

1 STATE OF WISCONSIN : CIRCUIT COURT : MANITOWOC COUNTY  
2 BRANCH 1

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3 STATE OF WISCONSIN,

4 PLAINTIFF,

JURY TRIAL  
5 TRIAL DAY 13

6 vs.

Case No. 05 CF 381

7 STEVEN A. AVERY,

8 DEFENDANT.

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9  
10 **DATE:** FEBRUARY 28, 2007

11 **BEFORE:** HON. PATRICK L. WILLIS  
12 Circuit Court Judge

13 **APPEARANCES :**

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

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

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

20 DEAN STRANG  
Attorney at Law  
21 On behalf of the defendant.

22 JEROME BUTING  
Attorney at Law  
23 On behalf of the defendant.

24 STEVEN A. AVERY  
Defendant  
25 Appeared in person.

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TRANSCRIPT OF PROCEEDINGS

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.

1 DIRECT EXAMINATION

2 BY ATTORNEY KRATZ:

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

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

11 A Five.

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

14 A She was -- She was the second oldest.

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

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

18 Q His name?

19 A Tim.

20 Q What does Tim do for a living?

21 A He's an attorney.

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

23 A Yes.

24 Q We've heard from one of them in this trial; is  
25 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 bird 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-e-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?

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THE WITNESS: Yeah.

ATTORNEY BUTING: Okay.

Q (By Attorney Fallon) All right, Doctor. The opinion that the remains were those of an adult female less than 30 to 35 years of age, do you hold that opinion to a reasonable degree of scientific certainty?

A Yes, I do.

Q The opinion that the internal beveling observed in the left parietal bone is characteristic of a gunshot or bullet entrance wound, do you hold that opinion to a reasonable degree of scientific certainty?

A Yes, sir, I do.

Q The opinion that -- The opinion that the internal beveling observed in the occipital bone left of the midline, is characteristic of gunshot or bullet entrance wound, do you hold that opinion to a reasonable degree of scientific certainty?

A Yes, sir, I do.

Q The opinion that the internal beveling observed in the left parietal bone and in the occipital bone occurred before the burning episode, do you hold that opinion to a reasonable degree of 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 )  
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2 COUNTY OF MANITOWOC )

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I, Jennifer K. Hau, Official Court Reporter for Circuit Court Branch 3 and the State of Wisconsin, do hereby certify that I reported the foregoing matter and that the foregoing transcript has been carefully prepared by me with my computerized stenographic notes as taken by me in machine shorthand, and by computer-assisted transcription thereafter transcribed, and that it is a true and correct transcript of the proceedings had in said matter to the best of my knowledge and ability.

Dated this \_\_\_\_ day of \_\_\_\_\_, 2007.

\_\_\_\_\_  
Jennifer K. Hau, RPR  
Official Court Reporter