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STATE OF FLORI	DA,	•		05586CFAXWS
	Plaintiff,			
vs.				ė. į
ADAM MÁTOS,			•	Paula S. O'Neil Cleric & Complication Pasco Churchy, Florid Co
	Defendant.		$\label{eq:problem} \frac{1}{4} \left(\frac{1}{2} - \frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} - \frac{1}{2} - \frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} - \frac{1}{2} - \frac{1}{2} - \frac{1}{2} \right) = \frac{1}{2} \left(\frac{1}{2} - $	
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PROCEEDINGS:	Deposi	tion of	Anna Marie	e Cox
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ŘEPORTED BY:		Josephil Reporter		
	Notary	Public	State	of Florida
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	JUDY G. MOU	VD7TS &	ASSOCIATES	3
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of Florida

1,	APPEARANCES
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4 5	BRYAN SARABIA, ESQUIRE Office of the State Attorney 7530 Little Road New Port Richey, Florida 34654
7	Attorney for Plaintiff, State of F
8	
9	NICHOLAS MICHAILOS, ESQUIRE Office of the Public Defender
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11	New Port Richey, From 34001
12	Attorney for Defendant, Adam Matos
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TNÖEX OF PROCEEDINGS

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2	WITNESS:	PAGE NO.
3	Anna Marie Cox	Direct Examination By Mr. Michailos 4
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6		Certificate of Oath 55
7		Certificate of Reporter 56
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1	P=R=O=C=E=E=D=1=N=G=S
. 2 .	THEREUPON,
· .	ANNA MARIE COX
. 4	having been first duly sworn, testified as follows:
5	DIRECT EXAMINATION
.6	BY MR. MICHAILOS:
Ż .	Q Please state your full name for the record.
8	A Anna Marie Cox.
9	Q My name is Nick Michailos. I'm an attorney with
10	the Public Defender's Office and my office has been
11	appointed to represent Adam Matos. And you have been
12	recently listed as an expert witness by the State Attorney
13	and you had an opportunity to put together a report,
14	correct?
15	Yes.
16	Q And I did review your CV, not too closely, but
17	your specialty is what?
18	A Blood stain pattern analysis, chemical
19	enhancement and proper homicide processing techniques.
20	Q Okay. You have a Bachelors of Science, right?
21	A Corrèct.
22	Q Do you have other college degrees as well,
23	graduate degrees?
24	A Yes.
25	Q So, when you say graduate certificate and

- 1
- A Yes.
- 2
- Q Several times?
- 3
- A Yes.
- 4
- Q Over 100?
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A Well, if you're talking about bloodstain pattern analysis not over 100. But if you're taking total totality in the 17 years to include depositions, I would

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say that's close.

are as my private.

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Q How about in-court testimony, about half that,

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about 50?

A Well, I couldn't approximate that. The only

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thing I can give you is with my CV I gave the amount of times that I've testified for bloodstain as well which is

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13. And then as a Pinellas County employee and then these

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Q Okay. Are those at the end?

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A Correct, so that would be 13 plus so 27.

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Q That's cases you've worked on?

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A No, that's 27 times I've testified regarding just bloodstain analysis or proper crime scene processing

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techniques. When I was at the Pinellas County Sheriff's

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Office, I also testified in burglaries, assaults, stolen

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vehicles, basically any criminal case that I worked if I

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had been called to testify, other deposition or court and

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grand jury.

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Q Right now you are privately employed, your own business?

A Yes.

Q So, you're not affiliated with any law enforcement agency at this time?

A I am not.

Q Is it fair to say that when you have testified it has been on behalf of the State?

A And the Defense.

Q Okay. So, of the cases that you pointed to that you've testified on, do you know the percentage of those that you testified for Defense?

A I do. All the testimony that I did at the sheriff's office was for the State. For the Defense would be Monroe County, Florida, that's down in the Keys, that's the Defendant was Todd Helfritch. I also testified for the Defense for Montgomery County, Maryland, that's the Rahul Gupta case in March 2015. And then the Defendant, last name was Garland, and that was in Citrus County in May of 2017.

Q Great. Now, I was given a copy of the report that you did and it's 17 pages including your glossary at the end?

A Yes.

Q I think we discussed it off the record but is it

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true that you had never been to the actual house where the alleged crimes took place?

That's correct.

So, in your report you do chronologize the references that you use to come to your conclusions, included in that is the photographs obviously, several photographs, I assume, right?

Yes.

And police reports, autopsy reports, and things of that nature, right?

Yes.

. But is it fair to say most of your opinions the sources that contribute to most of your opinions would be the photographs; is that fair?

A The photographs, the autopsy reports, and the technician, the crime scene technician reports.

Okay. Do you have any idea how many photos other than the ones you've given me on disk that you took yourself? Do you know how many of the Pasco County Sheriff's Office photos you've reviewed regarding your findings in this case?

Oh, my goodness, a thousand, there was a lot.

Okay. Let me start off with some simple questions. In different locations of your report you use the word luminescence.

1 A Yes.

22.

Q Explain to me what that means.

A Luminescence is a phenomenon that occurs when you apply a heme-based chemical to blood. It actually glows and that's based off of something called an oxidation peroxidase activity and the actual glowing is the production of heat and that is what you're actually seeing. So, it's a chemical that causes blood to glow.

- O Heat emitted because of oxidation?
- A Correct.
- Q And you're looking for signs -- you actually notice signs of this luminescence in the photographs that you observed, right?

A Yes.

- Q So, obviously, those photographs were taken when this oxidation was taking place?
 - A Correct.
- Q When the luminescence takes place is it seen only with the use of a special light, like a black light bulb or something? Or is it just in normal lighting you can see the luminescence?
- This particular chemical you can see it without the enhancement of alternate light source. There are other chemicals that require that but they did not use that in this situation.

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1	Q Do you know what chemical they used in this
2	situation?
3 .	A They used a Luminol derivative called Bluestar.
4	Q It's your understanding they used Bluestar?
5	A Correct.
6	Q What are some other examples?
7	A You can use a chemical called Just Luminol. You
8	can use something called Flourescein. You can use
9	something called Hemascein and those are the ones once
10	that I'm most familiar with.
11	Q This one was Bluestar?
12	A This was Bluestar. So it's a Luminol derivative
1-3	which basically means it's a Luminol base but then they
14	increase the Ph to make the luminescence more vibrant for
15	photography.
. 16	Q Okay. Because reviewing the reports for
17	whatever reason I remember seeing the term Luminol. I
18	don't recall the Bluestar being mentioned in the forensic
19	reports; was it there?
20	A I believe I was told they used Bluestar; if I
21	recall correctly at the evidence review.
22	Q But Bluestar is sort of higher grade Luminol, if
23	you will?
24	A It's a derivative of a Luminol. I wouldn't say
25	it's a higher grade. They just hadn't manipulated the Ph

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because Luminol can be difficult to photograph in certain conditions. So, when you increase the Ph, it increases the heat that is being released and makes it easier to document.

Q This luminescence is just an indicator that there's blood there?

A Indication that there's indicative of the presence of blood and its claim to fame is that it can help you find blood that is not visible to the naked eye either being too faint or it's been altered or cleaned up.

And it could be animal blood, it doesn't necessarily have to be human blood?

A Correct.

Q It's not 100 percent, there could be false positives?

A Absolutely could be false positives.

Q In the master bedroom there's some photographs that show a corner bead that looks like it's been penetrated by a projectile like a bullet; did you review that photograph?

A I saw that photograph, yes.

Q My understanding is you drew no conclusion -- that's outside your specialty? You had nothing to do -- you didn't use that bullet to come to any conclusions?

A No, I did not use the trajectory at all.

Q Okay. In the stairwell, obviously, there's mention of blood.

A Page four.

Q I think so. There you go, thank you.

Underneath description of the bloodstains in the stairwell you notate a transfer stain with sufficient blood volume to cause pooling at the bottom of the stain. With regard to that pooling or that stain, do you know whose blood that matched, whose DNA that matched in the stairwell?

A I don't recall that being tested.

Q Okay.

A It's the landing, it's the landing, like when you come down from the dining room and then you have that landing and it turns, that's the area I'm talking about. I'm not trying not to get things out of order. If these are in order, I'm usually terrible about that. You can barely see it in this photograph, it's right there. This is a photograph without scale. It's basically a stain and then, at the bottom, it's got a heavier deposition of the blood which means there was sufficient blood volume that the gravity was able to basically break surface tension and start to pull it away.

Q And just for clarification, it looks like it's the front part of the step?

A Correct, I think I refer to it as the front lip.

there's a close-up of the hook. And then the little eyelet would be on the door so, when you close the door, you would latch the hook through the little eyelet. Okay. So, this is obviously from the staircase going down? 5 Yes. And on the other side of that door is a hallway that leads to the garage? 8 It's like room K I think they identified it as. 9 It's the layout of the bottom was kind of difficult to 10 orient yourself at first but there's a room that appears 11 like a large room at the north end leads into that and .12 then the stairwell leads into it and then the west garage 1.3 leads into it so that's room K. 14 But that eyelet, clearly that lock, it's like a 15 latch is from the inside of the house to lock it from the 16 inside obviously to keep out intruders, right? 17 It's on the inside of the door. I can't say 18 what the purpose is. 19 Okay. But you've never been to the house? 20 haven't been to the house? 21 22 I have not. On page five in the middle in your report you 23 you're referencing observations in the photographs taken 24 of the inside of the west garage, correct? 25

1	A. Well, it's a little small hallway that comes off
2	of the west garage and then it at the hallway you can
3	go straight into room K or hang a right and go into the
4	east garage.
5	Q But you can't go from east to west garage
6	without leaving the garage to go into one of these
, 7	hallways, right?
.8	A You would go into the west garage hallway and
9	turn right or you'd have to go through the bay door, out
10	the bay doors, and go in the east bay door.
11	Q Right, right, okay.
12	A So, they're haphazardly stacked and there were
13	bloodstains on the flaps of these that formed specific
14	patterns.
15	Q Do you see the stains in this photograph?
16	A Yes. So, for example, you can't see the stains
17	in this photograph up here because it's bent but those are
18	the stains that were referenced and those scales were
19	placed by the technician that worked this particular
20	garage.
21	Q Just for clarity purposes; this is a cardboard
22	box that's labeled Megan and in black ink, black
23	magic marker?
24	A Here's a close-up of them.
25	Q Your opinion is that those are cast-off stains,

right?

A Yes.

Q That's because there seems to be a linear direction to them?

A When I identify stains I have to look at several things. I look at their size, their shape, their overall distribution and their relationship to each other and that's when you — and, of course, you have to look at the surface and all of that as well. But, once you start to look at all of those features, there becomes some very visible overall patterns that are very distinct from others so this would be distinct of a cast-off pattern as opposed to a passive drip stain.

- Q Cast-off is blood coming off an item like a knife or other object, right?
 - A Yes, it is blood being flung off of an item.
- Q Do you know whose blood that is? Whose DNA was on that box?

A Yes. My understanding is I don't know if C.C -but I know the blood on the box among one of the patterns
did come back to Nicholas Leonard:

Q Okay.

A And here's more patterns on the boxes. This is a completely different cast-off pattern so there's two cast-off patterns on this box.

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already addressed the one by the door.

- Q And I'm sorry I'm jumping around.
- A No, that's fine. That was the primary place that her blood was found in the east garage but her blood was also found in the west garage.
- Q Do you have any specificity where in the west garage her blood was found?
- A The shelves on the refrigerator, the north wall and the door that we just talked about. They identified it as center room, center floor room door. Her blood was found on that door and the north wall of the garage.
 - Q The north wall of the garage?
 - A The north in the hallway.
 - Q Was that transfer blood in the door?
- A In the hallway? On the door, it was transfer. In the hallway, there was transfer but there was also a small little impact area where the stains looked different and I can't remember if they tested that or not. I don't think they --
 - Q Are we talking about the room or the hallway?
- A The hallway. The small cluster of stains I just referred to I do not have in my report that the blood was tested back to Margaret so that particular stain was not tested but the stain that had I believe the transfer did come back to her.

I know this isn't the most accurate science in

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1	the world, it's difficult to say, but is it your opinion
2	that this may have been when Margaret received trauma?
3	A Yes.
4	Q That would be the reasonable conclusion, right?
5	A Yes.
6	Q That did come positive - that DNA was
.7	Margaret's on that stain?
:8	A I believe the DNA that was tested in those areas
9	came back either not interpretable or not enough DNA.
10	Q Okay.
11	MR. SARABIA: Which picture do you want? Do you
12	want these pictures?
13	MR. MICHAILOS: Is that the hallway? That's the
14	hallway.
15	MR. SARABIA: Yeah, this is the hallway in the
16	west garage leading towards where the east garage
17	would be.
18	MR. MICHAILOS: This is the hallway after
19	exiting the west garage to go to the east garage; is
20	that what you're saying?
21	MR. SARABIA: You keep saying exiting the west
22	garage, it's really part of the west garage.
23	BY MR. MÍCHAILOS:
24	Q Okay. The hallway is part of the garage?
25	A Yes.

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- Q We're looking at a diagram of the first floor of this house which consists mostly of garage space but there's also a room in the back. And my question to you is if you could point out to me the walls where the blood was located in the east garage?
 - A In the east garage?
 - O Correct.
- A Okay. In the east garage this would be considered -- still is considered a north wall but it's next to the door that exits to the west garage hallway. There was blood right here, immediately next to the door.
- Q Anywhere else in the east garage where you found blood on the walls?
- A Yes, this would be the hand cart, this little square item.
 - Q Right.
- A Near the north wall that would be the hand cart. There's a large pool of blood here and above the pool of blood there are there is a conical spatter pattern. There are what we call transfer and swipes that go up on the wall. And then, on this side over here, is where you have the possible spatter patterns and/or cast-off patterns that were enhanced with the chemical. So, some of the bloodstains were visible without chemical enhancement and then others became visible after physical

enhancement.

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- Okay. And then going to the west garage, where did you notice blood?
- As soon as you come in there's this doorway here in the west garage hallway that leads to room K, that door opens to the west. There was blood on that door.
 - That was probably transfer blood?
 - That was transfer blood.
- The blood we were talking about earlier on the northern wall was probably spatter as opposed to transfer?
 - And/or cast-off.
 - And/or cast-off, thank you.
- Then, this wall right here, which would be the little south wall of the hallway, that had transfer patterns as well as something called passive drip stains. The wall directly across from it, the north wall, also exhibited transfer stains as well as a small pattern of cluster stains that could have also been a spatter event.
- Okay. Any other -- I'm concerned more about spatter stains right now as far as honing into where the actual offense took place. Any other of those type of stains in the west garage, not transfer stains but spatter stains, if you will, or cast-off?
- I wasn't able to eliminate cast-off as a stain or pattern on the fridge. I cannot eliminate that.

autopsy reports, correct?

A I did.

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Margaret Brown, and I don't have the report in front of me now, but I recall that the Medical Examiner had put in there a possible contributing cause of death was asphyxiation and you're probably not privy to his deposition but my understanding is he drew that conclusion simply because when the corpse was found there was a bag over the corpse. I don't think he was — he didn't have this other evidence before him when he did the autopsy and drew his results. The evidence you've seen thus far would that be conclusive to the proposition to the fact that the bag would have been placed over Margaret after the trauma took place as opposed to before?

A Yes.

Q You would agree with that?

A Yes.

Q Because you don't have be an expert to know if something is covered with a bag, you're not going to have the spatter results, right?

- A Unless the bag is in some way damaged.
- Q Damaged or has holes in it?
- A Correct.
- Q Okay. In the master bedroom there was Megan

Brown, there were stains on the floor near the bed that 1 DNA tests showed was the blood Megan Brown, correct? 2 3 Yes. Α The sticker is a scale, that's what you call it? Yes, it's an L scale and here's a close-up of 5 So, here's what we call an overall photograph where 6 you can orient yourself and you can see the scales and 7 this particular scale is at the foot of the bed. 8 a mid-range shot, it still orients you to the bed but 9 starts to give you an indication of the size of the stain 10 and this is what would be considered a close-up 11 12 photograph. It's certainly not my expertise, looks like 13 possibly a drop; is that fair to say? 14 No, based on the size of the stain which is why 15 you use these millimeter scales, that is more consistent 16 in size with coming from a spatter event. 17 18 Q From a spatter? 19 Α Yes. And you can come to that conclusion because of 20 the size of the circle, if you will? 21 Α And the shape. 22 And the shape. That looks pretty circular to 23 0 me; am I correct in saying that? 24 Spatter can be circular. A lot of people

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Q So, your conclusion that that's spatter as opposed to an isolated drop, can you put a percentage on that conclusion -- accuracy, as far as accuracy?

associate spatter with just having massive directionality

but spatter will eventually succumb to something called a

parabolic arc just like if somebody throws a football or a

bullet gets fired, the amount of force to overcome gravity

will only last so long unless that force is continuously

you throw something, the force will eventually dissipate

and it will succumb to what's called gravitational pull.

and it does it in an arcing format. So, when you have an

that area and that blood doesn't have anywhere to adhere,

it will succumb to parabolic arc and it will fall and it

open area like this, if you have blood distribution in

applied. Like when you're driving a car, if you're

pushing on the gas, you're going to keep going.

can be very difficult to find.

A I can't give you that type of percentage. I can just tell you that based on the experience and the hundreds of case file reviews that I've done that that is consistent with a spatter event and there's another one as well.

Q Okay. Let's see all those stains. Is it just two stains from Megan's blood?

Two stains that were tested, yes. This is, once

Nopė.

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Q You don't have enough information and plus you probably would need a lot of physics and mathematical calculations, right?

A Absolutely. You would have to have a certain amount of stains, a minimal amount of stains and that's a mathematical.

Q So, can we even approximate where -- can we come to a conclusion whether she was standing or sitting, for instance?

A I cannot.

Q And you can't place her for certain anywhere in that room?

A I cannot. I can just tell you based on the autopsy report that would be consistent with back spatter.

Q And back spatter means the blood would have came from the inside of her eye going forward?

A Correct. The blood would go in the direction of which the force was coming as opposed to following the force because there was no exit wound.

Q Right. And the blood coming out of the eye at an angle too, it doesn't necessarily come straight out, right?

A No, it's going to erupt out of whatever orifice is available, however it's available. So, if the side of the orbital is busted, it's going to come out the side.

It's a direct shot, it's going to be more conical. 1 All right. Thank you. In that same area in 2 your report on page 13 you note that an individual 3 contaminated with Nicholas Leonard's blood came into contact with the tile floor in front of the closet in the 5 master bedroom. So, this is the master bedroom door 6 obviously. 7 Well, that's to the closet. 8 I'm sorry, closet in the master bedroom. 9 So this is the master bedroom hallway leading to 10 Á the bathroom, that's the general -- or, excuse me, 11 mid-range shot, I meant to say close-up shot so you can 12 see the sublet flooring is inside the closet and the tile 13 is outside the closet and it's right there. 14 Right. And I meant to say the door to the 15 master closet, it's like a walk-in closet? 16 Yes. 17 Α Okay. So, it's more than just this drop area, 18 this is the bigger part of the stain; am I right? 19 Yes, it's transfer. 20 Is that -- what do you call it, a skeletal 21

stain, is that it?

It's been diluted.

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Q Oh, diluted. But you wouldn't know how but you could have theories as to how that was diluted, right?

- 1
- Another liquid was introduced.
- 2 3
- You know for a fact that's a transfer stain, obviously?
- Yes, that's a transfer stain.
- 5
- And you're confident it would have to be an individual contaminated with Nicholas Leonard's blood?
- Ż

- Yes.
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- Couldn't it be Nicholas Leonard who was actually stepping there?
- 10
- I do not believe so, no.
- 11
- Why is that?
- 12

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- Because I have to take in the totality of where the assault or the introduction of a blood shedding event that the blood at the scene supports, which is it occurred in the southeast bedroom.
- 15
- Nicholas Leonard's injuries did?
- 16
- Correct. And that's based on the blood evidence 17 present at the scene, the garage, the bedroom, items from
- 18
- the bedroom, et cetera. Also, the degree of injury that
- 19
- he sustained. There was no indication of Nicholas after 20
- 21
- anywhere around the bedroom on his own accord just because 22

typically when you have somebody who sustains severe

sustaining bloodletting to his head that he maneuvered

- 23
- multiple blunt trauma injuries you have what we have a lot 24
- 25
- of associated bloodstains, lots of transfers, lots of

swiping. You have multiple areas of pooled blood. You have areas where blood is dripping because it's a head wound, blood is dripping very quickly and we get a lot of what we call satellite spatters on areas. Plus, there was no indication of any of those types of stains or patterns that traveled from the bedroom -- pardon me, from the southeast bedroom to the master bedroom closet. There was no reciprocating stains that would allow me to believe that he, himself, as bleeding himself was able to transfer that stain in there himself.

- Q What if he had a different injury before the severe trauma and had blood from a minor injury that had taken place earlier?
 - A That cannot be excluded, I cannot exclude that.
 - Q Okay. That's possible?
 - A That's possible.
- Q When you notated in the report he did have an incisive wound, if I'm saying that right, to his left arm; did he not?
 - A Incised, yes.
- Q Okay. So, theoretically, he could have been bleeding from that injury before suffering trauma to the head, correct?
- A He could have but, once again, you have to take in to the totality of the injury as well as the biology of

the human body by nature, so an incised wound in the area that's allowed to bleed freely will also do the same as your head so I would have expected more passive drip stains. I would have expected transfers, swiping, I would have expected if the individual who deposited that by the closet had an actively bleeding injury, I would have expected to see more indication of that in that area and I did not.

Q Right, because that stain, in your opinion, is not an actively bleeding stain?

A That's a transfer, correct, that is blood that has been an item or an individual has gotten Nicholas' blood on him and has -- on themselves and has transferred the blood in that particular area.

Q Okay. As far as back to Megan in the bedroom, no other blood stains of Megan's in that bedroom that you're aware of?

A No.

Q And the reason why I'm bringing this up is there was another expert that was involved in this case that's no longer -- that's apparently not going to be called by the State but, at some point, I think he was relying on some stains I believe on a bureau or something that just were marks left after Luminol or Bluestar was used but not actual blood stains. Are you aware of anything like that?

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I'm aware of stains. There are actually multiple more stains that were identified in this room with scale that have the characteristics that are consistent with a spatter event, there absolutely are. There are what appear to be stains that might contain tissue on the back rear wall. There were also small stains on the bureau that they identified with scale as well as what were considered to be passive drip stains that dripped down into the bureau drawer that was open. Upon -- typically, documentation process is done before any alteration of the scene occurs as far as when the technicians get there. So, what happens is you document areas that you believe there to be blood and you subsequently go behind and do blood testing. I did not include those areas in the analysis for one reason. They, at the scene, did not test positive for phenolphthalein which is an indicative test of blood.

I have to also take into consideration though the lot of tissue stains, some of them don't test positive for blood because their tissue. They don't have enough blood flow to test positive and the decaying of the stains in connection with the location or the substrate that they are on, so those are the stains that upon you're telling me --

Q Right, right.

1	A though I know what stains you're talking
2	about, I don't recall those luminescing with Luminol. I
3	do recall other areas in the master bedroom luminescing
4	with Luminol.
5	Q Real quick follow-up quéstion, you couldn't
6	approximate where Megan was located so you couldn't even
7	narrow it down to less than 10 feet or anything like that?
8	A If in utilizing the stains that were identified
9	and photographed but tested negative with Phenolphthalein
10	if permitted for me to include those then, yes, I could
11	approximate her location.
1.2	Q But the ones you're relying on you couldn't
13	approximate at all, you couldn't even narrow it down to
14	10 feet?
15	A Correct. Here's the two on the back wall that
16	looked like tissue that would have to be confirmed
17	microscopically.
18	Q These are the very same in the backboard
19	area?
20	A Correct, and they would be tissues so they would
21	actually
-22	Q But they didn't test positive?
23	A With Phenolphthalein.
24	Q So that would indicate they're not blood, right?
25	A That would not exclude it completely but phenol

is a very competent chemical. This would be the bureau 1 and the spatter stains were up in this area. 2 Okay. But you're not using those because you 3 don't think it's reliable to use that simply because the 4 Bluestar, the phenolphthalein was the one used in this 5 test as opposed to the Bluestar? 6 There's two different purposes for those items, 7 yes. Phenolphthalein is a very strong presumptive test 8 and, by my SOPs, when stains are tested with phenol and 9 are indicated to be negative, I opt not to use them, so 10 that's my SOP. 11 SOP meaning? 12 Standard operating procedures. 13 A And I'm going to keep saying phenol because I 14 can't say the word. 15 That's what we call it. 16 But is phenol more accurate than the Bluestar 17 Luminol? 18 Yes. 19 Α So, in your standard operating procedures, is 20 that what an SOP is? 21 Yes. Α 22 You wouldn't use that to base your opinions on? 23 0 Correct, but that does not mean that somebody 24 Α who does is incorrect based on the dynamics of this 25

particular scene.

Q Well, if we were to incorporate those stains, which we're not, but if we were, they would still be coming from the same direction of the spatter that we have, right?

A Yes, and then based on those stains because they were multiple stains would be able to put a location to Megan or, excuse me, to the individual who deposited those stains.

- Q Which we think is Megan?
- A Which based on the other stains that can be I would feel comfortable saying.
- Q But you're not giving that opinion, we're just making that clear?
 - A Correct.
- Q But if we were to incorporate those, where would you place her?
 - A I would place her over by the bed.
 - Q By here?
- A I would place her in this general vicinity over here because the blood would need to come back this way.
- Q But with your SOP you don't feel confident within a reasonable degree of certainty relying on those other stains, correct?
 - A Correct.

MR. SARABIA: 1 2 BY MR. MICHAILOS: Now, let's look if you have pictures of the 3 living room, Megan's blood was found in the living room 4 and the living room stains that were positive for Megan's 5 blood would have been, I would think, transfer stains, 6 7 right? They are small drip stains. 8 Small drip stains? 9 Yes, deposited by --10 Someone else? 11 An individual contaminated with Megan's blood 12 that was in small relative motion close up to the wall. 13 So your opinion would be it wasn't Megan that 14 Q left those stains? Well, it's her blood. 15 It's her blood, I can't exclude her. 16 You can't exclude her, but it's also consistent 17 0 with somebody else dripping off her blood? 18 Sure. 19 And that would be a drip trail? 20 Ó That would just be a passive stain. Right 21 there, there's one, two. 22 Where is this wall in this picture? 23 0 Right here. 24 A Right there? 25 Q

that is low to the floor which would be the -- actually, the patterns actually radiate out from the pools of blood so there's actually spatter patterns on the floor.

Q And that's on the northern wall of the east garage?

A 'That's on the floor and the north wall. Yes, there's two conical spatter patterns that radiate out from the pool of blood which are consistent with a spatter event going two different directions, heading in two different directions.

Q You're gesturing, looks like three or four feet apart or more?

A Yeah, the one large stain here and these expand out to the west and then there's a smaller area of pooled blood over here that expends out to the east and then they're interrupted. These over here actually are altered.

- Q And then there's a big saturation stain there, is that what you call it on the ground?
 - A It's pooled, there's a difference.
- Q I know I'm jumping around but in the master closet where I assuming Greg's body laid, there's a saturation stain that's in the unfinished wood, right?
 - A Correct.
 - Q Would that be a pool stain or a saturation

stain?

A That is a saturation. By definition, saturation is an absorbent material.

Q In the garage, it's cement, it's not going to absorb as much, it's going to pool?

A Right. Technically, if you called it a saturation you wouldn't technically be wrong because cement is porous but, by the nature of the sealants and things that go on, it gave characteristics more of pooled blood.

Q Okay. Thank you. So, we're looking at a photograph of the east garage and it's a very large bloodstain around the two-wheel hand cart?

A The hand cart, I think is what it is. And then you see you have transfer stains up here that have sufficient blood volume in them such they're called downward flow patterns so that is transferred by an item or an individual who was heavily saturated with blood, so that's the significance of that. That is not somebody who has got a faint amount of blood on them, that is significant in the definition of that.

Then, this is your pool of blood. This is what I call the large pool of blood and, right here, you can see these long conical -- first of all, the individual stains themselves are very elongated and they travel at a pretty

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far distance and they form what we call a conical pattern, which conical is just that, it's a cone. Some people call it a fan.

- Q So if I draw lines, that's what you mean by cone?
 - A Yeah, correct.
 - Q The angle would be opening up?
 - A The angle would be.
 - Q Right.

A So that would be considered a conical pattern and that is consistent with a spatter event which is basically blood being distributed by a certain amount of force. You have the same phenomenon over here from this separated small area of pooled blood. These stains are very elongated and they form a small conical pattern and this would be a separate spatter event because of the directionality of the stains. The introduction of the force was a different direction so those are two separate spatter events. And then this one was subsequently altered after its deposition by transfer stains.

Q Like somebody tried to wipe it or it was wiped?

A It's a transfer stain, something bloody was set down on to it, something bloody came into contact with it, it just allowed me to sequence the two. I can say that came first and then that came second.

Q So would your -- in your expertise would your theory be this is Margaret's blood, obviously, right?

A I don't know if that blood was -- I don't believe that blood was tested.

- Q Okay.
- A So, it could be Margaret's blood, yes.
- O Was this blood tested?

A I believe some of them were and they came back as being non-interpretable or not enough DNA.

Q Where was Margaret's blood found? We know it was found in the east garage.

A Right, it was found over by the door and it was found in the west garage in the hall and I believe on the door. I don't have the full DNA. I don't have the full list with me.

Q All right. But is it possible this bloodstain, you believe this is blood spatter, this conical stain, but could there be other explanations for this? Could this be a dead body that's been moved here and when it's moved with its hair strands moving it leaves a pattern like that?

A No, that's not a swipe pattern. That is from an impact of blood. I cannot exclude that something was dropped and hit the ground, that's still a spatter event.

Q So this could be something dropped and hitting

the ground? 1 Correct. 2 As gory as this may be, this could be a corpse 3 that's dropped and the head hits the ground and it makes 4 5 that? Could be. At some point you think that the body lay there long enough to leave this big pooling stain? . 8 Yes, a body laid there for a substantial amount 9 of time because the blood -- that's what we consider to be 10 a large volume of blood and it followed the topography of 11 the floor and started to saturate into the floorboard, the 12 baseboard here. 13. Right. Obviously, you're not an MD, a corpse 14 can still bleed hours afterwards; do you know? 15 That's a question for the Medical Examiner. 16 You don't know. Page 16 of your report at the 17 top you talk of a cluster of small stains could have been 18 caused by minor spatter event; you see where I'm at over 19 here somewhere? 20 A Yes, we discussed that. That's the north wall 2.1 of the hallway in the west garage that's right above a 2.2 23 transfer stain. Repeat that again. 2.4

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Α

The north wall of the west garage hallway.

1.	Q Okay. Was that close to the ground?
.2	A No, that was those were what I would consider
3	to be an upright transfer stain. When I say upright, I
4	mean they're not prone or supine on the ground.
5	Q So, the victim would have been standing there
6	probably, probably would have been standing when she
7	received that blow?
8	A That spatter event, yes, conducive with an
9	upright position.
10	Q The next paragraph you talk about individual
11	made contact with the south wall also had an actively
12	bleeding injury.
13	A Yes. All right. So this is the north wall.
1.4	MR. SARABIA: For the record, I think he's going
15	back to one of the previous questions.
16	MR. MICHAILOS: Correct.
17	THE DEPONENT: There's the labels.
18	BY MR. MICHAILOS:
19	Q Right, right.
20	A See the little scales, the little sticky scales?
21	Q Right.
22	A That's the small spatter event because your
23	stains are small but dispersed in a slightly conical
24	and they have directionality.

1	A And there's a defect.
2	Q Defect in the wall?
3	A Correct.
4	Q Could be unrelated to this?
5	A I have no idea. It looks fairly new but that's
6	out of my realm of expertise.
7	Q This picture would it be like is this the floor
8	and is this the ceiling; do we know?
9	A Yes.
10	Q That sounds about right to you?
11	A Yes.
12	Q So, directionality is it's coming down?
13	A Correct.
14	Q Is that the down directionality?
15	A Correct.
16	Q Gravity?
17	A These are from a spatter event because of their
18	elongation with the tail.
19	Q Right, but gravity plays a role in going down?
20	A Not necessarily if the source of blood is very
21	close to the wall and the blood is able receive the blood
22	immediately, it will not be subjected to the parabolic arc
23	because of the proximity of this wall, these two walls to
24	each other. So when you do an analysis you have to look

25 at the dynamics of the whole scene and this wall would

have been logical for the individual to be in this confined area because that area is confined, it's a small hallway. So, I don't believe that these drops are from the parabolic arc, A, because of where they're located on the wall you would have to assume that they in that small area went way up and had a very drastic parabolic arc which, by the laws of the physics, I wouldn't even consider it that's why I feel as though this spatter event indicated the individual was close to the wall and the wall was able to receive the blood right away.

Q Right. But after the wall received the blood, it doesn't dry immediately so wouldn't gravity on the wall maybe allow for it to drip just a little bit?

A No. Bloodstains are very viscous and when they're that small gravity is not going to -- because blood --

- Q This is blown up, this photograph is blown up?
- A Correct.
- Q That's probably what's throwing me off.
- A Yeah, these stains are small, these are millimeters. So you think these stains are maybe two millimeters in width and I would say probably not even two milliliters so we're talking about tiny stains.
- Q Okay. So you think that the person who suffered the injury was close to this wall?

You got me confused there for a second.

1 .	A Because it's looks completely different than
2	that transfer stain.
3	Q It looks completely different than that one,
4	right? Okay. And this one is in the same wall, right?
5	A Correct.
6	Q And this is after the phenol is put on?
7.	A That is something I believe they used Hungarian
8	red or something called Hungarian red otherwise known as
9	acid fuchsin. I refer to it just as a chemical.
10	Q Is that a different part of the wall? It must
11	be a different part of the wall, right?
12.	A No, it's the same part of the wall, it's that
13	stain right there.
14	Q Okay. And this is afterwards?
15	A Correct.
16	Q They did this before and then they put this on
17	later?
18	A Yes. If possible, you photograph stains prior
19	to any chemical enhancement.
20	Q Did this chemical enhancement help you at all in
21	your work?
22	A It has ridge detail in it so it leads me to
23	believe that it's either a hand or a foot. I have no
2,4	reason to believe it's a foot.

So, it's a transfer on the wall?

It's a transfer with ridge detail, yes. 1 So, you think it's probably a hand? 2 I do because it's got the dynamics of a hand. 3 Somewhere in here, bloody feet, a person with 4 bloody feet, so in the west garage there was some footprints? 6 7 Yès. À Bare footprints? 8 ģ Yes. Were they enhanced with the chemical or they 10 were clearly footprints? 11 There were two that were clearly footprints and 12 then with Luminol they came out, that trail was beautiful. 1.3 I am talking about like used in training beautiful. And 14 it's a foot trail, like you can see almost looks like a 15 ghost. 16 While he's getting that, the mattress behind the 17 SUV with the pillow top, that blood, did that come back to 18 I'm assuming it did. Do you know? 19 Nicholas? On the mattress topper. The mattress itself 20 wasn't tested. 21 Wasn't tested? 22 You can actually see it without Correct. : 23 enhancement here. 24

Okay. Very good.

1	A And then this is it looks like they applied
2	another chemical, I believe, like I said, it's acid
3-,	fuchsin or Hungarian red and then here's a trail.
4	Q That's in the west garage, right?
5	A Correct.
6	Q Near the northern wall?
7	A No, over in the empty bay, this empty bay. See
8	where these tires are and there's all this, it's literally
9	the path goes from here and walks up here.
10	Q From the bay door?
11	A Yes.
12	Q And the bay door would be the south part of the
13	house?
14	A Correct. I mean you can see footprint,
15	footprint.
16	Q But is it clearly the stain what's this
17	called purple
18	A Some call it Hungarian red, some call it acid
19	fuchsin.
20	Q But it reacts with blood to leave that stain?
21	A Correct.
22	Q You wouldn't have this purple if there wasn't
23	blood?
24	A Correct.
O, E	O Poforo they put the Hungarian red or whatever

1	they put on there, you still had an outline of footprint
2	right?
3	A Correct.
4	MR. MICHAILOS: I don't think I have any more
5	questions.
6	MR. SARABIA: I don't have any more questions.
.7	(THEREUPON, the deposition was concluded.)
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CERTIFICATE OF OATH

STATE OF FLORIDA COUNTY OF PASCO

I, the undersigned authority, certify that Anna Marie Cox personally appeared before me and was duly sworn.

Witness my hand and official seal, this 26th day of October, 2017.



Karla Josephik

CERTIFICATE OF REPORTER STATE OF FLORIDA

I, Karla Josephik, Court Reporter, certify that I was authorized to and did stenographically report the foregoing proceedings and that the transcript, pages 1 through 56, inclusive, constitute a true and correct record of my stenographic notes.

I further certify that I am not a relative, employee, attorney, or counsel of any of the parties, nor am I a relative or employee of any of the parties' attorney or counsel connected with the action, nor do I have an interest in the outcome or events of this action.

Dated this 26th day of October, 2017, New Port Richey, Florida.

COUNTY OF PASCO

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