

1 Q. What was filmed in August of 1998?

2 A. In St. Paul there was the -- We set up some  
3 demonstrations in the basement area. This was areas  
4 where we were dropping blood on different objects  
5 and there was a part that actually -- there's a lot  
6 of filming that never makes it in.

7 There was me getting hit over the head and  
8 blood being spattered. There was some general  
9 experiments that were filmed.

10 MR. GILBERT: Do you want to let  
11 him finish the whole --

12 MR. BOLAND: Well, I might be able to  
13 make it easier.

14 Q. (BY MR. BOLAND) Just the stuff that actually  
15 got aired in the broadcast, that's the portions I'm  
16 interested in. I know there's probably a lot that  
17 was filmed that never made it.

18 A. Yeah. Actually there was -- the final production  
19 had portions from all those different days. For  
20 instance, Boston, they wanted just to have the  
21 sit-down interview parts, where I'm talking, that  
22 was all done in Boston.

23 Q. Where at in Boston?

24 A. It was in -- I have it in some of the files. It was  
25 Powerhouse Productions.

1 Q. It was not in another scientist's lab?

2 A. No. It was just a studio. They wanted to do some  
3 interviews to fill in. And then, of course, in  
4 September when I was here in Cleveland, there was  
5 all these -- the shots at the set that was built  
6 here, either me doing experiments or sitting around  
7 the table, walking through the house, or the  
8 apparent house, identifying material. So that was  
9 all during that period.

10 They came back to St. Paul to film some  
11 other -- them taking blood from my arm. They wanted  
12 some little -- for their production they wanted  
13 certain little segments that they needed to fill in,  
14 so they arranged to come back to do that.

15 Q. You just mentioned the experiments that you  
16 conducted for the show. Were you using real blood  
17 for those experiments?

18 A. Yes. Let me correct that though. Yes. They  
19 weren't -- They were really demonstrations. Okay.  
20 They weren't to do anything more than that.

21 I mean, Nova wanted to demonstrate what can be  
22 done. But, yes, I got from War Memorial Center in  
23 St. Paul outdated human blood. You know, blood that  
24 was taken that is no longer of use can be used for  
25 scientific methods. I brought that to Cleveland

1 with me and used that in all the areas that you saw.

2 Q. And your blood was used as well?

3 A. My blood was used -- That was sort of miss -- I have  
4 no control over that. How it implied, I believe, in  
5 that production that my blood, my personal blood,  
6 was used for all of that demonstration. That was  
7 not true. I didn't say that.

8 What was implied, which is true, is in blood  
9 spatter interpretation, you must use human blood to  
10 make accurate experiments. And in fact, I use my  
11 blood a lot when performing specific experiments and  
12 specific cases to get active blood and when I only  
13 need a small amount. For this purpose, for Nova,  
14 there was no need to do that. See, I wanted to use  
15 blood and I did use human blood, but it was not all  
16 my blood.

17 Q. Was any of it your blood that was used?

18 A. That was used on that set, no.

19 Q. Was any of your blood even drawn in hopes of it  
20 being used --

21 A. No.

22 Q. -- or planning of it being used?

23 A. No. It was only to demonstrate that human blood is  
24 used. And they did misrepresent that, I believe.  
25 They implied, at least, that my blood was used



1           there.

2       Q.     You're saying the portion of the filming where they  
3           have a ligature wrapped around your upper arm and  
4           they appear to be ready to draw blood from you, they  
5           never actually --

6       A.     No. No. They took blood.

7       Q.     Oh, you --

8       A.     I gave blood. Yeah. I'm actually giving blood  
9           right there.

10      Q.     What happened to that blood?

11      A.     Well, I kept it and whatever, but they just wanted  
12           to have a picture of them taking blood from me.  
13           That's true. I mean, so they didn't misrepresent  
14           taking blood. I've done that often.

15               I thought they were going to use it just to  
16           explain that you use human blood to do experiments.  
17           I believe they inferred that that was used to then  
18           paint the set, if you will, or make the set in  
19           Cleveland, which is not true. Do you understand?

20      Q.     Yes. These demonstrations that you did then, were  
21           they scientific?

22      A.     Well --

23      Q.     Were they repeatable, I should say?

24      A.     Yes. Now let me explain that. These are --  
25           Experiments in blood spatter are -- In particular if



1           you do impact spatter experiments, we do these at  
2           every workshop, we have people hit bloody sources,  
3           see where the blood goes, see how much comes back on  
4           the person.

5           They are reproducible, they aren't going to  
6           reproduce exactly the same number of stains in the  
7           same location every time, the exact same number,  
8           same location every time, but they're going to give  
9           the same pattern, the same general distribution  
10          reproducibly. And is that scientific? Yes, it is.

11       Q.    Did you photograph the various stages of these  
12           demonstrations that you were doing?

13       A.    No.

14       Q.    Is it your opinion that what you were doing was  
15           science then, even though it was a demonstration?  
16           I'm trying to understand your understanding of --  
17           you said these are not experiments, they were  
18           demonstrations?

19       A.    Yeah.

20       Q.    Are they still scientific in your opinion?

21       A.    Sure. What I was trying to do and why they're  
22           scientific -- What Nova wanted, what you want, what  
23           everyone wants is to understand what happened in  
24           particular in this particular scene in the Sheppard  
25           case, but also in general what happens in blood

1 spatter.

2 And demonstrating the size and shape of stains  
3 is -- you can do that by showing how that's done  
4 scientifically. I mean, you put blood down and you  
5 hit it. I mean, that's a scientific experiment.

6 Now, if you're trying to reproduce everything,  
7 you have to try to get things more in control, more  
8 exact, and you can always be criticized for that.

9 For instance, if you're hitting a head, how do  
10 you hit a head unless I get you or someone else to  
11 volunteer to put blood on them, you have to try,  
12 which it's very difficult to get volunteers like  
13 that. You need to get as close as you can to do  
14 that. Can that be criticized, is that exactly  
15 the same as hitting a human being, you can always  
16 question that. However, you get as close as you can  
17 to do that. Is that scientific? I believe it is.  
18 Yes.

19 Q. Have you done things that you would call experiments  
20 in preparation for your testimony in other cases?

21 A. Yes.

22 Q. But it's fair to say that you didn't do any  
23 experiments in the preparation of Defendant's  
24 Exhibit 1, your report?

25 A. That's correct. No additional experiments. No.

1 Q. Well --

2 A. Yes.

3 Q. No experiments at all for that report?

4 A. Yes.

5 Q. What you did in your participation on Nova there,  
6 were no experiments done during Nova? You're  
7 calling them demonstrations, and that's different  
8 than experiments, is that an accurate way to say it  
9 or not?

10 A. Yeah. For instance, I was -- other people have  
11 commented on me putting stains on the wall. For  
12 instance, I'm looking at pictures from the crime  
13 scene, my purpose in doing that was not to put these  
14 stains in exactly the exact position that they were  
15 in those photographs. They were to demonstrate the  
16 general pattern and size of the stain. That's how  
17 I'm trying to distinguish it.

18 Q. Do you recall in the Nova broadcast re-reenacting the  
19 killing of Marilyn Sheppard by striking a mannequin  
20 with a flashlight?

21 A. Yes.

22 Q. Can you describe the mannequin that you were  
23 hitting? What was it made of?

24 A. Not in detail. It was a mannequin.

25 Q. Was it wood?



1 A. No, it wasn't wood. It was sort of like a hard  
2 plastic material and I believe there was some  
3 sponge-type material that was on top of it.

4 Q. Was it a hollow mannequin?

5 A. I can't recall.

6 Q. Do you know where -- who obtained that mannequin for  
7 your use?

8 A. Marion Marzinski, the producer.

9 Q. Do you know where he got it from?

10 A. No.

11 Q. Are you familiar with crash test dummies?

12 MR. GILBERT: That's the name of a  
13 band.

14 Q. (BY MR. BOLAND) Are you familiar with those? Have  
15 you used one in your experiments?

16 A. No.

17 Q. Okay. Is it your opinion that striking that  
18 particular mannequin that was used in Nova is close  
19 to striking a human head?

20 A. For the purposes of Nova, yes.

21 Q. And can you describe the position that mannequin was  
22 in during the striking for that particular portion  
23 of the Nova show?

24 A. It was on a bed -- Actually it was on a bed in a  
25 similar position that Marilyn Sheppard was found.

1 Q. Is it your opinion that Marilyn Sheppard was in that  
2 position throughout the entire series of blows that  
3 she received in her death?

4 A. Not necessarily. She could have been -- She was in  
5 that position when blood was spattered from her  
6 head.

7 In other words, she was hit down in that  
8 position where she is found exactly. Now, could she  
9 have been hit before in a different position and no  
10 blood, that's possible. And I guess there's, also,  
11 the possibility that she could have been hit in a  
12 slightly different position, but it's clear that the  
13 radiating stain that comes from that position at  
14 least at that part of her beating, she was down in  
15 that position.

16 Q. Is it possible she was struck even one time not in  
17 the bed, but sitting next to the bed, for example?

18 MR. GILBERT: Objection. Is that  
19 based on blood pattern analysis?

20 Q. (BY MR. BOLAND) I'm asking based on your analysis,  
21 can you conclude that -- Let me restate my question.  
22 Is it possible that she was struck in addition to  
23 being on the bed -- Is it possible she was struck,  
24 prior to the last blows, sitting next to the bed?

25 MR. GILBERT: I'm going to object to

1                   that question because it's outside the  
2                   scope of any blood spatter analysis expert,  
3                   but go ahead.

4     A.     As implied from blood spatter, I can tell certain  
5            things. Can I tell if she was hit in other places  
6            in that bedroom or anywhere else that didn't produce  
7            blood, that's always possible I guess.

8     Q.     (BY MR. BOLAND) When you were striking that  
9            mannequin, what object were you hitting it with?

10    A.     For their purposes, they gave me a flashlight.

11    Q.     Was there blood placed on the mannequin prior to you  
12            striking it with the flashlight?

13    A.     Yes.

14    Q.     Who put the blood on?

15    A.     I put it on.

16    Q.     How was that applied? Can you describe how that  
17            blood was sitting on the mannequin before you began  
18            to strike it?

19    A.     Well, I had a beaker, like a cup, and I had probably  
20            about as much blood -- 50 to 100 milliliters, and I  
21            poured it on the sponge area and tapped it in and  
22            made sure it was soaked and then said I'm ready to  
23            perform this experiment.

24    Q.     Was that a scientific experiment?

25    A.     Experiment or demonstration. You know, without



1 getting into semantics here, and I think that's  
2 where you're at, if you want to say -- when is  
3 something an experiment and what's a demonstration,  
4 my -- I use experiment right there because it was --  
5 using this set of criteria, I performed this test,  
6 experiment, demonstration. And experiment is  
7 usually a series of -- can be a series of controlled  
8 episodes, if you will. This was only done, you  
9 know, a few times there, and that's why I think  
10 demonstrates what happens when you hit. It wasn't  
11 then done again and again and again to see the  
12 reproducibility of it right there at that particular  
13 site. I've hit many items with blood on it before.  
14 So this was to demonstrate that whole activity.

15 Q. Do you recall how many times you actually struck the  
16 mannequin during that demonstration?

17 A. Not exactly. It was a number of times, three, four,  
18 five times.

19 Q. Now, is it your opinion that the blood spatter that  
20 resulted from your demonstration fairly approximates  
21 the blood spatter that resulted from Marilyn  
22 Sheppard's beating?

23 A. Yes. It demonstrates the general pattern that would  
24 be produced.

25 Q. Did you photograph the spatter stains after each

1 blow with the flashlight?

2 A. No.

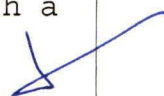
3 Q. In your expert opinion does the amount of hair on a  
4 victim's head affect flight characteristics of  
5 blood?

6 A. Absolutely.

7 Q. Do you recall a portion of the Nova show that was  
8 actually broadcast which shows you dipping a  
9 flashlight in blood?

10 A. Yes. And then walking with it?

11 Q. That's what I was just about to ask. What did you  
12 do with the flashlight after you dipped it in the  
13 blood?

14 A. You know, actually the demonstration shows me with a  
15 screwdriver on the stairs walking with that. 

16 Q. I'm asking about a different scene where there's  
17 just a brief shot of you dipping a flashlight in  
18 blood, and then throughout the rest of the Nova  
19 broadcast it's not shown what's done with that.  
20 I'm asking you do you know what you did with that  
21 flashlight dipped in blood?

22 A. No.

23 Q. Let's talk about the blood trail for a moment. Do  
24 you recall re-reenacting the possibility of a murder  
25 weapon dripping blood down the stairs?

1 A. Yes.

2 Q. And in your mind was that an experiment or a  
3 demonstration?

4 A. A demonstration.

5 Q. Okay. Can you tell me the measurement of the --  
6 Let's back up a minute. How many blood drops did  
7 you get from that object that you were using to drip  
8 blood off of down the stairs?

9 A. I stopped, as you recall, and there was about seven  
10 or eight blood drops. I did not carry on. Could  
11 there have been a few more if I would have walked  
12 on? Yes, but -- so that's why it was only a  
13 demonstration. I did not continue to finish that,  
14 mainly because our filming sort of stopped right  
15 there.

16 Q. Because of the camera crew --

17 A. Yes. I stopped -- Right.

18 Q. Did you go back and measure those stains?

19 A. No.

20 Q. The diameter of those stains?

21 A. No. Although, they were fairly large.

22 Q. What object were you using to drip blood off for  
23 that demonstration?

24 A. It was the base of a screwdriver.

25 Q. Is it your opinion that a screwdriver was the weapon



1           that killed Marilyn Sheppard?

2       A.     No.

3       Q.     Do you have any opinion as to what the murder weapon  
4           was?

5       A.     No. Except that it's probably, from my reading, a  
6           blunt instrument, but I have no specific -- and  
7           that's from reading autopsy reports and other  
8           medical examiners, but personally, I have no  
9           opinion.

10      Q.     And can you tell me what the purpose was of the  
11           demonstration of taking an object and dripping blood  
12           down the stairs?

13      A.     The purpose was, and is by a number of people that  
14           have been involved, Dr. Kirk initially, is to  
15           indicate that blood that is on a weapon, and here  
16           it's dramatically dipping a weapon into a container  
17           of blood, so it's soaked in it, which is -- I must  
18           emphasize that, which is way more blood than you  
19           would get when you are beating somebody, but it  
20           would show the maximum amount of blood.

21                 It would -- or possibly be able to be carried  
22           away from a murder scene out by the perpetrator if  
23           they were holding that and walking away. And it  
24           shows that there's only a certain amount of blood  
25           that would adhere and then fall off of a weapon and

1           that's going to stop because it's not being  
2           replenished. The number of stains will be limited.  
3           And that's what that was to demonstrate.

4       Q.     What object were you using in that demonstration as  
5           the murder weapon?

6       A.     Well, as I indicated, it was only a convenient tool  
7           that was there on the set, was the base of a  
8           screwdriver.

9       Q.     You had stated before it's not your opinion that  
10           that's the murder weapon?

11      A.     No.

12      Q.     Why did you use it for that demonstration then?

13      A.     As I just indicated, because it was a weapon or a  
14           possible thing that can be used as a weapon. It was  
15           a surface that I could dip easily into blood and  
16           walk with. It could have been any other item. It  
17           was arbitrary. It wasn't selected for any other  
18           purpose than it was easy to work with at that time.

19      Q.     Did you try that demonstration with a flashlight?

20      A.     No.

21      Q.     Did you try that demonstration with a metal bar?

22      A.     No.

23      Q.     Did you try that demonstration with a wrench?

24      A.     No.

25      Q.     In your experience with blood and the properties,

1 physical properties of blood, all other things being  
2 equal, does the surface area of an object affect  
3 its ability to retain blood?

4 A. There will be a variation on the surface  
5 characteristics of an item, what it's composed of on  
6 how long blood will be retained on it.

7 Q. My question is, if you have two objects, let's say,  
8 the surface, et cetera, of the composition of the  
9 object is identical, they're both equally clean, et  
10 cetera, but one has a much larger surface area than  
11 the other, is it the case that the one with the  
12 larger surface area is going to be able to retain  
13 more blood if they're both equally dumped in blood,  
14 for example?

15 MR. GILBERT: Objection.

16 A. It may or may not. I don't know if I understand  
17 your question. If you had a three-inch diameter  
18 pipe and a one-inch area diameter pipe and you stuck  
19 them both in the blood and lifted them out, there's  
20 more surface area, so more blood will adhere to  
21 that, but you may -- it may, depending on the  
22 surface characteristic, if it was very smooth, it  
23 could -- all of them -- I mean, the blood would come  
24 off -- there may be more quantity, but the space  
25 between where it's coming off to begin with or the



1 time it takes for it to come off, could be the same.

2 But, yes. I mean, more surface area obviously  
3 that has blood on it, all things being equal, the  
4 more blood it will contain, but it's complex, the  
5 amount of stains you might get when leaving a scene.

6 Q. (BY MR. BOLAND) And does the surface area of the  
7 screwdriver you used for this demonstration, is it  
8 your opinion that that fairly approximates the  
9 surface area of the murder weapon in this case?

10 A. Like I said, it was only for demonstration purposes.  
11 I can't tell you exactly the dimensions of the  
12 weapon that was used here.

13 MR. GILBERT: Now let the record  
14 reflect that it's been established that he  
15 did not rely on any of those demonstrations  
16 that he did in connection with the Nova  
17 project to prepare his opinions in this  
18 case.

19 Your questions seem to imply that he  
20 did even though his answer was that he  
21 didn't. So I would object to your  
22 implication that somehow it was connected  
23 to his opinion.

24 MR. BOLAND: I'll ask it directly.

25 Q. (BY MR. BOLAND) Were any of the demonstrations you

1 performed for Nova in any way part of your report,  
2 Defendant's Exhibit 1?

3 A. No.

4 Q. They were strictly for the show?

5 A. Yes.

6 Q. Okay.

7 A. In fact, as I indicated, just as a -- I didn't even  
8 know I was going to be involved in this case until  
9 much later. I just wanted to demonstrate blood  
10 spatter to Nova.

11 Q. Do you recall in general the size of the blood  
12 stains that were on the stairway of the Sheppard  
13 home from the second floor down to the first floor?

14 A. They are, as you know, detailed in Mary Cowan's  
15 report, and most of those stains are an eighth-inch  
16 to a quarter-inch size, some of them are  
17 tear-dropped, not very many, but show elongation.  
18 That's a general size. Most of them are a  
19 quarter-inch or smaller.

20 Q. How do they compare to the size of the drops that  
21 you created in your demonstration with the  
22 screwdriver going down the stairs?

23 A. They generally are a lot smaller.

24 Q. And in your experience if an individual has an open  
25 wound that is actively bleeding, what size drops do

1           you generally get if that person were to walk down  
2           a flight of stairs?

3       A.     Generally it will depend on the surface that they  
4           hit, but if it's a smooth surface, wood surface,  
5           linoleum surface, generally they are going to be in  
6           that one-half-inch size or even larger depending on  
7           how far the drop.

8           And if it's on carpet, like in this office,  
9           they will be smaller stained because the carpet  
10          absorbs that. They could be very small. But the  
11          stains are generally larger if it's a free-flowing  
12          drop.

13          If a drop comes down and hits some other  
14          intervening object, like clothing, and breaks up, or  
15          if it hits a shoe and then breaks up, but generally  
16          if it just drips flowing, let's say, from a cut  
17          straight down, drops of blood will be a half-inch or  
18          slightly larger.

19       Q.     Do you recall if Mary Cowan measured any of the  
20           blood stains on the stairs as being a half-inch or  
21           larger?

22       A.     None that I saw that she measured were that size. X

23       Q.     When you were re-reenacting the blood dripping from a  
24           wound with a --

25       A.     Pipette.



1 Q. -- pipette, what kind of tubes were you storing that  
2 blood in? Were they purple-topped tubes that you  
3 were using?


4 A. Again, this was -- I used outdated human blood from  
5 War Memorial Blood Center. They, in essence, were  
6 the equivalent -- were actually in a pint bag that  
7 had anticoagulant in it. It would be the equivalent  
8 of a purple-topped tube. So it was not fresh blood  
9 right from my arm or anywhere else. It had an  
10 anticoagulant in them.

11 Q. So the chemical properties of the blood you used are  
12 not exactly identical to human blood because of the  
13 added anticoagulant?

14 A. Well, let me --

15 Q. Is that accurate or is that not accurate?

16 MR. GILBERT: I'm going to object to  
17 your question.

18 A. It's not like blood coming right out of a finger, it  
19 has some preservative in it. But in a practical  
20 sense, we've done this in blood spat workshops where  
21 I've taken blood directly from my arm and we've also  
22 taken blood from preserved blood. The spattering  
23 effect, the dropping effect, are minimal, if any,  
24 when using preserved blood. 

25 But your point here is will these stains be --

1 is it the exact same thing as coming from a bleeding  
2 source, no, I was using preserved blood.

3 Q. (BY MR. BOLAND) The blood stains on the stairs in  
4 the Sheppard home coming from the second floor down  
5 to the first floor, your review of all the  
6 information about them, is it your opinion that  
7 those blood spots on the stairs are connected with  
8 this homicide?

9 A. As indicated in my report, I have stated  
10 specifically that I cannot tell specifically when or  
11 how these were deposited. And my opinion is they  
12 may have nothing to do with this murder, absolutely  
13 nothing extemporaneously. However, if all of them  
14 are human blood from the same source, then it would  
15 be consistent with a bleeding active source.

16 Q. Is it your opinion that the spots of blood that were  
17 identified on the basement stairs of the Sheppard  
18 home are connected with the homicide?

19 A. They may or may not have been.

20 Q. How about the spots in the living room that were  
21 identified by law enforcement, et cetera, and looked  
22 at later, are those spots connected with the  
23 homicide? What's your opinion on that?

24 A. As I indicated in my report, only five of these  
25 stains were determined to be human blood. No

1       grouping was ever done at the time. So there's no  
2       way of saying that they were connected or not  
3       connected.

4       Q.    Are there any blood spots outside the murder room  
5            that you can say conclusively are connected with the  
6            homicide?

7       A.    That I can?

8       Q.    Yes.

9       A.    No.

10      Q.    Is it accurate to say that you cannot -- you cannot  
11             state an opinion as to when any of those blood  
12             stains were actually deposited outside the murder  
13             room?

14      A.    Yes. Outside the murder room, that is correct. I  
15             cannot tell when they were deposited.

16      Q.    Would it be inconsistent with the stains outside the  
17             murder room had there been evidence presented that  
18             someone else prior to the murder had gotten a cut  
19             and bled inside the house? Would that be consistent  
20             with those stains?

21                               MR. GILBERT: Objection. Calls for  
22                               speculation.

23      A.    As I've stated, I cannot tell when or whose blood  
24             was there. Could it be from -- it could be from any  
25             of those as you've suggested. It could have come



1 from that evening as well.

2 Q. (BY MR. BOLAND) Okay. Showing you what's been  
3 marked Defendant's Exhibit 3, can you describe what  
4 that is for the record, please?

5 A. Yes. Defendant's Exhibit 3 shows a photograph.  
6 It's a photograph of Marilyn Sheppard's abdomen and  
7 left hand slightly covered by a sheet.

8 Q. Can you please describe the stain that is on her  
9 abdomen, an area that's approximately about an inch  
10 from the bottom of the middle of the photo there,  
11 how that stain, in your opinion, was created?

12 A. Yes. Let me precede this by saying, as I have in  
13 the report, that dealing with photographs, you're  
14 always limited because of the photography at the  
15 time or what areas you can and can't see.

16 All that said, what I observe on her abdomen  
17 area is some blood smearing. There's slight heavier  
18 deposits inline, if you will, circular-type  
19 deposits. And we can probably assume that that's  
20 blood. There's also a smear further down on her  
21 right side. There may be also more smears on her  
22 actual stomach area, and I can't tell, that's the  
23 limitation of the photo. There can be smears that  
24 may go up to her right breast area, but again,  
25 that's hard to tell without, you know, being there.

1 Q. Do you have an opinion as to how those smears were  
2 created?

3 A. Yes. Some bloody source smeared across that area.  
4 Could that be her own hand that appears to have a  
5 lot of blood on it? It could be blood from her own  
6 hand. It could be blood that was on fabric that  
7 came across there. It could be blood from the  
8 perpetrator.

9 There's nothing magic that says, I was produced  
10 in a certain way. But it was a bloody source that  
11 came across there, and seeing her bloody hand,  
12 that's a consideration.

13 Q. Showing you what's been marked Defendant's Exhibit  
14 6, if you could just identify that generally for the  
15 record.

16 A. Yes. Defendant's Exhibit 6 appears to be -- it's a  
17 photograph of what's called the hall door and the  
18 wardrobe door, which is the east wall of the  
19 bedroom, across the mattress after material has been  
20 removed from the mattress.

21 It appears that this is a photograph after the  
22 door had been probably dusted for fingerprints. I'm  
23 not sure, maybe you know if this is from the crime  
24 scene people or from Dr. Kirk. But it matters not,  
25 I guess.

1 Q. Can you describe in your opinion the source of the  
2 stains on those two doors?

3 A. Yes. Virtually all the stains on the two doors are  
4 random size stains and have a random distribution.  
5 They're a characteristic of, what we call, impact  
6 spatter stains that have -- blood has been broken up  
7 by impact and disbursed on the two doors.

8 There is indication that some of these stains  
9 came from a low area. In other words, point back to  
10 where Marilyn Sheppard's head is, there are stains  
11 that have hit the bottom of some of the woodworking  
12 area. That would have come from a lower area.

13 As I indicated, a random distribution as  
14 opposed to -- and I mention in my report, there may  
15 be some castoff spatter, meaning blood from a weapon  
16 or a hand or something that's bloody, that has  
17 thrown blood. But if it is, it's not distinct.  
18 That usually shows a distinct line of stains that  
19 would come across, and I don't see any distinct  
20 pattern.

21 There is, as many observers have seen, one  
22 especially large stain that is on the lower portion  
23 of the wardrobe door that is circular to oval,  
24 that's approximately one inch in diameter. Another  
25 stain that was observed is below it, which is a



1 smaller stain. And there are various other size  
2 stains that are observed on the door.

3 Q. In your work on this case, were you able to  
4 calculate the size of the stains on that door other  
5 than the two that you mentioned, actually the one  
6 that you mentioned that was an inch in diameter?

7 A. I could estimate that a number of the stains --  
8 there was a photograph taken by Dr. Kirk with a  
9 ruler that indicates that that's about an inch. And  
10 using that as a guide and my experience, I can say  
11 that some of these larger stains outside of the one  
12 large one were maybe a quarter or so in diameter,  
13 but other stains are in the neighborhood of two to  
14 three millimeters in size and some even smaller. So  
15 it's by visual observation.

16 Q. Are there any stains that you can see on that door  
17 that, in your opinion, were caused by smearing?

18 A. Not that I could observe.

19 Q. Did you calculate the number of stains on those two  
20 doors?

21 A. No.

22 MR. GILBERT: When you go on to a new  
23 area, we'll take a few minutes to break.

24 MR. BOLAND: Okay.

25 Q. (BY MR. BOLAND) Showing you what's been marked

1 Defendant's Exhibit 5, could you just generally  
2 describe that for the record.

3 A. Yes. State's Exhibit No. 5 shows the bedroom that  
4 Marilyn Sheppard was found in and her bed after her  
5 body is removed with the sheet still on it with a  
6 large soaking stain and other blood stains and  
7 spatters on her bed, as well as spatters of blood on  
8 the bed said to have been used by Sam Sheppard, not  
9 that night, but...

10 Q. That other bed that's next to the one that Marilyn  
11 Sheppard was found in, did you have the opportunity,  
12 maybe not necessarily with that photograph, but with  
13 other photographs, to observe those stains and  
14 examine them?

15 A. Yes.

16 Q. And did you identify any stains on that bed that, in  
17 your opinion, were deposited by smearing?

18 A. All the stains that I could observe, and I must say  
19 for this I was not given photographs of this  
20 quality, but all that I saw were indicated spatters  
21 on that bed and coming across the bed and pillow. I  
22 didn't see any indication of smearing.

23 Q. Would it be fair to describe the stains on that  
24 bed -- or that bed as being liberally spattered with  
25 blood?

1 A. Well, it depends on what you say liberally, but  
2 there's a lot of stains there.

3 Q. Fair enough.

4 A. But, yes, there was more than a few.

5 Q. In your experience is it possible to smear blood in  
6 a symmetrical pattern into circles or ovals?

7 A. To smear blood?

8 Q. Yes. Can one object smear blood on to another and  
9 result in a stain which is roughly a circle?

10 A. Without showing that it was smeared? I mean, I  
11 don't know where you're --

12 Q. Have you concluded in your testimony in your entire  
13 career that the origin of a stain in any case, which  
14 was roughly a circle, the origin of that stain was a  
15 smear that caused that stain, have you ever been  
16 able to do that?

17 MR. GILBERT: Objection.

18 A. I guess you need to give me a specific. I may have.  
19 Now, if you're -- I don't know what you're referring  
20 to.

21 MR. GILBERT: I'm going to object. I  
22 think your question is a trick question,  
23 unless there's more -- a hypothetical has  
24 to be laid out more.

25 A. Could a certain stain be caused by smearing? That's



1 something else. I don't know.

2 Q. (BY MR. BOLAND) When blood impacts a surface  
3 roughly perpendicular to that surface, generally  
4 speaking, what is the result and shape of that blood  
5 stain?

6 A. A circle.

7 Q. That shape that you just described as a circle, have  
8 you ever seen that shape created by a method that  
9 you concluded was not the dropping of blood, but  
10 actually the smearing of blood from an object on to  
11 that surface?

12 A. I've seen and we have reported cases where you can  
13 see some small inline stains, circular, small  
14 meaning millimeter size or less, that have been  
15 deposited by bloody hair, that looks like it could  
16 be confused with impact spatter being -- So they're  
17 small circular, by, if you will, smearing or  
18 dragging of hair across a surface. Now, I don't  
19 know if that's what you're referring to at all.

20 Q. How are you able to distinguish between a true  
21 impact spatter stain and one that was smeared on by  
22 the mechanism you just described?

23 A. Well, I'm talking about only small size stains. If  
24 there is a -- by one or two stains, you cannot  
25 determine any mechanism. Most people in blood

1 spatter will tell you you can't say -- but if you  
2 have a whole pattern, a significant number of  
3 stains, then there's a pattern that is present.

4 A smearing pattern will be distinct if you have  
5 a large enough pattern. It will show smears around  
6 the edge with something bloody and then something  
7 else comes in contact and smears it. You should be  
8 able to observe that.

9 Q. Have you ever seen a stain in your work which you  
10 knew was smeared on to a surface and the stain was  
11 roughly a circle?

12 MR. GILBERT: Objection.

13 A. I don't know.

14 Q. (BY MR. BOLAND) If you can recall.

15 A. Well, I don't know. Like I said, a single stain --.

16 Q. Or a pattern of stains, if that's more accurate to  
17 the science. Have you ever seen a pattern of stains  
18 where the stains were roughly a circle and you knew  
19 they were created by smearing?

20 A. I'd have to see the stains. I don't know if --.

21 MR. GILBERT: I don't think he can  
22 answer that question based on your -- the  
23 data that you're giving.

24 A. If you have something in mind here, if you can show  
25 me, I'll be glad to comment.

1 Q. (BY MR. BOLAND) Okay. Let's look at Defendant's  
2 Exhibit 6 again. The two doors with what you  
3 described as virtually all the stains are impact  
4 spatter, do you recall saying that?

5 A. Yes.

6 Q. Are there any stains on that door, and maybe other  
7 photographs you might have looked at of those doors,  
8 that in your opinion is possible they were caused by  
9 smearing?

10 A. From what I observed, they all appear to be impact  
11 spatter. Could there be some stains on here that  
12 were smeared after? From what I was given, I  
13 couldn't examine every stain in detail, but it  
14 appears these stains are all impact spatter.

15 I did not enhance, magnify the quality of the  
16 photographs I was given, or reproductions of  
17 these photographs. If that's the question, could  
18 one or two of these stains have been smeared, it  
19 doesn't appear that way. I don't see any smearing  
20 around them. But, you know, I cannot eliminate that  
21 there was or was not any smearing. I don't observe  
22 any. I did not observe any.

23 Q. You mentioned, still referring to this same  
24 Exhibit, that there was a large stain on there that  
25 you had seen a photograph with a scale or a ruler in