IN THE CIRCUIT COURT OF THE SIXTH JUDICIAL CIRCUIT OF THE STATE OF FLORIDA, IN AND FOR PASCO COUNTY CASE NUMBER CRC2014CF005586CFAXWS

STATE OF FLORIDA,

Plaintiff,

vs. VOLUME IX

ADAM MATOS,

Defendant.

PROCEEDINGS: JURY TRIAL

BEFORE: THE HONORABLE MARY M. HANDSEL

Circuit Court Judge

DATE: November 9, 2017

PLACE: Courtroom 3-A

West Pasco Judicial Center

7530 Little Road

New Port Richey, Florida 3465

REPORTER: Victoria L. Campbell

Registered Professional Reporter

Administrative Office of the Courts
Court Reporting Department
West Pasco Judicial Center
7530 Little Road
New Port Richey, Florida 34654
Telephone: (727) 847-8156

Fax: (727) 847-8159

APPEARANCES

APPEARING ON BEHALF OF THE STATE OF FLORIDA:

CHRISTOPHER LABRUZZO, Assistant State Attorney BRYAN SARABIA, Assistant State Attorney JOSEPH LAWHORNE, Assistant State Attorney Office of Bernie McCabe, State Attorney Sixth Judicial Circuit, Pasco County 7530 Little Road New Port Richey, Florida 34654

APPEARING ON BEHALF OF THE DEFENDANT ADAM MATOS:

NICHOLAS MICHAILOS, Assistant Public Defender CATHERINE GARRETT, Assistant Public Defender E. DILLON VIZCARRA, Assistant Public Defender Office of Bob Dillinger, Public Defender Sixth Judicial Circuit, Pasco County 7530 Little Road New Port Richey, Florida 34654

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 1
                      PROCEEDINGS
2
 3
     (OPEN COURT.)
 4
 5
     (Defendant present.)
 6
     (Jury absent.)
 7
                          Can I have the State and Defense
               THE COURT:
 8
         at the bench. Off the record.
 9
     (Off The Record.)
10
              THE COURT: All right. We're back on the
11
         record.
                  State of Florida versus Adam Matos.
12
              Defense and the defendant are present.
13
              Are we ready to go, Defense?
14
              MR. MICHAILOS: Yes, Your Honor.
15
              THE COURT: State, are you ready to proceed?
16
              MR. SARABIA: Yes, Judge.
17
              MR. LABRUZZO: We are, Your Honor.
18
              THE COURT: All right. We can go ahead and
19
         have the jury brought up.
20
              We were just at the bench going over numbers
21
         and making sure everything was properly marked for
22
         the State to make sure we don't miss anything.
23
         So...
24
              All right. Are we ready for the jury?
25
              Both sides? Yes?
```

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MR. SARABIA: Yes, Judge.
 1
              MR. MICHAILOS: Yes, Judge.
 2
 3
              THE COURT: All right. Bring them in.
              THE BAILIFF: Yes, Your Honor.
 5
              Jurors entering the hearing of the Court, Your
 6
         Honor.
              THE COURT: All right.
 7
8
     (Jury Present.)
 9
              THE BAILIFF: All jurors present and seated.
10
              THE COURT: All right. Good morning, ladies
11
         and gentlemen. How are you? Good?
12
              THE JURY PANEL:
                                (Responding.)
13
              THE COURT: I understand there was some
14
         traffic issues. I'm glad that -- I don't know if
15
         any of you were in them, but I understand there was
16
         some bad traffic this morning, so I'm glad you all
17
         made it.
18
              Everybody able to follow my instructions?
19
         Yes?
20
              THE JURY PANEL:
                                (Responding.)
21
              THE COURT: All right. Excellent.
22
              State, are you ready to proceed?
23
              MR. LABRUZZO: We are, Your Honor.
24
              THE COURT: All right. Call your next
25
         witness.
```

1	MR. LABRUZZO: Your Honor, the State would		
2	call Anna Cox.		
3	THE COURT: All right. Anna Cox.		
4	Good morning, Ms. Cox.		
5	THE WITNESS: Good morning.		
6	THE COURT: If you can step up to the podium.		
7	Stop right there. Turn and be sworn by my clerk.		
8	THEREUPON,		
9	ANNA COX,		
10	the witness herein, having been duly sworn, was examined		
11	and testified as follows:		
12	THE WITNESS: I do.		
13	THE COURT: All right. Please have a seat in		
14	the witness stand. Speak in a loud and clear voice		
15	for me.		
16	All right. State, you may proceed.		
17	MR. LABRUZZO: Thank you, Your Honor.		
18	DIRECT EXAMINATION		
19	BY MR. LABRUZZO:		
20	Q Good morning, ma'am. Could you please turn to		
21	the ladies and gentlemen of the jury, introduce yourself		
22	by stating your name.		
23	A My name is Anna Marie Cox.		
24	Q And, Ms. Cox, what do you do for a living?		
25	A I am a bloodstain pattern analyst and a		

1 specialist in chemical enhancement. 2 And who do you work for? 3 Α I currently am employed by myself. I own my 4 own business. And what is the name of your business? 5 Q 6 Α It is Cox Forensic Consulting and Training. 7 All right. And prior to owning your own Q 8 business, what did you do? 9 Prior to owning my own business, I was a 10 volunteer autopsy technician at the Hillsborough County 11 Sheriff's Office in 2000. 12 I then subsequently became employed by the Pinellas 13 County Sheriff's Office Crime Scene Unit. I was a 14 forensic science specialist there for just about three 15 weeks shy of 13 years. 16 All right. So what kind of -- we've had some Q 17 forensic techs talk in this case and -- but those are 18 from Pasco County. Same or similar duties in Pinellas 19 County at the Sheriff's Office? 20 Α Yes. 21 And to have that job, was there certain Q 22 educational background that you had to have to do that 23 job? 24 Α Yes. 25 Q Can you tell this jury a little bit about your educational background that allowed you to perform those duties?

A I have both a formal and a professional education background. My formal education includes an Associates in crime scene technology from St. Petersburg College, which includes the core courses for actual physical crime scene work: Fingerprint processing, crime scene safety, correct chemical procedures, latent print examination, coursework, along those lines.

I also have a Bachelor of Science degree where I have coursework in chemistry, physics, and biology, to include their laboratory components.

I have a certificate -- a graduate certificate of death investigation from the University of Florida where I had to complete graduate coursework in forensic DNA analysis, forensic anthropology, and forensic medicine I and II.

I also have a Master's Degree of Forensic Science from National University with advanced coursework in more crime scene applicable fields such as additional photography, additional advanced latent fingerprints, major case investigations, homicide profiling.

And I also had to complete a thesis of which I did on bloodstain pattern analysis.

Q All right. In addition to that formal

education, through your career as a forensic investigator, have you participated in professional education classes, classes that are specific or coursework specific to forensics?

A Yes. I actually have almost 400 -- a little over 450 hours of professional education. That includes coursework specifically in bloodstain pattern analysis, specifically in chemical enhancement of blood, specifically in homicide processing techniques, as well as crime scene reconstruction. And I also teach coursework along the same lines professionally as well.

Q And where do you teach?

A I teach for local agencies. I will go to the agencies and conduct either week-long or two-day coursework in bloodstain pattern analysis. I also train local agencies on using different chemicals that some agencies aren't really familiar with and requires a little bit more personal mixing and can be a little intimidating. So I train them on that as well. And I also speak professionally for local associations.

Q And what associations do you speak for?

A I speak for the Florida Sheriff's Office
Association, the National Homicide Investigator
Association, the International Homicide Investigation
Association, and the Florida Division of the

International Association of Identification.

Q All right. In addition to those speaking engagements and for those groups, are you a member of any professional organization that's specifically related to forensic work?

A Yes. I'm a member of the International
Association of Identification, as well as the
International Association of Bloodstain Pattern
Analysts.

Q All right. And do you keep current on all trends or new investigative techniques as it relates to the coursework or forensic investigation?

A Yes. Being a member of those associations affords me the opportunity to have access to their journals and their publications where my peers will do up and coming experiments or lectures and I have the opportunity to read up on those as well, plus teaching out in the field at the local agencies. When the new students come in, they really have a lot of new questions, which forces me to make sure that I maintain my education in the field as well. So they keep me on my toes.

Q All right. And I'd like to go back to basically your forensic consulting and training company that you have.

```
1
         As part of your being self-employed, you're
2
    available to come and examine crime scenes --
 3
         Α
               Yes.
 4
               -- if need be? You're able to examine
 5
    photographs?
 6
         Α
               Yes.
 7
               Meet with witnesses if necessary?
          Q
 8
         Α
               I very rarely ever meet with witnesses.
 9
          Q
               Okay.
10
         Α
               I try to maintain basically a scientific
11
    approach. After that is done, if I need witness
12
    information, I'll get that through my client.
13
               All right. And in cases like this, you're
14
    client would be the State of Florida; is that correct?
15
         Α
               Correct.
16
               And you are paid for the analysis for which
          Q
17
    we're going to talk about, correct?
18
         Α
                     I am paid for my work product, yes.
19
          Q
               All right. I would like to start off by
20
    talking about blood spatter and blood spatter analysis.
21
    In doing that, have you prepared a number of slides,
22
    PowerPoint slides, that would aid you in describing what
23
    it is that you do and what it is that you're looking
24
    for?
25
         Α
               Yes, I have.
```

1 0 All right. MR. LABRUZZO: Your Honor, I'd ask that the 2 3 witness be allowed to step down? THE COURT: She may. 5 (By Mr. Labruzzo) All right. Ms. Cox, I'm Q 6 just going to warn you, there will be two cords back 7 there. All right. Ms. Cox, if you could step right over 8 9 here. Actually, let's switch. You stand over here 10 close to the court reporter. I'll stand over here. 11 I'll remind you to be nice and loud. 12 THE COURT: Mr. LaBruzzo, before you do that, 13 can you turn the microphone so she's being picked 14 up by the mike? Perfect. Thank you. 15 MR. LABRUZZO: All right. 16 THE COURT: I have people with headphones on. 17 They're hearing through the mike. 18 (By Mr. Labruzzo) All right. All right. 19 Ms. Cox, I'd like to talk about bloodstain pattern 20 analysis. Okay? 21 Α Yes. 22 Q Generally what is bloodstain pattern analysis? 23 Α It's the scientific study of the bloodstain 24 and patterns that result from a blood-shedding event. 25 Any event that where blood is shed, it can be analyzed

based on the dynamics of the blood and its distribution.

We identify, we document, we analyze, and we define bloodstains and patterns based on a multiple of different characteristics. We look at their size. We look at their shape. We look at their overall distribution. We take into consideration the number of the stains that there are; but then we also have to take into consideration the locations of the stain, the surface it's on, the relationship of other stains at the scene, the scene specific variables.

And what I mean by that, if there's medical intervention, if there's any type of scene alteration, if the victim has been transported and is no longer at the scene; so we have to take into consideration stains that might be caused by those types of events.

And then we also have to have just a history of the scene and the evidence. And that basically comes into play when I read the crime scene technician reports and their description of where items of evidence were, their condition when they were collected, whether they were wet, whether they were folded, whether they were in a different location. So the history also allows me to focus on stains that are relevant to the actual blood-shedding event itself.

Q Okay. And is there a purpose to the work that

you do?

A The purpose is to attempt to do an overall reconstruction. Sometimes we are able to do a very detailed reconstruction, sometimes we are not. But most of the time we can tell you where victims were located when the blood-shedding event occurred. We can also tell you at times where a potential suspect or a witness to the event may have been located. We can sequence some of the patterns in the scene. So basically what that means is I will have the one type of pattern and then something will come through and alter that pattern and I'll be able to tell that.

Also movement of a person that has blood on their person or on an item, if those are moved around the residence and are in locations that are separate than where the actual trauma occurred. We can assess where individuals went and what they touched. And it's also a lot of times used as an investigative tool to confirm or refute statements that are made during the course of the investigation.

Q Okay. And the scientific basis for bloodstain pattern analysis, if you can describe that for the jury?

A Bloodstain analysis, we called it BPA, really embraces the natural sciences. And the reason is because we as analysts are required and it's necessary

for us to understand the natural sciences and how they play a role in blood-shedding events.

The first would be biology. The components of blood. The reason I understand components of blood is because later in the investigation I'm going to be using some chemical enhancement and I have to understand what part of the blood I'm trying to enhance, why. And there's specific reasons why we choose different chemicals.

Changes in appearance due to decomposition outside of the body. Sometimes decomposition can cause blood to turn. Like in Florida, it can sometimes turn black. In colder environments sometimes it can turn orange. So if you're not aware of that, you might, you know, misinterpret stains that should have been included that were not.

Also we have to understand the reaction of a body to the infliction of an jury. And what I mean by that is, for example, an injury to an artery will produce different bloodstains than a breech to a vein, and that's because they have a different purpose inside of your body.

Also capillaries bleed differently. We also have to understand where location of injury, internal bleeding, if we have any external factors like clothing

or anything like that that might affect the body's reaction to the infliction of the injury.

Physics. The thing about bloodstain analysis is it's just the blood is distributed, how it's distributed at that moment. So if there is an impact or blood is struck with force, it's going to react differently than if something just drips off of the end of this particular pointer, and that is due to cohesion and surface tension.

We also have to understand the viscosity. And what basically viscosity is is resistance to flow. And the best way for me to explain that is take maple syrup. And if you have maple syrup and it's in the refrigerator, it's very cold. And when you take it out, it's very difficult to pour. It's because its viscus. It's got a lot of viscosity at that point. You introduce heat to it, you start to break up that viscosity. And then what happens to your maple syrup? It pours easier on your pancakes. So that's what viscosity is. Same thing for blood. If it's got another liquid that's introduced to it or different temperatures, it is going to react differently.

Gravity and air resistance, which is a natural reoccurring phenomenon. Eventually gravity, if allowed, can break the natural phenomenon of surface tension.

And the introduction of outside forces and the effect that it will have on a particular bloodstain. There are a variety of forces that can be introduced to a bloodstain.

We need to be aware of what those different introductions, such as gunshots or somebody getting hit, those types of forces are completely different on the realm of how intense they are. So they produce different size stains.

Mathematics. When we attempt to locate the exact area of origin of where we believe an individual or a source of blood exactly was when it was impacted, we have to use trigonometry. It's based on the pythagorean theorem, and it requires that we do it with a trigonomic type of mathematics.

Chemistry. This goes back to understanding your components of blood. We have products that we use to enhance protein in your blood. A lot of those are used on scene because they're very easy to use and they're very effective. Or depending if you have more of a dynamic or a more damaged scenario with your blood, you might go for something a little more sensitive. That would be your heme product, and that reacts to the hemoglobin in your blood.

So when we use these chemistries, we have to

understand why we're using them. And the other thing is is it's necessary for us to test the blood to make sure it is, in fact, blood, because I don't want to be doing an analysis on ketchup. I would rather do an analysis on blood.

And then we have the enhancement techniques.

Q In identifying bloodstains and bloodstain patterns, are there differences that you can talk about between the difference in stains? Can you talk a little bit about that?

A Yes. Stains are basically categorized, and the best way for me to approach is is like trees in a forest. And a lot of our stains have a fundamental tree trunk and then from that tree trunk we have our branches. So when I say something like a passive stain, that is the trunk. But one of the branches of that tree trunk would, in fact, be something called a passive drip stain.

And a passive drip stain is just that, you injure your finger and you're standing there over the sink trying to render aid and it's dripping down into the sink. That is a passive event. You're not, you know, inflicting any more force onto it, it's just dripping.

Another branch would be what we call large volume stains. It's where a source of blood is just allowed to

drip freely, and it will just flow with the natural typography of the floor or the substance that is absorbed into. That's also passive because you're not introducing any force to that.

Then you also have another tree trunk, which are our transfer and our swipe stains. Now, these have a minimal amount of force behind them, but not the kind of force that we usually talk about, spatter. Transfer is just that. If I have blood on my hands and I touch this counter, I will transfer blood from my hand to this counter if I have enough blood on my hand to do so and if the blood is, in fact, wet.

Also, along with the transfer is something called a swipe. And what a swipe basically is is I have blood on an item or my hand and I touch something and I move it. Basically that is a swipe. So it's the introduction of me transferring blood but also showing movement when I do it.

Another different, complete different tree trunk is something called spatter, and that is caused by an external energy that disrupts the natural physics of surface tension and cohesion. So it is the introduction of an outside force: Gunshots, machinery accidents, explosions, stabbings, beatings, stompings. If you have a pool of blood on the floor and you drop something into

it, those are all considered to be spatter events.

Then we also have something called castoff, which is just like it sounds. It's blood drops that are released from a bloody item that is basically being flung. So if you have a blood on the end of this pointer and I was to flick it back, blood will accumulate on the tip and eventually come back. And sometimes you can have corresponding castoff patterns, which means if you have enough blood volume, you have blood that travels back and forward. So sometimes we get some distinct direction out of the end of those castoffs.

Then we have another tree trunk, which would be altered stains. And the altered stains are typically pretty easy to identify because, as I stated earlier, blood is disbursed in millimeters of seconds. I can't even — I don't even know the mathematical equation for it. So once it's disbursed, there's one way it happens. So when you start to go in and add liquids, it's going to look entirely different.

Skeletization occurs when a stain starts to dry, dries from the outside in. So the outside starts to dry and then the inside either becomes cracked or something comes in and removes part of the stain. So if you have poriferal edges around it, it's skeletonized.

A void is where you have a continuous pattern of blood and then there's no blood at all where blood should logically be. And what voids tells us is one of two things: That something was there in that area when the blood shedding event occurred and has since been removed; or if there's a continuous blood pattern and something without blood is on top of it, that would be an addition to the scene, and then we would ask ourselves why was there an addition.

And then we have a wipe. And sometimes wipe and swipe gets confusing. A wipe is where a stain preexists on a surface and something comes through and disrupts it after it's already on the surface. So that's the difference between a swipe and a wipe.

Q Okay. I'd like to get into some case specific examples. And just so that we're clear, we're going to see a number of photographs that are going to be shown.

The photographs that we're going to discuss are not photographs related to the casework you did in this case; is that correct?

- A Correct. They are not.
- Q They are just examples of the things which we're going to talk about, correct?
 - A Correct.

Q All right. All right. It says here a passive

drip stain. Could you describe this for the jury?

A These are all considered passive drip stains and they all look different. Well, the reason that they look different is because they're either all on a different surfaces or their directionality is different. So this particular passive drip stain over here on the top right-hand side would be — is on like glass or marble. It's a very, very non-porus surface, it's very sheen, it's very clean, and it accepts the blood drop very nicely.

Over here (indicating), this is also a passive drip stain. But this is on a mild piece of cardboard, so we have to take into consideration that when the blood actually was deposited on that, it was broken up a little bit by the coarseness of the cardboard. So concrete, when we see concrete, will do that. Raw wood will break things up. So anything that has any type of porus nature or coarseness to it can alter the stain, but they're still considered to be passive.

This is also a passive drip stain down here at the bottom (indicating). The difference is is it's on a — it's on a vertical surface as opposed to a horizontal. So this stain right here (indicating) could have very easily been deposited if I had blood on my hands and I put my hands here (indicating), it could very easily —

and that's still a passive stain, it's just on a different surface.

And then this is considered a passive drip trail.

And you can see we have what we call a little bit of scalloped edges. And that's just because that's on like a piece of tile that might have a little bit of coating on it so that you don't slip when you walk on it. So we have to take into consideration all of our surfaces.

Q Okay. Can you describe the flow pattern that's shown here in these photographs?

A A flow pattern is also considered to be a passive stain, and it is basically where sufficient blood volume is able to drip down. So you see flow patters with associated patterns that have a larger blood volume, which is usually indicative of further into the particular incident as it's occurring and more blood shedding is occurring.

Q Okay. And then the second photograph shows that the stain is kind of moved a little bit. What could cause that?

A That can be caused by the movement of the surface. If I was dripping blood on this counter and I was dripping here (indicating) and then I moved, that would cause an alteration in flow patterns. Sometimes we also see it maybe on vehicles where you have a flow

pattern that comes down and the vehicle may come to an abrupt stop, it will cause the flow pattern to jerk back and then start to flow down. So that would cause a minor alteration like that.

Q All right. And can you talk about transfer stains?

A Transfer also has its own little branches that branch off of its big branch, and the two are a noncomparable transfer or a comparable transfer. A noncomparable transfer is just that. There's been a deposition of blood but I have no idea what that's from.

I mean I do because I made it. But if I was to see this at a scene, I wouldn't know what that was, and I would just call that a noncomparable transfer stain, as opposed to a transfer stain up here (indicating) with what we call ridge detail, which is basically your fingerprints or on the bottom of your feet, the ridges that keep you from allowing you to grasp things.

And then this would be a comparable transfer print, and we would call that consistent with a shoe print or a boot print or some type of footwear because of its distinct delineated lines and evenly separated voids.

Q All right. Can you talk about large volume stains?

A Large volume stains. There are two.

Basically they occur under the same phenomenon, which is where a blood source is allowed to flow freely. The difference is one is into an absorbent material, that would be saturation; the other is on a liquid surface that doesn't have very much porus nature to it, it is completely non-porus, and then you would get a pool of blood.

Q All right. Can you describe for the jury these photographs reference to spatter?

A These are stains that are consistent with an event that is much stronger than any type of passive event. So these are the types of stains that we look for when we're looking for an impact event. And as you can see from just these two photos, they look completely different.

And the reason they look completely different is because there are so many variables that come into play when you have a spatter event: The location of the injury, the amount of injury, the amount of blood available, is there clothing or is there some type of item or something obscuring the ability for the spatter to be disbursed.

We also take into consideration the amount of force that is applied to that. Unlike a gunshot where you have rapid successive fire, the gun is designed to

function that it maintains a certain amount of force when it fires. Humans can't do that. Not many humans — when you start to physically exert yourself in an impact event, you will eventually tire.

So it's not uncommon for us to see very, very, very small stains and then we start to get a mixture of longer stains. And that just shows somebody is starting to tire or your victim has stopped moving or the range of motion has become less available. So that's why there is a variation of stains when it comes to spatter.

Q Okay. Can you describe the spatter stains that are observed in this picture?

A This is also impact spatter, but this is on fabric. So fabric, as you can see, different things can happen because of the nature of which textiles are developed. Basically your clothing is designed to either completely reject the introduction of a liquid or it's designed to accept it and like make it wick out. So that's why sometimes spatter looks a little bit different on clothing.

And one of the things we do with spatter on clothing is we look at it microscopically, because we have to look at how the stains impact or how they interact with the fabric, and then that allows me to make a more scientific determination of which that that

would, in fact, be spatter as opposed to something else.

Q Okay. Can you describe for the jury the castoff stains that are observed here?

A Yes. Once again this is castoff. And these two types of castoff patterns look completely different, and the reason is is it's because of the way an item was swung and the area that the blood is coming off of.

So, for example, these patterns here (indicating) would be considered linear because they are thinner in width. They don't have a lot of width to them. So it would be — a perfect example would be the tip of this particular pointer (indicating), that would be the blood coming off the tip of the pointer. Because if I'm swinging the pointer this way (indicating), the blood is collected down here on the tip (indicating) and being flung off the tip.

Now, these stains here (indicating) are different. This is more of a sideways swing of an instrument. And that's not uncommon in a beating or a stabbing incident because the weapon itself, if allowed, will become bloody and will start to slip, so you'll start to see a rotation in the instrument.

So this pointer can, in fact, also cause those particular castoff stains because now if I swing like this (indicating), and I'm swinging straight down

instead of down this way (indicating), the blood is accumulating along the length of it as opposed to the tip and is being flung down this way (indicating). So the castoff is actually coming off of a greater width of the pointer as opposed to the tip. And all that basically tells me is a change in swinging motion or a change in the handling of a particular item.

Q All right. Directionality, can you describe what's being represented here in these two photographs (indicating)?

A Directionality is very, very important in bloodstain analysis because that is how we base a lot of our determination of where the direction of force is coming from and things like that.

Directionality basically tells us the way the direction the blood was traveling when it touched and hit the surface. And we do that by looking at tails. We will call these tadpole stains, and we look at the tadpole tail, and that's what we look at to determine directionality. So this stain (indicating) was traveling that way when it hit that surface.

This is a spatter pattern, which looks completely different than the spatter patters you already saw, but it is another spatter pattern. And the spatter pattern itself also allows us to determine the directionality of

not only the stains but the directionality of the pattern itself; and also allows us to really kind of come in here and tell you, okay, see this conical nature or fan of this spatter pattern, if you were to draw lines through these particular stains that I've done such here, they will eventually come together and merge, and that is your area of origin. So that's how we can place victims in certain areas based on spatter patterns.

Q All right. And just so we're clear, the tail is the way that points in the direction of the stain, correct?

A Yes. The stain was traveling -- they were all traveling this way (indicating) when they were disbursed.

Q All right. All right. Can you talk to us about swipe stains and what's represented in these two photographs (indicating)?

A This is a swipe stain. It looks different than a traditional transfer stain because both of these show movement. We have something here called a fettering. And what that fettering is is you usually have a larger distribution of blood at one end, and if you don't have a replenishing source, like if it's on your hand but your hand is not cut, you'll eventually

run out of blood and that's what the fettering does.

And this is also considered fettering where you can take a large volume up here, and then as it comes down, it starts to fetter because there's no more blood volume left.

Q And can you discuss these two photographs (indicating) and the diluted nature of the stains?

A These are diluted stains, and this one also has something called a little bit of diffusion.

Dilution is where you have a bloodstain and then there's the introduction of water or a liquid. It can be any liquid: Lighter fluid, water, anything you can think of, milk.

So what it does is it alters the original visual consistency of the stain. Basically it dilutes it. It mixes with the blood and the blood is no longer viscus. It's been mixed with something else and it loses a lot of its very dark red nature. And it's very indicative of a diluted stain when you see the dark rim on the edge.

This is also a diluted stain (indicating), but you also have something here called diffusion. This area right here (indicating) is diffusion, which is the natural tendency of the fabric to want to wick away that particular stain. That's what we call wicking. But

then there was also introduction of a different type of liquid which caused this other pattern out here around it (indicating).

Q Okay. All right. You have two photographs here. Can you describe to the jury what is represented in these two photographs (indicating)?

A These are perfect examples of wipes. This is a passive drip stain where something came through after it started to dry and wiped right through it (indicating). And then this is the same thing (indicating). This is a smaller pool of blood where something came through and wiped through and altered the original pooled blood and original passive drip stain.

Q All right. And you mentioned earlier about skeletonized stains. Is that what's represented in these two photographs (indicating)?

A Yes.

Q Okay.

A These are both skeletonized stains

(indicating). This one is because of a direct

alteration or interruption to the stain while it was
drying by a — not something else coming into contact

with it and removing the center. This one is due to the
natural decaying process where the blood has dried and
it's starting to flake.

Q All right. You mentioned earlier about voids.

Is that what's shown here in these two photographs

(indicating)?

A Yes. It's the absence of blood in an otherwise continuous bloodstain pattern.

Q Can you show the jury what we're talking about? You know, point to where the void was and what that means.

A This would be the void here (indicating), because this pattern would be considered a continuous pattern because the stains and the distribution of them are relatively the same. You have a larger stain confined to this area, smaller stains are coming out, and then all of a sudden you have this — all of a sudden something is missing. There's no bloodstains there. So something linear was here.

In this particular pattern (indicating), same thing. We have a continuous blood pattern and then we have very delineated lines where there is no blood at all. So something was in that particular area and was removed, as was something was there and also removed (indicating).

Q All right. Thank you, Ms. Cox.

I'm going to ask for some help with this for a second, and while we're doing that, Ms. Cox, I'm going

to hand you this.

- A Oh, thank you.
- Q And then I'm going to ask you if you can just step over to the podium, although we're going to keep this up. I'm going to show you a collection of photographs.
 - MR. LABRUZZO: And for the record, I've shown Defense Counsel the photographs 514 through 530 and 534, 536.
- Q (By Mr. Labruzzo) All right. Ms. Cox, I'm going to show you what's been premarked as State's Exhibits 514 through 530, 534 through 563. They're each paper-clipped, so if you can just keep them in the same groupings until we can go through it.
- Ms. Cox, I'm going to ask you to step back right over here to where you were a few minutes ago, and let me just ask you some questions about some of the things that you reviewed in the case that was presented to you, the case which you're here to testify about.

Can you describe for the jury the things that you reviewed as part of your review of the case?

A I review the crime scene photographs; I review the autopsy photographs; I review the medical examiner's official autopsy reports; I review the crime scene technicians reports; I review the crime scene

detective's reports, the detective that was present at 1 the crime scene while the technicians were working; I 2 3 review property and evidence lists, and then I conduct 4 an evidence review myself on items that are pertinent 5 and document all that myself as well. 6 And by documenting that yourself, you mean you 7 go to the Pasco County Sheriff's Office and actually 8 look at the physical items? I actually remove the items from 9 Α 10 evidence and I document them and analyze them 11 personally. 12 And as part of that documentation, taking 13 photographs, the ones you just reviewed? 14 Α Yes. 15 Q And referring to State's Exhibits 514 through 16 530 and 534 through 563, are these photographs of items 17 that were collected by the Sheriff's Office that you 18 reviewed with them? 19 Α Yes. 20 MR. LABRUZZO: Okay. Your Honor, at this time 21 the State would seek to admit 514 through 530 and 22 then 534 through 563 as the next items of evidence. 23 THE COURT: We're not -- 513 is not in there? 24 MR. LABRUZZO: 514 through 534, yes. 25 Okay. Where's 513? THE COURT:

```
MR. LABRUZZO: We'll have that one later.
 1
              THE COURT: Later?
 2
 3
                     Defense, any objection?
              Okay.
              MR. MICHAILOS: No objection, Your Honor.
 5
              THE COURT: All right. 514 through 530 is
 6
         admitted.
 7
               (By Mr. Labruzzo) Okay. As part of your
8
    review, did you have an opportunity to look at a diagram
    of the residence located at 7719 Hatteras Drive?
 9
10
         Α
              I did.
11
              Okay. What I'd like to do, Ms. Cox, is I'd
         Q
12
    like to talk about the things that you viewed from the
13
    Sheriff's Office and all the items you reviewed, but I'd
14
    like to go kind of go by a room-by-room analysis of the
15
    things you looked at. Okay?
16
         Α
              Okay.
17
               I would like to start with the room that's
18
    identified on State's Exhibit 59 as Room A, also
19
    referred to as the southeast bedroom.
                                            Okay?
20
         Did you review photographs related to that room?
21
              I did.
         Α
22
              All right. Specifically items that were
23
    inside the room that were -- well, let's start with this
24
     (indicating).
                   This is State's Exhibit --
25
              MR. LABRUZZO: And, Mr. Sarabia, if you can
```

1 just tell me before --MR. SARABIA: 2 3 (By Mr. Labruzzo) Okay. I'm going to ask you Q 4 to look at the monitor and look at State's Exhibit 163. 5 Did you have an opportunity to view this photograph? 6 Α I did. 7 MR. LABRUZZO: And just give me one second. 8 Q (By Mr. Labruzzo) All right. Were there 9 things of particular note in this photograph? 10 Α The primary thing that was noted in this 11 particular photograph was the overall dimensions of the 12 room, as well as location of items in the room: 13 curtains on the window, a dresser, and then there was a 14 three-tear bookshelf and like a CD case that was over in 15 the corner. 16 And this is the three-tear bookshelf you're Q 17 talking about (indicating)? 18 Α Correct. It's right there (indicating). 19 Q And then this was --20 Α That's like a DVD or a CD storage shelving 21 unit. And of note, on the raw wood floor, it was just a 22 sublet floor, was a large -- what we call was a large 23 saturation stain. 24 Q All right. And just since we're starting to 25 talk about saturation stains, could you just remind the

1 jury what that means? An item that was bleeding, was allowed to 2 3 bleed freely there for a period of time such that it was 4 absorbed into the sublet flooring. Q Okay. And in accordance to the DNA reports 5 6 from FDLE, did you have an opportunity to review those? 7 Α I did. And what did that tell us about that stain? 8 Q 9 Α That stain was identified to Nicholas Leonard. 10 Q Okay. And this is State's Exhibit --11 MR. SARABIA: 164. 12 (By Mr. Labruzzo) -- State's Exhibit 164. 13 Can you just describe what's shown here? 14 Α That is a close-up of the saturation stain. 15 And basically what I can analyze from that is that it 16 was allowed to follow the topography of the floor. 17 the saturation was there long enough to be able to 18 saturate into and follow the natural topography of that 19 particular area of the sublet flooring. 20 MR. SARABIA: 174. 21 All right. Ma'am, I'm going to show you Q 22 what's introduced as State's Exhibit 174. What is this 23 item? 24 This is a window fan. Α 25 Q Okay. And this was an item that was actually

1 collected by the Sheriff's Office, correct? 2 Α Yes. 3 And when you did your own document review, you 0 4 had an opportunity to go and actually physically look at 5 this? 6 Α I did. 7 All right. So I'd like to refer to some of Q the photographs that you took in relation to this. 8 9 MR. SARABIA: 553. 10 MR. LABRUZZO: State's Exhibit five-fifty --11 MR. SARABIA: Three. 12 MR. LABRUZZO: 553. 13 (By Mr. Labruzzo) All right. Ma'am, could Q 14 you describe what we're looking at here in State's 553? 15 Α There were actually three different types of 16 stains on this one particular item. We'll start out 17 with the ones that are the longest, which would be your 18 passive drip stains. 19 So those are passive drip stains that are located 20 in this particular area right here (indicating). 21 have some passive drip stains here and here 22 (indicating). And then you have a little bit of pooling 23 down here (indicating) where there was enough blood 24 volume that it was allowed to actually coaqulate and 25 remain here along the little lip edge of the fan, which,

you can't see in this particular photo, were items that 1 I was interested in that might be related to an actual 2 3 blood shedding event, and that would be my spatter and 4 my castoff, and I did find indications of both of those 5 on this particular fan. 6 All right. We're going to refer to --7 MR. LABRUZZO: What is this item? 8 MR. SARABIA: 550. 9 0 (By Mr. Labruzzo) 10 Α This is my photo. This is what I took at the evidence review and I identified it as Number 1 with a 11 12 green marker. These are actually impact stains and they 13 are located up in the top corner of the fan. And the 14 reason these are impact stains is they have that very 15 distinct directionality, very elongated stains and 16 they're very small in size. And this particular area 17 (indicating), the stains are pretty consistent in size 18 so that I felt comfortable stating that they came from a 19 spatter event. 20 Q And what would cause that? Okay. 21 Α That would be consistent with impact. 22 would be consistent with spatter. 23

Q Okay.

24

25

MR. SARABIA: 549.

Q (By Mr. Labruzzo) I'll ask you to look at State's 549. Can you describe what is shown in this photo?

A This is actually a midrange shot of where these stains are. So you can just barely see the green corner of my marker there. So this gives you a general idea in location of the fan. So if this is the top of the fan (indicating), you can see one of the fan blades over here, these stains are over here in the corner and you can see there are multiple ones over here.

We choose specific stains as a representative stain for closer identifications because we can't physically document every single spatter stain. I'd still be there.

Q Okay. You mentioned there was a collection of multiple types of stains on this item. And just so we're clear, comparing what you just described as impact with these stains located at the top of the photograph, what would that be?

A That would be passive. They look completely different. These are -- they're small, very elongated, they are clustered into a small area together. These are passive drip stains which are just caused by the blood being allowed to drip freely down without the -- without being -- any force being projected onto it.

Q All right, ma'am.

1 MR. LABRUZZO: Can you show us the next. 2 MR. SARABIA: 552. 3 (By Mr. Labruzzo) This is State's 552. Can Q 4 you just describe what's shown here in State's 552? 5 Α This is the bottom middle portion of the fan. 6 You can see one of the blade fan areas over here and one 7 of the blade areas over here (indicating). This is also 8 a spatter pattern right here (indicating). You've got 9 what we call your conical nature to it. 10 So basically you have stains that radiate from this 11 particular area and down to this particular area causing 12 one particular pattern (indicating). All the stains 13 have directionality moving this particular way 14 (indicating). So those -- that would be consistent with 15 an impact pattern event. 16 MR. LABRUZZO: All right. Next photograph, 17 please. 18 MR. SARABIA: 554. 19 Q (By Mr. Labruzzo) Ma'am. 20 Α And that is my scale. I identified that area 21 as Number 2 with the green marker and placed the scale 22 there for size measurement. 23 Q Okay. 24 551. MR. SARABIA: 25 Α This is an overall photograph to kind of

```
1
    identify overall where those stains were in relationship
 2
    to each other. So this would be the area up here where
 3
    Number 1 was, and then you can see down here is where
    Number 2 is (indicating).
 5
         Q
              All right.
 6
              MR. SARABIA:
                             548.
 7
               (By Mr. Labruzzo) Can you describe what's in
         Q
 8
    this? Is it kind of that same area?
 9
         Α
               It's the same area, except I'm also showing
10
    underneath the fan blades and I'm also showing these
11
    stains in relationship to the other stains on the fan,
12
    just for documentation purposes and for my analysis
13
    purpose.
14
         Q
              All right. Ma'am, were you able to review the
15
    FDLE DNA reports related to this particular item?
16
         Α
               I did.
17
              And what can you tell us about those results
18
    as it relates to this item?
19
         Α
               Stains on that fan came back to being Nicholas
20
    Leonard.
21
         Q
               Okay. Staying in this southeast bedroom, Room
22
        Was there a chair in the room that was of particular
23
    note?
24
         Α
               Yes.
25
         Q
               Okay. Why do you take particular note of this
```

```
chair?
 1
               This chair was of interest to me because --
 2
 3
              Let me stop you real quick.
         Q
              MR. LABRUZZO: I just need to get the
 5
          identification of the photograph. I apologize.
 6
              MR. SARABIA:
                             556.
 7
              MR. LABRUZZO:
                              556.
               THE COURT: Do you want to move in those
 8
 9
         pictures? You haven't moved in 534 --
10
              MR. LABRUZZO: The second half.
11
               THE COURT: -- to 563.
12
              MR. LABRUZZO: At this time, Judge, we would
13
         move those in.
14
               THE COURT: Any objection?
15
              MR. MICHAILOS: No, Your Honor.
16
              THE COURT: They'll be so moved. 534 to 563.
17
              Go ahead.
18
              MR. LABRUZZO: Sorry. Could you repeat the
19
         number again, Bryan?
20
              MR. SARABIA:
                             556.
21
              MR. LABRUZZO:
                              556.
                                    Thank you.
22
         Q
               (By Mr. Labruzzo) What was of particular note
23
    as it relates to this chair?
24
               The first thing that was of interest for me in
         Α
25
    this chair was the fact that it was propped up against
```

the west side of the closet inside the southeast bedroom, Room A.

Q Okay.

A And in looking at the crime scene photos, I was immediately drawn to the fact that there were passive drip stains that were on the seat of this chair.

Well, the passive drip stains, their appearance was not consistent with it being folded up when those passive drip stains were deposited. So immediately I think, okay, well, the passive drip stains were deposited most likely when this chair was in the open position, then it was moved, it was closed, and set up against this wall.

The confirmation of that came when I looked at the areas that one would logically touch when you fold up a chair. That would be the sides and the back. And there were, in fact, corresponding transfer stains.

The other thing that allowed me to opine that it had been moved to the location it was found in was because there was no what we call reciprocating stains that was in the direct area the chair was that were the same as the stains that were here.

So I opined that it had been at a different location, it was open, and subsequently after receiving these drips, these passive drip stains had been folded

1 up and moved. 2 MR. LABRUZZO: Can you show us the next 3 photograph. MR. SARABIA: 555. 5 (By Mr. Labruzzo) Is this what were you were Q 6 describing here? Can you detail that out for the jury? 7 Α That is a transfer stain along the side and then there's some up here along the rim up here at the 8 9 top (indicating). 10 MR. SARABIA: 557. 11 Α That's a closeup of the transfer stain on the 12 side. 13 (By Mr. Labruzzo) All right. And there's 14 also stains along the top? 15 And there were also stains along the top. 16 Q Having reviewed the FDLE DNA reports, 17 specifically that item, what can you tell the jury about 18 the blood that was found on that? 19 Α That belonged to Nicholas Leonard. 20 Q All right. There were some other photographs 21 taken of this southeast bedroom. 22 MR. LABRUZZO: This is State's Exhibit --23 MR. SARABIA: State's Exhibit 178. 24 Q (By Mr. Labruzzo) This is that three-tear 25 bookshelf that was discussed. Were you able to -- when

you viewed the photographs -- the photographs we're 1 looking at here are printouts, correct? 2 3 Α Correct. 4 Q When you actually view the photographs, are 5 they provided to you in a digital format? 6 Α Yes. 7 And being in a digital format, are you able to Q 8 zoom into the photo itself? 9 Α Yes, I am. 10 Q I'd like to talk about some of the 11 things that you found on this bookshelf. Can you 12 describe -- upon your examination, what did you find? The three-tear bookshelf, the scale there in 13 Α 14 the middle of the second tear identifies a transfer 15 stain. And I looked at that, and because the transfer 16 stain had been identified on there, I zoomed in to all 17 of the remaining portions of the item and identified 18 what I drew a conclusion to be spatter stains to be 19 located right over here on this particular area of the 20 three-tear shelving unit, right here next to this 21 particular hole (indicating). 22 Q Okay. And as it relates to the photograph 23 that's shown at the bottom, which is State's Exhibit --24 MR. SARABIA: That is 179. 25 Q -- State's Exhibit 179, in reviewing the FDLE

DNA reports related specifically to this swipe or this 1 swab from this location, can you tell the jury what you 2 3 learned about this area? 4 Α It tested positive for Nicholas Leonard's 5 blood. 6 Okay. Q 7 180 and 181. MR. SARABIA: 8 Q (By Mr. Labruzzo) All right. Ma'am, let's 9 start with 180. Can you just put 180. 180 is this 10 photograph that's closest to you, ma'am; and 181 is 11 right here (indicating). If you could just -- is that 12 right? Correct? 13 Α Yes. 14 Q Thank you. Can you describe for the jury 15 where these photographs were taken in Room 1-A -- from 16 Room A? Excuse me. 17 Α They are in Room A, they're in the closet, and 18 they are located on this side of the wall right here 19 (indicating). 20 Q Okay. 21 Α And they are consistent -- there was two 22 stains, and they were consistent in size and appearance, 23 location, distribution with castoff. And this right 24 here (indicating), this other exhibit, is the closeup of

one of the stains. It has a very distinguished tail.

25

The tail is broken off of the particular bloodstain, 1 which is consistent with the surface that it's on. 2 3 And the other thing that's important about this 4 particular bloodstain in and of itself is its 5 directionality. It is actually traveling from the 6 bedroom into the closet. And because of its 7 directionality, that would indicate to me that the item that this was flung off of was swinging towards the 8 9 closet. 10 Q Okay. 11 MR. SARABIA: 233. 12 (By Mr. Labruzzo) All right. Ma'am, I'm 13 showing you what's been introduced as State's 233. 14 Can you describe for the jury what type of stain 15 we're looking at here? 16 This is a very -- this is a very small Α 17 saturation stain. And it's right below the east window. 18 And you can see the three-tear shelving unit that I was 19 speaking of earlier. 20 Q Okay. 21 169. MR. SARABIA: 22 Q (By Mr. Labruzzo) All right. All right. 23 Ma'am, this is State's 169. This photograph may be 24 slightly difficult to place its location, but having 25 looked at all the photographs, can you tell the jury

where this photograph comes from in relation to the diagram?

A This is at the threshold to the bedroom. So it's on the sublet flooring. So the sublet flooring is this raw wood here (indicating). And then you have tile that it basically abuts up against. So that would be right here in this area right here (indicating) in this threshold. And they are passive drip stains.

Q Okay. And what does that mean?

A That those were dripped by natural occurring phenomenon of gravity.

Q All right. And having reviewed the FDLE analysis report related to the DNA, and specifically as to the swabbings taken from that location, what can you tell the jury about the nature of that stain?

A The DNA report confirmed it was Nicholas Leonard's blood.

Q Okay. All right. I think we're done with the southeast bedroom.

So, now, ma'am, I'd like to kind of move down from the southeast bedroom down to — and I'm going to refer to State's Exhibit 59. I'd like to change floors and change rooms. And I'd like to talk about the west garage. This room located right here (indicating) in State's Exhibit 58.

```
All right. Were there items that were collected
 1
2
    from this room that were of particular note to you?
 3
         Α
              Yes.
 4
         Q
              Did you actually go out and look at some of
 5
    these items at the Sheriff's Office?
 6
         Α
               I did.
 7
         Q
              All right.
 8
              MR. LABRUZZO: And if you could show me -- do
 9
         we have an overall of the room? And this is
10
         State's Exhibit --
11
              MR. SARABIA: 317.
              MR. LABRUZZO: -- 317.
12
13
               (By Mr. Labruzzo) All right. Ma'am, I'm
         Q
14
    referring to the wicker baskets that are located here
15
    and the white containers and black containers that are
16
    located right here (indicating). Okay?
17
         Did you have an opportunity --
18
              MR. LABRUZZO:
                              That's okay.
19
               THE COURT: Sorry about that.
20
              MR. LABRUZZO:
                              It happens.
21
              (By Mr. Labruzzo) So I'd like to talk about
         Q.
22
    some of the analysis that was related to that.
23
         Were there photographs taken of the individual
24
    stains that were on there?
25
         Α
               There were.
```

1 0 Okay. And were you able to look at those 2 individual stains? 3 Α I was. Q All right. 5 MR. SARABIA: 334 and 335. 6 (By Mr. Labruzzo) All right. Let's talk 7 about the wicker basket, 334 and 335. It's indicated 8 here as X, as the photo marker indicates. 9 Did you have an opportunity to examine these items 10 in person? 11 Α Yes. 12 Can you describe what -- was there blood 13 present on these items? 14 Α When I viewed these photographs that had 15 been taken at the scene, which I then determined that I 16 wanted to look at it closer to see if I could 17 differentiate and see if there's any spatter stains on 18 them. 19 All right. Were able to do that? 20 Α I was. 21 And upon examining these stains that were on Q 22 the basket, what can you tell the jury about what you 23 observed? 24 Α There were spatter stains that encompassed 25 almost the entire front side of the basket, and then on

1 one side there was one tiny little spatter stain that 2 was actually on the side of it. And the reason that 3 that is important because it kind of allows me to orient 4 where the spatter was coming from in relation to the 5 So the front of the basket was primarily facing basket. 6 towards the blood shedding event. 7 Q Okay. 8 MR. SARABIA: 518. 9 Q (By Mr. Labruzzo) That's kind of what we're 10 looking here is State's 518, a photograph that you took. 11 In your examination of this -- I'll call this side or 12 this face of the basket (indicating), you're saying that 13 this side was facing the blood shedding event? 14 Α It was facing the blood shedding event 15 and was slightly turned just a bit because there's one 16 little stain over there (indicating). 17 0 Okay. And were you able to --18 MR. LABRUZZO: Let's go to the next 19 photograph. 20 516. MR. SARABIA: 21 Q (By Mr. Labruzzo) 516. And this is what 22 we're talking about right here (indicating), this 23 separate stain that you found? 24 So this would be the front of the basket Α

that has the multiple stains that were visible from the

25

1 scene photographs. And then upon viewing the actual basket myself, I identified one stain over here that was 2 3 also consistent with spatter. 4 Q So it was kind of -- that side was somewhat 5 facing the event as well too? 6 Α Not too much, because there was not a whole 7 lot of other reciprocating stains over here, but there 8 was that one. So it kind was tilted just a little bit. 9 Q Okay. 10 MR. SARABIA: 521. 11 (By Mr. Labruzzo) All right. Now, let's talk 0 12 about the actual stains that you observed on this item. 13 What can you tell the jury about the type of stains that were there? 14 15 This is the one stain over here on the side Α 16 that I was just talking about (indicating). It has very 17 distinct directionality that's traveling almost 18 completely horizontally on this particular item, and it 19 has your very distinct tadpole appearance with the tail 20 pointing directionality away from the front of the 21 basket. 22 Q Okay. 23 517. MR. SARABIA: 24 (By Mr. Labruzzo) All right. Q All right. 25 Ma'am, what can you tell us about some of the stains

that are represented here in this item?

A Now, one of the things that we also look for in spatter that we will find sometimes in a spatter event is you also find — sometimes you'll find circular small stains that are also considered to be part of the spatter event.

And the reason is because at that point the source of blood is in close proximity to that particular item such that when the impact event occurs, when the blood is distributed, it typically comes out in a conical formation if it's allowed to, if there's not something obstructing it. So what you'll get is actual area of origin where the source of blood is. You'll get very direct circular stains because that's exactly where the source is.

Well, because the blood also wants to exercise itself out into conical nature, you'll get that fan or that conical appearance. So it's not uncommon to have small circular stains with radiating stains out around it. And that's exactly what I saw in this particular item.

The front of this item exhibited a lot of those small circular stains. And then down at the bottom and up at the top is where you start to get your radiating conical stains that have that real distinct

1 directionality. And what does that tell you about the location 2 3 of this, the basket, as it relates to the other? 4 Α It was in close proximity to a blood-shedding 5 event, and that the source of blood at some point was 6 close to the center portion area of this particular 7 wicker basket. 8 Q Okay. 9 MR. SARABIA: 519. 10 Q (By Mr. Labruzzo) This is State's 519. This 11 is kind of a top view of the wicker basket. What can 12 you tell us about the stains that you observed here? 13 Α These stains are actually the ones that are 14 starting to show the conical direct upward 15 directionality. So they're not completely circular. 16 They are starting to show a definition where you're 17 getting a little bit of a tail up here, and that's at 18 the top. So the source of blood was a little bit lower 19 and the blood was able to radiate upward. 20 Q Okay. 21 MR. SARABIA: 520. 22 MR. LABRUZZO: Sorry. This is State's 520? 23 MR. SARABIA: Correct. 24 (By Mr. Labruzzo) All right. Ma'am, could Q 25 you tell us what developed the stains that are

1 represented here in State's 520? Here you have more of your circular stains, 2 3 and then you're starting to get your stains with 4 radiating directionality outward from them. So that 5 just would be considered part of that spatter event. 6 Okay. All right. So this item was near the 7 blood shedding event, correct? Was near an impact blood shedding event, yes. 8 Α 9 0 An impact. 10 And this item was -- you actually saw it. How big 11 was it? 12 Α It was like a clothes hamper size. 13 All right. Q 14 Α And there was tape on it. So I think maybe it 15 was maybe freaky. 16 Okay. And so the events that occurred had to Q 17 be close to that at that height? 18 Α Correct. 19 Q All right. 20 MR. SARABIA: 318 and 325. 21 (By Mr. Labruzzo) All right. We're going to Q 22 talk about these items. All right. Thank you. 23 318 and 325. These were items that were 24 photographed on scene, and you had an opportunity to 25 view each photograph as it relates to each individual

```
stain, correct?
 1
 2
         Α
               Correct.
 3
               This is an item that was marked as SM-137.
    We've referred to it a lot because there were a number
 4
 5
    of swabs taken from this item; is that correct?
 6
         Α
               Yes.
 7
               In viewing the stains that were related to
          Q
8
    this, what can you tell the jury about the stains that
 9
    you just saw in the photographs of this?
10
         Α
               As I recall, I identified them as spatter
11
    stains --
12
         Q
               Okay.
13
         Α
               -- and/or castoff. I'd have to refer to my
14
    report specifically.
15
               Do you need to do that?
          Q
16
         Α
               I would like to do that.
17
          Q
               Sure.
18
                     I identified them as spatter.
         Α
               Okay.
19
               Okay. And having reviewed the FDLE reports
         Q
20
    related to the swabs that were collected from this item,
21
    what can you tell this jury about the blood evidence
22
    that was on this item?
23
               It tested positive for the blood of Nicholas
         Α
24
    Leonard.
25
         Q
               Okay.
```

MR. SARABIA: 377. 1 (By Mr. Labruzzo) All right. All right. 2 3 Ma'am, I'd like to show you State's 377. 4 photograph of some boxes that were collected from the 5 west garage, and they were located -- why don't you show 6 the jury. You've seen the photographs. Why don't you 7 tell the jury where those were located at in the diagram State's 58. 8 9 Α These were located in the west garage along 10 this wall over here (indicating). Along the east wall 11 there was a refrigerator, a cooler, a large trashcan. 12 And these boxes were adjacent among those particular 13 items. 14 Q Okay. And did you have an opportunity to view 15 the boxes at the Sheriff's Office? 16 Α I did. 17 Q All right. When you viewed them, they were 18 flattened; is that correct? 19 Α Correct. 20 And in doing so did you take photographs of Q 21 those? 22 Α I did. 23 Q All right. 24 MR. SARABIA: 522. 25 Q (By Mr. Labruzzo) State's 522. And do you

see evidence of bloodstains on this item?

A Yes. I identified — this was the bottom box, and this is a flap on the bottom box. And these stains here had been identified on the scene by the technician who documented this item. And these are a series of castoff stains with some passive drip stains that are adjacent to them or among the castoff stains. So these elongated stains here would be castoff whereas these larger stains here are considered to be passive.

Q All right. And having reviewed the FDLE reports as it relates to the DNA evidence collected from these boxes, what can you tell the jury about the DNA that was on these boxes?

A It was identified to Nicholas Leonard.

Q All right. Thank you, ma'am. This is State's --

MR. SARABIA: 523 and 524.

Q (By Mr. Labruzzo) -- 523 and 524. Ma'am, can you describe what we're seeing in these photographs?

A This is the top of the flap on the upper box.

And these are castoff stains. And this is two separate castoff patterns. And I identified them with a large scale. These are kind of like the castoff patterns I showed you earlier that aren't necessarily linear. They are more of a — had a longer surface of which to come

1 off of. And they were distributed on top of the lid of 2 that box. 3 Thank you. I think we are done with 0 Okay. 4 the -- for this time we're going to move from the west 5 garage -- oh, one more photograph. Forgive me. 6 MR. SARABIA: 541. 7 (By Mr. Labruzzo) Yes. Ma'am, in reviewing Q the evidence, there was a mattress top that was 8 9 collected, correct? 10 Α Yes. 11 And having reviewed the reports, it was in a 12 trash bag. Do you remember where that was located in 13 the house? 14 Α It was located in the west garage over near 15 where what we were just talking about, where the items 16 were over here (indicating). They were in trash bags 17 that were kind of piled up over in here in this general 18 area (indicating). 19 MR. LABRUZZO: Okay. Can you zoom out a 20 little bit for me, please. A little more. All the 21 way out. 22 Q (By Mr. Labruzzo) All right. Ma'am, when you 23 went to the Sheriff's Office, did you have an 24 opportunity to really open it up and take a look at it? 25 Α I did.

Q Okay. Did you spend some time looking at the stains that were located on this mattress top?

A I did.

Q All right. This is kind of an overall picture, State's Exhibit --

MR. SARABIA: 541.

Q -- 541. Let's start with just a general description of what you had and then we'll get into some of the more specific stains that you observed.

What can you tell the jury about the appearance of the stains that are located here?

A This mattress top had a whole lot going on with it. One of the stains that I was most drawn to at first was the saturation stain that's basically in the center of the mattress top. And what the significance of that is the blood source was allowed to lay there for a period of time after incurring bleeding injuries. So that was the first thing that drew my attention.

And then as you look around, there are stains and patterns that radiate out away from that central saturation stain. What is interesting about those is they radiate uniformly around the saturation stain here, and then all of a sudden down here at the bottom of the saturation stain there's nothing (indicating).

So that's a void, because I have a very uniform

distribution of multiple stains that are not broken up, very consistent, and then I have nothing. So I felt comfortable in opining that that was most likely where the body of Mr. Leonard was laid.

And that as the blunt trauma event was occurring, there was very little movement on his part because the impact stains that are in blue, they're the little blue markers with the little blue arrows, are basically on either side of this, and they have that very traditional conical radiating pattern. There's two of them here (indicating).

- Q Let me stop you there. The blue -- you marked this with photo markers, correct?
- A Yes. I use a number, letter, and color because it's just easier for me.
- Q All right. And so we're talking about the blue ones first. You identified the blue stains as what?
 - A As impact spatter.
- Q All right. And I just wanted to make sure we're clear on this, because you're going to soon reference some of the other ones. Continue about what else you see in this photograph?
- 24 A The other thing I see are distinct linear
 25 castoff patterns that also gravitate around this entire

saturation pattern. And the interesting thing is is that there were five distinct ones that I felt comfortable when identifying as five distinct individual castoff patterns. And they also radiate out away from the pattern.

And the way that I have identified those so that they're not confused with the impact spatter is they have orange stickers. And the beginning of the patterns are designated by the L scales. And then there's little orange stickers that help you to see the length and the individual stains that are part of that particular pattern.

So you would have — there's a pattern here (indicating). There's a pattern up here (indicating). There's a pattern here (indicating). There's a pattern here (pattern). And then there's also a pattern which is all the way at the corner kind of off by itself, which was interesting because there was some castoff stains in the bedroom I believe this item to be in that would be consistent with that.

Q Okay. Let's kind of go dig a little bit deeper into some of the things that you observed.

MR. LABRUZZO: What's the next?

MR. SARABIA: 543.

MR. LABRUZZO: 543.

Ma'am, can you 1 0 (By Mr. Labruzzo) All right. 2 describe what we're -- in relation to what you were 3 talking about a minute ago, what do you see represented here in this photograph? 4 5 Α This is just a close-up. You can see a little 6 portion of the saturation stain down here. 7 these are the -- this is the blue marker. This is my 8 number two of the two patterns I identified. And I have 9 used the blue arrows to help define the conical fan-like 10 nature of the impact spatter pattern. So those stains 11 look very different in appearance than they do to this 12 particular stain, which is in the orange, which is more 13 linear and is your castoff. 14 The other thing that's of interest about these 15 particular stains is these are smaller in nature and are 16 traveling out away from the saturation stain. 17 0 Okay. So you have a good mixture of both 18 castoff and impact here? 19 That's correct. Α 20 Q Okay. 21 MR. SARABIA: 540. 22 Q (By Mr. Labruzzo) All right. Can you 23 describe for the jury what's represented here in State's 24 540?

This is a castoff stain I labeled as area A

25

Α

that is next to the actual saturation stain. What is of interest of this particular pattern is that it's altered. There appears to be item wiping or dilution that has been introduced to those particular stains.

- Q Okay. And this is a castoff stain?
- A Correct.

Q All right.

MR. SARABIA: 539.

A This is an overall view of the stains in relationship to each other. So you can see that the impact spatter stain remains relatively close to the actual saturation stain where it's located as opposed to the castoff which actually radiate out away from the castoff — or away from the saturation stain.

And this stain in particular here (indicating), this castoff stain is a very traditional linear castoff stain and has — it's got darker of volume of blood in it and it has distinct directionality traveling out away from the saturation stain.

Q The fact that that castoff stain has darker saturation, can you gain any insight as to what would cause that?

A There's two possibilities based on the dynamics of this scene in particular. One is that at the time that castoff was distributed, the item that

distributed the castoff was heavily saturated with blood and was able to deposit stains with significant more volume than in some of the other stains and/or it did not receive any dilution. It was not altered like some of these stains that you see down here (indicating).

MR. LABRUZZO: Okay. Next photograph, please.
MR. SARABIA: 538.

Q (By Mr. Labruzzo) Okay. State's 538. We're kind of moving around this main saturation stain. Can you describe what you see here in this stain?

A This is once again just an overall showing the relationship. And this is actually a better picture that shows the relationship of the spatter stains that are relatively close to the actual saturation stain and how the castoff stains actually radiate out at varying areas around the saturation stain, and they radiate out away from the saturation stain. The interesting thing about showing the relationship to each other indicates movement of the particular item that was flinging the blood.

Q Okay. So movement not of the person but maybe of the actual item?

A Of the item. The item that is flinging this blood was being swung in varying motions and varying ranges as opposed to where the impact spatter is very

```
1
    confined around the saturation stain. I do not get the
2
    feeling that the source of this blood moved very much at
 3
    all during the blood event on this particular item.
 4
         Q
               Okay.
 5
              MR. SARABIA: 537.
 6
               (By Mr. Sarabia) All right. In State's 537,
         Q
 7
    this is that heavily saturated castoff you were talking
    about?
 8
 9
         Α
               Yes.
10
              MR. LABRUZZO: Okay. Show the next
11
         photograph.
12
              MR. SARABIA:
                            536.
13
               (By Mr. Labruzzo) Can you describe what we're
         Q
14
    seeing here in 536?
15
               These are just more overall photographs with
         Α
16
    the castoff pattern in relation to an impact stain.
17
              MR. LABRUZZO: Okay. And the next photograph?
18
              MR. SARABIA:
                           535.
19
         Q
               (By Mr. Labruzzo) Back into that?
20
         Α
                    More a general photograph showing the
               Yes.
21
    distinct differences in the patterns.
22
              MR. LABRUZZO: All right. And the next
23
         photograph?
24
              MR. SARABIA:
                             534.
25
         Q
               (By Mr. Labruzzo) All right.
```

A That's a close-up of the spatter stain identified as Area 1. What's interesting about that, it doesn't have as many stains in it as the other one, but it still has your conical pattern radiating out away from the saturation stain, and the pattern and the stains radiate out away from the saturation.

Q All right.

MR. SARABIA: 542.

Q All right. A new area. Let's talk about State's 542. Can you describe for the jury, I guess, where on the mattress is this and then what is represented by way of stains on this from this area.

A This castoff pattern is on the corner of the mattress pad. And it was actually off by itself. It was away from the other patterns that were kind of confined around it. And the conclusion that can be drawn from that is there was a longer range of motion with the item when it was being swung that caused that saturation — or excuse me — that castoff stain to be so much further away.

Q And how would that work? Can you explain what range of motion would cause that?

A Because the item itself has been allowed to travel further. So, for example, if I have this particular item and my range of motion is controlled to

this as opposed to this (indicating), you can see where the further back I go and the further up I go with the item, the further castoff is allowed to travel, as opposed if you have more deliberate, more confined movement, you're castoff pattern is limited to the swinging of the item.

Q Okay. You also mentioned that there was other evidence that you observed in the southeast bedroom.

I'll go back to State's Exhibit 59. That was kind of the interplay between that corner and this room?

MR. SARABIA: 561.

A Yes.

Q (By Mr. Labruzzo) Okay. What are we looking at here in State's 561?

A This is one of the curtains that was hanging on the south window in Room A. And when I looked at these items, I identified a castoff pattern on this curtain.

Q Okay. And that's what you've marked here with your photo markers?

A Yes. I believe these are yellow. And then there's a transfer stain that's also near this castoff. And then there was another stain over here a little bit further away that I identified with a marker.

Q Okay.

MR. SARABIA: 560.

A This just shows that when the castoff was distributed on this particular curtain, that it was in a distinct downward directionality. Because you have very, very distinct the beginning of your bloodstain and then your elongated tail. And the other thing that that tells me is because the stain in itself is so elongated and so long, that the item that was being swung was close to that curtain.

MR. SARABIA: 559.

A This was just a stain that -- I use little markers in the middle of the pattern to help identify individual stains. And this is another stain with exactly the same dynamics to it. It has downward distribution to it. And what's interesting, it has a little bit of a blood volume that coagulated down here at the bottom of it (indicating).

Q Okay.

MR. SARABIA: 558.

A This was also a drip stain or a castoff stain that actually I identified as castoff that was on kind of the side away from the very elongated pattern.

MR. LABRUZZO: All right. Just one moment,
Your Honor.

Q (By Mr. Labruzzo) All right. All right.

```
Ms. Cox, we've kind of gone from the upstairs southeast
 1
                                       I'd like to return --
2
    bedroom down to the west garage.
 3
              MR. VIZCARRA: Judge, can we approach very
 4
         briefly?
 5
               THE COURT: You may.
 6
     (Bench Conference.)
 7
              MR. VIZCARRA: Judge, I just need five
 8
         minutes.
 9
               THE COURT:
                          You need to use the restroom?
10
              MR. VIZCARRA: Please.
11
               THE COURT: Okay.
12
     (Open Court.)
13
               THE COURT: Ladies and gentlemen, I think we
14
         need a restroom break. So we'll go ahead and take
15
         you into the jury room, and remind you not to talk
16
         about the case. And whenever you-all are ready,
17
          just let me know.
18
               THE BAILIFF: The jury is out of the hearing
19
         of the Court.
20
     (Recess.)
21
     (Open Court.)
22
     (Defendant Present.)
23
     (Jury Absent.)
24
                            Are we ready, Judge?
               THE BAILIFF:
25
               THE COURT:
                          We are. Bring the jury back in.
```

```
1
               I note for the record everyone's here,
2
          including the defendant.
 3
               THE BAILIFF: Jury entering the hearing of the
         Court, Your Honor.
 5
               THE COURT: All right. Thank you.
 6
     (Jury Present.)
 7
               THE BAILIFF: All jurors present and seated,
 8
         Your Honor.
 9
               THE COURT: All right. State, you may
10
         proceed.
11
                              Thank you, Your Honor.
              MR. LABRUZZO:
12
               (By Mr. Labruzzo) Ms. Cox, I've put up on the
    monitor State's 202 and State's 203.
13
14
         As I mentioned right before the break, I'd like to
15
    move to a different room of the residence.
16
         Are you familiar with the photographs that are
    shown here?
17
18
         Α
               Yes.
19
              Could you just show us in State's 59 where
20
    those are?
21
               These stains were located in the master
         Α
22
    bedroom on a light switch over in this area
23
     (indicating).
24
              Okay. Thank you, ma'am.
         Q
25
              MR. LABRUZZO: And, Mr. Sarabia, if you could
```

1 just kind of move this one up a little more so we can talk about it. 2 3 (By Mr. Labruzzo) All right. Were you able 4 to analyze any of the bloodstains that were on this 5 item? 6 Α I identified that as a transfer stain. 7 Okay. And in reviewing the FDLE reports 8 related to the transfer stain here (indicating), were 9 you -- were they able to identify the DNA that was a 10 part of that transfer stain? 11 Α Yes. It was identified as Megan Brown. 12 Thank you. Q Okay. 13 MR. SARABIA: 200 and 201. 14 Q (By Mr. Labruzzo) All right, ma'am. 15 going to show you what's again is 200 and 201. We're 16 still in this master bedroom area. Do you see, I quess, 17 in the overall picture where stain MBRF was located at? 18 Α Yes, I do. 19 Could you identify it for the jury, please. Q 20 It is located between the bed and the dresser Α 21 over here on the floor (indicating). You can see this 22 is the tile walkway that provides access to the closet. 23 And this is the general area that this particular stain 24 was located at (indicating). 25 Q Okay. And upon reviewing the FDLE DNA analyst

```
report, were they able to identify this -- what type of
 1
 2
    stain event, I guess, I should ask first?
 3
         Α
               That's a very small stain consistent with
 4
    impact.
 5
              Okay. And were they able to identify the DNA
         Q
 6
    associated with that impact stain?
 7
         Α
               Yes.
                     It was identified as Megan Brown.
              Okay. Thank you.
 8
         Q
 9
              MR. SARABIA: 199 and 198.
10
              MR. LABRUZZO:
                              Thank you.
11
                                  State's 199 and 198.
         Q
               (By Mr. Labruzzo)
12
    like to -- again, this is kind of an overall photograph
    of the floor of the master bedroom. I see you've
13
14
    identified there is that tile walkway that leads to the
15
    bedroom. And were you able to analyze the stain that
16
    was located at the photo marker MBRV?
17
         Α
               Yes.
                     That photo marker identified the stain
18
    that's located here at the foot of the bed (indicating).
19
    And that is also consistent in appearance, size and
20
    shape, with impact stain.
21
         Q
              And upon reviewing the FDLE DNA analyst
22
    report, were they able to identify the blood as it
23
    relates to that impact stain?
24
         Α
                     It was identified to Megan Brown.
25
              MR. SARABIA:
                             205, 206.
```

1 0 (By Mr. Labruzzo) Okay. There we go. State's 205 and State's 206. 2 3 Where on State's 59, the diagram, is this stain 4 located at? 5 This stain is actually at the threshold of the Α 6 master bedroom closet. And that closet is located right 7 here (indicating) in relationship to the bedroom. this would be the tile walkway I identified earlier and 8 9 this would be the entrance into that closet area 10 (indicating). 11 Q All right. And referring to the closeup of 12 MBCA, were you able to analyze that area to determine 13 whether or not that was -- what type of stain that was? 14 Α I identified that as a transfer stain that has 15 been altered due to dilution. 16 A transfer stain? Q 17 Α Correct. 18 MR. LABRUZZO: Can you zoom in a little bit on 19 that for me, Mr. Sarabia. 20 (By Mr. Labruzzo) Okay. Can you just Q 21 describe what allows you to say that's a transfer stain? 22 Α You've got the dynamics here of a broken 23 It doesn't have any distinct markings. poriferal. 24 faint. It's got more blood volume in one area than the 25 other.

```
1
         0
              All right. And upon reviewing the FDLE
    analyst report related to the swabs collected from this
2
 3
    location, were they able to identify DNA that was
    collected from this area?
 4
 5
         Α
                     It came back to belonging to Nicholas
               Yes.
 6
    Leonard.
 7
         Q
              Okay. We go inside the closet.
 8
              MR. SARABIA:
                             215.
 9
              MR. LABRUZZO: 250?
10
              MR. SARABIA:
                             215.
11
              MR. LABRUZZO: 215.
                                    That's a little out of
12
          focus, Mr. Sarabia. It's out of focus.
13
               (By Mr. Labruzzo) Ma'am, State's 215 shows a
14
    stain inside of the closet which you've just identified.
15
    What can you tell us about the nature of this stain?
16
         Α
               That is a saturation stain. That is also
17
    sublet flooring and that is inside the closet.
18
              All right. And maybe not shown in this
19
    photograph, but there are other photographs where they
20
    actually removed the piece of plywood; is that correct?
21
         Α
               Yes.
22
         Q
              And did they take pictures of the, I guess,
23
    the trusses underneath the subflooring?
24
         Α
               I believe they did, yes.
25
         Q
              All right. Could you see whether or not the
```

saturation moves through this subfloor to this foyer?

A I recall seeing a photograph where a truss was saturated with blood. I can't recall if it was in Room A or if it was in the closet.

Q Okay. Being in the closet, were there other items of clothing — and you can see some in the photograph. And there's a shoe rack there. Was there an item of note that was collected from the closet that you analyzed for bloodstains?

MR. SARABIA: 562.

Q (By Mr. Labruzzo) 562.

A Yes. In the original photographs that I viewed that were taken of the scene, there were documentation of shoes that were on that white wire shoe rack that was directly adjacent to that saturation stain. And this was actually one of the shoes that was in very close proximity to that saturation stain, and it was up on that wire shoe holder. And it has a visible transfer stain along here (indicating). You can see along the seam line here. And then a little bit of it had enough blood volume such that it was able to coagulate a little bit down here where the sole of the shoe actually meets the fabric.

Q Okay. All right.

MR. SARABIA: State's 514.

```
(By Mr. Labruzzo) All right. I'm going to
1
         0
2
    show you what's been introduced as State's --
 3
              MR. SARABIA: I'm sorry. Let's start with
          513.
              MR. LABRUZZO: 513?
 5
 6
              MR. SARABIA: Yes.
 7
         Q
               (By Mr. Labruzzo) All right.
                                              What is this
8
    item?
 9
               This was identified as a blanket that was
10
    found in the east garage.
11
              Okay. And just from looking at State's
         0
12
    Exhibit 58, the east garage is located over here
13
     (indicating)?
14
         Α
              Correct.
15
         Q
              Okay. And this is a photograph that you took
16
    at the Sheriff's Office?
17
         Α
               That's correct.
18
              And kind of laid it out to look at it,
         Q
19
    correct?
20
         Α
               I did.
21
              All right. Did you find evidence of
22
    bloodstains that were of particular note for you?
23
               Identified -- one of the stains that
         Α
24
    immediately drew my attention was this large saturation
25
    stain right here at this portion of the blanket
```

(indicating). And basically that saturation stain indicates that an item was allowed to bleed there freely for a period of time.

But in analyzing the rest of this particular item,
I noticed that there was a spatter stain that was on
this particular item that would not have been available
in the condition that it was documented at the scene to
receive a spatter pattern, so it was of great interest
to me.

Q Are you saying the way -- because the original photographs on scene show that this blanket is kind of wrapped around itself, correct?

A Yes. This blanket is actually identified in an area with a rug and it's kind of all crumpled together.

Q Okay.

A And there are portions of this rug -- or, excuse me -- this item that are visible protruding out from the rug, but it's primarily the areas of saturation and some of the transfer stains around it.

Q All right.

MR. SARABIA: 514.

Q (By Mr. Labruzzo) All right. Now, what's shown here in State's 514?

A This is the area that I identified as the

spatter pattern. And I identified it with a red marker.

And it has a very distinct conical pattern to it, a

conical nature to it, and the stains are very small.

And I actually because of the nature of how this item was discovered, it was discovered kind of crumpled up, I wanted to make sure microscopically that those stains were, in fact, consistent with spatter before I identified them as spatter because of the nature of how they were found.

I have a portable microscope that I actually take with me. And the reason that I can do that is because spatter reacts with fabrics completely different than a transfer stain would. And the reason is because the amount of force that is associated with the spatter pattern was distributed.

So basically what happens is the force of the spatter pattern actually projects the blood into the fibers. So you have typically a very nice uniform shape of the spatter, the blood volume is fairly consistent, the stains are all relatively the same size. However, transfer does not have as much force behind it. So basically transfer cannot force the blood into the fabrics the way that an impact event can.

So what happens then is your transfer actually lays right on top of your fabrics and it's very disjointed

```
1
    and it becomes broken. The blood volume is irregular.
    The size of the stain is irregular, and it doesn't
 2
 3
    penetrate even down into the lower weave of the knit.
 4
    We can't see that with the naked eye because the stains
 5
    are so small, so we have to use a microscope in
 6
    situations like that.
 7
              MR. LABRUZZO: Show us the next photograph.
              MR. SARABIA: 215.
 8
 9
         Q
               (By Mr. Labruzzo) That's kind of a close-up
10
    of that area?
11
         Α
              Yes.
                    So here is -- this scale is a larger L
12
    scale and it actually shows you the perimeters of this
13
    particular spatter pattern. And you can see the
14
    direction of the spatter pattern is radiating, the way
15
    it's radiating it toward the interior of the blanket.
16
    And I documented, I believe, three stains within this
17
    pattern, and all three were consistent with spatter.
18
              Okay. Thank you.
19
              MR. LABRUZZO: Next photograph, please.
20
              MR. SARABIA:
                             545.
21
               (By Mr. Labruzzo) All right. Now, this is an
         Q
22
    overall picture shown in State's 545.
23
         What is this item?
24
               This item is a fitted sheet. And this item
         Α
25
    was bundled up with a bunch of other items that were
```

recovered from the master bedroom bed. 1 2 Okay. And you at the Sheriff's Office took an 3 opportunity to open it up and look at it; is that 4 correct? Α I did. 5 6 Your photograph shows the particular area of 7 note. Can you describe what you are noting in that 8 area? 9 Α This fitted sheet had two areas of an 10 irregular stain that I viewed at first. The first stain 11 is very faint in appearance. It was almost pink. But I 12 thought, you know, I'm going to go ahead and test it 13 because it looks like it might be mixed in with 14 something else. So I went ahead and tested and I got a 15 very faint indication for blood using a chemical known 16 as Phenolphthalein. And that is a presumptive test to 17 identify blood. And I got a very faint positive result. 18 So I documented it and took note of it. 19 And then there was another stain that was darker 20 further -- a little bit away from this particular stain 21 that I identified as Area Number 2. 22 MR. LABRUZZO: All right. Can you show us the 23 next photograph, Mr. Sarabia. 24 MR. SARABIA: This is 547. 25 MR. LABRUZZO: All right. Can you turn it on

1 its side. 547 and --MR. SARABIA: 2 3 (By Mr. Labruzzo) All right. Can you Q 4 describe for us what is shown in these two photographs? 5 Α What was really interesting about this stain 6 is it did not have a lot of blood associated with it. 7 And upon first visual inspection I thought that maybe it 8 might be mucal membrane or something of the such. 9 went ahead and tested it to see if there was the 10 possibility of blood and it did came back as positive 11 for blood. 12 So then what I did was I went ahead -- and because 13 with the naked eye I really can't determine exactly what 14 type of stain this is, I also opted to photograph it 15 microscopically as well. And the interesting thing 16 about it is there's this thing here that's like a 17 bridging kind of between these two stains. And in my 18 experience -- the stain was not tested, but in my 19 experience, it's consistent in appearance with something 20 such as a tissue or skin just by its appearance and my 21 experience. 22 Q All right. 23 544. MR. SARABIA:

(By Mr. Labruzzo) Okay.

sheet shown in 544. Can you describe what we're looking

This is that same

24

25

Q

at here?

A This is the first thing that I tested that was very, very faint. And you can just barely see it. It's located right here and it kind of extends down a little bit this way (indicating). It's got a heavier deposition up here in this particular area (indicating).

Q Okay.

MR. SARABIA: 121.

Q (By Mr. Labruzzo) All right. Moving to a different area of the residence. Let's kind of --

MR. LABRUZZO: Perfect.

This is State's Exhibit 58 that I'm referring to.

Q (By Mr. Labruzzo) Can you reference on the diagram where this photograph was taken?

A This photograph was taken -- this is the lower portion of the stairs. The dining room is on the upper level (indicating) and there was a stairwell that provided access to the lower level. So this would be this access from the dining room.

There's a landing here that -- where the steps actually turn and then they go down into the room identified as Room K. That is the portion of the steps that we're looking at right here (indicating). So this would be the landing and this would be the floor and

```
this would be the beginning of the Room A -- or, excuse
 1
2
    me -- K (indicating).
 3
              MR. LABRUZZO: Okay. Next photograph, please.
              MR. SARABIA:
                             122.
 5
               (By Mr. Labruzzo) Okay. So were you able to
         Q
 6
    analyze some of the photographs that were collected by
 7
    the Sheriff's Office of this stairwell area?
 8
         Α
              Yes.
 9
         0
               Okay. And in those areas did you find things
10
    of particular note?
11
         Α
                    There was a stain that was identified as
               Yes.
12
    Stain A that was located on the lip of the --
13
              MR. SARABIA: This is 232.
14
         Α
               -- on the lip of the edge of the landing.
15
    call it the edge; the lip of it.
16
         Q
               Okay.
17
         Α
              But what was significant, it's a transfer
18
    stain. But what's significant about it, the transfer
19
    stain had sufficient volume such that some of the blood
20
    actually kind of ran over the side of the lip and then
21
    pooled down here at the bottom of the stain
22
     (indicating).
23
               Okay. Transfer stain being consistent with
24
    what?
25
         Α
              An item was contaminated with blood and
```

```
touched that part of the step and left that blood
 1
    transfer stain there.
 2
 3
              MR. LABRUZZO: Okay. Next photograph, please.
              MR. SARABIA:
                             231.
               (By Mr. Labruzzo) The same area of the house.
 5
         Q
 6
    This is 231 and it shows a photo marker with the label
 7
    Stairs C. What can you tell us about this?
               I believe that did not test positive for
 8
         Α
 9
    Phenol., so I did not use that in my analysis.
10
         Q
               Okay. Okay.
11
              MR. SARABIA:
                            382.
12
               (By Mr. Labruzzo) All right. We are moving
13
     into a different area of the residence.
14
              MR. LABRUZZO: Can you say that number again,
         Mr. Sarabia?
15
16
              MR. SARABIA:
                             382.
17
               (By Mr. Labruzzo) State's 382.
         Q
18
         Can you identify where on the Diagram 58 this
19
    photograph is taken?
20
         Α
               This door (indicating) -- this was kind of a
    unique area within the residence. This door that we see
21
22
    in this picture is actually this door that opens out to
23
    the west (indicating). It provides access to Room K,
24
    but it actually opens into what I identified as the
25
    northeast small hallway of the garage.
```

1 Q Okay. So what you're seeing here is the door in the 2 3 open position against the north wall of that northeast 4 hallway (indicating). 5 All right. And we see in this photograph that Q 6 there are a number of photo markers that were placed 7 there by the Sheriff's Office, correct? Correct. 8 Α 9 Have you had an opportunity to look at some of 10 the close-ups of those area? 11 Α I did. And I would assume some of them were 12 13 photographs taken preprocessing and then they were later 14 processed to develop further; is that correct? 15 That's correct. Α 16 All right. I'd like to show you State's 17 Exhibit --18 MR. SARABIA: 383 and 384. 19 (By Mr. Labruzzo) Okay. Well, let's -- okay. Q 20 These are the photo markers that were identified on the 21 last photograph. 22 What can you tell us about the nature of these 23 markers? 24 This is considered to be a transfer stain. Α 25 And the chemical here has been applied and it has done

what we call chemical enhancement. And that just 1 2 basically allows some of the blood that may not have 3 been as visible to become enhanced to make it more visible. 5 And what that allows us to do is if there's a 6 pattern that we think might be a transfer pattern that 7 might be identifiable, we'll use that chemical in order to make that possible. So that's -- a chemical was 8 9 applied here and that particular transfer stain is 10 consistent in appearance to me with a handprint. 11 Q Okay. Having reviewed the FDLE analyst 12 reports as it relates to the stains collected from --13 this is State's Exhibit --14 MR. SARABIA: 384 still. 15 Q (By Mr. Labruzzo) All right. 384. The swab 16 was labeled JJ. Was the FDLE analyst able to identify 17 the source of this stain as it relates to the DNA 18 evidence? 19 Α Yes. It came back to Margaret Brown. 20 Q Okay. 21 MR. SARABIA: 385. 22 Q (By Mr. Labruzzo) All right. 385 represents 23 a stain that's labeled HH by the photo marker. 24 you tell us about the nature of this stain?

I identified this as a small or minor spatter

25

Α

And that's because the distribution and the 1 2 size, shape, and pattern of the stain is completely 3 different than the stain that we just saw. 4 previous stain was a transfer stain. These stains are 5 more consistent in appearance with a minor spatter 6 event. 7 And the interesting thing about these stains is 8 they have a very small conical appearance, this way to 9 this way (indicating). And then you have directionality 10 downward, which indicates to me that the force was being 11 delivered in a downward motion because the drips -- or, 12 excuse me -- the spatter stains are traveling in a 13 downward direction pattern. 14 Q Okay. 15 MR. SARABIA: 462. 16 MR. LABRUZZO: Oh, go back to that. 17 sorry. 18 (By Mr. Labruzzo) Having reviewed the DNA 19 analyst reports from FDLE as it relates to the stains 20 that you observed here, were they able to come to a 21 finding as to the DNA evidence related to that stain? 22 Α My understanding is it came back to be 23 Margaret Brown. 24 Q Okay. 25 MR. SARABIA: 462.

(By Mr. Labruzzo) All right. 1 0 Looking at State's 462. You had a minute ago described this door 2 3 I'm referring to State's 58. And the that opens out. 4 door that leads from the west garage to Room K; is that 5 what's represented here? 6 Α Yes. 7 Okay. And this is a photograph taken Q 8 post-processing; is that correct? 9 Α That's correct. 10 Q Were you able to analyze this photograph to 11 determine whether or not there was bloodstain evidence 12 on it? 13 Α Yes. 14 Q All right. What can you tell us about that? 15 Α These three stains were identified prior to 16 processing. And after processing of the door, only 17 these two stains enhanced, which is indicative of the 18 presence of blood. So those were the only two that I 19 analyzed, and they would be considered transfer stains. 20 And their relationship to each other is significant 21 because it's right near the door handle and the door 22 latch. 23 Then a bloodstain actually enhanced that wasn't

visible -- completely visible prior to enhancement.

that's not uncommon when we do chemical enhancement

24

25

because the purpose is, you know, you're not going to be able to see all the blood. Also based on the conditions of the scene and areas of alteration, it's also not uncommon in a situation like that as well.

So over here, this stain right there on the doorframe (indicating) actually became very visible after enhancement. And because of the fact that I knew that the blood chemical was reacting appropriately — and what I mean by that is, if it's not blood, it didn't enhance it. And that is confirmed within this picture.

So this, which was originally identified as a possible bloodstain which tested negative, upon chemical enhancement did not enhance. However, this did, so I felt that it was, you know, possible for me to opine that that is a transfer swipe pattern which is consistent in linear shape with evenly spaced voids with fingers.

MR. SARABIA: 371.

Q (By Mr. Labruzzo) All right. So we're still in this west garage area. We kind of already talked about the boxes that are located here in 371. You've also already mentioned a refrigerator. And this is shown by Photo Marker Z.

MR. LABRUZZO: Which State's photograph is that?

MR. SARABIA: 373. 1 MR. LABRUZZO: Thank you. 2 373. 3 (By Mr. Labruzzo) Were you able to view this Q 4 and determine whether or not that was a bloodstain? 5 Α Yes. I saw these photographs were taken on 6 the scene and I viewed these photographs. 7 Okay. And what can you tell us about the Q 8 nature of this bloodstain at Photo Marker Z? 9 At Photo Marker Z, they are two stains that 10 are part of a possible pattern. There's actually four 11 stains that were identified on this particular item. 12 And the dynamics of that, because of their relationship 13 to each other being a little bit further apart and 14 one -- and two being on the side and one being on the 15 actual shelving area, that I could not exclude passive 16 drip stains and I also could not exclude castoff. So 17 both of those can be included in the analysis. 18 All right. Having reviewed the FDLE analyst 19 reports relating to the DNA analysis done on this swipe 20 or this stain from Z, what can you tell the jury about 21 that? 22 Α It came back to be Margaret Brown. 23 All right. Q 24 376. MR. SARABIA: 25 Q (By Mr. Labruzzo) All right. What's shown in

1 State's 376? What can you tell us about the stains that were located here? 2 3 Α These stains -- okay. These stains are on the 4 actual floor of the garage. There was a cooler that was 5 in front of the refrigerator. And these would be 6 considered passive drip stains. And there's also 7 passive drip stains down the side of the cooler. 8 MR. SARABIA: 374 and 375. 9 0 (By Mr. Labruzzo) All right. And that's 10 what's shown there at the Photo Marker FF; is that 11 correct? 12 Α Yes. 13 And what type of stains were those again? Q 14 Α Those are passive. Those are passive drip 15 stains. 16 Q Okay. 17 MR. SARABIA: 388. 18 (By Mr. Labruzzo) All right. So we've 19 already talked about the door that's kind of shown here 20 in 388. That's this doorway that's located right here 21 (indicating). 22 I want to point your attention specifically to the 23 wall opposite of the wall we just talked about. So that 24 would be this short area right here on State's 58 25 (indicating). Is that what's represented here

(indicating)? 1 Α 2 Yes. 3 All right. And did you have an opportunity to 0 4 review the photographs related to that wall? 5 Α I did. 6 And what can you tell us? 7 That wall was almost a mirror opposite of the Α north side of the wall. They were in very close 8 9 proximity to each other. And the interesting thing 10 about this wall was there were stains that were up high 11 up on the wall here, as you can see by this scale 12 indication (indicating). And upon enhancement, they 13 became consistent in appearance with a handprint. 14 MR. SARABIA: 395. 15 Α And you can see -- you've got a handprint over 16 here (indicating). And you can see the enhancement that 17 was developed here with the actual chemical that they 18 used. 19 Okay. You indicated positive indications for 20 the presence of blood? 21 Α Correct. 22 Q Okay. 23 MR. SARABIA: 391. 24 (By Mr. Labruzzo) This is that same wall. Q 25 We're now looking at a lower portion of it.

What can you tell the jury about the stains that were observed there?

A These stains are visibly different in appearance than the transfer stains that we saw above them. But the interesting thing is that they are in close proximity on the — it's a very small access—way. So these are drip stains, passive drip stains, that are coming down the wall. They have — and the elongation of them and the tails indicate that the source of this blood was relatively close to the wall.

So in taking in, as I discussed earlier, the history of the scene and the dynamics of this, I felt as though those passive drip stains were deposited by somebody who had a freely bleeding injury. And I felt that their correspondence in location to the handprints were significant.

Q Okay.

MR. SARABIA: 458.

Q (By Mr. Labruzzo) All right. Ma'am, looking at State's 458, could you orientate the jury as to where this photograph would have been taken on Diagram 58?

A This is actually inside the east garage.

There was a door that provided access from the east garage into the northeast hallway of the west garage.

So that door is actually right here (indicating). The

doorway is right here (indicating). And it exists out 1 2 and you can either then turn and make a right into Room 3 K or you can go into the west garage. 4 This, what you're looking at there on the screen is 5 actually immediately next to that door. This door did 6 not have a handle in it. So this would be the actual 7 door portion (indicating). And this would be an area 8 where a doorknob could be inserted. And located right 9 here immediately next to that is a series of transfer 10 swipe stains (indicating). 11 So, I guess, if you're going to open Q Okay. 12 the door, you would have to either put your hand on the 13 wall and pull or something to that nature? 14 Α I can't exclude that, yes. 15 Q Okay. 16 State's 29. MR. SARABIA: 17 Q (By Mr. Labruzzo) All right. We're looking 18 at State's 29. Are you familiar with the photograph 19 that's shown here? 20 Α Yes. 21 And the location of where this photograph was Q 22 taken? 23 Α Yes.

I'll just point it out for you.

(indicating) we're talking now about the east garage,

24

25

Q

correct?

A Correct.

Q And we're talking about this north wall area or northeast corner of this wall (indicating), correct?

A Yes.

Q All right. What can you tell us about the bloodstains that you observed here in this photograph?

A There was a very large area of pooled blood which encompasses most of the bottom portion of this particular photograph. And surrounding this area of pooled blood, there were two other areas of pooled blood. There were also multiple transfer stains. But there's also spatter patterns. And these patterns look completely different than the spatter patterns that I had seen up to this point related to this particular incident. They were so different. They're very, very elongated. They're larger in size. And they are — they are on the floor, basically. And they radiate out away from the pooled blood.

The interesting thing is with the large pool of blood, the stains actually radiate out towards the west, whereas in the smaller pool of blood, the stains radiated out towards the east. That's two different spatter events.

Q Right. Can you identify those on this

photograph (indicating)?

A In this photograph you can only see the large pool of blood; but, I believe, you can see the large stains down here (indicating).

MR. SARABIA: 457.

Q (By Mr. Labruzzo) Go back to the other one.

Go back to the other one.

A You can see these large stains out here (indicating) that are radiating out. And a lot of it is obscured by the actual blood pooling. Because the blood is going to follow the natural laws of physics, it's going to follow the topography of the floor. So this pattern is actually starting to become obscured by the blood flowing on top of that spatter pattern. But it does actually radiate further out here and there are more distinct blood spatter pattern or spatter stains.

Q Okay.

MR. SARABIA: 557.

Q (By Mr. Labruzzo) What does that tell you?

A That tells me that one of two things occurred:
There was a source of blood that was lying on the ground
that was impacted with less force than the other spatter
patterns that I have seen before because of their size,
shape, and distribution or something was dropped into
that pool of blood.

MR. LABRUZZO: Okay. All right. And this is State's?

MR. SARABIA: 457.

Q (By Mr. Labruzzo) Okay. What can you tell us about some of these stains that you see here in 457?

A These stains were identified by Photo Marker

4. So I'll start first with the smaller pool of blood
which is located right here (indicating) at the bottom
corner of Marker 4. This is a smaller pool of blood and
these are the spatters that I indicate radiate out
towards the east.

Now, these are very elongated and there was enough force that it actually caused them to go almost up underneath the vehicle. And they radiate out along here (indicating) and they're very elongated and very — and they're larger in size. So that also tells me the same phenomenon occurred with this particular pool of blood as did with the larger pool of blood. So either something was down there on the ground that was impacted or something was dropped in that pool of blood.

Then we're able to sequence events with this particular area of pooled blood. What I mean by that is once this event occurred where the spatter was distributed on the floor, there are multiple transfer patterns that actually interrupt some of those spatter

patterns. So that tells me that this event here (indicating) occurred first and this event here occurred after altering that stain (indicating).

Then around these stains (indicating), you have multiple transfer patterns, some of which were visually consistent with possible shoe wear. And there was actually patterns that follow each other that were consistent in appearance with this that traveled towards the east side of the garage.

And then also there were areas of what had consistent linear lines that were consistent with fabric. So that led me to opine that there was actually something was bloody that was fabric that also laid on this floor near these patterns.

- Q All right.
 - MR. SARABIA: 454.
- Q (By Mr. Labruzzo) All right. Looking at State's 454 again. Now, we're still in that same area, the pin markers are being on the floor there. But I really like to focus your attention to that northeast wall located right there (indicating).
- 22 Were you able to observe bloodstains on that wall?
- 23 A I was.

Q Okay. And some are larger than others, would you agree?

1 Α Yes. 2 Let's start with some of the larger ones and 3 talk about what you observed. Α Okay. All right. Let's talk about the ones that are 5 Q 6 located right in the middle. All right. What can you tell us about those? Those are transfer swipe patterns. And what's 8 Α 9 significant about them is, A, they're low to the floor. 10 So their location is important because they're low to 11 the ground. Also what's significant about them is there 12 are flow patterns. As we discussed, flow patterns are 13 indicative of stains that have a larger volume such that 14 these particular areas of blood are able to follow the 15 natural gravitational pull and flow down. Some even 16 flow down all the way to the baseboard. 17 Then you also have some of these flow patterns here 18 are interrupted (indicating). And some of these stains 19 weren't as visible until enhancement had occurred. 20 if I remember correctly, I believe one of these stains 21 had a foreign substance in it. 22 MR. LABRUZZO: Okay. Let's zoom out, 23 Mr. Sarabia. 24 I'd like to talk about this (By Mr. Labruzzo) Q 25 corner area of the wall right here (indicating). This

area I think it was referred to as --1 486. 2 MR. SARABIA: 3 MR. LABRUZZO: Say that number again. MR. SARABIA: 486. (By Mr. Labruzzo) 486, ma'am. What can you 5 Q 6 tell us about the area on this wall? 7 This area of the wall, there was nothing 8 really visible prior to enhancement. However, when they 9 applied the chemical to this wall, very distinct stains 10 became visible. The first one of note is going to be 11 this swipe pattern that's down here fairly low to the 12 ground (indicating), visually consistent in appearance 13 with the other patterns that I had spoken about earlier. 14 But then this enhanced (indicating), and these very 15 small stains in this area are consistent with spatter 16 (indicating). 17 What's also interesting is higher up on the wall, 18 they become -- they're smaller stains that become 19 distinctly linear which is different. That's castoff. 20 So I identified area -- I identified this area as a 21 possible spatter event and/or events and there was 22 castoff up above here (indicating). 23 Q Okay. 24 MR. SARABIA: 450. 25 Q (By Mr. Labruzzo) All right. Looking at

State's 450. And I want to pay particular attention to 1 the item that was located --2 3 MR. SARABIA: 448. 4 Q (By Mr. Labruzzo) -- let's start with the 5 pillow and pillowcase first. 6 Let's start with the pillow and pillowcase 7 first. And did you have an opportunity to analyze and look 8 9 at the pillowcase at the Sheriff's Office? 10 Α I did. 11 All right. Q 12 MR. SARABIA: 527. 13 (By Mr. Labruzzo) All right. And these are Q 14 photographs that you took? 15 Α They are. 16 I mean, there's a lot of stuff going on with Q 17 these pillowcases. Can you just give us an 18 understanding of what type of stains these are? 19 That is what I would call a large saturation Α 20 stain that almost completely encompasses the entire 21 pillow on this particular side (indicating). And there 22 are corresponding large saturation stains which are on 23 the pillow and that's consistent with the pillowcase 24 being on the pillow. 25 However, there is a distinct stain or distinct

pattern on this pillow that's completely different than 1 2 the spatter stain and it is already impact spatter. 3 Pardon. 4 Q Okay. MR. SARABIA: 530. 5 6 (By Mr. Labruzzo) You see it on this Q 7 photograph (indicating)? 8 Α No. It's actually on the pillowcase. 9 MR. LABRUZZO: Show us the pillowcase. 10 MR. SARABIA: 529. 11 Α So this would be the portion of the pillowcase 12 that you insert the pillow into (indicating). This is 13 the very large saturation pattern (indicating). 14 then here highlighted in the green arrows is an impact 15 spatter pattern (indicating). 16 528. MR. SARABIA: 17 Α And this actually is kind of hard to see 18 because the saturation actually started to wick and 19 begin to obscure the pattern. But you can still see 20 some of the radiating small stains that would be at the 21 top of the pattern, which would place the area of origin 22 of where the source of blood was when it was impacted 23 further onto the pillow, which is consistent with where 24 the saturation pattern is.

(By Mr. Labruzzo) All right.

Upon reviewing

25

Q

1 the FDLE analyst reports related to the pillow and the pillowcase, were they able to provide an identification 2 3 as to the DNA located on those items? Α Yes. And what were they able to tell us? 5 Q 6 Α They belonged -- the DNA belonged to Nicholas 7 Leonard. 8 All right. That was an item that was located 9 in -- we're still talking about items located in the 10 east garage, correct? 11 Α It was bundled up in a rug in the 12 corner. 13 MR. SARABIA: 561. 14 Q (By Mr. Labruzzo) All right. What is shown 15 here in State's 561? 16 This is a brown comforter, blanket that was Α 17 also found bundled up with that pillow we just 18 discussed. And that was located in the rug in the 19 corner. 20 Q Okay. And did you analyze it to see whether or not there was bloodstains on there? 21 22 Α I did. There were saturation stains and 23 transfer stains on this particular item. And one of the 24 transfer stains was consistent in appearance with the 25 shoe wear.

```
1
         Q
               Okay.
                             562.
               MR. SARABIA:
2
 3
               (By Mr. Labruzzo) Is that what we're talking
         Q
    about here in State's 562?
 4
 5
         Α
                     This is the pattern that was consistent
               Yes.
 6
    in appearance with the shoe wear.
 7
               All right. Would that be accurately described
8
    as a transfer stain?
 9
         Α
               Yes.
10
         Q
               Okay.
11
               MR. SARABIA: 563.
12
               (By Mr. Labruzzo) And this is of that same
13
    rug just a different portion you identified there's a
14
    saturation stain on it as well?
15
         Α
               And multiple transfer stains and everything
16
    around the saturation.
17
         Q
               Okay.
18
               MR. LABRUZZO: Next photograph, please.
19
              MR. SARABIA:
                             560.
20
               (By Mr. Labruzzo) And that's that same item?
         Q
21
         Α
                     These are just additional photographs.
22
    I take photographs from different angles.
23
         Q
               Okay.
24
               MR. SARABIA:
                             568.
25
         Q
               (By Mr. Labruzzo) All right.
                                              What is
```

represented here in State's 568?

A This is a white blanket that was also recovered among that brown comforter and the pillow inside of that rug. And this demonstrated some very interesting patterns in and of itself, the first being this large transfer pattern that's located on one side of this item.

MR. SARABIA: 567.

A So I documented that with a large scale just to show the size of it. And it's a large volume transfer pattern. And the interesting thing is is that you can tell this transfer pattern was actually distributed when this blanket was partially folded because you have these voids, which is where the fabric actually creased. So the fabric was actually creased and then the blood was deposited while it was in the creased position which is why you have these undersides of these folds that have the blood.

Q Okay.

MR. SARABIA: 566.

Q (By Mr. Labruzzo) Is this the same sheet we're talking about?

A Yes. This is the same sheet that we -- that I was just speaking with that had the large transfer stain. I identified these -- this particular pattern,

this is actually a castoff, and it is identified by the 1 2 purple ringlets. And the purple ringlets identify 3 different stains within the pattern, has those very 4 elongated appearance and the distribution of it is 5 consistent with a spatter pattern radiating in towards 6 the center of the item. 7 Q Okay. MR. SARABIA: 8 569. 9 Α This is also on the same item. And this is 10 also a castoff pattern, but it's linear. So it was 11 distributed by a different swinging motion or a way that 12 a particular item was turned because it's linear in 13 nature. 14 Q Okay. 15 MR. SARABIA: 227. 16 Q (By Mr. Labruzzo) All right, ma'am. 17 talking this is a new photograph of a new area in the 18 It's located -house. 19 MR. LABRUZZO: Can you say the State's number 20 again? 21 227. MR. SARABIA: 22 MR. LABRUZZO: 227. 23 (By Mr. Labruzzo) With a photo marker labeled 24 Stairwell B. Could you identify on Diagram 58 where this was taken from? 25

```
That is Stairwell B.
                                     That is the door that
 1
         Α
2
    opens up into Room K at the bottom of the stairs.
 3
    is this door down here (indicating).
         Q
               Okay.
              Right here (indicating).
 5
 6
              All right. And upon visual observation of the
 7
    photograph, are you able to determine whether or not
 8
    there is a bloodstain on this photograph?
 9
               Yes.
                    A transfer stain by the handle.
10
              MR. LABRUZZO: Okay. Next photograph.
11
              MR. SARABIA:
                             229.
12
               (By Mr. Labruzzo) All right.
         Q
                                              Is this a
13
    photograph of the same door?
14
         Α
               Yes, it is.
15
              All right. Is it kind of a different
16
    location?
17
         Α
               Yes.
18
               Is there something on the photograph that
19
    allows you to kind of orientate the jury to maybe -- I
20
    quess, what I'm asking is what's this?
21
               That is an eyelet for a hook, an eyelet latch.
         Α
22
         Q
              Okay.
23
              And that's at the top of the door.
         Α
                                                   And so the
24
    eyelet is on the door itself. So when it's in the
25
    closed position, the actual hook is adhered to the
```

doorframe. 1 2 Q Okay. 3 Α So when you want to secure this door in this 4 fashion (indicating), you take the hook and you put it 5 inside the eyelet. And this is a transfer pattern 6 that's on the door near the eyelet. 7 Q Okay. 8 MR. SARABIA: 480. 9 MR. LABRUZZO: All right. Okay. It's really 10 kind of hard to see. No. Go back. 11 Q (By Mr. Labruzzo) All right, ma'am. I think 12 we're looking -- can you recognize what you're looking 13 at in this photograph? It would be easier if you walk 14 over to the ELMO and look at the photograph itself. 15 Α If I may do that? 16 Q Sure. 17 Α That's BLUESTAR or Luminol. And I believe 18 that's Bedroom A. Is that the three-tear shelving unit? 19 That's what it appears to be. 20 All right. Well, let's just stop a second and Q 21 step back and talk. We've had some conversations about 22 Luminol. I'm going to show you some pictures about 23 that. 24 You talked about the chemical enhancement. 25 these photographs, some of them show blue, and in the

faintness in some of the photographs you can see blue.
What does that mean?

A That is actually what we call luminescence.

And that is the reaction with heme in the blood. It's a reaction with an oxygen peroxidase reaction. Basically what happens is a little bit of heat is generated and that causes it to glow.

Q Okay. So it glows. What does that indicate to you?

A That it's indicative of a possible bloodstain.

And it's — Luminol's claim to fame or BLUESTAR, which
is a Luminol derivative, its claim to fame is it's very
good. It's extremely sensitive. So it's really good at
finding blood that is not visible to the naked eye
and/or has been altered or cleaned up.

MR. SARABIA: 481.

Q (By Mr. Labruzzo) That's kind of what we're seeing here in State's 481, the area that showed the blueness. That would be consistent with possible presence of blood?

- A Correct.
- 22 | Q But it wouldn't be visible to the naked eye?
- 23 A Correct.

Q And you talk about the sensitivity because if someone were to clean up or try to dilute an area where

```
there was once blood, we can still show that there was
 1
    blood there later, correct?
2
 3
         Α
              Correct.
 4
         Q
              And that's kind of what these photographs are
 5
    showing, correct?
 6
         Α
              Correct.
 7
              MR. LABRUZZO: And this is State's Exhibit --
 8
              MR. SARABIA: 481.
 9
         Q
               (By Mr. Labruzzo) Are you familiar with this
10
    photograph?
11
         Α
              May I look at it?
12
              Sure.
13
         Α
              Yes.
14
         Q
              Okay. Let's put those back on.
                                                Limitations
15
    of technology.
16
         What does this indicate to you? What area of the
17
    house is this?
18
               This is in the master bedroom. Near the
19
    entryway, there was like a half circular kind of arcing
20
    wall that lead down to the closet. And this is the
    baseboard area of it. And the arc actually starts to
21
22
    turn down here and this is your tile over in this area
23
     (indicating).
24
              Okay. So although there wasn't blood here,
         Q
25
    this is probably a better photograph of that?
```

Α 1 Correct. The fact that there wasn't blood visually 2 3 apparent, there was still indication that there was 4 blood or bodily fluids there, correct? Α That is an indication of that, yes. 5 Yes. 6 Okay. All right. 7 MR. SARABIA: I think we forgot one. 120. 8 (By Mr. Labruzzo) Okay. We're back in the 9 stairwell. State's 120. 10 MR. LABRUZZO: Thank you for finding that one. 11 (By Mr. Labruzzo) You kind of gave some Q 12 testimony about the eyelet that matched the door. 13 Α Uh-huh. 14 Q And this is the hook that matches that, 15 correct? 16 Α Yes. 17 As you viewed this photograph, were you able 18 to determine whether or not there was bloodstains 19 associated in this area? 20 Α Those are transfer stains right next to Yes. 21 the hook. 22 Q All right. 23 There were a couple you MR. SARABIA: Wait. 24 had -- this is 467 and 468. 25 Q (By Mr. Labruzzo) Okay. I guess this is just

a really good visual observation of the luminescence 1 2 that you were talking about? 3 Α Yes. Q Okay. MR. SARABIA: And 465 and 466. 5 6 (By Mr. Labruzzo) Again, areas of where there Q 7 was luminescence, correct? Yes. 8 Α 9 Even though it's not visually apparent, there 10 appears to be --11 Α Yes. Because I believe the first photo was a 12 pretreatment and the second is a post-treatment. 13 Okay. All right, ma'am. 14 So we've kind of taken a long walk around the house 15 and looked at a number of the areas in which you've 16 analyzed and photographed, the areas in which the 17 Sheriff's Office investigator analyzed and photographed. 18 And upon reviewing the medical examiner's 19 photographs and the medical examiner's reports, and the 20 DNA reports which you've referenced a number of times, 21 I'd like to kind of talk about some possible conclusions 22 that your analysis yielded. Okay? 23 Α Okay. 24 So I'd like to start where we started our Q 25 discussion. I'm going to move this up front

(indicating).

Okay. And I'd like to reference State's Exhibit 59. Let's start with Room A, the southeast bedroom. Okay? We talked about a number of items that were located in this room. We talked about the fan, the three-tear bookcase, and some of the stains that were located in the closet and on the floor. All right?

What can you tell us about the bloodstains as it relates to the other evidence in this case?

A In my opinion, the blood shedding event that consisted of the blunt trauma sustained by Nicholas Leonard occurred in Room A.

Q All right.

A And that is based on the multiple DNA identifications in the room. That was the identification of the castoff in the closet, which is consistent with an item that contains blood being swung, as well as the castoff on the curtains that were documented in the original crime scene photographs as hanging in that particular room, as well as the saturation stain that also came back to being Nicholas Leonard. So those are the stationery items that I am able to opine on that particular conclusion.

I also feel comfortable in stating that the chair, the fan, the three-tear cabinet -- or, excuse me --

shelving unit were also in the room during the blood shedding event.

I also believe that the items that were found in the west garage --

Q Let's talk about that for a second. There were a number of items found in the west garage in the area closest to, I guess, the most western — the southwestern corner of the garage. Those items, even though they came back positive for Nicholas Leonard's blood, why do you think that the blood shedding event did that not occur in that room?

A For the reason that I stated it occurred in Room A, is there are stationary items in Room A that were not removed from Room A that contained stains that were consistent in appearance with the blunt injuries that Nicholas received; however, in the west garage there was not.

The blood that was identified as belonging to Nicholas Leonard was on moveable items that had — obviously that had been moved to that particular area because there were no what we call reciprocating or same stains within the areas that the items were found.

So, for example, the storage containers were found sitting in the middle of the room. There wasn't spatter on the floor around it. There was no spatter documented

1 on the vehicle that it was near. Same goes for the 2 wicker basket. 3 0 All right. 4 Α The other thing was the items that were 5 located, there were transfer stains on some of them as 6 well, which is indicative of movement of these 7 particular items, something contaminated touching these 8 items. 9 All right. So the items that were found in 10 the west garage, all right, you believe based on the 11 location of the spatter, the type of the spatter, the 12 type of stains, those were originally in the room at the 13 time of the bloodletting event as it relates to Nicholas 14 Leonard? 15 As was, I believe, the mattress topper. Α 16 All right. Let's talk about the mattress Q 17 topper. 18 You analyzed the stains that were located on that 19 topper --20 Α Yes. 21 -- on the pillow top? 22 The fact that there was a large saturation stain in 23 the middle, you came to the opinion that Mr. Leonard did 24 not move from that spot during the attack; is that

25

correct?

He did not --1 Α There was minimal movement. 2 once -- during that particular bloodletting event, no. 3 I believe that he was either on the mattress or really close to it. Okay. And you talked about some of the 5 Q 6 castoff stains that were located on that pillow top 7 mattress. There were you indicated five distinct 8 castoff stains on top of that mattress top, correct? 9 Α Yes. 10 Q In fact, there was actually castoff that went 11 all the way into the closet; is that correct? 12 Α Yes. And onto the curtains. 13 You gave some examples of things that could 14 cause castoff and you used the pointer. What I'd like 15 to show you what's been introduced as State's Exhibit 16 235. Okay? I'm talking about an item -- just for the 17 purposes of castoff. Now, just so we're clear, this 18 item was tested for DNA and there was no DNA on it; is 19 that correct? 20 Α Yes. 21 Okay. But as far as an item that would Q 22 produce castoff -- I'm talking about a hammer that looks 23 like this (indicating). Is this an item that would

If it was involved in multiple blows, yes.

24

25

produce castoff?

Α

Okay. And you kind of gave a description as 1 0 2 to the type of castoff. And I believe you said it kind 3 of was -- if used in its proper form. Correct? 4 something were to be used in a motion like that (indicating), would it, in fact, cause the castoff that 5 6 you observed on the pillow top? 7 Α If it's used in its traditional fashion, --8 Q Okay. 9 -- yes, the surface would be more linear. 10 Q Okay. As opposed to it being used not in a 11 traditional fashion. If we were going to say something 12 kind of like on its side; is that correct? 13 Α Yes. 14 Q All right. So this is an item that would 15 cause or is consistent with the castoff that was 16 generated as it relates to the pillow top? 17 Α I can't exclude it. 18 There was blood that was found in the Okay. 19 master bedroom. And I'll talk about the stains that 20 were located in and around Room G, the ones that were 21 identified as to Megan Brown. 22 You indicated those to be a particular type of 23 What did you indicate they were?

I stated that they were consistent with an

impact event that was described as occurring to Megan

24

25

Α

Brown. 1 Okay. Now, you've seen the medical examiner's 2 3 reports and you've been advised that the manner of death 4 and cause of death was a gunshot wound, correct? Α Yes. 5 6 All right. And you're also familiar with the 7 actual nature of the injury --Yes. 8 Α 9 -- as far as the fact that there's an entrance 10 wound and there's not an exit wound? 11 Α Correct. 12 All right. Based on your experience, when you have an entrance wound with no exist wound, is there 13 14 force required to push the bullet into the person, 15 correct? 16 Α Yes. 17 0 Would that cause -- what would that do to the 18 blood in a person's body? 19 Α When a gunshot wound is inflicted upon a 20 bodily part, especially the head, there's a lot of 21 pressure that is built up in that area, and this all 22 occurs simultaneously. 23 If you have an exit wound, the blood will want to 24 continue to follow the direction of the projectile, of 25 the bullet, follow the direction of the force. So it

will want to exit. And we call that forward spatter.

When you do not have an exit wound, the blood still has to go somewhere because of the pressure that is built up with the nature of the injury. So the blood is going to react like any other liquid, it is going to want to escape the only place it can, and that is going to be out of the injury back towards where the force was coming from. And that's called back spatter.

Q Okay.

A And it's a phenomenon and they both are considered spatter patterns. It's just a determination of the medical examiner as to whether there's an entry wound and/or exit wound.

Q Well, in this case, upon review of the medical examiner's report, the fact that there's not an exit, you would expect to see that type of spatter, and it would be a back spatter as you described it, from the injuries that Megan Brown sustained?

A Yes.

Q Okay. And the impact spatter that you observed in the room that was identified to her, is that consistent with back spatter from an injury that she sustained?

A I believe so, yes.

Q All right. If you were to go to the closet

located at Room H. We spent some time talking about the fact that there's a threshold area and there's a particular stain that was located right at the threshold from the room into the closet. You know the stain I'm talking about?

A Yes. There's a transfer stain.

Q Right. Let's talk about that. The DNA analysis identified that as being associated with Nicholas Leonard, correct?

A That is correct.

Q All right. And you identified it as a transfer stain based on your analysis of the photographs of the room and the injuries sustained. Can you give us an opinion as to how that stain got there?

A An individual contaminated with Mr. Leonard's blood transferred that stain. And it was ultimately either diluted before it was transferred and/or diluted afterwards.

Q Okay. But it required -- the word you used was "contamination." But that would require that there be blood on the actual person, correct?

A Correct. Transfer requires that a bloody source comes into contact with another source transferring the blood.

Q Okay. And since we're speaking about Room H,

1 there was also a saturation stain located there, correct? 2 3

Α Inside the closet.

5

6

7

8

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- Right. And that was a saturation stain Q associated with Greg Brown, correct?
 - Α That was the result on that.
- All right. I'd now like to refer to State's Exhibit 58. This is the diagram of the downstairs portion of the house. Let's start in the west garage.

We've talked about the items that you've identified as being originally in the southeast bedroom. But there was some other items that we talked about. We talked about a box, we talked about a refrigerator, we talked about some of the stains along the floor and the cooler.

What can you tell us about your analysis of that area of the west garage?

Α The stains on the refrigerator were either passive drip or castoff. I wasn't able to make a differentiation on that. But the stains that were in close proximity to the refrigerator, as well as on the cooler in front of the refrigerator and the floor in front of the refrigerator were passive drip stains. stains on the refrigerator came back to Margaret Brown.

Okay. And if you move from that area straight Q to this northern wall on the west garage (indicating).

1 We talked about a number of stains located along that 2 wall. And you identified those stains as what type of 3 stain? 4 Α There were multiple transfer stains on that 5 north wall, and then also a minor spatter event on that 6 north wall. All right. And that spatter event would indicate what to you based on your analysis? 8 9 Α The testing came back to be Margaret Brown, so 10 I associated those patterns and stains with injury to 11 Margaret Brown. 12 All right. And you reviewed the medical 13 examiner's report as it relates to that. Are you aware 14 of the number of injuries that she sustained? 15 Α Yes. 16 And you're aware of the location in which Q 17 those injuries were originated from, correct? 18 Α Yes. 19 Q All right. The injuries that she sustained 20 were to her head? 21 Α Yes. 22 Q And would those are be injuries consistent 23 with the blood that you see there along the west garage 24 wall? 25 Α The spatter event, small spatter event can be.

The others are transfer where something contaminated with her blood, one at least being one hand, came into contact to that wall in close proximity to that spatter event.

Q All right. And if we were to go along that same wall in the west garage, we talked about some stains that were observed by you in the area of right here between the west garage and Room K (indicating). What can you tell us about those stains as it relates to the event that occurred there?

A That was a transfer stain that was on that interior side next to the door without the handle.

Q You also mentioned that along that wall there were stains along the ground -- I'm sorry -- towards the ground on the wall. What can you tell us about those?

A On the north wall inside the east garage, there were swipes and transfer stains.

Q Okay. All right. And then if we were going to the east garage room area, we saw evidence along this north wall there (indicating). What can you tell us about what had to have occurred there to cause those stains?

A The large area of pooled blood, it -- an individual bleeding actively was allowed to lay there for an extended period of time, such that the blood was

allowed to form large pooling to follow the topography 1 of the ground and to absorb into the baseboard. 2 3 Okay. And the particular area of that corner, 4 you indicated that you observed that there was some 5 spatter there, correct? 6 Α After chemical enhancement, stains consistent 7 with spatter became visible. 8 And is that associated with a bloodletting 9 event? 10 Α That is spatter associated with a bloodletting 11 event, yes. 12 All right. And then we talked about a number 13 of these doorways in this area of Room K, going from the 14 west garage, the east garage, into this stairwell area. 15 There were a number of stains associated with the doors, 16 correct? 17 Α Yes. 18 And many of those stains were transfer stains? 19 Yes. Most of them. 20 All right. There were indicative of blood Q 21 being collected on someone's hand or some item and 22 actually touching those door areas; is that correct? 23 Yes. An item or an individual's -- somewhere Α 24 on their body was contaminated with blood and 25 transferred stains on those doors.

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1
              MR. LABRUZZO: Okay. May I have a moment,
         Your Honor?
 2
 3
                          You may.
              THE COURT:
              MR. LABRUZZO: No further questions, Your
 5
         Honor.
 6
              THE COURT: All right. Can I have the lawyers
 7
         at the bench really quickly.
 8
     (Staff Conversation.)
 9
     (Bench Conference.)
10
              THE COURT: First of all, we found 513.
11
         entered it while you were talking to the nice lady
12
         over there, although you haven't entered it.
         is the blanket, isn't it?
13
14
              THE CLERK: Yes.
15
              THE COURT: It's the blanket, right?
16
              THE CLERK: Yes.
17
              THE COURT: The blanket in the east garage.
18
         So do you want to enter 513?
19
              Any objection to entering 513?
20
         photograph of the blanket in the east garage.
21
              Do you want to see the picture?
22
              MR. MICHAILOS: No. No objection.
23
              THE COURT: Okay.
                                  So 513 is in.
24
              Do you want to take a -- I don't know how long
25
         your cross is. Do you want to take lunch now or do
```

1 you want to cross? MR. MICHAILOS: I prefer lunch now, Judge. 2 3 THE COURT: Okay. That's fine. I just wanted to enter 513, and then I wanted to ask you. MR. MICHAILOS: Of course. 5 6 THE COURT: No problem. I didn't want to stop 7 you in the middle. I figured we could do it 8 afterwards. 9 (OPEN COURT.) 10 THE COURT: All right. For the record 513 is 11 entered into evidence. We found it. It's the 12 blanket. We talked about it. 13 So, ladies and gentlemen, we're going to let 14 you go to lunch now. I would normally let you have 15 an hour, but I'm going to shorten it just a little 16 I'm going to have you back at 2:00. It's 17 12:50 now. 12:50, 1:50. That's more -- I mean 18 less. Wow. 19 I'm going to have you back at 1:45 down in the 20 jury pool room. All right? 21 No talking about it, tweeting, texting or 22 blogging. And we'll see you at 1:45. 23 We may be going a little late tonight because 24 we have some witnesses that are being flown in. 25 We've got to get them on the witness stand. Okay?

```
1
     (Staff conversation.)
               THE COURT: All right. I'll have everyone
 2
 3
         back at 1:45.
              And obviously you can have lunch, but just
 5
         don't talk about your testimony. Okay?
 6
              THE WITNESS: Okay.
 7
     (Jury Absent.)
 8
               THE BAILIFF: The jury is out of the hearing
 9
         of the Court, Your Honor.
10
               THE COURT: Why don't we take lunch and we'll
11
         deal with it at the end of the day or come back.
12
         Kelly can come back at 1:30 and we can deal with
13
          it, so she can get lunch. Because I don't want her
14
         not to get lunch.
15
                              That's fine. I don't mind.
              MR. LABRUZZO:
16
                                  So we'll be back at 1:30 to
               THE COURT: Okay.
17
         deal with the evidence, and that will be off the
18
          record and we'll straighten it out.
19
     (RECESS.)
20
     (OPEN COURT.)
21
     (Defendant present.)
22
     (Jury absent.)
23
               THE COURT: All right. The defendant is back
24
         and we're all ready.
25
               State, are we ready for the jury, yes?
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Defense, yes?
1
              Okay. All right. Both sides ready for the
2
 3
          jury? Defense, yes?
              MR. MICHAILOS: Yes.
 5
              THE COURT: State?
 6
              MR. LABRUZZO: Yes, Your Honor.
 7
               THE COURT: Bring the jury back in.
 8
               THE BAILIFF: Jurors entering the hearing of
 9
         the Court, Your Honor.
10
     (Jury present.)
11
               THE BAILIFF: All jurors present and seated,
12
         Your Honor.
13
               THE COURT: All right. Good afternoon.
14
         Everybody able to get lunch, yes?
15
               THE JURY PANEL: Yes.
16
               THE COURT: All right. Defense, are you ready
17
          for cross?
18
              MR. MICHAILOS: Yes, Your Honor.
19
              May it please the Court. Counsel.
20
                        CROSS-EXAMINATION
    BY MR. MICHAILOS:
21
22
         Q
              Good afternoon, ma'am.
23
         Α
              Good afternoon.
24
              Nice seeing you again.
         Q
25
         Α
               Thank you. You too.
```

1	Q Ms. Cox, with regard to Megan Brown, your
2	opinion is that blood on the floor was a spatter event,
3	correct?
4	A Yes.
5	Q Okay. And that would have been in the master
6	bedroom, correct?
7	A Yes.
8	Q And, more specifically, I think you testified
9	that that spatter event would have been back spatter,
10	correct?
11	A Correct.
12	Q And you opine that to be the case because you
13	reviewed the medical examiner's report, correct?
14	A Correct.
15	Q You would agree with me that from a spatter
16	event, from that particular spatter event, you couldn't
17	estimate with accuracy where in the room Megan would
18	have been standing when this injury occurred, correct?
19	A I was not able to do that in this case, no.
20	Q And I think you testified on direct that the
21	blood would be traveling from the direction that the
22	force came from, correct?
23	A Correct. It would be back spatter.
24	Q But would you agree with me with this type of
25	injury the blood doesn't necessarily come out in a

straight line completely forward, correct? 1 It's conical in nature as well, as long 2 3 as the originating injury allows it, that is, if there's 4 not something to obscure it. 5 So would you agree with me that it's possible Q 6 that the spatter event could have happened at a less 7 than 90-degree angle? It could have came from her eye, 8 let's say at a 45-degree angle? 9 Α I really don't feel comfortable putting a 10 percentage on it. I can just say that because it did 11 end in the orbital region, there is a larger area of 12 disbursement. 13 So it's true you can't approximate her location in the room for less than ten feet, correct? 14 15 Α Oh, no. I cannot. 16 Okay. With regard to the blood pool stain in Q 17 the east garage -- and that was a big blood pool, right? 18 Α The larger one? 19 Q Right. 20 Α Right next to the north wall? 21 Correct. Q 22 Α Okay. 23 Were there any DNA results showing who the Q 24 blood came from? 25 Α No. Not that I'm aware of, no.

And could it have been a mixture of blood? 1 0 It could have been. 2 Α 3 And I think you testified that there were --0 4 on the edges of that pool there was some stains that 5 were conical in nature, right? 6 Α Those would be the spatter stains. 7 Okay. And you classify them as spatter Q 8 stains, right? 9 Α Yes. 10 Q But I think you said that those stains could 11 have been consistent with someone dropping something in 12 that blood, right? 13 Yes. That cannot be excluded. Α 14 Q You don't have any opinion that the actual 15 injuries would have occurred near that spot, correct? 16 Α I have no -- well, I can't exclude that 17 either, because it is possible that a blood source was 18 impacted with less force while on the floor. 19 Q Right. 20 Α And it caused the same kind of conical pattern 21 as if something was dropped. But this could have been blood that was there 22 Q 23 from the deceased people that were there for a while, 24 right? 25 Α And then something dropped into it? Yeah, I

cannot exclude that. 1 Now, it is your opinion that Nicholas Leonard 2 3 suffered bloodletting injuries in the southeast bedroom, correct? 5 Α Yes. 6 And it is also your opinion that either he or 7 a person contaminated with a substantial volume of his 8 blood dripped stains in that bedroom, correct? There were some passive drip stains in 9 Α 10 that bedroom as well. 11 And so this is supported by drip stains to the 12 subfloor, right? 13 That tested positive to him by DNA. Α Correct. 14 Q In addition to the red chair you pointed out 15 on direct? 16 Α Correct. 17 0 And the window fan? 18 Α Correct. 19 With regard to the castoff stains in the 20 closet and also, I think, to the curtains, would you 21 agree with me that they could have been caused by a knife? 22 I don't know what the instrument was. 23 Α Ι 24 cannot exclude a knife. 25 Q Right. The State brought up a hammer. Would

1 a knife be as consistent as a hammer with regard to those castoff stains? 2 3 Α I can't exclude a knife. Sure. Q Now, you testified Nicholas Leonard wasn't 5 moving when the castoff stains that were left on the 6 mattress occurred. That's your opinion? Α He wasn't moving very much. 8 Q Okay. 9 If he was moving, it was -- it localized to 10 that particular area. 11 So he could have been alive and he could have 0 12 been moving? 13 Α Could have been alive and could have been 14 moving. 15 Q And I think you testified on direct that the 16 bloodletting with regard to it happened on the mattress 17 or really close to it, correct? 18 The castoff and the spatter that was around Α 19 the saturation is consistent in appearance with a source 20 of blood Nicholas Leonard being either on the mattress 21 or slightly above, and what I mean by that is his head. 22 Q Okay. 23 Α From the areas that sustained the blunt 24 trauma. 25 Q And you are aware that there's evidence that

that mattress was probably on the floor, correct? 1 I am aware that there was not a mattress found 2 3 in there and there was a mattress found in the west 4 garage. 5 But you know of no bed structure or frame or Q 6 box frame, anything of that nature, do you? 7 Α Not that I'm aware of, no. 8 What about the saturation mark on the 9 southeast bedroom floor? You would agree that he was 10 probably at some point on that spot, right? 11 Α Correct. 12 With regard to the fitted sheet, you 13 identified a stain you first thought was a mucal 14 membrane, I think you said, right? 15 I wasn't sure. Α Yes. 16 Q Okay. And then was any DNA testing done with 17 regard to that stain? 18 Α It was not. 19 Okay. And you said that you did some kind of Q 20 test you thought was blood? 21 Α A Phenolphthalein test, yes. 22 Q Okay. And with regard to the Phenolphthalein 23 test, is it possible that this still could have been 24 mucal membrane with blood in it? 25 Α Yes.

It's common people get colds, right? 1 Q It's possible, yes. 2 Α 3 So you don't have any opinion with Okay. Q 4 regard to that particular stain, what that could be? 5 Α It was just a mixture of tissue, skin, No. 6 mucal membrane and blood. 7 And you would agree with me this was a common 8 household sheet, right? It was a sheet that I'm familiar with. 9 Α 10 Q A fitted sheet? 11 Α I recognize it as a fitted sheet, yes. 12 Okay. And you have no idea of dating these 13 stains and knowing when they were placed on the sheet, 14 right? 15 I cannot do that. Α No. 16 So there could have been stains on this Q 17 bedsheet preceding August 28th of 2014, correct? 18 Α Yes. 19 Now, you clearly do identify a spatter event 20 in the northern wall of the west garage? 21 Α Yes. 22 Q Near the door leading to the stairwell? 23 Α Correct. Yes. 24 And your opinion is that that is from a Q 25 downward blow, correct?

1 Α The force is traveling downward that caused 2 the spatter event, yes. 3 And that stain has been recognized and 0 4 identified as having Margaret Brown's DNA, correct? 5 Α That is my understanding, yes. 6 Would you agree with me that Margaret would 7 have been in an upward position when she received that 8 blow? 9 Α Based on the scales and the heights, yes, it 10 would be more consistent with an upright position. 11 Q So she was standing? 12 Upright position. Α 13 Okay. Consistent with standing? Q I can't exclude standing. 14 Α 15 Okay. Now, you testified during your Q 16 introduction, your presentation, that some materials 17 reject the introduction of a liquid? 18 Α I'm sorry. Can you repeat that? 19 Q You testified when you did your presentation 20 in the beginning that some items reject the introduction of a liquid? 21 22 Α Well, by nature they're designed to attempt to 23 do that; but if they're unsuccessful in that, then they 24 accept the liquid. I'm talking about fabrics and 25 textiles. Then they're designed to wick the liquid out

and disburse it so then it evaporates quicker. 1 2 Yes, ma'am. Is plastic a substance that 3 rejects the introduction of a liquid? 4 Α I would not -- that's a tough question to If I talk about everyday plastics that I'm 5 6 familiar with, that I've used in my experience, they do 7 not reject. They tend to -- it beads up or it rolls 8 off, to that effect. 9 0 Would a plastic garbage bag act as a barrier 10 to obstruct a spattering event from ever occurring? 11 Α As long as there wasn't a defect to the bag or 12 if the bag was gaping open like it hadn't been tied 13 strongly. 14 Q So hypothetically, if a bag has been placed 15 over -- completely over a person's head and an event, an 16 injury took place to that head, so long as the bag was 17 not damaged, wouldn't you agree that that plastic 18 garbage bag would act as a bearer to any spatter event? 19 Once the bag is put on an area, yes, I would 20 expect if it wasn't defected, that any additional blows 21 would not produce subsequent spatter. 22 Q And how about two bags, would they double the 23 chances of an obstruction? 24 Α I feel comfortable with that. 25 Q And if a person who is covered with these two

```
bags had tape secured around the neck as to close the
 1
    opening of that bag, would you be comfortable in giving
 2
 3
    an opinion that you would not have a blood spatter
    event?
 5
              A blood spatter event after the bags had
         Α
 6
    been -- I can't say there wasn't a blood spatter event.
    It just would be contained within the bag.
              Correct. But there would be no evidence of a
 8
 9
    blood spatter event on a wall?
10
         Α
               Correct. Not from that particular blow once
11
    the bag was put on.
12
              And with regard to the stains in the western
13
    garage, you testified to stains near, I think, it was a
14
    stainless steel refrigerator, if I'm not mistaken, or
15
    parts thereof, a door?
16
         Α
               It was a refrigerator. The doors were tied
17
    open.
18
              And you said you couldn't exclude castoff
19
    stains on that door?
20
         Α
              Correct.
21
              And these castoff stains also were correlated
         Q
22
    to Margaret Brown's DNA, correct?
23
               I could not exclude castoff or passive.
         Α
24
    yes, they were -- came back to Margaret Brown.
25
         Q
              And you're aware from the medical examiner's
```

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report that all of Margaret Brown's injuries were to the
 1
 2
    head, correct?
 3
         Α
               That is my understanding, yes.
               Okay. So, again, would you agree with me that
 4
         Q
 5
    there would be no such castoff stains if the head was
 6
    completely covered with a plastic bag?
 7
              At the time that a blunt force injury occurred
8
    after the plastic bag?
 9
              Yes, ma'am.
10
         Α
              Correct.
11
              MR. MICHAILOS: Could I have a moment, Your
12
         Honor?
13
                           Absolutely.
               THE COURT:
14
              MR. MICHAILOS:
                               Thank you very much, ma'am.
15
              THE COURT: Redirect?
16
              MR. LABRUZZO: Briefly, Your Honor.
17
                       REDIRECT EXAMINATION
18
    BY MR. LABRUZZO:
19
              Ms. Cox, in identifying -- I'm going to end up
20
    right where they left off in this west garage, this wall
21
    where the DNA was identified as being Margaret Brown's.
22
    Okay?
23
         This is the impact stain that we talked about and
24
    the transfer stain as to the potential handprint on the
25
    north wall, west garage.
```

1 Α Okay. 2 Q Are you there with me? 3 Α I am. 4 Q All right. For there to be blood like you 5 observed, there would have to be an injury sustained to 6 an individual, correct? 7 Α Yes. A blood source was impacted. 8 Right. And the stains which you saw are 9 consistent with there being an injury, correct? 10 Α Correct. 11 Now, you had an opportunity to review the 12 medical examiner's reports? 13 Α Yes. 14 Q And review their photographs? 15 Α Yes. 16 All right. And you're aware that Ms. Margaret Q 17 Brown sustained a number of injuries to her head, 18 correct? 19 Α Yes. 20 All right. And much like with bloodstains, it Q 21 can be difficult to establish the order in which stains 22 were put in a particular location. I quess the order 23 can sometimes be difficult to establish? 24 Correct. Sequencing is not always an option. Α 25 Q Right. So too it can be difficult to sequence

the way in which injuries occur? 1 The sequence of injuries is the medical 2 Yes. 3 examiner's forte. 4 Q Okay. But the injuries that Ms. Brown 5 sustained to her head, you're familiar with a large 6 injury to the left side of her head, correct? 7 Α I am. 8 Q But she also had other injuries to her head, 9 correct? 10 Α She did. 11 And based on your level of experience and the 12 things that you've seen, those are injuries that can 13 also produce blood? 14 Α Yes. 15 Okay. And you would agree with me that when Q 16 the doctors indicate that the cause of death was at 17 least to some point due to blunt head trauma, that that 18 requires a blunt object to hit a person? 19 Α Yes. 20 And that could cause a blood shedding event? 21 Α Yes. 22 Okay. You were asked some questions about the 23 saturation stains in the southeast bedroom. 24 course of your analysis, you indicate that the blood 25 shedding events related to Nicholas Leonard happened on

1 a mattress in that room, correct? 2 Α Yes. 3 All right. There's also a saturation stain on 0 the floor, correct? 4 5 Α Yes. 6 And fair to say that if a person sustains 7 injuries, the fact that there's a saturation stain on 8 the floor is really just indicative that the person, or 9 in this case Mr. Leonard, laid on the floor? 10 Α I felt that the saturation stain was 11 consistent with that, yes. 12 Okay. You can't tell us how he got to that 13 location particularly, can you? 14 Α What do you mean? 15 Well, I mean at one point we have him on the 16 mattress and then at one point we have him on the floor. 17 You can't tell us exactly how he went from the mattress 18 to the floor, correct? 19 No. I cannot. 20 You can just tell us what happened on the Q 21 mattress as it relates to the injuries that he sustained 22 or what the blood patterns tell us about the injuries he 23 sustained? 24 That's correct. Α 25 Q And you can just tell us that at some point

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his body laid on the floor long enough to cause a
 1
    saturation stain?
 2
 3
         Α
              Yes. His head was able to deposit blood
 4
    freely onto that floor area.
 5
         Q
              All right.
 6
              MR. LABRUZZO: All right. Thank you, ma'am.
 7
         No further questions.
 8
              THE COURT: All right. Ms. Cox, thank you
 9
         very much. You may step down.
10
              Is she released from her subpoena?
11
              MR. LABRUZZO: Yes, Your Honor.
12
              THE COURT: All right. As some housekeeping
13
         matters, do you want to move in those exhibits that
14
         we haven't moved in?
15
              MR. LABRUZZO: Yes, Judge.
16
              At this time the State would like to move in
         State's Exhibits --
17
18
              THE COURT: 531, 532, and 533.
19
              MR. LABRUZZO: Yes, Judge. 531, 532, 533.
20
              THE COURT: Defense, any objection? These are
21
         all photographs.
22
              MR. MICHAILOS: No, Your Honor.
23
              THE COURT: And then 577 through 583.
24
              MR. LABRUZZO: Yes, Your Honor. At this time
25
         the State would so move.
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1	THE COURT: Any objection? Again, they're the
2	same photographs that the witness, Ms. Cox,
3	testified and was shown up on the thing.
4	MR. MICHAILOS: No objection whatsoever, Your
5	Honor.
6	THE COURT: The numbering got a little off
7	there. So just for the Clerk's so 577 through
8	583 is admitted.
9	MR. MICHAILOS: Thank you, Your Honor.
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25	(Continued in Volume X.)

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         I, Victoria L. Campbell, Registered
8
    Professional Reporter, certify that I was authorized
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    to and did stenographically report the foregoing
    proceedings and that the transcript is a true
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         DATED this 21st day of June, 2018.
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                         /S VICTORIA CAMPBELL
                         Victoria Campbell
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