar with the, uh, phone? Uh, that

18 is, the, um, cell phone that Teresa had?

19 A A little bit I was.

20 Q You -- you've been asked and, in fact, after, uh,

21 Teresa's death, investigators asked you to go

22 through and actually find some things at her

23 residence; is that correct?

24 A Right.

25 Q I'm going to show you two exhibits. One is

1 Exhibit No. 379 and one is Exhibit 380.

2 ATTORNEY KRATZ: Mr. Strang, have you
3 seen these?

4 ATTORNEY STRANG: I've seen them. All
5 three. I've seen all three, yeah.

6 Q (By Attorney Kratz) I think there's a
7 stipulation, uh, Mrs., uh, Halbach, meaning
8 there's an agreement with the attorneys, but I
9 just want you to tell the jury what Exhibit 379
10 is, please?

11 A It's a receipt for her cell phone that she bought.

12 Q And what is Exhibit No. 380?

13 A It's the contract for her cell phone.

14 Q With what carrier? What, uh, wireless carrier?

15 A Cingular.

16 Q I'd like you to turn to the back page of the
17 contract, and on the very bottom do you see that
18 it indicates what kind of a cell phone she had?

19 A Right.

20 Q What does it say?

21 A It's Motor V3.

22 Q Motorola V3?

23 A Yeah.

24 Q All right. Do you know that to be, uh, something
25 called a RAZR -- Motorola RAZR cell phone?

1 A Yes.

2 Q Now, had you seen your daughter, Teresa, with
3 that cell phone before?

4 A Yes, I have.

5 Q You've also heard evidence about Teresa owning
6 something that's generically called a -- a -- a
7 Palm Pilot. I'm sure the Palm Pilot people would
8 be happy that we're calling it that. But it's a
9 personal data assistant. Were you familiar that
10 she owned one of those?

11 A Yes.

12 Q I'm showing you another exhibit.

13 ATTORNEY KRATZ: Mr. Fallon, what's that
14 exhibit number, please?

15 ATTORNEY FALLON: Three-seven-eight.

16 Q (By Attorney Kratz) Three seventy-eight. Can
17 you tell the jury what that is, please?

18 A It's a receipt from a Palm Pilot from Target.

19 Q On the, um, top of the receipt, does it indicate
20 the date in which she bought that Palm Pilot or
21 that Palm Zire 31, and does it indicate
22 November 15 of 2004?

23 A Yes.

24 Q During the course of the investigation, the
25 missing person's investigation, and later, uh,

1 what you unfortunately found out was a, uh -- a
2 murder homicide investigation, were you asked to
3 provide samples -- biological samples from
4 yourself, something called a buccal swab, um, a
5 sample of your DNA?

6 A Yes, I was.

7 Q And did you provide that for investigators?

8 A Yes, I did.

9 Q Mrs. Halbach, were you also asked to assist
10 investigators, if you could, and have your
11 children, Mike and other children, helping with,
12 um, trying to determine cell phone records and --
13 and things like that? Do you remember that being
14 asked of you?

15 A Yes, I do.

16 Q Your, um, daughter, Katie, who we've heard from,
17 um, were you familiar with Katie's relationship
18 with your daughter, Teresa?

19 A Yes.

20 Q Would you describe that? What -- what you
21 noticed about that relationship?

22 A Um, Teresa was very close to both of her sisters.
23 Um, you know, they spent a lot of time laughing and
24 picking on each other. Uh, it kind of became
25 tradition, Teresa would come over Sunday after --

1 Sunday night, and three of her favorite TV shows were
2 on that night, and they'd watch it together and laugh
3 and have a good time. You know, she took them
4 shopping.

5 Q All right. When you heard that Katie knew about
6 Teresa's clothing, when she knew that she owned a
7 pair of Daisy Fuentes jeans, do you have any
8 doubts that, uh, they were close enough that
9 she'd know that?

10 A Oh, yeah. Teresa, um -- The girls would go over to
11 Teresa's house and they would try on her clothes,
12 because if Teresa had jeans that wouldn't fit her,
13 she'd give them to the girls. So I'm sure Katie
14 knows she had them.

15 Q All right. There's been at least some suggestion
16 that on, perhaps, the 2nd or 3rd of November,
17 that your daughter, Teresa, may still have been
18 alive. May have been accessing her cell phone.
19 After the 31st of October, Mrs. Halbach, um, did
20 you ever hear your daughter, Teresa's voice
21 again?

22 A No, I did not.

23 Q Is Teresa -- or was Teresa the kind of girl that
24 would have taken off, or would have left, or
25 would have, um, vanished without talking to you,

1 or talking to her family?

2 A No, she would not.

3 Q The last difficult area of inquiry I have with
4 you, Mrs. Halbach, has to do with notification.
5 That is, um, how you've been notified of, um,
6 this investigation. At the beginning of this
7 case I told the jury that it was my
8 responsibility as a district attorney to meet
9 with you, and to meet with your family, and to
10 tell you about the evidence that's been found in
11 this case. Do you remember me saying that?

12 A Yes.

13 Q Do you remember those things happening in this
14 case?

15 A Yes.

16 Q The physical evidence, no matter how disturbing
17 it's been to you, have you been, and your family
18 been, kept informed throughout this
19 investigation, uh, of all the developments, do
20 you feel?

21 A Yes.

22 ATTORNEY STRANG: Your Honor, this is
23 needlessly difficult and it's -- the case is not
24 about Mr. Kratz.

25 THE COURT: Court agrees.

1 ATTORNEY KRATZ: Judge, I would move the
2 admission of the three, uh, exhibits that have,
3 uh, been identified by Mrs. Halbach, and, um,
4 with that, I would pass the witness to
5 Mr. Strang.

6 THE COURT: Any objection to the exhibits?

7 ATTORNEY STRANG: Your Honor, I have no
8 objection to the three exhibits, and I'm not going
9 to make Mrs. Halbach answer any questions.

10 THE COURT: Very well. The exhibits are
11 admitted. Ma'am, you are excused.

12 Uh, members of the jury, at this time
13 we'll take our, uh, lunch break and, uh, resume
14 at one o'clock. I will remind you, as usual, not
15 to discuss the case among yourselves during the
16 lunch hour. Uh, then, counsel, we can resume
17 with the next State witness at one o'clock?

18 ATTORNEY KRATZ: We'll do that, Judge.
19 Thank you.

20 (Recess had at 11:56 a.m.)

21 (Reconvened at 1:04 p.m.; jurors not present.)

22 THE COURT: At this time we're back on the
23 record outside the presence of the jury. Uh,
24 counsel, uh, I understand there's some business you
25 wish to take up before we bring the jurors back?

1 ATTORNEY STRANG: I do. Uh, Your Honor,
2 there have been, uh, I don't know, a number of
3 occasions, most recently on the direct
4 examination of, uh, Karen Halbach just before
5 lunch, in which the prosecution has posed
6 questions on direct examination that, um, assume
7 as a fact, or presuppose, either a killing, um,
8 in the case of the question as posed here today,
9 or that it is somehow established beyond, uh,
10 dispute, or tacitly conceded that, um, the murder
11 alleged here actually did occur on October 31.

12 Those kinds of questions, um, not only
13 invade the province of the jury, I mean, as --
14 assume the ultimate facts to be decided here, and
15 the, uh, the actual elements of the, uh, most
16 serious charge, but, also, tend to suggest
17 superior knowledge on the part of the State or --
18 or of vouching, in effect.

19 I don't think they're properly put. Um,
20 I don't think that's a -- a, uh, proper question.
21 Um, we are coming up on three weeks into a trial,
22 and not only has the State not established beyond
23 dispute, um, the death, uh, of Ms. Halbach, or on
24 any specific day, but almost three weeks in, we
25 don't know -- we don't know at all how she died,

1 when she died, uh, where, exactly, they say she
2 died or why. Uh, the State says she died.

3 So, uh, I -- I -- I'd like the Court to
4 instruct, um, Counsel that questions ought not be
5 phrased in a way that tends to vouch for or
6 invade the, uh, province of the jury in that way
7 or to suggest some superior knowledge on the part
8 of the, uh, State and its agents.

9 THE COURT: Mr. Kratz or Mr. Fallon?
10 Who's going to be responding?

11 ATTORNEY KRATZ: Certainly is the theory
12 of the prosecution, Judge, that Ms. Halbach, uh,
13 was murdered. As I recall, uh, that was not
14 going to be disputed by the defense. If they,
15 once again, changed their theory of defense,
16 then, once again, we'd like to know that.

17 That, notwithstanding, Your Honor,
18 phrasing the question regarding Ms. Halbach's
19 murder is consistent with our theory of the
20 prosecution, what we think is that the evidence
21 that has already been, uh, elicited, uh, at this
22 trial, both, uh, through expert and, uh -- and
23 lay witnesses.

24 Uh, if Mr., um, Strang would like to
25 argue to the -- the jury upon closing that Ms.

1 Halbach, um, uh, was not, in fact, uh, murdered,
2 uh, if some other reason exists for her not being
3 in this courtroom, then I guess, uh, we, uh, can
4 hear it at that time. But until that moment, uh,
5 I do believe that it is, uh, within our province
6 to frame those questions in that regard.

7 I suppose I could, um, always use the
8 word "alleged" but since we are an advocate in
9 this case, since we advocate for a position, we
10 are advocating the position that Ms. Halbach was,
11 in fact, murdered, and until the Court tells us
12 we can't, uh, I intend to, um, um, elicit
13 questions that, uh -- that presuppose that fact,
14 because at least up to this point, the State
15 believes that that has, in fact, been proven or a
16 reasonable inference of -- can be drawn by this
17 jury that that has occurred.

18 THE COURT: I don't remember the specific
19 comments. I thought, going back to the defense
20 opening statement, that there wasn't a dispute that
21 the victim was murdered. But I -- When the date,
22 October 31, was used, I guess that's what I thought
23 that Mr. Strang's comments were going to be directed
24 to. Mr. Strang?

25 ATTORNEY STRANG: Well, that -- that is

1 primarily, you know, killed on October 31, killed
2 on your father's birthday, um, you know, and
3 there -- there's a difference between what we may
4 choose to argue to a jury and the State's burden
5 of proof on every essential element.

6 There's only one essential element of
7 the four charges here that we've stipulated.
8 That's it. One, that he was a convicted felon as
9 of the relevant date in 2005.

10 Um, so what we actually choose to be --
11 argue to the jury has nothing to do with the form
12 in which the State poses questions on direct
13 examination of witnesses who are not hostile and
14 are not appropriate either for leading or for
15 vouching.

16 Uh, so I -- You know, it -- it's not the
17 evidence that is objectionable, it is the form of
18 the question that purportedly seeks to elicit the
19 evidence, uh, that causes me to, um -- to ask for
20 the Court's instruction.

21 THE COURT: All right. Well, um, as the
22 trial has gone on, and I can only respond to
23 objections as they're made, if I -- I may have
24 misunderstood the, um -- the extent to which the
25 defense was not contesting some of the items

1 alleged by the State, but I understand your point
2 and, um, if, uh, another question is made that
3 the defense's feel objectionable, uh, object to
4 it at the time and I'll rule on it.

5 Anything else before we bring the jury
6 back in?

7 ATTORNEY STRANG: No, Your Honor.

8 ATTORNEY FALLON: I think we're just
9 waiting for the clerk to finish marking exhibits.

10 (Jurors in at 1:10 p.m.)

11 THE COURT: You may be seated, and, uh,
12 Mr. Fallon, you may call your next witness.

13 ATTORNEY FALLON: State would call
14 Leslie Eisenberg.

15 THE CLERK: You can step over there.
16 Please raise your right hand.

17 **LESLIE EISENBERG,**
18 called as a witness herein, having been first duly
19 sworn, was examined and testified as follows:

20 THE CLERK: Please be seated. Please state
21 your name and spell your last name for the record.

22 THE WITNESS: My name is Leslie Eisenberg,
23 E-i-s-e-n-b-e-r-g.

24 **DIRECT EXAMINATION**

25 BY ATTORNEY FALLON:

1 Q Good afternoon.

2 A Good afternoon.

3 Q What do you do for a living?

4 A I am currently employed, and have been since June of
5 1993, for the State of Wisconsin, Wisconsin
6 Historical Society, as the State's, uh, Burial Sites
7 Preservation Program Coordinator. I am, likewise,
8 employed privately as a forensic anthropologist.

9 Q Would you tell us what an anthropologist does?

10 A I'd be happy to. Uh, a -- an anthropologist, and in
11 particular, a forensic anthropologist, uses
12 techniques from physical anthropology, uh, including
13 knowledge of the human skeleton and knowledge of
14 human variation and applying that knowledge in a
15 legal context.

16 Q Are there any particular areas or subspecialties
17 of forensic anthropology or anything like that?

18 A Um, I, uh, have a bit of -- quite a bit of experience
19 with trauma reconstruction and with, um, identifying
20 and, um, recognizing burned human remains.

21 ATTORNEY FALLON: Um, Judge, either the
22 witness should lean back a little or if you could
23 turn the volume down a tad. She seems to be more
24 comfortable leaning forward so, perhaps, less
25 volume. Thanks.

1 THE COURT: Sure.

2 Q (By Attorney Fallon) How are you involved in
3 this case?

4 A I was, uh -- In early November of 2005, I was
5 requested, uh -- my assistance was requested by the
6 Calumet County Sheriff's Office, uh, to examine some
7 human remains that had been recovered.

8 Q And, uh, in terms of today, um, why are you here
9 today?

10 A I am here to explain the work I've done, and my
11 findings, um, with particular reference to a
12 determination of, um, the sex and the age of the
13 burned human remains I was asked to examine, uh, as
14 well as to render a professional opinion with respect
15 to the manner of death.

16 Q Now, before we get to your findings and opinions,
17 Doctor, um, I'd like to find a little bit about
18 yourself, please. Um, first of all, uh, tell us
19 your educational background?

20 A I received a Master's Degree in anthropology in 1981,
21 a Doctorate, or Ph.D, in anthropology in 1986, uh,
22 and in 1997 was awarded what's called "diplomat"
23 status or board certification in forensic
24 anthropology.

25 Q And if you could tell us, what does diplomat

1 status, or board cer -- board certification status
2 what -- why is that significant?

3 A It's significant, uh, to a forensic anthropologist
4 because it means that you have gone through a very
5 rigorous process in submitting case reports for
6 review to an organization called the American Board
7 of Forensic Anthropology, who will review your
8 application and determine your fitness to sit for a
9 very rigorous day-long written and practical
10 examination.

11 Q From which institutions did you receive your
12 Masters and Doctoral Degrees?

13 A Both degrees were received from New York University
14 in New York City.

15 Q Tell us, if you would, um, your, uh -- Well, how
16 long have you been with the Wisconsin Historical
17 Society? We'll start there.

18 A I, uh, moved to Wisconsin in, uh -- at the end of May
19 of -- of 1993 to accept the position with the
20 Wisconsin Historical Society. So I've been here
21 almost 14 years.

22 Q Did you say '83? '93?

23 A '93.

24 Q What, um, positions have you held which, uh,
25 benefit you in the performance of your

1 anthropological, uh, duties and opinions that you
2 render?

3 A Well, there have been a number. Uh, for me, one of
4 the most important positions I held before coming to
5 Wisconsin, uh, began in 1986, and that was as a
6 consulting forensic anthropologist, one of two for
7 the Office of Chief Medical Examiner in New York
8 City.

9 Uh, I have also, uh, been fortunate and
10 honored to be asked to be part of a federal
11 disaster mortuary team that goes by the name --
12 the full name is, um, Disaster Mortuary
13 Operational Response Team. And that's a team
14 made up of different kind of professionals,
15 including dentists and pathologists and, uh,
16 other specialties like forensic anthropology,
17 that are most useful in identifying, um, remains
18 that have sustained effects from disasters,
19 whether they be, um, an explosion, a burning
20 episode, um, more -- most recently Hurricane
21 Katrina, uh, the World Trade Center, plane
22 crashes, things like that.

23 Q And this, uh, Disaster Mortuary Operational
24 Response Team, is that known by the acronym
25 DMORT?

1 A It is.

2 Q D-M-O-R-T?

3 A That's correct.

4 Q And, now, you mentioned some disaster relief
5 efforts. Have you participated in any disaster
6 relief efforts, uh, involving the need for, uh,
7 expertise in the field of forensic anthropology?

8 A Yes, I have.

9 Q Uh, tell us about those responses that you've
10 been involved in?

11 A Well, of the requests made to me to assist, um, I --
12 I have been asked to assist on multiple occasions.
13 Of those requests I've been able to, uh, actually
14 help with three of them. The first one was regarding
15 a train derailment, train crash, in Bourbonnais,
16 Illinois, uh, where, uh, a number of individuals on
17 that train, um, sustained, um, trauma from -- from
18 the crash and also from the subsequent burning
19 episode.

20 I also was called, uh, the day of the
21 World Trade Center disaster, excuse me, to
22 respond to New York to help with the
23 identification of the extremely fragmented and,
24 in many cases, very badly burned human remains
25 from that attack.

1 Uh, and more recently, in September of
2 2005 to -- I was asked to go down to
3 Mississippi -- to, Gulf Port, Mississippi to
4 assist with the identification of, uh, in some
5 cases, cemetery remains that had been washed out,
6 and in other cases, to assist, uh, with remains
7 of unidentified individuals, um, who were either
8 washed up or recovered subsequent to, uh,
9 Hurricane Katrina and Rita, which followed on its
10 heels.

11 Q Are you, uh -- Do you -- Are you a member of any
12 committees or belong to any boards of, uh -- that
13 are particular interest with respect to the field
14 of forensic anthropology?

15 A Yes, I am, um, a board member of the American Board
16 of Forensic Anthropology. Uh, for six years, uh, I
17 served on that board as an elected member. Uh, the
18 last three years of that six-year term as the board
19 secretary.

20 Q Currently, do you belong to any, um, uh, national
21 professional organizations?

22 A Yes, I do.

23 Q And what, uh, are those organizations?

24 A Um, may I refer to my resumé so that I don't leave
25 anything out that may be of interest?

1 (Exhibit 381 marked for identification.)

2 Q Sure. Showing you what has been marked for
3 identification purposes has Exhibit 3-8-1. Could
4 you identify that for us, please?

5 A Exhibit 381 is my resumé, also known as a Curriculum
6 Vitae, um, which consists of 17 plus pages. Um, with
7 regard to my professional affiliations, um, I do
8 belong to a number of national and regional
9 organizations.

10 Um, I am a, um -- a fellow of the
11 American Academy of Forensic Sciences, which is
12 basically the umbrella organization of forensic
13 professionals in this country, in Canada and
14 membership also, uh, spans the globe. Uh, being
15 a fellow of that organization means that you have
16 attained the highest level of membership, uh,
17 that the American Academy of Forensic Sciences,
18 um, has.

19 Uh, as I mentioned, I am also a board
20 certified forensic anthropologist with an
21 affiliation with the American Board of Forensic
22 Anthropology.

23 I am also a member of the International
24 Association for Identification, which most
25 recently has begun a forensic anthropology

1 section, and I am, uh, acting, uh, with other
2 colleagues to begin, uh, that section for the
3 organization.

4 Q All right. Um, if I may interrupt you. And,
5 again, continuing the field of anthropology, um,
6 are you a member of any, uh, regional
7 professional organizations?

8 A Yes, I am, sir.

9 Q What would those be?

10 A Um, with respect to my qualifications here, the -- I
11 am a member of the Wisconsin Association for
12 Identification, the Wisconsin Association of Homicide
13 Investigators, and the Wisconsin Coroners and Medical
14 Examiners Association.

15 Q Have you received, uh, any, um, particular
16 research grants, awards, or honors of, um,
17 particular importance with respect to your field
18 of forensic anthropology?

19 A Uh, yes, I have. If I may refer, again to --

20 Q Sure.

21 A -- Exhibit 381?

22 Q You may.

23 ATTORNEY STRANG: Your Honor, that
24 exhibit can be admitted without --

25 ATTORNEY FALLON: I --

1 ATTORNEY STRANG: -- objection.

2 ATTORNEY FALLON: Thank you. I was just
3 about to do that in a moment or two.

4 THE COURT: All right. The exhibit is
5 admitted.

6 ATTORNEY FALLON: Thank you.

7 A Most recent for 2006, I am, uh, proud to say that my
8 peers, uh, in the DMORT organization in, uh, the, uh,
9 federal disaster team have named me the distinguished
10 member of the year.

11 Um, and among other, uh, awards and
12 honors, in the year 2000, the Wisconsin State
13 Assembly, uh, presented me with a citation, uh,
14 recognizing my work in another forensic case, uh,
15 from Sauk County, Wisconsin.

16 Q All right. So is the, uh, Curriculum Vitae, uh,
17 that you have there a -- a summary of your
18 professional training and experience awards,
19 publications, etc.?

20 A It is, sir.

21 Q Thank you. Uh, turning now to this particular
22 case, when did you first become involved, uh, in
23 this case, involving, uh, Teresa Halbach?

24 A My involvement with this case began with a telephone
25 call. Actually a voicemail message that was left for

1 me on November 9 of 2005. Uh, there was a call
2 placed to me, uh, by special agent of the Wisconsin
3 Department of Justice, uh, Division of Criminal
4 Investigation, uh, asking for my assistance in
5 examining some, um, items that had been collected,
6 uh, with -- and the specific request had to do with
7 looking at those items to determine if any human
8 remains were part of that in -- uh, ini -- initial
9 collection of items.

10 Q I'd like to direct your attention to, uh, the
11 time frame of November 5, which we've established
12 is a Saturday, through November 10th, which we
13 have also established as a Thursday. Uh, during
14 that time frame, uh, were you in the state of
15 Wisconsin?

16 A I, uh, left, uh, on that Sunday, which I believe
17 would have been the --

18 Q Sixth?

19 A -- 6th of, uh, November, returning on Wednesday, the
20 9th. I was, along with four or five other
21 individuals, who's representing the state of
22 Wisconsin at a -- at a missing persons conference in
23 Denver, Colorado.

24 Q All right. You returned to the 9th and your
25 first day back at work would have been the 10th?

1 A Would have been Thursday, November 10 of '05.

2 Q What were you asked to do, initially? What were
3 your primary tasks?

4 A My primary task was to examine the contents of a
5 sealed box, um, and to provide information about the
6 con -- the contents of that box.

7 Um, when I opened the box, uh, on,
8 Thursday, November 10 at the Dane County
9 Coroner's Office Morgue where I do most of my,
10 uh, laboratory work, um, I opened the box to find
11 many, uh, blackened, highly fragmented and
12 incomplete human bone fragments.

13 Q All right. Upon making that examination and
14 after receiving the request from law enforcement,
15 what did you attempt, or what was your -- what
16 were you attempting to do with respect to, uh,
17 evaluating these, uh, fragments?

18 A Well, the first task at hand in this case, and in --
19 in other cases, uh, as well, sometimes, uh, one of
20 the tasks that a forensic anthropologist is often
21 asked to do, is to look at, um, remains, whether
22 they're fragmentary or complete, and render an
23 opinion as to whether or not the remains are human
24 and, if you can answer yes to that question, to then,
25 uh, distinguish or determine, um, can you also

1 distinguish other kinds of items that are associated
2 with those.

3 So one of the -- one of the key roles
4 for forensic anthropologists is to determine or
5 distinguish human from nonhuman remains, whether
6 they're biological or otherwise.

7 Q I've -- I've just been informed you might have to
8 pull that microphone just a little bit closer.

9 A Okay. I'll try and do better. Thank you.

10 Q At some point were you attempting to develop a
11 biological profile of, uh -- of the person, if
12 there was, in fact, a determination that they
13 were human remains?

14 A Yes. One of the other key roles of a forensic
15 anthropologist is to develop what's called a
16 biological profile. And that often includes, and
17 should include, a determination of the sex of the
18 individual, the age of the individual, um, the
19 stature or height of the individual, the ancestry or
20 race of the individual, um, a determination as to
21 whether or not, um, there are any, uh -- the remains
22 have sustained trauma of any kind, whether they
23 occurred before death or after death, and, also, um,
24 to re-fit any fragments that might be re-approximated
25 or put back together.

1 Q Are you familiar with the terms "antemortem",
2 "postmortem" and "perimortem"?

3 A Yes, I am.

4 Q Could you explain those terms to us --

5 A I --

6 Q -- please, at least as you apply them in your
7 field of anthropology?

8 A I would be happy to. The term "antemortem", the
9 prefix "ante" means "before", "mortem" means "death",
10 so antemortem means before death.

11 Perimortem, P-e-r-i-m-o-r-t-e-m, "peri"
12 means at or near the time of death. So that's
13 what perimortem means.

14 And postmortem, "post" means "after" so
15 postmortem means after death.

16 Q All right. In terms of your task, could you tell
17 us, please, what were -- what were the condition
18 of the bones and fragments and materials that
19 were sent to you?

20 A The material that I initially examined, and virtually
21 all of the subsequent material presented to me for
22 examination, um, the human bone fragments that I
23 identified and sorted and inventoried was incomplete,
24 highly fragmented, burned, and in some cases what we
25 call calcined, and calcined is -- is a state or a

1 condition, um, along a continuum or a progression of
2 what happens to bone, human bone, when it's exposed
3 to heat.

4 Um, and it's -- it's -- so if you can
5 break that down into three different kind of
6 general periods, when bone is initially exposed
7 to heat, it begins to lose moisture. Um, many
8 people think of bones as, uh -- as inert, kind of
9 as a -- like a piece of wood, but, in fact, there
10 are blood vessels that run through bone, and bone
11 is a very dynamic substance. As anyone who may
12 have broken a bone knows, it -- it hurts a lot
13 when that happens.

14 So when bone is exposed to heat, it
15 first begins to lose its moisture. It will then
16 begin, um, as time goes on, as more heat or, um,
17 is -- is applied or the duration of the exposure
18 to heat is extended, the organic content of the
19 bone, um, what makes you and me human, begins
20 to -- to disappear from the bone.

21 And then the third phase, when a bone is
22 calcined as I mentioned, is when it begins to
23 lose all of its minerals, um, that keep the bones
24 strong. And so when that happens, the bone
25 begins to function not so much as a living bone,

1 but more as a brittle material.

2 Q All right. Now, in the field of, um, disaster
3 relief and forensic anthropology, are there,
4 uh -- is there a standard, or are there levels of
5 destruction or degradation that are, uh, assigned
6 to particular samples when you're asked to
7 examine them?

8 A Well, again, um, different -- different researchers
9 have -- have written about this and have assigned,
10 um, or developed these, um, protocols or continuums
11 where, um, the initial level is that, uh, a body may
12 have been exposed to heat, continuing up to the final
13 level where you are left with cremated remains. And
14 it's, um -- the phases that have been defined by
15 researchers are -- are fairly discreet or stand alone
16 phases, but we know that -- that there's a continuum.
17 There's a -- there's a continual progression from
18 recognizably burned individual, to an individual
19 whose remains have been, for all intents and
20 purposes, cremated.

21 Q All right. Uh, I'd like to show you some
22 exhibits, and to begin with, uh, some, uh,
23 preliminary questions.

24 THE COURT: Doctor, I think I'm going to
25 ask you to move the microphone just a little further

1 away. There's a little distortion coming through
2 the --

3 THE WITNESS: My apologies.

4 THE COURT: That's okay.

5 Q (By Attorney Fallon) If you would be so kind to
6 uh -- to begin with the, uh -- the first
7 photograph. I believe it's marked as Exhibit,
8 uh, 382?

9 A That's correct.

10 Q All right. And, uh --

11 A Exhibit 382 is a -- what appears to be a four-by-six
12 inch color photograph of myself and other
13 investigators sorting through what appears to be burn
14 material. And, uh, if memory serves, uh, I believe
15 this photo was taken at the Wisconsin Crime
16 Laboratory in Madison in December of -- of 2005.

17 Q All right. Um, and the next, uh, photograph?

18 A The next four-by-six color photograph, marked Exhibit
19 383, depicts the, uh, contents of the initial box
20 that was submitted to me, uh, for examination, uh,
21 under Calumet County Sheriff's Office Tag 8318.

22 This was a box that was left for me, um,
23 at my office on November 9 of 2005. That on the
24 following day, I brought it to the Dane County
25 Coroner's Office Morgue, uh, to examine.

1 Q All right.

2 A And -- and I would also note, um, the darkened color

3 of -- of the bones, um, and the fact that some of the

4 lighter colored bones, the bones that almost look

5 white, have taken on or have reached that phase, that

6 calcine phase, where the mineral content and the

7 moisture of the bone, uh, has already dissipated or

8 is gone.

9 Q All right. If you could take -- I believe

10 there's -- should be a, um, laser pointer --

11 A Yes.

12 Q -- up there? If you could just point to the box

13 and just give the jury an example, if you would,

14 of some of these calcined bones that you just

15 described for them? If you could pick out from

16 the box there?

17 A Um, there's one.

18 Q All right.

19 A Um --

20 Q Toward the bottom of the --

21 A There's another.

22 Q Toward the bottom of the box on the edge there?

23 A Correct.

24 Q All right.

25 A And a fragment here, a fragment there. And I would

1 also note that some of these fragments, um, as you
2 probably can see, uh, in some cases have a calcine
3 portion and maybe a charred portion all part of the
4 same bone.

5 Q All right. What is the, uh, next, uh,
6 photograph? This is Exhibit --

7 A This is Exhibit 384.

8 Q All right. And what are we looking at here?

9 A You are looking at, um, uh, a sampling of skull
10 fragments, uh, of different sizes, um, that were part
11 of that initial submission that came in that white
12 box to me that I initially examined on November 10 of
13 2005.

14 Um, they look, I'm sure, very irregular
15 to all of you, um, but I would call your
16 attention to some, uh, characteristic, um, traits
17 that I -- that stand out to me immediately. Um,
18 these -- these areas of projections, um, these
19 are all part of cranial sutures, where many of
20 the bones of the skull fit together.

21 Q All right. If we were to zoom in, would that
22 assist you in further illustrating the point
23 you're making?

24 A Thank you, yes. Here and here.

25 Q So you're pointing to pieces what -- what appear

1 to be very irregular shaped?

2 A That's correct.

3 Q All right. And those are cranial sutures?

4 A They, um -- they represent parts of cranial sutures
5 and there are different cranial sutures around the
6 skull.

7 Q All right. Now, do you recall approximately, um,
8 how many, um, diagnostic, uh, human skull
9 fragments you did examine or look at?

10 A If memory serves, there were 58 diagnostic skull
11 fragments. Um, and when I use the word "diagnostic",
12 uh, to me that means there was en -- there was enough
13 about the bone, either given its shape or its
14 contours, where I could say, yes, this bone fragment
15 came from the skull.

16 Q And, uh, it -- I may not be clear enough in my
17 own head, so what, exactly, is a cranial suture?

18 A We, um -- All of us, hopefully, as -- as, uh -- as
19 we're born, develop into kids and -- and get older.
20 Um, hopefully our heads grow to accommodate our
21 growing brains. And, uh, essentially, what happens
22 is that -- the skull is made up of multiple bones,
23 and as your brain grows, um, your skull is able to
24 accommodate that growth at these open sutures or
25 these, um -- I don't want to call them a zipper, but

1 in a sense, you could think of them as the teeth of a
2 zipper, um, that as you get older, um, those teeth or
3 these sutures sometimes fuse or grow together. But
4 in -- in younger children, even, uh, in adults,
5 hopefully my age, those sutures are still pretty open
6 even though my -- my brain has stopped growing.

7 Um, for little kids or for babies, um,
8 you can sometimes feel a soft spot on the top of
9 the head. That's because the bone, uh, has not
10 grown to the point where, um, that soft spot is
11 covered up yet.

12 Q All right. Are they somewhat reflected, or some
13 people refer to those as growth plates? Or they
14 assist in the growth of the head and this -- the
15 brain? Skull?

16 A Most people, uh, refer to growth plates with respect
17 to growing long bones. The leg bones and the arm
18 bones. But less so, really, with the skull.

19 Q All right. All right. Uh, next, uh, exhibit,
20 please? This is Exhibit No. three eighty --

21 A This is Exhibit 385. Um, this photograph was taken,
22 um, as part of my preparations in preparing, um, a
23 submission or a package for a transfer to the FBI
24 for -- for examination. What you are looking at in
25 this image, um, is a bone fragment that's -- that's

1 kind of charred but, um, perhaps not really burned,
2 and certainly not to the degree of the other, uh --
3 of all of the other bone fragments found in this
4 case.

5 ATTORNEY FALLON: I'm going to ask my
6 colleague, if I could, to zoom in on the one that
7 you seem to be pointing at. Pointing your laser
8 pointer at.

9 A Thank you. This -- this is the bone, um, and
10 although there's no scale in this particular
11 photograph, it was really meant as a -- as a, um -- a
12 reminder to me what the contents of that evidence tag
13 number, uh, contained.

14 And this is -- was the largest bone that
15 was collected as part of this evidence tag. It
16 is, uh, unquestionably human, um, and -- and
17 the -- the color of this bone is more typical of
18 what you would expect to see, um, in a nonburn
19 case. In other words, it was somehow protected,
20 um, and if you could zoom out to the larger photo
21 for me, please, was protected by some of, um,
22 this dried or desiccated muscle tissue that
23 surrounded this bone.

24 Q All right. Now, the one we've been examining
25 more closely here, is that the bone that you, uh,

1 had sent or arranged to be sent to the FBI, or
2 excuse me, to the Crime Lab for further analysis?

3 A No, this -- um, the contents of all of the items you
4 see on this screen, um, this larger bone, which is
5 only about two-and-a-half inches long, and some of
6 these other bone fragments, and this muscle tissue,
7 uh, was packaged by me and transferred directly to
8 the FBI in November of 2005.

9 Q All right. Um, what type of bone, uh -- Is that
10 all bone, or is it tissue, or what, exactly, is
11 that one to the far left there?

12 A This?

13 Q Yes.

14 A This entire fragment is human bone.

15 Q All right. All right. Based on your examination
16 of the bones and fragments recovered, uh, from
17 the, um, burn pit behind the garage of Mr. Steven
18 Avery, did you find evidence of human remains?

19 A Yes, sir, I did.

20 Q And what did you determine?

21 A I was able to determine --

22 Q Were they human or nonhuman? Human?

23 A They were human.

24 Q Were you able to determine, uh, the -- or
25 identify the relative age of the person whose

1 remains you examined?

2 A Yes, I was. And it -- it's, uh, with a reasonable,
3 uh, degree of scientific certainty, based on an
4 examination of certain preserved parts of the
5 skeleton, um, my assessment is that the, uh,
6 fragmentary and burned remains that I was asked to
7 examine from behind Mr. Steven Avery's garage were
8 those, um, of someone, uh, probably no older than
9 between 30 to 35 years of age.

10 Q When you -- when you say "no older" can you
11 explain that? No older than the range of 30 to
12 35. Can you explain how anthropologists use
13 dates like that so that we're not confused?

14 A I -- I will. And, um, I -- I would say that any
15 reasonable and professional forensic anthropologist
16 will always provide an -- an age range, as opposed to
17 a particular year, um, because we can never really
18 know for sure. But there are certain
19 characteristics, certain things we expect to see
20 happening to bone at certain ages, and as we -- as we
21 age, as we start to look a little different every
22 year on the outside, on the inside our bones also
23 start to look a little different.

24 And what I'm referring to in particular
25 is the onset of a degenerative bone condition

1 known as arthritis.

2 Q All right. So when you say, uh, 30 -- of an
3 individual less than 30 to 35, in other words,
4 it's someone who's younger than -- I assume you
5 have different levels? There's a 30 to 35,
6 there's a 20 to 25, or a 40 to 50, so they --
7 these remains of this person was somebody who was
8 clearly less than 30 to 35 years of age?

9 A That's correct. And I say that because there were no
10 bony signs of arthritis on several of the joint
11 surfaces that I was able to recognize and examine.

12 Q Were you able to determine the sex of the person
13 whose remains were recovered?

14 A Yes, I was.

15 Q And what was that?

16 A That in my professional opinion these remains are
17 those of an adult female.

18 Q And why were you able to make that determination?

19 A I was able to make that determin -- determination
20 based on, um, certain characteristics, traits and
21 measurements of various portions of the body that had
22 been recovered and could be recognized as to where in
23 the body they come from. Actually, which bone they
24 came from.

25 Q All right. I would like to direct your attention

1 to, I believe, the next photograph? And that
2 would be Exhibit 386?

3 A Three-eight-six. That's correct.

4 Q And, uh, it's now being displayed on the screen.
5 What are we looking at in Exhibit 386?

6 A Um, I -- I would ask, um, you to -- as you're facing
7 me, um, we are facing this image, and -- and what we
8 are looking at is, um, the recognizable, what I call
9 diagnostic, portions of human facial bones, and --
10 and I'd like to take you through what it is I see in
11 the hopes that you can orient yourselves as well.

12 Q Sure.

13 A Um, if you, um -- if you're looking at this head-on
14 or face-on, if you will, this would be the top of the
15 left eye socket. This would be the top of the right
16 eye socket. This is the left nasal bone. Um,
17 everyone's nose has a right side and a left side. We
18 recovered the left nasal bone. We also have the
19 entire, or virtually the entire, right cheekbone, as
20 well as a portion of the left cheekbone, and a
21 portion of bone that begins in the cheekbone area and
22 continues over and above the left op -- the opening
23 for the left ear.

24 Q All right.

25 A And -- and I must say, if I can add, that, um, in

1 burn situations like this one, it is sometimes
2 unusual to find the -- the facial structures because
3 they are thin and easily damaged. And the fact that
4 we have these bones and they are as recognizable as
5 they are, to me is -- is, in part, a testament to the
6 recovery that occurred at the scene.

7 Q I note from examining, uh, Exhibit 386 that there
8 appear to be some red dots on the fragments which
9 are displayed?

10 A That's correct.

11 Q Can you explain what those dots are and who --
12 how they came to be?

13 A Yes. Um, I would be happy to do that. As -- as part
14 of the investigation and the sorting, um, I needed to
15 find a way to, um -- to mark from what location
16 certain bones came. And what I initially decided to
17 do was to go out to Walgreens, buy some very brightly
18 colored nail polish in different colors, different
19 enough so that each color could be distinguished from
20 one another, and mark certain recovered items whose
21 tag numbers or identification numbers we knew so that
22 if I was, over time, be able -- was able to re-fit
23 fragments, I would know if one match and another
24 match came from the same, uh, evidence collection or
25 came from two different evidence collections, for

1 example.

2 Um, the red dots you see here, um,
3 indicate that all of these fragments, all of
4 these, recognizable to a forensic anthropologist,
5 facial fragments, came from that initial recovery
6 Tag No. 8318, uh, in that white box that I was
7 initially asked to examine.

8 Um, I would also like to say that I took
9 great pains on these fragments, and other
10 fragments that may have been so marked, to place
11 these dots in areas that did not ob -- obscure
12 any kind of anatomical landmark or that might be
13 needed later on for examination purposes.

14 Q All right. If you would turn to the next
15 photograph? This would be Exhibit 387?

16 A Yes, sir.

17 Q And 387 is what?

18 A Three eighty-seven is a close-up of a portion, uh, of
19 facial bones that we saw in the previous, uh, slide.
20 Uh, what you are looking at, uh, we're doing the same
21 thing. We're looking face-on at somebody, and what
22 you are looking at, this area is actually the area
23 just above and between your eyes. And, again, this
24 area is the portion of the frontal bone or the
25 forehead that demarcates or forms the boundary for

1 the top of the left eye socket.

2 You are also looking at -- at the left
3 nasal bone. Uh, and while you can't see it here,
4 um, actually -- which actually fit with this
5 frontal bone.

6 Q All right. If you would, uh, turn to the next,
7 uh, photograph, I believe it would be Exhibit
8 388?

9 A Yes, sir.

10 Q And Exhibit 388 is, um -- First of all, you have
11 to tell us a little bit about this exhibit. Um,
12 um, how was this -- with whom did you work to
13 prepare this particular exhibit?

14 A Um, I had the opportunity, uh, to work with, uh, a
15 Wisconsin State Trooper by the name of Timothy
16 Austin, who prepared many of the graphics for this
17 case, um, using software that, uh, I wouldn't have
18 the first idea about how to make work, but he -- he
19 did, uh, a wonderful job in -- in helping me depict
20 certain areas of -- of the body that had been
21 recovered, uh, from -- from Mr. Avery's property.

22 Um, what this slide depicts is a graphic
23 of a human skull. We are essentially looking,
24 again, face-on at that skull, and each of these
25 identifying labels, uh, points to the portion of

1 the facial bone that was depicted and was
2 recognized and was inventoried, uh, in this
3 particular case.

4 If you remember, we had virtually the
5 entire right cheekbone, um, that we call the
6 malar bone, but it's essentially a cheekbone, um,
7 we had the left nasal bone, um, we had this
8 portion of the left cheekbone, the left malar
9 again. We had that, um, linear or stick-looking
10 piece of bone that forms part of the cheekbone
11 that continues over and above the -- the opening
12 for the left ear.

13 Um, and a very, very characteristic
14 portion of the left frontal bone that contains,
15 uh, a continuous surface demarcating the top of
16 the left eye socket.

17 We also had, uh, fragments from the --
18 the top of the right eye sockets, but,
19 unfortunate -- unfortunately, given their
20 fragmentary nature, they could not be
21 re-approximated or fit one right next to another.

22 Q All right. If we could have you turn to one
23 more, uh, photograph, and then, um, I'll ask a
24 couple of questions regarding the ones we just
25 looked at. Uh, Exhibit, I believe it would be

1 389?

2 A Yes, sir.

3 Q All right. Um, the question at hand, as we began
4 the analysis of these, uh, facial bones, was your
5 ability to determine a female from male, and, um,
6 if you would then, uh, illustrate further, uh,
7 making a compare and contrast, uh, Exhibit, uh,
8 389, with, uh, the male and female anatomy and
9 tell us how you were able to determine that the
10 remains you examined were, in fact, female?

11 A In fact, there were multiple indicators of -- of, uh,
12 these remains having come from a female. Um, the
13 first, um -- the first evidence of that actually came
14 from that left frontal bone fragment that you saw a
15 minute ago with, um, the sharp, um, upper boundary of
16 the left eye socket, and that is, uh, characteristic,
17 and actually the hallmark, uh, for, um, being able to
18 dis -- distinguish -- well, one of the
19 characteristics and one of the hallmarks for allowing
20 anthropologists to make a distinction between males
21 and females.

22 Q So I take it, then, by your description, you're
23 pointing that the skeletal figure depicted on the
24 left-hand of our screen is a male?

25 A No, actually, uh, facing the screen --

1 Q Oh. Our -- our looking -- look -- right-hand
2 side, excuse me.

3 A Yes. The skeleton graphic on the right-hand side is
4 the male --

5 Q Right.

6 A -- and on the left-hand side depicts, in a general
7 way, a female.

8 Q Okay. Now, you said, uh, in addition to the, uh,
9 facial bone, uh, that you've just described,
10 there were other, uh, bone, uh, material that you
11 examined that, um, further supported your opinion
12 that, uh, the remains were of a female?

13 A Yes, sir.

14 Q Tell us --

15 A Um --

16 Q -- about that.

17 A As we move from, um, the head down the body to what
18 are called the post-cranials, anything neck and
19 below, post, again, after, so below the -- below the
20 skull, uh, one of the, um, fragments that was
21 actually recovered and in very, very good shape was
22 part -- was a bone that forms part of the elbow
23 joint, and the elbow joint is made up of three bones;
24 the lower end of the upper arm bone, that's called
25 the humerus, and the upper end of the two lower arm

1 bones, the one on the thumb side of the arm, called
2 the radius, and the one on the other side, called the
3 ulna.

4 And what I was able to identify was the
5 elbow, and of the radius, it's called the radial
6 head, which is, um, a rounded lozenged-shaped
7 portion of the bone that forms part of the elbow
8 joint.

9 Q All right. And, um, did you recover, uh, any
10 other bones? For instance, a femur shaft or
11 anything like that which would be of -- would be
12 of some assistance in determining the sex?

13 A Yes. Along with the head of the radius, um, that
14 actually I can try and point out in this graphic,
15 it's -- well, maybe not. Um, may I -- may I approach
16 the --

17 Q Sure. I think that --

18 A -- graphic? I think I might be able to do a little
19 better.

20 Q Sure. Would you like to use a pen to, uh, point
21 or --

22 A Well, no, this -- this should work. Um, it's that
23 lozenged-shaped area right there. You have one on
24 the left and one on the right, um, but I was only
25 able to identify one of those radial heads and -- and

1 I do not know from what side that came.

2 Um, along with the head of the radius
3 there was also a femur shaft. The femur is the
4 thigh bone. And, um, most long bones, the arm
5 bones and the leg bones, as you can see in this
6 photograph, the upper arm bones, there's an upper
7 end at the joint, a lower end at the joint, and
8 in between those two joint ends is usually the
9 cylindrical or rounded part of the bone that's
10 called the shaft.

11 And there was a femur shaft fragment
12 that was found in with the initial recovery Tag
13 No. 8318 whose circumference measurement or the
14 measurement around the tubular part of the bone
15 falls well within the expected range, uh, for
16 females.

17 Q Now, early on in -- when we were talking about
18 your experiences, you say -- uh, you said that
19 oftentimes the ancestry or stature of a person
20 could be determined. Were you able to make any
21 of those determinations upon your examination in
22 this case?

23 A I was not. Uh, stature is, um -- was not possible.
24 There were no complete long bones or no bones long
25 enough to even, um, estimate stature from. Uh,

1 likewise, there was nothing indicative of, um,
2 ancestry.

3 There's certain parts of the body that
4 anthropologists typically look at, um, skull
5 shapes and proportions, as well as areas of the
6 femur and some other bones that often assist us
7 in determining ancestry or race. And, in fact,
8 unless you can make a determination as to
9 ancestry, um, no good forensic anthropologist
10 would even attempt stature because many of the
11 equations we use to plug in the length of a long
12 bone require that you know the ancestry
13 beforehand.

14 Q I take it that's because there are different
15 standards associated with age?

16 A There are different standards because different
17 populations, um, are proportioned differently, and
18 those equations take that into account.

19 Q Doctor, I want to switch gears a little bit from
20 some of your, uh, findings here, and, uh, ask you
21 this, um, uh, question: As a forensic
22 anthropologist, are you -- um, are you familiar
23 with the concepts of cause and manner of death?

24 A Yes, I am.

25 Q Are you, um, sometimes asked to render such

1 opinions based on your training, your experience
2 and your findings?

3 A Uh, I am. Uh, and in particular, in cases where
4 remains are too -- either too badly decomposed or
5 have been otherwise compromised to the point where
6 traditional autopsy cannot be performed.

7 Q So, uh, for the benefit, uh, of all of us here,
8 in your mind, please distinguish cause of death
9 and manner of death.

10 A When -- when, uh, someone uses the terms "cause of
11 death" it's, um, why -- why did the person die? Um,
12 but "manner of death", um, is -- is how did they die?
13 And, um, most people would agree that there -- in
14 general, there are, um, four main categories that
15 people look to when they talk about manner of death.
16 And, um, one of those categories is, uh, a natural
17 death. Another category is an accidental death. A
18 third category would be, uh, suicidal. Someone takes
19 their own life. And the fourth major recognized
20 category is homicide. That is, someone takes the
21 life of someone else.

22 Q Um, based on your findings and examination of the
23 materials submitted to you in your training, do
24 you have an opinion as to the manner of death of
25 this individual?

1 A I do, sir.

2 Q And what is that opinion?

3 A In, um, my professional opinion, the manner of death,
4 uh, in this case was by homicidal violence.

5 Q Could you explain that term for us, please?

6 A Yes, sir. Um, in -- in inventorying and examining
7 every fragment, um, every piece that was recovered
8 from this scene, and in separating the human bone
9 from the nonhuman bone, from the nonbone, whether it
10 was metal, fiber, whatever, um, there were two
11 fragments in particular, two skull fragments, that
12 showed, in my mind, unmistakable, um, defects or
13 unnatural openings, openings that were not caused
14 either by some disease process, they weren't
15 pathological nor were they caused by any congenital
16 condition or some kind of condition that someone
17 might have been born with.

18 Q Now, if you would turn to the next, uh, exhibit
19 you have there? And that is Exhibit 3 --

20 A That is Exhibit 3-9-0.

21 Q What are we looking at?

22 A We are looking at one of the cranial fragments. Um,
23 obviously, it's unrecognizable to most people who --
24 who haven't spent many years looking at -- at bone
25 fragments, but this is a human bone fragment that has

1 been burned, that is fragmented. You are looking,
2 uh -- If you think of the skull kind of as a ball
3 that has an inside surface and an outside surface,
4 you are looking at the inside surface of a skull bone
5 that I know comes from the side of the skull, and I
6 know that because of these anatomical landmarks here.

7 These, um, what looks like -- look like
8 tracks in the sand are actually impressions in
9 the bone in which, um, vessels sit. Um, and when
10 you hear that someone has meningitis, these --
11 these, uh, tracks are the -- the, uh, areas in
12 which the meningeal -- middle meningeal vessels
13 sit. The vessels that become inflamed when
14 someone does have meningitis.

15 So the fact that we see these vessel
16 markings mean that this bone has come from one of
17 the two bones on the side of the skull, and these
18 bones, they're matched bones. They're called
19 parietal bones, p-a-r-i-t-a-l. There's a left
20 parietal bone and a right pariet -- parietal
21 bone, and when I take this bone, um, and orient
22 it in its, um, correct anatomical position,
23 because of the placement and direction of these
24 vessel markings, I know that this fragment came
25 from the left side of the skull from the left

1 parietal.

2 I -- I also --

3 Q I was going to say, uh, parietal is p-a-r-i-e --

4 A E-t-a-l.

5 Q Okay. And, uh, just so that we're oriented in
6 common everyday parlance, uh, where -- where on
7 the skull is the parietal bone found?

8 A The -- We -- As I mentioned, we have two parietal
9 bones. One, it's a -- it's a matched set. We have
10 one on the left side of our skull and one on the
11 right side.

12 Q All right. Um, in relation to an area that, um,
13 people are familiar with, sometimes called the
14 temporal area, where in relation to the temporal
15 area would this parietal bone, uh, which, uh,
16 appears to be depicted in Exhibit 390, where
17 would that be on the left side?

18 A The temporal -- Uh, the temple area, um, would be,
19 uh, to the front portion of that bone.

20 Q Okay. Um, before I go further into, uh, having
21 you describe the findings regarding these, um,
22 unnatural defects to the skull fragments, were
23 there any other reasons, um, that you believed
24 supported, uh, any other finding that you made
25 that supported your opinion that this was

1 homicidal violence?

2 A Well, I think, um, there was a -- a clear effort to
3 obscure a body, uh, through burning. Um, the -- the
4 extreme heat-related fragmentation, um, the burning
5 of the bone, in some cases the calcine bone, taking
6 the -- the destruction of the bone mineral to -- to
7 its extent, um, there was an obvious attempt, in my
8 professional opinion, to obscure the identity of an
9 individual.

10 Q All right. All right. Returning, then again, to
11 these, um, uh, defects, you've talked a little
12 bit about the parietal defect depicted in Exhibit
13 390, if I could direct your attention to Exhibit
14 391, if you could tell us what that is?

15 THE COURT: Mr. Fallon, before you begin,
16 I -- or continue, I'm going to give people a chance
17 to get up and stretch. It's been about an hour
18 since we've been out here, so... We're not going to
19 take a break, just a chance to get up and stretch.

20 (Short break taken.)

21 All right. You may be seated.

22 Mr. Fallon, you may continue.

23 Q (By Attorney Fallon) Directing your attention --
24 I think we were at Exhibit 391. What is Exhibit
25 391?

1 A Three-ninety-one, um, represents an image of three
2 different bones that were re-approximated or
3 re-fitted from the left parietal.

4 Um, this larger fragment, now in proper
5 anatomical position, um, is the fragment -- the
6 only fragment we saw in the previous image.

7 You are looking, uh, at the fragment as
8 if you were standing inside of the skull looking
9 to the inside of the left side of the skull.

10 And so, again, I would call your
11 attention to these vessel markings that now are
12 in proper anatomical position. Um, the outside
13 of the skull would be behind.

14 Q All right. Now, you mentioned something about
15 these, uh, defects. Is the def -- one of the
16 defects the, uh -- that you found with --
17 associated with the parietal skull bone, is it
18 featured in this exhibit here?

19 A Yes, sir, it is.

20 Q Would you point out to us, um, the, um -- the
21 defect that, uh, caused you some concern and
22 support your opinion with respect to homicidal
23 violence as the manner of death?

24 A Yes, sir. I would, uh, like to call your attention
25 to the top portion of this bone, and in particular to

1 this semi-circular defect here that has another
2 smaller, um, unnatural opening here, and this is
3 actually the border from the outside of the un --
4 unnatural opening, and this area here that all --
5 that looks very much like honeycomb, actually kind of
6 is honeycomb.

7 Um, our skull is -- is made up, um --
8 it's kind of a sandwich between hard, flat bone
9 on the outside, hard, flat bone on the inside,
10 with a honeycomb type of bone in the middle. And
11 it's through this honeycomb type of bone, um,
12 that there's -- there's fat, and there's blood
13 vessels and -- and so on.

14 And, um, what you're looking at here is
15 the in -- internal portion of the skull. We
16 don't see the -- the outside of the skull, but
17 what you're looking at is kind of the inside of a
18 crater where the inside of the skull bone here is
19 gone. It's missing. And you're looking directly
20 into the honeycomb portion of the skull.

21 Q All right. If you would turn to the next
22 exhibit, um, 392, I believe?

23 A Yes, sir.

24 Q And what is depicted in Exhibit 392 then?

25 A What we are looking at here is -- is, essentially,

1 the flip side of -- of what we were just looking at.
2 We are looking at the three bones, but this time from
3 the outside of the skull.

4 And what I will call your attention to
5 is the circular or crescent-shaped opening
6 reflected on the outside of the skull. This is,
7 essentially, just above where that honeycomb bone
8 was on the inside of the skull that we just
9 looked at.

10 Q Now, I also note, in addition to the, uh, couple
11 of different colored, uh, dots on that, there
12 also appears to be an arrow, uh, on Exhibit 392?
13 Do you know what that is?

14 A That's correct. I believe that is a -- a copper
15 marker that was affixed there by a representative of
16 the Wisconsin Crime Laboratory.

17 Q Mr. Olsen?

18 A I believe so.

19 Q All right. If we could direct your attention,
20 then, to, uh, the next exhibit? I believe it
21 would be 393?

22 A May I, uh, just return for one moment?

23 Q Oh, sure. I'm sorry if I'd interrupted you.

24 A No, that's -- Um, we -- we mentioned before the,
25 um -- my attempt at marking, um, some of the bone

1 fragments, and what I would like to call your
2 attention to here, um, are these two different colors
3 of nail polish on this bone. The parietal fragment
4 with the defect --

5 Q Right.

6 A -- or the unnatural opening, and, um, an adjoining
7 parietal fragment showing the same two markings.

8 Q All right. And that's -- As you've said, that's
9 related to your color coding system --

10 A That's correct.

11 Q -- to assist you in, uh, recognizing what the
12 items are, and when you received them, and where
13 they came from?

14 A And -- and, additionally, um, whether there were any,
15 um, specific results, um, that I wanted to show on
16 that particular bone.

17 Q Exhibit 393? What is -- What is it that we are
18 looking at, uh, with respect to Exhibit 393?

19 A This is, uh, another part of the skull. This time
20 not from the left side of the skull, but from the
21 back side of the skull, and you're looking, uh,
22 again, at the internal portion, or the inside of the
23 skull bone, um, two different fragments that
24 re-approximate, that fit, um, together, and, um, an
25 area where you can see clearly a honeycomb appearance

1 to the bone, which means a portion of the inside,
2 between the outside of the skull and the inner skull
3 bone, is exposed.

4 Q And is there a name for this particular bone?

5 A This bone is known as the occipital bone,
6 o-c-c-i-p-i-t-a-l. And it's the bone you feel at the
7 back of your skull.

8 Q And, um, the, uh, area where this defect is, is
9 that the area which seems to be, uh -- our
10 attention seems to be directed to by virtue of
11 the, uh -- the, uh, triangular marker?

12 A That's correct.

13 Q And next exhibit, please? I believe this is
14 Exhibit 394?

15 A Yes, sir.

16 Q Uh, what is it that we're looking at here?

17 A This is, um, uh, a view of the same two bones, uh,
18 although, um, you get a better sense of the totality
19 of those two bones. Um, just by way of reference, I
20 will point your, uh, attention here to the inner
21 table of the skull, the inner margin of the skull,
22 and, again, this honeycomb bone between the inner and
23 outer tables of the skull that's exposed, and, again,
24 another copper-colored pointer pointing to this
25 unnatural opening.

1 Q Now, um, are you familiar with the phrase, uh,
2 "internal beveling"?
3 A Yes, I am, sir.
4 Q And could you tell us what that is?
5 A Internal beveling is kind of cratering. Um, it's,
6 um, where, um, there may be an opening. Um, for
7 example, if you take a -- a piece of drywall or
8 sheetrock and -- and you hammer something into it,
9 you're -- you're liable to have a -- a small hole on
10 the outside, but if you flip that -- that piece of
11 particle board around, you'd see a wider opening, or
12 a cratering on the opposite side. And that's,
13 basically, what we are seeing here on the internal
14 view of the skull bone at the back of the skull.
15 Q And so you were pointing, again, to the area
16 where you've identified it as a defect, and it's
17 indicated in this photo by the Crime Lab marker?
18 A It is. And the honeycomb appearance of the bone.
19 Q All right. Was there anything else about the
20 def -- this internal beveling or -- or this --
21 that you've earlier referred to it as a defect
22 that was unusual?
23 A Um, in the sense that, um, both of these defects, um,
24 the -- the cranial bones that were identified by me
25 were taken for x-ray in November of 2005, and, uh,

1 ten different x-ray films were taken, and the results
2 of those x-rays indicate, um, that there were what
3 are called radiopaque particles, or little areas on
4 x-ray that were much whiter than -- and much denser
5 than surrounding bone.

6 And when you look at these x-rays, those
7 little white flecks, the reason they are so white
8 in comparison with the surrounding bone is that
9 the x-rays, while they pass through bone, do not
10 pass through these other areas, and that's why
11 you have that whiter appearance in relationship
12 to the bone, itself.

13 Q So these -- this, uh, radiopaque or denser
14 material, which of the, uh -- of the, uh, bones
15 had the presence of this material? And the
16 parietal bone, or the occipital bone, or both?

17 A Both, sir.

18 Q All right. Um, next exhibit, please? I'd like
19 to step out a little bit from the, uh, trees and
20 get more of the overview, uh, forest perspective.
21 Um -- Well, before we do that, we have one last
22 internal photo. What is it that we're looking at
23 here with respect to this particular photo?

24 A We are looking at the flip side, or the outside of
25 that occipital bone, the bone at the back of the

1 skull that shows the unnatural opening. And what I
2 will point out here is the outside of that opening,
3 as well as the loss of a little bit of outer bone,
4 which is not unusual when bone is -- is burned as it
5 is in this case. The bone becomes very brittle and
6 fragile and it's not unusual to see some spawling off
7 of bone from the outer surface.

8 Q All right. Next exhibit, please? That would be
9 Exhibit 396?

10 A Yes, sir.

11 Q All right. Exhibit 396, uh, does that, uh,
12 generally depict the location of the parietal
13 defect as you observed it?

14 A Yes, sir, it does.

15 Q Uh, next one, please? What are we looking at
16 here? I take it this is, uh, Exhibit 397?

17 A Yes, it is. What we are looking at are two of three
18 fragments that could be re-approximated or re-fitted
19 from the left parietal bone. What I -- I'll call
20 your attention, again, to these vessel markings
21 telling me that this, in fact, comes from a parietal
22 bone, and, more specifically, call your attention to
23 the internal beveling or internal cratering, um, of
24 the parietal bone.

25 And what I'd like to call your attention

1 to are these four flecks or whiter areas depicted
2 on x-ray. Here's one. Here's another. Here's a
3 third. And here's a fourth.

4 Q Directing your attention to the one, uh, in the,
5 uh, bevel defect?

6 A Yes, sir.

7 Q Are, um, those, uh, dense, white specks or
8 particles, are those naturally occurring?

9 A They are not, sir.

10 Q When we say something is, um, radiopaque, uh, can
11 you give a -- a -- a layman's, um, understanding
12 of that term?

13 A Well, I am certainly not a radiologist, but it means
14 that the, um -- the x-rays, which are -- are not
15 visible to the naked eye, cannot penetrate whatever
16 that substance is. Uh, and in this case, can
17 penetrate the bone, but cannot penetrate these other,
18 uh, more dense substances.

19 Q All right. If you would, uh, take the next
20 exhibit? Exhibit 398?

21 A Yes, sir.

22 Q What are we looking at in Exhibit 398?

23 A We are looking at one of the, um, x-rays, one of the
24 ten x-rays, that was taken in November of 2005 of
25 selected, um, cranial fragments, and, uh, in

1 particular, I'd like to call your attention to some
2 of the sutures that we talked about before. The
3 irregular shape of these bones, um, but, in
4 particular, I'd like to focus on this bone up in the
5 upper left-hand corner.

6 Q All right. Now, what bone is it that we've
7 zoomed in now at the upper left-hand corner of
8 Exhibit 398? There are eight, uh -- eight bones
9 depicted, and we're looking at the one in the
10 upper left-hand corner, and, uh, what is it
11 that -- which bone -- First of all, is that the
12 parietal or occipital?

13 A That is the occipital fragment with the unnatural
14 opening.

15 Q All right. And, um, would you identify clearly,
16 then, the, um, uh, radiopaque dense particles
17 you've been talking about?

18 A Yes. Um, I focus your attention in this area within
19 and adjacent to the unnatural opening or defect. Um,
20 and, uh, in x-ray, when I look at the x-rays, I count
21 at least ten different particles. There may actually
22 be more.

23 Q All right. Thank you. Um, would you turn to the
24 next exhibit, please? This would be Exhibit 399?

25 A Yes, sir.

1 Q All right. Uh, and, uh, 399, uh -- What is
2 depicted on Exhibit 399?

3 A We are looking, uh, at the back, uh, of this graphic
4 skeleton. The back kind of from the left-hand side
5 of the skeleton and the approximate area of, uh,
6 where that occipital defect or opening is on the
7 bone. Uh, it related to the previous slide we just
8 saw of the x-ray.

9 This is the portion of the bone that
10 showed at least ten of those radiopaque or dense
11 particles adjacent to the defect.

12 Q All right. Excuse me. All right. Uh, Doctor,
13 in terms of, um, these defects, were you able at
14 all, based on your findings, to determine a
15 particular order which these defects may have
16 occurred?

17 A No, sir.

18 Q Are these naturally occurring defects in the
19 human condition?

20 A They are most certainly not.

21 Q Why not?

22 A Um, based on the -- It's not what our bone looks
23 like. It's not what our skull bone looks like. We
24 may have tiny openings for the passage of blood
25 vessels, but we do not have openings that, um, are

1 this large or that cause, um, the outer or inner
2 tables of the skull, um, to be fractured away or to
3 expose the honeycomb bone in between the outer and
4 inner layers of the -- of the skull.

5 Q In your opinion, Doctor, did these defects exist
6 before the burning episode or did they occur
7 after?

8 A In my professional opinion these defects occurred
9 prior to or before the bone epi -- the burning
10 episode. Before.

11 Q Tell us why?

12 A Um, as I looked at the bone, uh, it's always
13 important to look at the distribution of burning and
14 the color on the bones, and, um, inside the defects,
15 uh, the cratering and the honeycomb portion of the
16 inside of the skull is of the same color as the
17 outside burned portion and the inside burned portion.
18 And based on that observation, it is my professional
19 opinion that these defects occurred prior to the
20 burning episode.

21 Q What does the presence of the internal beveling,
22 coupled with the localized radiopaque particles
23 on the parietal and occipital bones, signify to
24 you?

25 A To me, the -- those defects, and -- and what those

1 defects look like, signifies, um, what happens to
2 skull bone when it's subjected to a gunshot or
3 gunshots.

4 Q I have a few, uh, questions here of -- to
5 conclude. Uh, before I do, Doctor, you mentioned
6 something about the concept of postcranial
7 remains, uh, and having described them as below
8 the head. What other postcranial remains, uh,
9 were you able to identify as coming from the area
10 behind the, uh, garage that we've been referring
11 to as the burn pit?

12 A I would, um -- I would say that virtually every part
13 of the skeleton -- Um, obviously, there were no
14 entire bones that were found, but at least a fragment
15 or more of almost every bone below the neck was
16 recovered in that burn pit. Um, one bone that's
17 conspicuously absent, uh, are the left and right
18 kneecaps, for example, but that is not surprising to
19 me given that those bones were made up almost
20 exclusively of that honeycomb, very fragile bone,
21 that I would expect not to survive, um, a burning
22 episode. So it's not surprising to me that I've not
23 found evidence of -- of the kneecaps, but virtually
24 every other bone below the neck, um, I found evidence
25 for.

1 Q Uh, next exhibit, please? I'm showing you what
2 has been, uh, marked for identification purposes
3 as Exhibit 3 -- um, 400?

4 A Yes, sir.

5 Q And with respect to Exhibit 400, is this, um,
6 representative of the variety of human bone that
7 you found in this area?

8 A Yes, sir.

9 Q So you have some rib bone, some hand, some legs,
10 clavicle --

11 A There is --

12 Q -- or shoulder bones?

13 A Yes. Um, obviously, no entire bone, but, uh, enough,
14 um, of a bone or bones -- uh, enough of the
15 anatomical landmark that I can say this is part of
16 the spine, or this is part, uh, of a rib, or this is
17 part of a -- a collarbone. Yes, I can.

18 Q Now, there were some other bones that you found
19 that you weren't completely sure were human or
20 not; is that correct?

21 A That is correct.

22 Q Let's talk a little bit about that, if you'd
23 like, all right? Um, and we'll talk about them
24 in -- in this context, other than, uh, damage
25 caused by fire or gunshot, as you've, uh, told us

1 about, what other bones did you find that had
2 other indicators of -- of damage or unnatural
3 occurring injury to them?

4 A There were several other bones whose origin, uh, I
5 could not be sure of. In other words, I was not
6 sure, uh, that the bones were definitely human.

7 Q I'll get to that in a minute.

8 A Okay.

9 Q If you would just describe for us, first of all,
10 what the possibility or probability -- What --
11 Describe the bone that you have, uh, pictured in
12 your mind right now, and then we'll talk about
13 it.

14 A There -- there is one bone fragment in particular.
15 Uh, part of a bone shaft. That kind of tubular,
16 cylindrical portion of a bone is probably not more
17 than about two or two-and-a-half inches, um, that
18 shows evidence of cut marks and, of, uh, a saw cut as
19 well.

20 Q All right.

21 A And that bone is -- is, um, burned to the point of
22 being calcined. In other words, its color has moved
23 beyond black, but to whitish-gray.

24 Q All right. Now, with respect to that particular
25 bone, uh, can you say to a reasonable degree of

1 scientific certainty that that bone shaft
2 fragment is a human bone?

3 A I cannot, sir.

4 Q Um, did you find any evidence of a, uh -- of the
5 superior aspect of an iliac blade?

6 A Uh, yes, I did. And, um, for everyone in the room
7 but me, I'll show you where that is.

8 Q That's my next question.

9 A And, um --

10 Q Thank you. Bail me out.

11 A The, um -- The pelvis is made up of three different
12 bones; the left hip bone, the right hip bone, and the
13 sacrum, which is the bone that sits at the base of
14 the spine and actually is the lowermost portion of
15 the spine. And the iliac crest is this top area
16 here. What you actually feel, if you rub your hand
17 on your hip bone, that's known as the iliac crest.

18 Q All right. Now, the bone that you suspected to
19 be the iliac crest, can you say to a reasonable
20 degree of scientific certainty that that, uh, is
21 human bone?

22 A No, sir, I cannot.

23 Q Did you find evidence, uh -- or -- of a bone
24 that's referred to as the sacral iliac
25 articulation?

1 A Actually, those are two bones. It's where the right
2 half of the sacrum, or the lowermost part of the
3 spine, um, articulates -- it's actually adjoined --
4 with the right side of the hip bone.

5 Q And in terms of that, uh, suspected bone
6 fragment, can you say to a reasonable degree of
7 scientific certainty that that was human bone?

8 A Um, I cannot.

9 Q Doctor, were you able to perform any other tests,
10 uh, on these bones to determine if they were of
11 human origin?

12 A Uh, no, there were no other tests that I performed.

13 Q And why is that?

14 A Um, I did not, uh -- there, um, are -- There is the
15 potential for, um, using, um, microscopes to look,
16 for example, to try and confirm if suspected human
17 bone might actually be human bone or animal bone, but
18 given the condition of the remains, I did not
19 believe, um, that cutting into the bone, uh, that
20 they would survive that -- those kinds of tests, and
21 so I did not perform them.

22 Q Did you make an effort to, have, um, um, several
23 bone fragments, uh, submitted to the FBI
24 Laboratory to attempt further identification?

25 A Yes, sir, I did.

1 Q Based upon your examination of the bones and the
2 material that you had, did you find evidence of
3 any heman (phonetic) human bone that was
4 identified as being collected from a site other
5 than the burn pit behind the defendant's garage?

6 A Yes, sir, I did.

7 Q Tell us about that?

8 A There, uh -- Human bone also was found in and among
9 material that was collected from, uh, what was
10 designated "Burn Barrel No. 2".

11 Q All right. And what type of bone fragment do you
12 recall as having come from that particular burn
13 barrel?

14 A There was a portion of a -- a scapula or a shoulder
15 blade, um, some long bone fragments, um, a possible
16 hand bone, metacarpal, and I believe there was a
17 fourth representation but I don't remember. Um, I
18 certainly can check my notes if you'd like.

19 Q Uh, would it -- Spine bone, perhaps?

20 A Yes. Vertebral spine. Thank you.

21 ATTORNEY BUTING: Sorry. What was that?

22 Q (By Attorney Fallon) Could you -- Counsel didn't
23 hear that.

24 A Part of -- Part of the spine. A vertebral element.

25 ATTORNEY BUTING: Vertebral?

1 THE WITNESS: Yeah.

2 ATTORNEY BUTING: Okay.

3 Q (By Attorney Fallon) All right, Doctor. The
4 opinion that the remains were those of an adult
5 female less than 30 to 35 years of age, do you
6 hold that opinion to a reasonable degree of
7 scientific certainty?

8 A Yes, I do.

9 Q The opinion that the internal beveling observed
10 in the left parietal bone is characteristic of a
11 gunshot or bullet entrance wound, do you hold
12 that opinion to a reasonable degree of scientific
13 certainty?

14 A Yes, sir, I do.

15 Q The opinion that -- The opinion that the internal
16 beveling observed in the occipital bone left of
17 the midline, is characteristic of gunshot or
18 bullet entrance wound, do you hold that opinion
19 to a reasonable degree of scientific certainty?

20 A Yes, sir, I do.

21 Q The opinion that the internal beveling observed
22 in the left parietal bone and in the occipital
23 bone occurred before the burning episode, do you
24 hold that opinion to a reasonable degree of
25 scientific certainty?

1 A Yes, sir, I do.

2 Q Finally, Doctor, the opinion that the manner of
3 death for this person was homicidal violence, do
4 you hold that opinion to a reasonable degree of
5 scientific certainty?

6 A Yes, I do.

7 ATTORNEY FALLON: Um, I would move into
8 evidence the exhibits that I've had this witness
9 identify. Upon their receipt, would pass the
10 witness for cross-examination.

11 THE COURT: Any objection to the exhibits?

12 ATTORNEY STRANG: I have no objection to
13 any of the exhibits.

14 THE COURT: Very well. Court will order,
15 uh, all of the exhibits testified to by this witness
16 admitted, and at this time we're going to take our
17 afternoon break. Uh, members of the jury, I'll
18 remind you not to discuss the case during the break.
19 Uh, and we'll resume cross-examination after the
20 break.

21 (Jurors out at 2:42 p.m.)

22 THE COURT: You may be seated. Counsel,
23 I'll try not to, uh, interrupt you in your
24 examination for a stretch break, but, uh, science
25 class is pretty heavy for the jury, so when I look

1 at them and think they need a break, I'll try to do
2 it at a logical time.

3 ATTORNEY STRANG: You should feel free
4 to do that.

5 THE COURT: All right. We'll see you at
6 3:00.

7 (Recess had at 2:43 p.m.)

8 (Reconvened at 3:00 p.m.; jurors present.)

9 THE COURT: You may be seated. Is
10 someone going to get the witness?

11 ATTORNEY FALLON: I believe so.

12 THE COURT: All right. Mr. Strang, you
13 may begin.

14 ATTORNEY STRANG: Thank you, Your Honor.

15 **CROSS-EXAMINATION**

16 BY ATTORNEY STRANG:

17 Q Dr. Eisenberg, um, let's start by agreeing, if we
18 can, that in all the work you did on this case
19 with human bone, possible human bones, suspected
20 human bone, all of the work which you've
21 testified, you had no evidence that more than one
22 person was involved in terms of a contributor of
23 bones?

24 A Are you asking me whether or not more than one
25 individual was represented by what I examined?

1 Q That's right. That you have no evidence that you
2 saw bone fragments from more than one person? Is
3 that a better way to put it?

4 A I have no evidence for having seen any duplicate
5 bones in what I examined. That's correct.

6 Q No evidence that you saw bones that were
7 characteristically male, for example?

8 A No trace that would suggest to me any of those
9 fragments came from a male skeleton.

10 Q Nothing to suggest female human bones of a
11 detectably different age range than the under 30
12 to 35 years you've testified to here today?

13 A That's correct.

14 Q The evidence that you have is that the bone
15 fragments here were attributable to one person
16 and one person only?

17 A That's correct.

18 Q Did I hear you stop just short, um, of giving us
19 your opinion on the cause of death? Did I hear
20 you stop just short of that?

21 A Um, no, I don't believe so.

22 Q Okay. I heard you say that you had an opinion on
23 manner of death; correct?

24 A I -- I was asked to render an opinion as to manner of
25 death.

1 Q And the manner of death you assigned here in your
2 opinion as homicide, or I think your term was
3 homicidal violence?

4 A Yes, sir.

5 Q All right. And, again, that's -- Manner of death
6 is a, um -- is a term of art, if you will,
7 normally used by medical examiners, or coroners,
8 pathologists?

9 A That's correct.

10 Q All right. Um, and we have accidental, suicidal
11 homicidal, and there's -- there's a -- there's a
12 fourth one?

13 A Natural.

14 Q Natural, which would encompass illness or heart
15 attack, that kind of thing; correct? In natural?

16 A Well, I guess it depends on the situation, and -- and
17 since I am not a forensic pathologist, I'd -- I'd --
18 uh, really don't know how to answer that question.

19 Q Well, I'd understood you to be saying, uh, here
20 to this jury that you are qualified to give an
21 opinion on manner of death?

22 A In the absence, uh, of, um, remains that could be
23 subject to a traditional autopsy, then really the
24 forensic anthropologist is the only one, um, who can
25 offer such, uh -- such information.

1 Q And are you qualified to opine on manner of
2 death, including natural, accidental, homicidal
3 and suicidal?

4 A Uh, I believe, depending on the nature of the case,
5 yes, I am.

6 Q What do you mean by "depending on the nature of
7 the case"?

8 A If the remains are highly fragmented, whether or not
9 they're burned, if the remains are too decomposed or
10 skeletonized for a traditional autopsy, um, then if
11 the forensic anthropologist observes something that
12 is significant and can speak to cause and/or manner
13 of death, I believe it's the duty of the forensic
14 anthropologist to provide that information.

15 Q All right. Now, right now, I'm interested in
16 manner. We'll get to cause. But is there a
17 situation in which you would be qualified to
18 opine, uh, that a cause of death was natural?

19 A I don't believe so.

20 Q Then it's also true that there is not a situation
21 in which you would be qualified to exclude
22 natural cause of death unless you definitely
23 could include or attribute manner of death to
24 homicide, suicide?

25 A There are many cases with which I've been associated

1 or asked to examine where no cause or manner of death
2 can be attribute --

3 Q Let -- let's go back and let's -- let's -- let's
4 work on answering the question I'm asking, all
5 right? Manner of death --

6 A Yes, sir.

7 Q -- I think we've established that you can't think
8 of a case in which you would be qualified to
9 offer an opinion that the manner of death was
10 natural? Did I understand you?

11 A That is correct and that is because, uh, often a
12 forensic anthropologist is not provided with enough
13 remains to be able to do that. In other words, if
14 I'm presented with --

15 Q All right.

16 A -- a skeleton --

17 Q The answer to my question is, yes? You are not
18 qualified to render an opinion in any case you
19 can think of that the cau -- that the manner of
20 death was natural? The --

21 A I -- I don't --

22 Q -- answer to that question's yes?

23 A I -- I -- I am not -- I -- I don't believe I'm not
24 qualified. I simply believe that there is no way for
25 me to observe and interpret what might be considered

1 a natural, uh, death.

2 Q And if there's no way for you to observe and
3 interpret it, then you certainly wouldn't offer
4 an opinion to a reasonable degree of scientific
5 certainty that something was a natural cause of
6 death, would you?

7 A That's correct.

8 Q All right. And then the question when we got a
9 little bogged down was, then, unless you could
10 say to a reasonable degree of scientific
11 certainty that the manner of death was either
12 homicidal or suicidal, you also could not rule
13 out natural death, could you?

14 A By exclusion, no, I could not.

15 Q The same would be true both calling an accidental
16 death as the manner of death or rule out
17 accidental as the manner of death?

18 ATTORNEY FALLON: Objection as to the,
19 uh, relevance of an opinion -- of a relevance of
20 an opinion regarding, uh, accidental or natural
21 death to our circumstances here. Those were not
22 the opinions elicited.

23 ATTORNEY STRANG: No, but I think she
24 was tendered as an expert on giving an opinion on
25 manner of death.

1 ATTORNEY FALLON: In the context in
2 which it was asked?

3 THE COURT: I'm not sure if these are
4 foundational questions leading to something else or
5 where we're going.

6 ATTORNEY STRANG: They are.

7 THE COURT: All right. On a foundational
8 basis, I'll allow it.

9 Q (By Attorney Strang) Again, not qualified to
10 give an opinion within your field that
11 something's an accidental death?

12 A There may be circumstances where, um, I might be able
13 to distinguish an accidental death from a -- a
14 different type of manner.

15 Q Okay. And that -- that -- the situation there
16 might be, just to use an easy example, uh, the
17 crash of a -- of a jetliner? Of an airplane,
18 possibly; correct?

19 A Well, I certainly wouldn't give an opinion as to, um,
20 how people died, because there may have been many
21 factors beyond my expertise.

22 Q Okay. But, again, if we're just talking about
23 manner and not cause, if you had no evidence that
24 the plane fell out of the sky because of a bomb
25 or some deliberate human action, but, rather,

1 that the plane crash was an accident, in that
2 instance you, as a forensic anthropologist, might
3 be able to say the manner of death of a passenger
4 in the plane was accidental?

5 A That's correct.

6 Q But, again, I think what I hear you saying is
7 that you, as a forensic anthropologist, have a
8 fairly limited range in which you're comfortable
9 opining on the manner of death if accident is a
10 possibility?

11 A It -- It depends on, um, my observations and, um,
12 what's presented to me for analysis.

13 Q Now, let's go, then, to cause of death; all
14 right?

15 A Yes, sir.

16 Q Okay. Cause is just -- If -- if it's a homicide,
17 how did the homicide happen; right? I mean, was
18 it a gunshot? Was it something else? That's
19 what we mean by cause of death?

20 A That's correct.

21 Q All right. And, ideally, we would try to assign
22 something more specific than that? If it's a
23 gunshot, we'd like to know a gunshot to where;
24 correct?

25 A Correct.

1 Q All right. Here, you are not able to give an
2 opinion that a gunshot or a gunshots caused the
3 death of the person whose bones you examined, are
4 you?

5 A I am able to note the presence of defects that are
6 consistent in architecture and -- and -- and what's
7 happened to the bone.

8 Q And, again, that -- that wasn't my question, was
9 it?

10 A Would you ask it again, then, please?

11 Q I'd be happy to. You are not able to give us an
12 opinion here that gunshot or gunshots was the
13 cause of death of the person whose bones you
14 examined?

15 A In the absence of any other professional looking at
16 these remains, that that is my testimony.

17 Q Why don't you tell me just exactly what evidence
18 you have on which to conclude that the defects
19 here you've described as gunshot wounds happened
20 before the death of the person whose bones you
21 examined?

22 A I would be happy to, um -- to, uh, repeat, uh, the
23 answer I -- I gave before when that question --

24 Q What --

25 A -- was asked.

1 Q What is the evidence -- Let's assume these are
2 gunshots for purpose of our discussion here, all
3 right? What you -- what we're calling unnatural
4 defects. Let's assume they're gunshots. What
5 evidence did you see that allows you to conclude
6 that those gunshots happened before or at the
7 time of death?

8 A I am not able to -- to tell you whether those
9 gunshots -- I can tell you that the gunshots happened
10 before death. I cannot tell you within a time
11 interval how close to the time of death they
12 occurred.

13 Q I think I heard you testify that you could tell
14 us that the gunshots happened before burning?
15 Did I hear that correctly?

16 A That's correct.

17 Q All right. And you explained why you -- you
18 concluded that the gunshots happened before
19 burning --

20 A Yes.

21 Q -- of the bones? Because the coloration's about
22 the same, including on that beveled surface on
23 the inside of the bone?

24 A Yes, sir.

25 Q The interior side of the bone? So I understand

1 that you -- you believe that the gunshot wounds
2 here happened before the bones were burned?
3 I'm -- I'm clear on that? Tell me what evidence
4 you have that the gunshots to those bones
5 happened before death as opposed to a dead person
6 being shot?
7 A After or before burning?
8 Q I'm talking about before burning. I'm talking
9 about well before burning, okay? What evidence
10 do you have that the person whose bones have the
11 gunshot holes --
12 A Um-hmm.
13 Q -- was alive and breathing as opposed to dead? A
14 corpse, unburned, but dead, at the time the
15 gunshot wounds made the holes you identified in
16 those bones?
17 A So -- so if -- if I may ask the question in a
18 different way to make sure I understand what you're
19 asking, you are asking me how can I be sure that a
20 person who was already dead, then, did not sustain
21 two gunshot wounds to the head?
22 Q Let's -- I'll -- I'll work with that. Can you
23 work with that for me in answering the question
24 about --
25 A Is -- is that a fair assessment --

1 Q Sure.

2 A -- of what you've asked me?

3 Q Sure.

4 A Um, given the fragmentation to the skull and the

5 inability to put the entire skull back together, I

6 cannot say that.

7 Q As you sit here, and on the evidence you have,

8 one or both of those gunshots, as easily, could

9 have been fired into the skull of a dead person

10 as into the skull of a living person; true?

11 A That is possible.

12 Q Which -- Not only possible, it's true, isn't it?

13 A Yes. In the absence of being able to reconstruct the

14 skull, um, I would agree with you.

15 Q And -- and you've completed the work that you've

16 been able to do on reconstruction of this skull?

17 A To the best of my ability, yes.

18 Q All right. And if the gunshot wounds were fired

19 into the skull after the person was dead, then

20 the gunshots did not cause the death of the

21 person, did they?

22 A That would be a correct assessment.

23 Q If the gunshots did not cause the death of the

24 person, then, as we go back to manner of death as

25 homicide, the evidence you have for homicide is

1 the burning or destruction of the bones that you
2 saw?

3 A That is correct.

4 Q The burning or destruction of these bones clearly
5 happened after death or postmortem as you say?

6 A One would hope so.

7 Q You have no evidence that it occurred before
8 death?

9 A I do not.

10 Q So if you're unable to give us an opinion on the
11 cause of death, then you also are unable to give
12 an opinion on the manner of death, unless we take
13 as sufficient support for your opinion on
14 homicidal violence as the manner of death the
15 burning or destruction of the bones that you've
16 described?

17 A That's correct.

18 Q Now, you understand -- I don't mean to have
19 ang -- angels dancing on the head of a pin here,
20 you understand, because you're a forensic
21 anthropologist, you apply anthropology, the
22 science of human behavior, cultural and physical
23 characteristics to law?

24 A That is correct.

25 Q All right. And the law in the state of Wisconsin

1 includes, among other possible crimes, but two
2 relevant here, first degree intentional homicide,
3 that is, intentionally causing the death of a
4 human being, you understand that?

5 A Yes.

6 Q And a crime called mutilation of a corpse, you
7 understand that --

8 A Yes, I do.

9 Q -- as well? And if one is living, then the
10 defendant or the person is incapable of
11 mutilating a corpse, because it -- you know, if
12 you're living, you're not a corpse; correct?

13 A Correct.

14 Q All right. So you understand, here, that these
15 folks to your left will have to make a
16 distinction between homicide on the one hand and
17 mutilating a corpse on the other? You understand
18 that?

19 A Yes, I do.

20 Q All right. And you certainly would view the
21 burning of bones to this state of char and
22 calcination as mutilation of a corpse, and that
23 to the extent these are human bones, that looks
24 like mutilation of a corpse, doesn't it?

25 A That's correct. Although mutilation of a corpse does

1 not -- is not mutually exclusive. In other words --

2 Q Understood.

3 A Okay.

4 Q Un -- understood. Uh, but I'm -- In terms of --
5 You -- you -- you would view what happened here,
6 with the fragmentation and burning of bones, as
7 mutilating a corpse if someone had done that
8 intentionally, wouldn't you?

9 A Correct.

10 Q All right. Now, in your work with these bone
11 fragments, uh, you found evidence of two gunshot
12 wounds I take it?

13 A Yes, sir.

14 Q You did not find evidence of 10 or 11 gunshot
15 wounds in any of your work with these bone
16 fragments?

17 A I did not.

18 Q Let's, uh, spend a little bit of time talking,
19 now, just sort of backing up a bit, uh, to the
20 recovery of -- of bone fragments. The initial
21 process of recovery. Um, I understand you
22 weren't there, okay, but I want to talk to you
23 about the recovery process, all right?

24 Um, you were -- you were out of state at
25 a -- at a conference in Denver or something, and,

1 uh, didn't attend the recovery effort of any --
2 any bone fragments here?

3 A That is correct.

4 Q Indeed, you weren't asked to do that?

5 A That is correct.

6 Q Your initial contact on November 9 was a phone
7 call simply alerting you that someone was
8 bringing a box of material collected to you?

9 A Yes, sir.

10 Q All right. And -- and -- and, indeed, somebody
11 did, so when you came to the office on
12 November 10, uh, there was a box waiting for you
13 on your arrival?

14 A That's correct.

15 Q This was the box you've described as being under,
16 uh, Tag 8318?

17 A That's correct.

18 Q Now, when -- when -- you -- you -- you talk about
19 tags a lot, and I understand that, and you do,
20 um, but, uh, when evidence is collected, the --
21 the person or people collecting that evidence
22 will give it a unique number often on a tag;
23 correct?

24 A That's correct.

25 Q So they can keep straight what it is they found,

1 and what they did with it, and then keep track
2 later of where it goes --

3 A Uh --

4 Q -- whose got their hands on it?

5 A As well as that number is also associated with the
6 location of the find.

7 Q Ab -- absolutely.

8 A Yes.

9 Q Um, in general, and certainly in this case?

10 A Yes, sir.

11 Q And the location will be described with some
12 degree of, I guess, specificity. Here, 8318 was
13 described as being behind Steven Avery's garage,
14 or words to that effect?

15 A Yes, sir.

16 Q All right. And, um, you were -- you -- you know
17 a gentleman named Dr. Ken Bennett, uh, who also,
18 I think, lives in Madison?

19 A Yes, I do.

20 Q Uh, Ken Bennett, uh, also a Ph.D like you?

21 A Yes, that's correct.

22 Q Also a forensic anthropologist?

23 A Yes.

24 Q Uh, a colleague or at least an acquaintance of
25 yours?

1 A Yes.

2 Q And, uh, because you were out of town, uh,

3 Dr. Bennett was the first to take a look at some

4 of the bone fragments that you later examined?

5 A That's correct.

6 Q To your knowledge, he wasn't asked to go to the

7 recovery scene either?

8 ATTORNEY FALLON: Objection. Calls for

9 hearsay.

10 ATTORNEY STRANG: I -- I guess I said,

11 "to your knowledge" and that may or may not call

12 for hearsay. Um --

13 ATTORNEY FALLON: Source of the

14 information would be for Mr. Bennett or another

15 agent. That would --

16 ATTORNEY STRANG: Well, let --

17 ATTORNEY FALLON: -- be hearsay.

18 ATTORNEY STRANG: Let's -- let -- let me

19 withdraw it and we'll go at it this way.

20 THE COURT: All right.

21 Q (By Attorney Strang) Uh, you and Dr. Bennett

22 share a specific field of expertise?

23 A That's correct.

24 Q Forensic anthropology?

25 A Yes.

1 Q There aren't that many of you folks in the world,
2 or at least certainly in the state of Wisconsin?

3 A There aren't that many board certified forensic
4 anthropologists.

5 Q He's also board certified?

6 A He is not.

7 Q Uh, and he's someone with whom you've worked
8 collegially at various times in the past?

9 A Uh, initially, when I moved to Wisconsin, uh, he
10 invited me to work with him on a number of cases.

11 Q In your field of forensic anthropology, is it
12 reasonable to rely on, uh, information provided
13 by another forensic anthropologist whom you know
14 to be honest and qualified?

15 A Um, are you asking do I make an independent
16 assessment or do I rely on information provided by a
17 colleague and peer?

18 Q Oh, I -- I -- I'm quite certain that you always
19 make an independent assessment in the end, don't
20 you?

21 A I do.

22 Q Yes. But --

23 A And --

24 Q And in doing --

25 A -- and in the beginning.

1 Q Okay. And -- And in doing that, uh, because you
2 can't be all places at all times, you have to
3 rely on information provided by others?

4 A Well, I think the -- the investigators had to rely on
5 someone who was knowledgeable at the time.

6 Q No, I'm talking about you, though. I mean,
7 you -- you got to rely -- and you do routinely
8 rely on some information provided by others?

9 A Certainly in terms of, uh, forensic literature, that
10 would be a good example.

11 Q That'd be one good example. Another good example
12 would be when you come in and you say, uh, these
13 are bones that were found behind Steven Avery's
14 garage. You've never seen Steven Avery's garage
15 in person in your life, have you?

16 A That is correct.

17 Q Okay. Um, so you're getting that kind of
18 information from law enforcement; right?

19 A That's correct.

20 Q Perfectly reasonable in your field to rely on law
21 enforcement officers for that sort of
22 information?

23 A Yes. They are trained in investigations.

24 Q Sure. And so when they tell you this is Tag 8318
25 and it was found behind Steven Avery's garage,

1 unless you have some very good reason to doubt
2 that, that's information that you rely on as part
3 of your work in forensic anthropology?

4 A That is correct.

5 Q Likewise, if Dr. Ken Bennett gives you
6 information about what he saw or what he did,
7 unless you've got some very good reason to doubt
8 that, it's reasonable for you to rely on it in
9 doing your own work?

10 A No, I don't agree with you. I --

11 Q You wouldn't rely on Dr. Bennett?

12 A I would listen -- If he gave -- he provided me with
13 information, I would certainly note that, but I would
14 start my investigation from scratch, um, independent
15 of any information he or anybody else gave me.

16 Q So if -- if Dr. Bennett had told you, this is Tag
17 8318, and it's from behind Steven Avery's garage,
18 you would have said, no, I've got to start from
19 scratch. I'm going to drive to Mishicot,
20 Wisconsin and make sure that there's a Steven
21 Avery who's got a garage?

22 A Well, the information provided to Dr. Bennett -- Dr.
23 Bennett ultimately came from law enforcement, and it
24 would be from law enforcement that I would take that
25 information.

1 Q Okay. All right. So what, ultimately, came from
2 law enforcement, you know that Dr. Bennett wasn't
3 asked to come to the scene of Steven Avery's
4 garage either, don't you?

5 A No, I don't know that, sir.

6 Q You don't?

7 A I don't.

8 Q All right. Do you have any information that
9 there was an anthropologist present anywhere at
10 the Avery Salvage Yard during the recovery of the
11 bones you saw?

12 A I do not believe there was.

13 Q That wasn't so hard, was it?

14 A No.

15 Q Okay. Um, and what you do know is that you --
16 regardless of who was at the scene, you did not
17 receive any record of where any particular
18 fragment was found in relation to any other
19 fragment?

20 A That is correct.

21 Q You got -- You got sort of general locations for
22 batches or boxes or bags of fragments?

23 A That's true.

24 Q Area behind the garage, here's a box containing
25 the number of fragments?

1 A Or burn pit, here's a box.

2 Q Right.

3 A Correct.

4 Q Or, for example, beyond the Burn Barrel No. 2?

5 A That's correct.

6 Q Okay. And, uh -- but -- But, as you're going

7 through the, uh -- the fragments that you

8 received, you did not have benefit of knowing

9 where fragment A was found in relation to

10 fragment B or fragment C?

11 A That is correct.

12 Q In -- indeed, we've had testimony here that part

13 of the recovery process, uh, involved first

14 taking a shovel or a -- a small -- smaller hand

15 tool of some kind, both, I guess, the testimony

16 was, scooping up, um, you know, a shovel of

17 something out of, let's say, the burn area or the

18 burn pit, and then putting it on a sifting tray?

19 We've had testimony like that here. Is that

20 consistent with your understanding of the

21 recovery process?

22 A I -- Unfortunately, I know little or nothing about

23 how the recovery was undertaken.

24 Q All right. You say, "unfortunately" you know

25 little or nothing about that. Why -- Why do you

1 say "unfortunately"?

2 A Well, I -- I wasn't here when the majority of the
3 work took place, and, uh, I know only what was
4 associated with the evidence identifier in terms of
5 location.

6 Q Uh, you're familiar with sifting of possible
7 human remains?

8 A I am -- As an archaeologist and forensic
9 anthropologist, I am.

10 Q Right. And that's -- that's, actually -- I was
11 going to get there eventually. But, uh, your --
12 your day job, so to speak, is that you're the
13 coordinator for the State Historical Society's,
14 uh, Burial Sites Preservation Program?

15 A That's correct.

16 Q For the state of Wisconsin?

17 A That's correct.

18 Q And, uh, burial site preservation is something
19 that falls into a subfield of anthropology called
20 archaeology?

21 A That's correct.

22 Q Um, which you could define better than I, but,
23 essentially, it's historical, uh, focus on
24 physical, cultural, behavioral characteristics of
25 human beings?

1 A Actually, my -- the majority of my experience is from
2 prehistoric archaeological sites.

3 Q I should have said that, because it's -- We've
4 got history and then we've got prehistory?

5 A Right.

6 Q All the way back to, conceivably, the earliest,
7 uh, Homo sapiens or earlier, conceivably, would
8 fall into archaeology?

9 A That's correct.

10 Q So, um, you're familiar with this process of
11 sifting at, for example, a burial site?

12 A Yes.

13 Q Now, when you -- when you sift, uh, and you're
14 sort of shaking things through, uh, necessarily
15 what you're doing is you're rearranging the
16 orientation or placement of, let's say, bone
17 fragments, uh, from what they were before being
18 disturbed?

19 A Depending on how they were taken from the ground and
20 placed in the screen, that is a possibility.

21 Q Okay. If they're taken from the ground with a --
22 with a good, old shovel, and the shovel's turned
23 over on the screen, we're likely to be
24 reorienting, if you will, the placement of the
25 bone fragments each to the other?

1 A Well, archaeologists sift and screen all the time,
2 and we know where that shovelful came from, and as
3 long as what's found in the screen is associated with
4 the location of origin, then we are just fine with
5 that.

6 Q Sure. No, I -- I understand that you --

7 A Right.

8 Q -- screen all the time.

9 A Right.

10 Q I'm just saying that part of what we're doing --
11 Um, if this is -- you know, it's three o'clock in
12 the afternoon, it's going to be dark in two
13 hours, so we're going to sort of swoop and scoop,
14 uh, part of what we're doing is we're rearranging
15 the places of the fragments? That's all. I'm
16 not -- I'm not --

17 A Archaeology by its very nature is -- is a destructive
18 endeavor, and so, in a sense, that's -- that's what
19 happens.

20 Q Yeah. And, um, if there -- if there was not a
21 note made of where this shovelful came, or better
22 yet, if there was not photography taken, you
23 know, of -- of each, let's say, a grid section or
24 small areas, we later would not know where
25 fragments from a particular shovelful came in in

1 relation, at least, to any other shovelful?

2 A That is true. I would, uh, offer, in -- in this
3 particular case, given, um, the -- the burn
4 fragments, the dark color, um, while photography is
5 often -- often accompanies this kind of endeavor,
6 photography in this case may not have been all that
7 helpful in terms of discriminating one fragment from
8 another.

9 Q We'll never know, because we don't have the
10 photography?

11 A I don't know that, but if that's what you're telling
12 me --

13 Q You've never seen any photographs of these --

14 A I have not.

15 Q -- of these fragments in place as found?

16 A I have not.

17 Q Okay. Um, now, you know, obviously, archaeology
18 is destructive in the sense that we -- we -- you
19 and I just agreed, if we're sifting and removing
20 things from one place and taking them to another,
21 in a sense we're destroying the site, if you
22 will, or rearranging, changing the placement of
23 the bones; true?

24 A And any other material that might be of --

25 Q And -- and any other --

1 A Right.

2 Q -- material that might be of interest?

3 A Right.

4 Q Um, but, you know, essentially, if we -- if we do
5 this, we scoop it up, we put it on -- on a -- on
6 a sifting screen, this is a little bit like
7 taking the pieces of a jigsaw puzzle and shaking
8 the box up?

9 ATTORNEY FALLON: I'm going to object to
10 that, uh, characterization. Uh, as I recall the
11 testimony of, uh, Mr. Ertl, he testified that
12 this was carefully done, uh, pushed on with a
13 shovel and then put into the sifter. It's not
14 this swoop and scoop and let's shovel it over
15 like we're digging a ditch. So we object to the
16 characterization of the question -- of the
17 question.

18 THE COURT: Okay. I -- Mr. Strang?

19 ATTORNEY STRANG: I -- I can re -- I can
20 reframe it if --

21 THE COURT: My understanding was that this
22 witness indicated she didn't actually know anything
23 about the particular method of collection here. I
24 understood the question to be more of a general
25 nature.

1 ATTORNEY STRANG: Yes.

2 THE COURT: Um --

3 ATTORNEY STRANG: They are. But let --
4 let me -- let me rephrase it.

5 Q (By Attorney Strang) I -- I think the point is
6 fairly clear, when we're -- when we're sifting
7 and shaking to try to get smaller pieces to fall
8 through and larger pieces to stay up in the mesh,
9 and then we do it again with a finer mesh, we're
10 simply -- we're simply reorienting, shaking the
11 bones around. The fragments. True?

12 A With -- with the ultimate goal of identifying and
13 recovering the maximum number of items.

14 Q Well, absolutely.

15 A Right.

16 Q Absolutely. Uh, un -- understood. Um, now, um,
17 it is true, though, that, um, had you been at the
18 scene, uh, you might have done this recovery
19 differently?

20 ATTORNEY FALLON: Objection. Calls for
21 speculation.

22 ATTORNEY STRANG: Well, I -- I -- I
23 think she knows how she would have done a
24 recovery.

25 THE COURT: Well, I'm not sure how she can

1 answer the question if she doesn't know how it was
2 done in the first place. I mean, she said she
3 wasn't there. I -- I think you'll have to rephrase
4 the question.

5 Q (By Attorney Strang) Let's go at it this way.
6 Uh, you have participated in burial site
7 recoveries a number of times yourself?

8 A Of unburn -- unburned skeletons, correct.

9 Q Of unburned skeletons?

10 A And on two occasions, um, clandestine graves.

11 Q Okay. So this -- this is work you've done, is
12 you've been out to a -- a gravesite or we'll call
13 it a burial site, and you've participated in
14 recovery; correct?

15 A That's correct.

16 Q Uh, you've directed recovery?

17 A Yes, I have.

18 Q All right. Uh, one of the things you do, for
19 example, at a burial site would be typically to
20 set up a grid?

21 A Depending on the nature of the site, maybe yes, maybe
22 no. Every site is a little bit different. Many of
23 the discoveries that I get called out to in
24 association with my job for the state of Wisconsin
25 involves an accidental disturbance of a portion of a

1 burial. Uh, under Wisconsin law, um, excavations of
2 burials are now prohibited without a permit. So not
3 even an archaeologist could go out and do that.

4 Q Okay. But a -- but assuming there's no legal
5 prohibition, and the terrain allowed it, one of
6 the things you have done in the past is set up a
7 grid, if you will?

8 A That's correct.

9 Q Tell -- tell the -- the jurors what -- what you
10 mean by a grid?

11 A Well, one of the important things that you do want to
12 do is, um, map or note the location of interest with
13 respect to a known point. So that even once the
14 excavation is completed with reference to that known
15 point, you could go back to that spot if you needed
16 to for some reason.

17 Um, the benefit, where appropriate of
18 setting up a grid of sorts, is to provide, uh,
19 a -- a somewhat more systematic way of recovery,
20 uh, so ultimately you will have an idea of the
21 relationship of different parts of the body to
22 each other.

23 Q And so if -- if we use -- if we're using a grid
24 to do that, we would set up the grid around and
25 probably just beyond the area that we suspect is

1 the burial site to be excavated or recovered?

2 A Correct.

3 Q And then we would -- this grid would consist of

4 some number of, essentially, squares?

5 A Or you may choose to run a string down the middle and

6 excavate the west half and then excavate the east

7 half. So there are varying --

8 Q Sure.

9 A -- degrees of -- of specificity that you --

10 Q Sure. But -- but -- but no matter how many ways

11 we -- we divide up the space --

12 A Um-hmm.

13 Q -- into just two with a string down the middle,

14 or into eight, or four, or sixteen, or whatever

15 it is, what we can do, then, is we can identify a

16 sector of the grid in which we're working at the

17 moment?

18 A That's correct.

19 Q Finish that sector, document what we've taken out

20 of there, and then move to another sector?

21 A That's correct. And sometimes that documentation

22 doesn't occur until you get back to the laboratory.

23 Q Um-hmm. But -- but later we'll have a record of

24 at least what area or sector of our grid

25 particular items have come from?

1 A That's correct.

2 Q Um, you also, in your work, um, recovering or --
3 or excavating a burial site, you'll set up, uh,
4 what you might call a contamination path?

5 A Well, um, not necessarily. Well, with respect to
6 forensic work, I certainly would, but -- but let me
7 preface that by saying that, um, if I am asked to
8 assist at a scene, um, it is not my investigation.
9 That investigation belongs to the local jurisdiction,
10 and if I'm invited in to assist, I may make rec --
11 recommendations, but that doesn't mean that I come in
12 and call the shots. It is always someone else's
13 investigation.

14 Q Yes. Un -- understood. And I think that's --
15 You know, that's consistent with my recollection,
16 at least of the testimony we've heard here from,
17 let's say, Crime Lab people.

18 A Okay.

19 Q And they -- they are asked to assist as you would
20 be on occasion? Uh, you would be brought in for
21 your expertise; correct?

22 A That's correct.

23 Q But you wouldn't be running the show. You'd be
24 offering your advice which, of course, your
25 advice is why you're being asked to attend?

1 A Which may or may not be followed.

2 Q Right. Your advice at least would be -- If this

3 was forensic, if something that might end up in a

4 courtroom, your advice would be to establish

5 something like a contamination path or a

6 contamination corridor so that we know where

7 we're walking in and out of the site?

8 A Well, that would not be my job. That would be the

9 job of -- of whoever's scene it was to maintain chain

10 of custody, to create a contamination path and so on.

11 Q Right. And I -- and I -- I think I said you'd

12 make a recommendation?

13 A I don't think I would need to make that

14 recommendation. That is part of normal police

15 protocol.

16 Q You would expect a -- the police normally to --

17 A Correct.

18 Q -- to do exactly that?

19 A Okay.

20 Q And, uh, where possible, you might try to either

21 photograph or mark, uh, items of interest, let's

22 say? Where they lie before picking them up in

23 any way, or scooping them, or removing them in

24 any way?

25 A I would certainly call the attention of a -- an item

1 of interest to an evidence technician and -- and a
2 scene photographer.

3 Q Sure. Where it's possible?

4 A Correct.

5 Q And I understand here, you know, you were -- you
6 were hypothesizing that, given the dark and
7 charred burn quality of these bones, photography
8 may or may not have worked?

9 A Correct.

10 Q Um, but the nail polish, um, idea that you had,
11 for example, later, was a way for you to later
12 associate one bone fragment at least with a tag
13 number --

14 A That's correct.

15 Q -- that you were given?

16 A That's correct.

17 Q And, conceivably, that sort of nail polish idea,
18 or something -- some similar coding or -- of
19 bones or fragments of bones might be done by
20 sector of a grid?

21 A That is -- That's a -- a possibility, yes.

22 Q Again, if -- if we're worried about where things
23 are in relation to one another?

24 A Correct.

25 Q Now, one of the reasons that trying to identify

1 things when they're still in the original place
2 can be important, uh, arises here in -- in a --
3 in a situation where bones have been burned, and
4 that is that once burn -- bones are burned to a
5 certain level, they become quite fragile?

6 A To a -- to -- for a high temperature for a prolonged
7 period and so on, that's correct.

8 Q Right. In fact, in your experience, very
9 commonly a calcined bone, um, may disintegrate
10 with any handling?

11 A It will certainly be extremely fragile and require
12 very careful handling.

13 Q And you may get spawling or some disintegration
14 no matter how careful you are?

15 A That's correct.

16 Q Uh, so if one wanted, in that situation, to see
17 a -- a very brittle or calcined bone as found,
18 one almost would have to photograph, or in some
19 way record without touching, the appearance of
20 the bone?

21 A Yes.

22 Q Um, calcined, by the way, is -- You described
23 that. But it -- it -- it's a -- it's a chemical
24 change in the minerals of the bone that produces
25 something called calx? Is that -- Is that your

1 best understanding?

2 A Um, I don't know the term "calx". I apologize.

3 Q C-a-l-x?

4 A No, I don't know that term.

5 Q Okay. It's the noun. The calcine is the -- the

6 adjective. Um -- In any event, these things have

7 a white appearance to them?

8 A And calcined bone can be, uh, a range of colors from

9 blue to gray to pinks to whites to yellows, even.

10 Q And -- and it tends to be sort of powdery on the

11 surface?

12 A Uh, if it's taken to the extreme, yes.

13 Q Now, um, the reason you might go to the trouble

14 in a burial recovery, um, of the grid, of a

15 contamination path, and photographing or trying

16 to identify things in place, is that you -- you

17 may want to know later, when you actually do get

18 a chance to examine bones or bone fragments up

19 close, how close they were in distribution and

20 placement to a human skeleton?

21 A That's -- That would be correct.

22 Q That's sort of the point of -- of this exercise;

23 correct?

24 A If -- if there's any way to determine, uh, for

25 example, what the position of the body was.

1 Q Right. So in other words, if -- if by careful
2 recovery process we find that, essentially, uh,
3 charred and badly burned bones without any tissue
4 at all nevertheless are found in the place they
5 would be, for example, if a skeleton was lying
6 prone on its back, we will know something about
7 whether that site was disturbed?

8 A That's correct.

9 Q Disturbed after burning occurred?

10 A Or as part of the burning episode.

11 Q Or as part of the burning process?

12 A Right.

13 Q Exactly. Um, so there's a number of ways that --
14 I call this a cremation site, um, might -- might
15 be disturbed. One is during the burning process?

16 A In order to keep a -- the fire going.

17 Q Absolutely. Poking the fire? Putting fuel on?
18 Whatever it may be?

19 A Correct.

20 Q Okay. Uh, another way it may be disturbed after
21 burning is, uh, animals? You know, just -- just
22 sort of animals in the environment? May -- maybe
23 they're rummaging around, or carrying off bones,
24 or sort of disturbing the scene?

25 A Uh, it's possible. Although, um, what I understand

1 about, uh, animals, um, coming to scenes of burned
2 human rem -- remains, typically they don't. Um, it's
3 not, uh, like a body that may be out in the woods
4 that's subject to coyotes and dogs and racoons, and
5 so on.

6 Q Okay.

7 A Typically, animals do not, um, come near burned human
8 remains.

9 Q They aren't drawn to the burnt remains?

10 A Correct.

11 Q Okay. A decomposing body you've seen --
12 you'll -- you'll see often. There's -- I know
13 there's a better forensic term for this, but, you
14 know, sort of animal damage as things are pulled
15 off or carried away?

16 A That's correct. The body, essentially, is in their
17 territory.

18 Q Exactly.

19 A Right.

20 Q And, um, another thing you may see, specifically,
21 or you'd be looking for in a -- in a cremation
22 site, is, conceivably, whether some effort was
23 made to change the body before it was burned?

24 A Can you be more specific?

25 Q I'm sure I can. Um, dismember a body, for

1 example?

2 A Uh, dismembering marks would be quite obvious even

3 after a burning episode.

4 Q But a starting point might be, uh, you know, if,

5 in recovering the bones, we find limbs, or bones

6 from limbs --

7 A Hum.

8 Q -- in places where they would not anatomically

9 be, we would potentially look further for

10 evidence of dismemberment?

11 A That's correct.

12 Q We also -- In a -- in a less sort of grotesque

13 way we might be interested, or you -- you would

14 be interested, if you could determine the

15 position in which a body fell, or the position in

16 which it was lying, or standing, or whatever it

17 was when burned?

18 A That's correct.

19 Q And so knowing where the bones first were found

20 might provide you some evidence from which you

21 later could draw a conclusion about body

22 position?

23 A That's correct.

24 Q Now, as it happened here, um, what -- what you

25 got was boxes and bags of fragments?

1 A That's correct.

2 Q You, in a -- in a -- I don't know who was here in
3 the initial sort, but sort of early in the
4 process, you, then, tried to separate, uh,
5 fragments, um, by areas of the body to the extent
6 you could identify, visually, what partial bone
7 you were looking at?

8 A That's correct. After sorting human from nonhuman
9 and other nonbiological items, um, the next step in
10 the process would be, uh, identification of fragments
11 and grouping of like fragments from the same bone, if
12 you will.

13 Q Right. So you divided the body up into I think
14 it was eight different categories; face and
15 cranial --

16 A Initially.

17 Q -- and --

18 A Initially.

19 Q Right. And tried to separate things into those
20 eight groups after weeding out the nonhuman and,
21 indeed, the nonbiological --

22 A That's correct.

23 Q -- stuff. And, uh -- and then you've already
24 told us about how you went the next step and
25 tried to color code, uh -- not tried, you did --

1 color code, um, bone fragments by tag number;
2 correct?

3 A Yes.

4 Q Which at least told you the approximate area that
5 the police say they recovered those fragments
6 from?

7 A That's correct.

8 Q None of that, though, um -- In -- in -- in none
9 of that were you able, then, to say, um, whether
10 the body had been disturbed or altered in the
11 places in which it was found?

12 A I cannot.

13 ATTORNEY STRANG: Uh, if I could trouble
14 Counsel, maybe we could go back to Exhibit 392?

15 Q (By Attorney Strang) And I'll give you -- Well,
16 if we can get it up on the screen, you can see it
17 from there?

18 A I can.

19 Q Okay. Exhibit 392, I think. Um, in fact, the --
20 it -- it is 392. It says up in the upper left
21 corner there?

22 A I do see that now. Thank you.

23 Q Now, these are three pieces that you were able to
24 fit back together?

25 A Yes.

1 Q Um, two of them you -- you nestled right up next
2 to each other like puzzle pieces; correct? And
3 the third one, I guess, you left that off a
4 little bit?

5 A Just -- just to show that, um, by separating it, that
6 yet there was a third piece that -- and that piece
7 does, in fact, re-fit.

8 Q Right. It -- it slides up and fits --

9 A It does.

10 Q -- right on there? Okay. Now, the -- the two
11 pieces on the left have double dots of some
12 wonderful nail polish color?

13 A They do.

14 Q All right. And the one on the right I -- I see
15 only one dot?

16 A That's correct.

17 Q Only one color? Does that mean the one on the
18 right was actually found in a different place or
19 under a different tag number than the two on the
20 left?

21 A No. Uh, the two fragments on the left that each
22 retained two different nail polish dots means
23 something different. Um, the more orangey-red of the
24 colors, um, that appears on each of the three
25 fragments means that those three -- three fragments

1 came from the original recovery Tag No. 8318. The
2 additional -- the second dot on each of the two
3 fragments on the left side of the screen indicate
4 that each of those fragments showed signatures in
5 x-ray of a material of par -- particles denser than
6 the bone, itself. So radiopaque particles that we
7 have talked about previously.

8 Q Fair enough. Okay. So that's -- We now
9 understand your code. We've got these little
10 speckles of radiopaque stuff on the two pieces on
11 the left but not on the piece on the right?

12 A Correct. That are not visible to the naked eye.

13 Q Very good.

14 ATTORNEY STRANG: We could probably take
15 that down. Thank you very much, Mr. Kratz.

16 Q (By Attorney Strang) Um, you were involved, I
17 think -- The very first picture, um, you were
18 shown, and you explained for the jury, uh, showed
19 you involved in a sifting or sorting sort of
20 process, yourself, um, at the -- at the Dane
21 County Morgue?

22 A No, that photo was actually taken at the Wisconsin
23 Crime Laboratory in Madison.

24 Q Okay. The -- the Crime Laboratory. And this --
25 this is, again, a process where you -- you spread

1 things out on tarps or plastic sheets and went
2 very carefully through a thinly spread layer of
3 the debris or material that had been recovered?

4 A Of -- of badly burned, uh, debris. Correct.

5 Q All right. One of the things that came out of
6 that was, to your knowledge, the discovery of
7 some, you could call, metal grommets or rivets
8 here? Were you around or were you aware of
9 discovery of some metal --

10 A There were some metal objects that, uh, I had
11 identified as such in my original sort on
12 November 10.

13 Q All right. And there -- those -- those were kept
14 as something possibly of interest?

15 A Those were returned to the Calumet County Sheriff's
16 Office. Correct.

17 Q Um, you also found, uh -- Do you have your
18 reports with you by the way?

19 A I do. And -- and I'm assuming they were also placed
20 into evidence or have they not yet been?

21 Q One of them has.

22 A One. Okay.

23 Q So, yeah. Don't worry about it. I'm -- I was
24 just going to invite you, if you need to, to feel
25 free to look at your reports.

1 A Thank you.

2 Q This -- this isn't a closed book exam here.

3 A Thank you.

4 Q Um, just tell us if you need to look at a report.

5 But, uh, you -- you found, also, some, uh, pieces

6 or remnants of fabric, um, as you sorted through,

7 um, the bone fragments and other material at --

8 at various times?

9 A That's correct.

10 Q That fragments of fabric you also kept?

11 A They were placed, uh, usually in vials or in ziplock

12 bags, um, marked with the evidence tag number, if

13 they were not kept with the bones, themselves.

14 Q You -- you remember any -- any fabric frag --

15 fragments or scraps of fabric that looked to you

16 like blue denim?

17 A With as much time that's passed, I don't remember.

18 Q One way or the other? Now, um, here you may need

19 your report, which is why I sort of warmed you up

20 for that. Uh, if you don't, that's fine. But,

21 uh, your recollection is that, um, the -- the --

22 the largest bulk of human bone fragments that you

23 saw came in under this original tag, 8318?

24 A Uh, I don't know if I can answer your question

25 because I looked at so many different containers,

1 that taken collectively may have been, um, larger in
2 bulk. What I can tell you is that the majority of
3 identifiable fragments probably did come from that
4 initial collection tag 3 -- 8-3-1-8, and also
5 provided me with, um, the initial information that
6 allowed me to determine, uh, sex and age.

7 Q Great. That's a good start. And, uh, you also
8 know that, uh, some of the fragments you examined
9 came from an area east of the burn pit or the
10 burn area?

11 A That's correct.

12 Q You know that's -- uh, because they -- they had a
13 separate tag number?

14 A That's correct.

15 Q And some of the fragments that you had examined
16 came under a tag number saying they were found
17 north of the burn area?

18 A That's correct.

19 Q On yet a third tag, uh, said these fragments came
20 from west of the burn area?

21 A That's correct.

22 Q You were aware of at least one fragment, uh, I
23 think the initial fragment found, that came from
24 about eight feet south of the burn area?

25 A I do not know to which fragment you're referring.

1 Q Okay. May -- maybe that wasn't separately
2 tagged. But we've got 8318 which comes from the
3 burn area, is your understanding?

4 A The burn pit sifted. Correct.

5 Q Right. The burn pit. And then east, north and
6 west of there?

7 A Correct.

8 Q And in -- and in each of those four groupings,
9 under these different tag numbers, you found
10 human bone?

11 A May I refer to my --

12 Q Ab --

13 A -- report?

14 Q Absolutely.

15 A Thank you. And here I'm referring to my second
16 report that includes a, um, basic spreadsheet of tag
17 numbers and, uh, material that was collected under
18 each tag number.

19 Q That's correct.

20 A What I don't have on this list is the, um, reference
21 location for each tag number.

22 Q Why don't you -- Why don't you try page four of
23 your first report?

24 THE COURT: I think while the witness is
25 looking at that, we will take a chance for a stretch

1 break if anybody wants one. Go ahead.

2 A May I ask you to repeat the question or have the
3 question read back, please?

4 Q Sure. I, uh -- What I'm asking is you -- in --
5 in each of those four areas, burn area, east,
6 north and west, you were able to identify some
7 human bone fragment?

8 A Um, actually, um, in the container or the package
9 labeled "bone fragments found north end of burn pile,
10 south end of garage", no bone was found in that,
11 uh -- associated with that evidence tag number.
12 Simply lots and lots of what appeared to be
13 insulation from what may have been wire that was no
14 longer present.

15 Q Some burned metal wire?

16 A Well, the insula -- burned insulation, uh, kind of
17 tubular thin insulation was --

18 Q Okay.

19 A -- in that container.

20 Q Okay. Fair enough. Um, but east and west you
21 did find human bone fragments?

22 A Yes, I did.

23 Q Uh, and the -- the burn area, itself, was
24 described to you as roughly a rectangular area,
25 six-by-six feet, more or less?

1 A Um, what I know of the burn area is from my reading
2 of, uh, Trooper Timothy Austin's, uh, graphic
3 depiction of the scene.

4 Q Which is about six feet by six feet, more or less
5 square or rectangular?

6 A Um, I -- There was no scale in the photo that I
7 remembered, but, uh --

8 Q Fair enough. Okay. Uh, we've heard testimony to
9 that, and you, of course, didn't get to hear
10 that. You -- you have no reason to doubt the DCI
11 agent who described the -- the burn pit?

12 A I do not.

13 Q Okay. As six feet by six feet rectangular? Um,
14 so let -- let me -- let me just see whether we
15 can agree that if -- First of all, you didn't
16 find the whole skeleton, obviously?

17 A That -- that is true. There were -- it was
18 impossible to reconstruct an entire skeleton.

19 Q Right. But you -- you did find at least a piece
20 of most of the bones -- almost all of the bones
21 in the skeleton?

22 A Correct. And for some bones, multiple pieces.

23 Q Right. Um, in all, though, this may be helpful,
24 um, for a -- a -- a woman of Teresa Halbach's
25 reported height and weight, you actually have a,

1 um -- or formula you can use to give a rough idea
2 of what you would expect the -- the total bone
3 weight of that skeleton to be?

4 A Well, there has been some work done in that regard,
5 um, by some anthropologists and -- and by some other
6 people, and, in general, as I read that information
7 and distill it, and, uh, figure out what everyone is
8 saying, um, some people say there's a lot of
9 variability based on geography, other people say it's
10 an unreliable measure, other people give weight
11 numbers in grams for if a -- if a fragmentary bone
12 weighs this much, then it was likely a male, if it
13 weighs under this amount, it was likely female, so I
14 think there's -- there's a lot of information out
15 there.

16 Um, what I've come to think about as --
17 as I worked on this case, is that, um, it may be
18 more important to think in terms of volume rather
19 than weight of fragments.

20 Q Okay.

21 A And, um, for that, I went to some of the literature
22 that funeral homes and crematories, uh, put out. And
23 there's kind of a general rule of thumb, um, that
24 says, for every pound of body weight, um -- If you're
25 buying an urn, for example, um, you should assume one

1 cubic inch per pound of body weight.

2 And, um, as I did my -- my quick
3 calculations, um, if Ms. Halbach's weight was as
4 it was stated on the missing person's poster, as
5 135 pounds, then in terms of volume, um, what
6 would have been expected if we were able to
7 identify every fragment as human and group them
8 all together, um, the volume of -- of her remains
9 after the burning incident -- incident, after
10 cremation of sorts, if you will, would be a
11 little larger than a two-liter bottle of soda.
12 And I say that with all due respect.

13 Q No. I -- I understand. A little bit more than
14 two liters?

15 A Correct. About 2.2 liters.

16 Q Um, for a person of about that weight --

17 A Correct. If -- if --

18 Q -- and stature?

19 A -- um, the crematory, um, estimates for the weight to
20 volume conversion is -- is accurate.

21 Q Right. And what you had here was substantially
22 less than two liters of volume?

23 A I'd say, um, probably, um, I have two- to
24 three-fifths of what might be expected, given those
25 rough calculations.

1 Q Okay. Fair enough. Um, so something, perhaps --
2 and this is all very rough -- uh, but perhaps
3 two- to three-fifths, 40 to 60 percent of what
4 might be a -- a complete skeleton --
5 A Correct.
6 Q -- in total?
7 A Um, no, that's -- I'm sorry. That's -- That's not
8 what I said. In terms of expected volume from, uh,
9 human remains of the stated weight for Ms. Halbach.
10 Q Yes.
11 A I believe if -- if you filled or put those fragments
12 into a two-liter bottle, about 40 to -- 40 percent of
13 that bottle would be filled.
14 Q Okay.
15 A Okay?
16 Q Great. Um, and what -- what we know, then, is
17 that there are -- there are pieces missing?
18 A We know there are pieces that are missing. That's
19 correct.
20 Q Not recovered?
21 A Or not there to recover after the burning episode.
22 Q Exactly. I mean --
23 A Correct.
24 Q -- the reasons for not being recovered may be
25 just complete reduction to ash or something

1 unrecognizable by fire --

2 A Correct.

3 Q -- or missing for some other reason?

4 A Correct.

5 Q Um, and if, um -- if the stated height on the --

6 on the missing poster is about right, of 5'6, we

7 also know that if bone -- if human bones were

8 found east and west, and if you'll take my word

9 that there was testimony about a bone found --

10 being found eight feet south, a bone fragment

11 being found eight feet south, and then some in

12 the middle of the burn pit, we also know that the

13 human skeleton of someone 5'6 would not have

14 spread to that area as it lay in place?

15 A You're saying, for example, from head to toe?

16 Q Head to toe, you know, fingertip to fingertip?

17 A That's correct. I also understand there were some,

18 um, weather-related changes happening to the scene

19 out of everybody's control --

20 Q Sure.

21 A -- so it's possible that the heavy rains that were

22 reported could have transported some fragments from

23 their original location.

24 Q We -- we don't know the -- the cause, but we do

25 know that at -- at least, if the information

1 reported to you is accurate, we do know that
2 we're finding human bone fragments transported
3 away from where they would have been in terms of
4 skeletal, uh, position or human anatomy?

5 A In other words, the distribution of fragments is
6 larger than what you would expect if, um, a body was
7 placed in one location.

8 Q Well said. Exactly. And that's what I mean and
9 that's what you mean?

10 A Yes.

11 Q Okay. All right. So how, or what, or why, we
12 don't know. But fragments have been -- have
13 moved? Have been moved? Or had moved, true?

14 A Uh, I'm relying on what you're telling me.

15 Q Okay. Um, you -- you talked a little bit about
16 animals a while back, and I want to just tie that
17 up quickly. Um, you saw no evidence of the site
18 or any of the bone fragments here being disturbed
19 by a dog, did you?

20 A I did not.

21 ATTORNEY FALLON: Objection. That's two
22 questions in one. There's the bone, themselves,
23 and the site. That's two different --

24 ATTORNEY STRANG: Fair enough. Fair
25 enough.

1 Q (By Attorney Strang) Um, let's just talk about
2 the bone fragments, okay?

3 A Yes.

4 Q You didn't see any evidence, um, that any of the
5 bone fragments, the human bone fragments, that --
6 that you identified had been disturbed in any way
7 by a dog?

8 A I did not.

9 Q Now, up until now we've really been talking about
10 one general area, um, the area behind Steven
11 Avery's garage. Fair enough?

12 A Yes.

13 Q And then -- but we've broken that down by some
14 tag numbers to the burn pit. Specifically, in
15 the east and west. North, we found -- you found
16 noth -- no bone?

17 A Correct.

18 Q No human bone anyway? Uh, but that -- that site,
19 taken as a whole, okay, um, that site was not the
20 only place from which you identified human bone
21 fragments here?

22 A That is correct.

23 Q Another place in which -- or from which you were
24 able to identify human bone fragments, uh, was
25 something called the Janda Burn Barrel No. 2?

1 A That is correct.

2 Q Can you see me and still be heard?

3 A Yes.

4 Q All right. Um, you talked about Trooper Austin

5 before, and then what I'm showing you here is

6 Exhibit 113 which, uh, has been received, and,

7 uh, we all also know to be Trooper Austin's work.

8 Did you come to learn, in the course of your

9 work, the location or approximate location of the

10 Janda Burn Barrel No. 2?

11 A Um, once I received, um -- It was sometime in

12 December of -- of -- it was December 1, two thousand

13 and -- '06 when I met with Trooper Austin, um, that I

14 learned where these barrels were located.

15 Q Why don't -- why don't you point out the, uh,

16 location of the barrels with your laser pointer,

17 if you would. You see four of them represented

18 there in this -- this diagram?

19 A Yes.

20 Q All right. Doesn't -- One of them was No. 2?

21 A That is correct.

22 Q All right. And then if we zoom back out, can you

23 point out the, uh, area you've been describing as

24 behind Steven Avery's garage?

25 A Not in -- in this view, I don't believe I can.

1 Q Okay. Do you know which is Steven Avery's
2 garage, or no?

3 A Um --

4 Q If you don't, that's -- that's fine.

5 A I can't tell from -- from this perspective.

6 Q Fair enough. Okay. Um, in any event, you
7 understood that Burn Barrel No. 2 was a barrel
8 associated with the Janda residence, not the
9 Avery residence?

10 A That's correct.

11 Q Specifically, uh, the items that came to you from
12 the, uh, Janda Burn Barrel No. 2 were tagged No.
13 7964?

14 A Um, may I confirm that?

15 Q Of course. 7964.

16 A That's correct.

17 Q That's the property or the evidence tag number
18 for the Janda Burn --

19 A Yes.

20 Q -- Barrel No. 2? Now, from that Burn Barrel No.
21 2, you were able to identify human bone?

22 A That's correct.

23 Q You made a conclusion to a reasonable degree of
24 scientific certainty that these were human bone
25 and not from some other animal?

1 A There was human bone as well as nonhuman bone in that
2 barrel.

3 Q Fair enough. And I -- I want to be clear, but
4 the things that you identified as human, you did
5 so to a reasonable degree of scientific certainty
6 in your field?

7 A Yes, sir.

8 Q All right. I show you Exhibit 401, which I think
9 is an exhibit from the report that you and
10 Trooper Austin did together, am I right?

11 A That is correct.

12 Q Do you recognize that as a diagram depicting
13 where and -- and what types of bones you found or
14 identified as human in the Janda Burn Barrel No.
15 2?

16 A Yes, sir.

17 Q Let me see if I can make this work. Maybe I
18 shouldn't. Leave it to Mr. Buting. Do we now
19 have Exhibit 401 up in color on the --

20 A Yes. Yes, you do.

21 Q Okay. Um, you identified part of a human
22 scapula --

23 A Yes, sir.

24 Q -- in that burn barrel? Or the shoulder blade,
25 as you said?

1 A A portion of the shoulder blade.

2 Q Okay. You identified one or more portions of,

3 uh, the spinal column or the vertebrae?

4 A Fragments from the spinal column, yes.

5 Q More than one?

6 A I believe there were.

7 Q Okay. Uh, identified one or more bones from the

8 hand? Metacarpals?

9 A At -- at least one.

10 Q And more than one fragment of long bones?

11 A Yes, sir.

12 Q Now, these fragments of long bones were small

13 enough that you weren't able to decide which of

14 the long bones in the human body they came from?

15 A That's correct.

16 Q Or even whether they all came from the same long

17 bone in the human body?

18 A That's correct.

19 Q What you can say, though, is that the human bone

20 fragments that you found in Janda Burn Barrel No.

21 2 are -- were -- were not bones that -- or, you

22 know, pieces of bones that are connected to one

23 another, so to speak? This feels clumsy. Do you

24 know what I'm trying to say?

25 A Are you asking whether any of the fragments of human

1 bone that I found in the burn barrel re-fit with one
2 another?

3 Q Let's start there. I wasn't, but let's start
4 with that.

5 A I was not able to make any re-fits or
6 re-approximations from the few bone fragments that
7 came from the barrel.

8 Q Okay. You tried, but were not able to?

9 A That's correct.

10 Q All right. And then I -- I was at at least
11 one -- one greater area of generality. And,
12 again, I -- I'm sorry, what I -- fumbling around,
13 but the -- the -- the vertebrae that you find --
14 that you found are not, necessarily, in the same
15 part of the body, so to speak, as a scapula?

16 A I didn't find any whole vertebrae, um, but portions,
17 I believe, of facets that allow one spinal element to
18 stack on top of each other. So, um, what we -- what
19 we think of as spine, most of it is that honeycomb
20 bone that --

21 Q Right.

22 A -- doesn't survive well in heat, fire, so, um, there
23 were isolated fragments that could be identifiable as
24 to location, but I could not tell you where along the
25 spine they came from.

1 Q Okay. If -- Let -- Let's go at it this way.
2 Sort of graphic way, and I apologize. But if --
3 if one were going to cut up or dismember a body,
4 you would not expect any one limb or piece to
5 account for all of the differing locations of
6 bone fragment that you found in the Janda's burn
7 barrel?

8 A I am not sure I understand your question.

9 Q If -- If my arm had been removed, okay?

10 A Yes.

11 Q Uh, and then burned in a burn barrel, and in --
12 and no -- no one -- no -- no more disturbing of
13 that burn barrel scene had happened, you might
14 find pieces that you could associate with my arm?

15 A That's correct.

16 Q Maybe pieces of fingers or bones in my hand?
17 Maybe the ulna? I guess, that's the -- the
18 radius on this side and the ulna down here? Uh,
19 and then maybe the long bone up here?

20 A Yes.

21 Q You might find a socket or something, uh,
22 conceivably?

23 A I might find a piece of the shoulder joint. That's
24 correct.

25 Q Okay. But things you might be able to then

1 identify as coming from a distinct limb or
2 portion of my body?

3 A I would certainly try and do that.

4 Q Um, here, the distribution of the fragments you
5 found did not suggest, you know, that they came
6 from one piece of a body that might be easily
7 removed before burning?

8 A That's correct.

9 Q Sort of had a scattering, if you will, of
10 fragments in that Janda burn barrel?

11 A Scattering from throughout the body.

12 Q Yes.

13 A Yes.

14 Q Okay. Now, there was, uh -- You noticed that
15 the, um, human bone fragments in the Janda burn
16 barrel were charred in much the same way as the
17 human bone fragments you found under the other
18 evidence tags?

19 A That's correct, sir.

20 Q Some were calcined?

21 A Uh, I don't recall that. I'm sorry.

22 Q But the general -- the general, physical
23 appearance of the bones in the Janda burn barrel
24 was much like the general, physical appearance of
25 the bones in the Steven Avery burn area or behind

1 the garage?

2 A That's correct.

3 Q Okay. There was a third site, um, that, uh,

4 resulted in, uh, evidence under another tag

5 number being brought to you, was there not?

6 A Yes.

7 Q And this would be Evidence Tag No. 8675. Did you

8 find, uh -- Did you find Evidence Tag No. 8675 in

9 your report?

10 A I -- You hadn't asked me --

11 Q Oh.

12 A -- a question or asked me to do anything --

13 Q I'm sorry.

14 A -- so I -- I didn't look.

15 Q Okay. It -- it may be helpful to go to your

16 discussion of Tag No. 8675?

17 A Yes, sir.

18 Q All right. Now, do you -- do you have the Austin

19 report with you as well?

20 A I do not.

21 Q You do not? Okay.

22 ATTORNEY STRANG: I'll show this to

23 Mr. Fallon. We'll mark this.

24 (Exhibit No. 402 marked for identification.)

25 Q (By Attorney Strang) Exhibit 402. Do you

1 recognize that?

2 A Yes, I do, sir.

3 Q What is it?

4 A It looks like, uh, what I would call a -- a plan view
5 or a birdseye view of a portion, um, of the -- what's
6 indicated here as the Avery Salvage Yard, uh, that
7 depicts, uh, the Steven -- the approximate location
8 of the Steven Avery res -- residence with respect to
9 the entire salvage yard, and then somewhere southwest
10 of there, uh, a point location, uh, from which, uh,
11 Tag No. 8675 was identified.

12 Q Terrific. Let's put up Exhibit 402 on the ELMO.
13 Okay. Um, this is, obviously, just a diagram,
14 but we've got Avery Road coming down from the
15 north, and then a box around the -- what we've
16 heard is about a 40-acre parcel for the Avery
17 Salvage Yard?

18 A Yes, sir.

19 Q You see that? And then a smaller box in there.
20 Again, that's the approximate location of Steven
21 Avery's trailer and his garage?

22 A Yes.

23 Q And then the flag you're talking about is the
24 site from which the materials that you were given
25 under Exhibit -- or under Tag No. 8675 came?

1 A That's correct.

2 Q All right. It appears to be well southwest of
3 the Avery property?

4 A Yes, sir.

5 THE COURT: Mr. Strang, can you, uh, let
6 me know about how long this line of questioning
7 will go?

8 ATTORNEY STRANG: Yes, I was -- I,
9 actually, was going to do that. Um, I could -- I
10 could break here comfortably, or I could do five
11 more minutes and I would still have 30 minutes
12 left, so...

13 THE COURT: All right. Then I think, uh,
14 we'll break for today, uh, and resume tomorrow
15 morning.

16 Uh, members of the jury, I'll remind
17 you, uh, before we leave today, do not discuss
18 the case, uh, with each other. Make sure you
19 don't listen to any news accounts, or read
20 anything, or watch anything on TV about the case.
21 Uh, with that, I will excuse you for today and
22 we'll see you tomorrow morning.

23 (Jurors out at 4:32 p.m.)

24 THE COURT: You may be seated. Uh,
25 counsel, if you could, after you clean up, I'd like

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you to stop in chambers again.

ATTORNEY BUTING: Sure.

(Wherein court stands adjourned at 4:33 p.m.)

1 STATE OF WISCONSIN)
)SS.
2 COUNTY OF MANITOWOC)
3

4 I, Jennifer K. Hau, Official Court
5 Reporter for Circuit Court Branch 3 and the State
6 of Wisconsin, do hereby certify that I reported
7 the foregoing matter and that the foregoing
8 transcript has been carefully prepared by me with
9 my computerized stenographic notes as taken by me
10 in machine shorthand, and by computer-assisted
11 transcription thereafter transcribed, and that it
12 is a true and correct transcript of the
13 proceedings had in said matter to the best of my
14 knowledge and ability.

15 Dated this ____ day of _____, 2007.
16
17
18

19 _____
Jennifer K. Hau, RPR
20 Official Court Reporter
21
22
23
24
25