

Kirk Matthews v. State of Maryland, Case No. 3280, September Term 2018. Opinion by Nazarian, J.

EXPERT WITNESSES – RULE 5-702(3) – ANALYTICAL GAP UNBRIDGED

Expert photogrammetry and reverse photogrammetry projection testimony was unreliable, and failed to satisfy Maryland Rule 5-702(3), where the expert's seemingly precise calculation of the suspect's height failed to account for missing and potentially significant input variables. As a result, the analytical gap between the data available for reverse photogrammetry projections and the conclusion the expert offered to the jury remained unbridged, and the trial court erred by admitting the testimony over objection.

Circuit Court for Anne Arundel County
Case No. C02-CR-17-002275

REPORTED
IN THE COURT OF SPECIAL APPEALS
OF MARYLAND

No. 3280

September Term, 2018

KIRK MATTHEWS

v.

STATE OF MARYLAND

Graeff,
Nazarian,
Alpert, Paul E.
(Senior Judge, Specially Assigned),

JJ.

Opinion by Nazarian, J.

Filed: February 25, 2021

* Ripken, J., did not participate in the Court's decision to designate this opinion for publication pursuant to Maryland Rule 8-605.1.

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After a jury trial in the Circuit Court for Anne Arundel County, Kirk Matthews was convicted of two counts each of second-degree murder and use of a firearm in the commission of a crime of violence and one count each of possession of a shotgun after a disqualifying conviction and illegal possession of ammunition. On appeal, he argues that the court erred by permitting one of the State's witnesses to testify about an allegedly inconsistent prior statement made by another witness, by precluding him from questioning another State witness about the witness's criminal charges, and in denying his motion to preclude an expert report and testimony using photogrammetry and reverse photogrammetry projection. We agree the court erred in denying Mr. Matthews's motion to preclude the expert testimony and report, reverse on that ground, disagree with Mr. Matthews's other contentions, and remand for further proceedings.

I. BACKGROUND

The story of this case is complicated and hard to follow. A great many people were involved; many of them are related, others have lived in the affected neighborhood for years. Everything happened late at night, and the participants' vision and memories were incomplete and frequently clouded by substances. There was some video footage, but it too was incomplete. The challenge for everyone lay in piecing together fragments of evidence that took many different forms.

On June 1, 2017, at approximately 12:30 a.m., the bodies of Linda McKenzie and Leslie Smith, her boyfriend, were found by the side of Scott Town Road, a dead-end street in Shady Side. The cause of death for both was multiple shotgun wounds to the upper extremities at close range. After a lengthy trial at which the only disputed issue was the

identity of the shooter, Mr. Matthews was convicted of both murders and related charges.

In the hours before the victims' deaths, each had traveled separately to Scott Town Road. They eventually got into a noisy fight that culminated in them chasing one another down the road in cars, one car driving forward and the other in reverse. The car driving in reverse backed into a ditch near the entrance of Scott Town Road. The police were called, and the car was removed from the ditch with the help of a neighbor, Joseph Tongue. After the car was removed, the victims remained in the vicinity, and the shooting occurred a short time later.

According to the prosecutor's opening statement, Scott Town Road is populated primarily by families who have lived in the area for generations. The prosecutor noted that many of the residents have developed family-like relationships and generally consider each other cousins, whether or not they're actually related by blood or marriage. Scott Town Road is also known to the police department as an open-air drug market, according to the prosecutor's opening statement:

So this area of Shadyside, this is Scotts Town Road. This is Shadyside Road, and this is the road that cuts through called Nick Road, so there's an intersection at the top of Scotts Town Road and Nick Road. This area is commonly known to the police department as what's called an open-air drug market. Particularly, the Scotts Town Road and the intersection of Nick and Scotts Town Road.

Now . . . the locals call this dead-end part of Scotts Town "Down Bottom." They call that entire road "Lane," and this section up here at the intersection of Nick Road and Scotts Town Road is called "Up Top". . . . What you're going to hear is that on any given day, if you drove Down Bottom, to the end of Scotts Town Road, you could go and buy drugs of any sort, illegal drugs, from somebody down in that area. Or . . . you can

return Up Top to the intersection of Nick Road and Scotts Town Road and there's a drug house on the corner.

The day before the murders, the police had set up a surveillance pole camera at the top intersection of Nick Road and Scott Town Road. Another house, the Blunts', has two security cameras. One of the Blunts' cameras is mounted on the garage and aims down the driveway, and the other is set on the left-hand corner of the house aimed out to the street; both point directly at Scott Town Road. The cameras didn't capture the shootings on video, but they did provide evidence and helped paint the picture of events on the night of the murders.

Among the events captured on video was the car chase, which ultimately ended with one of the cars driving in reverse backing into the ditch. From there, the video showed Ms. McKenzie, Mr. Smith, and Mr. Tongue walking up and down the road trying to figure out how to get the car out of the ditch. Then the police arrived, and Mr. Tongue and Mr. Smith are seen pushing the car underneath the pole cam and out of view, then into Mr. Tongue's grandmother's driveway.

Roughly twenty minutes after the police left Scott Town Road, the Blunts' cameras captured people running away from the scene of the shooting and a car backing away from the scene. The video then shows an individual walking on the street, carrying what appears to be a shotgun, cutting past the Blunt house and into the woods.

Both the events following the car's removal from the ditch and the identities of the individuals involved were hotly contested. Many of the witnesses were inebriated and struggled to remember the details of the evening.

Mr. Tongue testified that he was raised by his grandmother on the Lane, was friends with Ms. McKenzie, and is Mr. Matthews's cousin. He said that in the hours leading up to the shootings he consumed about one pint of vodka, four PCP "dippers," and four Xanax bars. He maintained that he had difficulty remembering anything from the night of the murders after pushing Ms. McKenzie's car into his grandmother's driveway. Throughout Mr. Tongue's testimony, he repeatedly reread his own grand jury testimony to refresh his memory. Before the grand jury, he stated that after pushing the vehicle into the driveway, he told the victims to leave because he saw Mr. Matthews coming from Nick Road holding what appeared to be a long gun. Mr. Tongue repeated this statement to the trial jury, but said he could not identify Mr. Matthews by his face or clothing and had presumed the individual was Mr. Matthews based on his walk.

Mr. Tongue then walked away and heard Mr. Matthews arguing with the victims. After Mr. Tongue was some distance away, he heard gunshots and ran. He looked back after the second gunshot and saw Mr. Matthews standing next to Ms. McKenzie and Mr. Smith lying on the ground. The video also showed Mr. Tongue continuing to run and jumping into the car of his cousin, Kevin Matthews, along with a friend, Rico Hicks, who also was also fleeing the scene.

Kevin¹ dropped off Mr. Tongue and Rico at a neighbor's house, where they slept for an hour or more because, Mr. Tongue testified, they were "drunk" and "high." Mr. Tongue testified that at roughly 4:30 a.m. on June 1st, the two encountered the police

¹ We will on occasion refer to Kevin Matthews, Rico and Edward Hicks, and Richard and Charles Jackson by their first names, purely for clarity and meaning no disrespect.

when they tried to leave the neighbor's house and the police escorted them to the police station. The police questioned Mr. Tongue at that time, but he did not mention Mr. Matthews.

Later that same day, around 6:30 p.m., the police again questioned Mr. Tongue when they stopped a car in which he and Rico were riding. Mr. Tongue did not mention Mr. Matthews in response to those questions either. About a week later on June 7th, the police took Mr. Tongue to the police station for an unrelated arrest warrant and they again questioned him about the murders. Mr. Tongue testified that the police insinuated to him that they could help him out with his warrant, and they remarked that "inconveniences like this are going to keep happening," and that "things in the area were not going to go back to normal."

Finally, Mr. Tongue testified that on August 17th, the Fugitive Apprehension Squad picked up him and Rico pursuant to a warrant to obtain their DNA. He testified that the police questioned him a fourth time about the murders, and accused him of "not being honest," and said he was "going to be in this" whether he liked it or not. The detectives then showed Mr. Tongue the Blunt house camera footage, and they warned him that he would see Mr. Matthews in it. Mr. Tongue later identified Mr. Matthews as the individual holding the gun, but maintained that he did not see the murders.

On September 22nd, Mr. Tongue testified before a grand jury after meeting with the prosecutor. At that time, he provided his first account of seeing Mr. Matthews with a shotgun standing within five feet of the victims.

Kevin is Mr. Matthews's and Mr. Tongue's first cousin. At trial, he testified that he

drove the car into which Mr. Tongue and Rico jumped when fleeing Scott Town Road on the night of the murders. Kevin told detectives that he saw Mr. Matthews Up Top at about 10:30 p.m. on May 31st but didn't see him again the rest of the night. He testified that there was a large amount of drug traffic that night, and that loud, rambunctious activity "does not belong" on the Lane. Kevin could not remember what caused him to drive his car in reverse with Mr. Tongue and Rico inside.

Richard Jackson grew up in the area and traveled to the Lane to do drugs the night of May 31st He testified that he arrived in the evening and was Down Bottom with Mr. Matthews and Rico. He saw the victims arguing with each other as they got into their cars and as Ms. McKenzie chased Mr. Smith into the ditch. Richard followed the chase in his own car, with Rico, then parked on the side of Scott Town Road. He testified that Mr. Matthews walked up to the victims and said something like, "come on, y'all. Can you please keep it down?" He explained that Mr. Matthews "was trying to have them, you know, quiet down because they were being super loud." But Mr. Smith was "running his mouth," and that's when Mr. Matthews "just said, that's all right, I got something for your ass or something along those lines" and walked away from the victims. Richard testified that this encounter occurred right before the police came to assist with the car in the ditch, but that he left the scene "pretty much right after" the police left, explaining, "I was waiting for them to leave so I could leave."

Richard also testified that right before he left, he saw Mr. Matthews walking down Nick Road towards Scott Town Road carrying a shotgun. Because of where his car was parked, he could see Mr. Matthews from a distance, walking down the road. He decided to

leave, and he passed Mr. Matthews (and saw him with the shotgun) on the way out. On June 19, 2017, Richard was questioned by the detectives and didn't mention that he had seen Mr. Matthews walking down Nick Road with a shotgun after the ditch incident. When asked why he did not tell the police, Richard responded that "[i]t must have slipped [his] mind." Instead, Richard had told police that he saw Mr. Matthews walking up and down the road with a shotgun forty minutes before the victims' car went into a ditch, and he went on to describe the shotgun in detail. Finally, Richard testified that he had been informed during that June 19th questioning about a reward for information leading to the murder weapon.

Charles Jackson also was on the Lane the night of May 31st, in his case to pick up a friend. He heard Mr. Matthews say that Ms. McKenzie was "making the Lane hot, and to get the shit out of there." Charles drove home while the victim's car was still in the ditch, and he testified that he did not pass any cars parked along the side of Scott Town Road on his way. He explained that it is not a wide road, and there is nowhere to pull over, so he would have noticed another parked car.

Rico grew up in the Shady Side area, roughly two minutes from Scott Town Road, and is Mr. Matthews's and Kevin's first cousin. He testified that on May 31, 2017, he arrived at the Lane in the evening with Kevin and another individual, Peter Brown. Rico bought drugs and, about a half-hour later, walked towards the Bottom alone. On his way, he ran into Mr. Tongue, who followed him, and they passed Ms. McKenzie, who also walked alone on Scott Town Road towards the Top. When Rico arrived Down Bottom, he got high on PCP and crack. Sometime later, while standing in front of the Blunt house,

Rico heard the gunshots and took off running, and testified that Kevin and Mr. Brown picked him and Mr. Tongue up. Rico told the prosecutor that he never looked back and never saw Mr. Matthews the night of the murders, and he repeated the same statements to the police and the grand jury. Moreover, he was unable to recognize the individual with the long gun in the surveillance video.

Rico's uncle, Edward Hicks, testified over the objection of defense counsel. Edward testified that he heard gunshots the morning of June 1, 2017, and later asked Rico what happened. He testified that Rico told him he had seen Mr. Matthews shoot two people and drag them off the road, and that it was the worst thing he had ever seen. Edward admitted that he did not contact the police until five weeks later, and he asked about a reward for providing information that would lead to an arrest. When he later spoke with the prosecutor, he asked again about reward money.

Finally, Kathrine Bragg testified on behalf of the defense. In May 2017, Ms. Bragg was living on Nick Road, where she had moved only six months earlier, with her husband and three children. Ms. Bragg was unfamiliar with the neighborhood before moving there. The night of May 31st, around 10:30, she sat in the driveway of her home with her teenage daughter waiting for her husband to return from work. Ms. Bragg drank four or five White Russian cocktails that night, a regular occurrence for her.

While sitting in the driveway, Ms. Bragg saw a barefoot white woman walk past her house in the direction of Scott Town Road. She described the woman as angry, talking on her cell phone, and wearing short-shorts and a short sleeve top—the same clothing Ms. McKenzie was wearing in crime scene photos. Next, a white, heavier-set man walked

past the Bragg residence in the same direction as the woman. Ms. Bragg heard arguing between the man and woman, and the man stated that “he knew he should have left her.” Then the man reappeared as he walked away from the woman, but promptly turned around and walked back towards the woman, trying to get her to leave.

Approximately ten minutes later, Ms. Bragg and her family saw another white male holding a shotgun and walking down Nick Road in the same direction the other male and female had walked. She testified that the armed man was roughly 5’11” or taller, blondish hair, thin, and twenty-five or younger. The armed individual cocked the shotgun right in front of the Braggs’ house. She explained that the streetlights in front of her house were “really bright” and that she could even see the silver metal and wood on the shotgun. Ms. Bragg’s husband proceeded to call 911 to report the armed man, but while he was still on the phone, they heard the gunshots. The shots were fired roughly two minutes after the armed individual walked past Ms. Bragg’s house.

On June 3, 2017, at 5:30 a.m., the police executed a no-knock search warrant at Mr. Matthews’s home on Shady Side Road, where he lived with his elderly parents. The police recovered various items of clothing from throughout the house, a .410 caliber shotgun from Mr. Matthews’s father’s room, and three items—a twelve-gauge double barrel shotgun, twelve-gauge shotgun barrel, and twelve-gauge ammunition—from Mr. Matthews’s room. The shells found at the murder scene indicated that all were fired from the same weapon, a twelve-gauge shotgun. Forensic analysis revealed, however, that those shells had not been fired from the shotgun found in Mr. Matthews’s room, which fired only from one barrel.

In the wake of the search, Mr. Matthews was arrested for weapon offenses, but he was not charged with the murders of Ms. McKenzie and Mr. Smith until much later. After trial, a jury found Mr. Matthews guilty of two counts each of second-degree murder and use of a firearm in the commission of a crime of violence, and one count each of possession of a shotgun after a disqualifying conviction and illegal possession of ammunition. He noted a timely appeal. We supply additional facts as necessary below.

II. DISCUSSION

Mr. Matthews raises three issues on appeal that we rephrase.² *First*, did the court err in permitting Edward Hicks to testify about an allegedly inconsistent prior statement by

² Mr. Matthews raised three Questions Presented:

1. Did the circuit court err in permitting Edward Hicks to testify about an allegedly inconsistent prior statement made by Rico Hicks?
2. Did the circuit court err in precluding Appellant from questioning a crucial State witness about his charges that were resolved pursuant to a plea agreement before Appellant's trial, with sentencing postponed until after trial?
3. Did the circuit court err in denying Appellant's motion to preclude testimony and a report pertaining to the use of photogrammetry and reverse photogrammetry projection?

The State rephrased those Questions Presented as:

1. To the extent preserved, did the trial court correctly overrule the defense objection to impeaching Rico Hicks with a prior inconsistent statement?
2. Did the trial court soundly exercise its discretion in controlling the scope of Joseph Tongue's cross-examination?
3. To the extent preserved, did the trial court correctly deny the motion to preclude expert testimony concerning the height of the individual depicted in surveillance footage?

Rico Hicks? *Second*, did the court err in precluding Mr. Matthews from questioning Mr. Tongue about criminal charges that had been resolved via plea agreement before Mr. Matthews's trial? *Third*, did the court err in denying Mr. Matthews's motion to preclude the State's expert testimony and report using photogrammetry and reverse photogrammetry projection to identify him?

A. The Trial Court Did Not Err In Overruling The Defense's Objection To Impeach A Witness With A Prior Inconsistent Statement.

Mr. Matthews contends that the trial court violated Maryland Rules 5-616³ and 5-613 when it admitted extrinsic evidence about an allegedly inconsistent prior oral statement by Rico Hicks. He argues *first* that the State did not disclose the contents or circumstances of the statement adequately; *second*, that Rico was not given an opportunity to explain or deny the statement; and, *third*, that Rico did not deny making the statement, but simply did not remember. Additionally, Mr. Matthews argues that the State only called Rico as a

³ Md. Rule 5-616 allows prior inconsistent statements and extrinsic evidence of those statements to come in for impeachment:

(a) **Impeachment by Inquiry of the Witness.** The credibility of a witness may be attacked through questions asked of the witness, including questions that are directed at:

(1) Proving under Rule 5-613 that the witness has made statements that are inconsistent with the witness's present testimony;

(b) **Extrinsic Impeaching Evidence.**

(1) Extrinsic evidence of prior inconsistent statements may be admitted as provided in Rule 5-613(b).

“subterfuge” to admit otherwise inadmissible hearsay as “impeaching” evidence, and thus ran afoul of Rule 5-613.

In response, the State advances several arguments. *First*, the State argues that Mr. Matthews failed to preserve his objection for appellate review because defense counsel gave specific grounds for objection that do not encompass the broader objections on appeal. And even if the objection was preserved, the State says, Mr. Matthews abandoned his objection when his defense counsel came to a “shared understanding” with the court. *Second*, the plain language of Rule 5-613(b) does not require the witness to deny affirmatively making the statement, only that “the witness failed to admit having made the statement.” *Third*, the State argues that Mr. Matthews did not preserve his argument that Mr. Hicks was called as a “subterfuge” to admit inadmissible hearsay. We agree with most of the State’s arguments.

On October 19, 2019, the fourth day of trial, the State called Rico as its twelfth witness. Throughout the investigation and grand jury testimony, Rico maintained that he had not seen the shooting or any individual with a gun the night of the murders. At trial, Rico testified that he did not see Mr. Matthews the night of May 31st and into the morning hours of June 1st. On cross-examination the prosecutor asked Rico if he had remembered telling his uncle Edward a different version of events:

[THE STATE]: Sir, do you remember telling any—telling other people that you did see more than what you’ve told the jury here today?

[MR. HICKS]: No, ma’am.

[THE STATE]: Do you know who Edward Hicks is?

[MR. HICKS]: Yeah, m.

[THE STATE]: Okay. Do you remember telling him anything about what happened that night?

[MR. HICKS]: No, ma'am.

[THE STATE]: Okay. That's all I have for him. Thank you.

After Rico stood down, the State pronounced its intention to impeach him by having Edward testify about a prior, and allegedly inconsistent, oral statement. The defense moved to preclude the State from impeaching Rico, arguing that he could not be impeached with an inconsistent prior statement because he had not denied making any particular statement, but had testified only that he did not remember telling his uncle anything about what happened. The court, prosecutor, and defense counsel then debated what had been asked during the testimony:

[DEFENSE COUNSEL]: Your Honor, [Edward] is going to be my witness and given Rico Hicks' testimony and the State indicating that they plan to impeach Mr. Hicks' testimony, Rico Hicks that is, with statements previously made to Edward Hicks, I would make a motion to preclude that. As we have heard Rico Hicks testify here today that he, in his words, does not remember speaking to Edward Hicks at all about the night incident, which I think does not open for the State to impeach with a prior statement concerning that night. He denied making statements. He didn't state that something different than his testimony here today, which is generally consistent with the testimony he gave before the grand jury, and consistent with statements made previously to Ms. Poma as well as to Detective Carbonaro. So I think given his testimony that he does not remember, that impeachment with that prior statement is not proper.

[THE STATE]: Your Honor, the question before I asked, do you remember telling Edward Hicks, was, did you ever tell anyone that you saw what happened that night, and he said no.

THE COURT: He did – he did say he didn't. I wrote down that he said he didn't.

[DEFENSE COUNSEL]: Right, but when specifically asked about Mr. Hicks, did not say no, I didn't speak to him. He said, I don't remember telling him anything about that night.

THE COURT: I think, at some point, I remember that he said he didn't tell him.

[THE STATE]: I think he did too. But either way, if he said he never told anyone, I was only trying to give him an opportunity so that we did not feel that he has an opportunity to handle it himself. But I agree with Your Honor that I think he laughed and said, no, I didn't tell anyone that or I didn't tell him that.

THE COURT: Do we all agree that he said he didn't tell anyone that?

[DEFENSE COUNSEL]: Your Honor, my notes indicate he was asked, did you tell anyone that you saw more and his response was no.

THE COURT: Right. So I think that sufficiently – anyone, certainly, would – I wrote down – and granted, I don't say write down word for word that he didn't say anything to his uncle. I recall him saying he didn't tell anyone. It is possible that my notes aren't word for word, so I don't want to suggest that they are, but I think not telling anyone includes not telling his uncle. So I think there's sufficient basis to allow the State to ask, inquire. So I am going to allow it.

Under Maryland Rule 8-131(a)⁴, we ordinarily will not decide any issue unless it appears plainly to be preserved in the record at the trial court. To preserve an argument for

⁴ Maryland Rule 8-131(a) defines the scope of review as:

(a) **Generally.** The issues of jurisdiction of the trial court over the subject matter and, unless waived under Rule 2-322, over a person may be raised in and decided by the appellate court whether or not raised in and decided by the trial court. Ordinarily, the appellate court will not decide any other issue unless it plainly appears by the record to have been raised in or decided by the trial court, but the Court may decide such an issue if necessary or desirable to guide the trial court or to avoid the expense and delay of another appeal.

appeal, a party shall object to the admission of evidence at the time the “evidence is offered or as soon thereafter as the grounds for objection become apparent. Otherwise, the objection is waived.” Md. Rule 4-323(a). Similarly, “[a] party must bring his argument to the attention of the trial court with enough particularity that the court is aware . . . what the parameters of the issue are.” *Harmony v. State*, 88 Md. App. 306, 317 (1991). If counsel provides specific grounds for objection, “the litigant may raise on appeal only those grounds actually presented to the trial judge.” *Anderson v. Litzenberg*, 115 Md. App. 549, 569 (1997).

At trial, Mr. Matthews objected to the State impeaching Mr. Hicks with a prior inconsistent statement based specifically on the argument that Rico did not deny making the statement, but didn’t remember making one. The State is right, then, that Mr. Matthews did not preserve the entire argument he seeks to raise here. *See Brecker v. State*, 304 Md. 36, 39–40 (1985) (“[W]hen an objector sets forth the specific grounds for his objection, although not requested by the court to do so, the objector will be bound by those grounds and will ordinarily be deemed to have waived other grounds not specified.”).

That said, we don’t agree that Mr. Matthews abandoned the objection he did make when the defense came to a “shared understanding” with the court. When objecting to a trial court’s evidentiary ruling, “it is sufficient that a party, at the time the ruling or order is made or sought, makes known to the court the action that the party desires the court to take or the objection to the action of the court.” Md. Rule 4-323(c); *see also Marquardt v. State*, 164 Md. App. 95, 143 (2005). In this case, the record reveals a clear intention by Mr. Matthews’s counsel to object to the admissibility of impeachment evidence against

Mr. Hicks. *See Smith v. State*, 218 Md. App. 689, 702 (2014) (“The broader principle underlying our preservation decisions focuses on whether the party objecting on appeal gave the circuit court a proper opportunity to avoid or resolve errors during the trial, not on hyper-technicalities.”). We don’t read defense counsel’s agreement with the court and the State about the contents of the colloquy to waive arguments flowing from counsel’s ultimately correct recollection of Rico’s testimony. Everyone was trying to remember what happened, the court ruled, and nothing in the colloquy suggests that counsel intended to waive or abandon the argument they in fact made.

That leaves the question that *was* raised, *i.e.*, whether Edward’s testimony about Rico’s prior oral statement—that he allegedly witnessed Mr. Matthews committing the murders—was admissible as a prior inconsistent statement to impeach Rico when he testified that he didn’t remember making any statement. Decisions to admit prior inconsistent statements are legal decisions we review *de novo*. *Brooks v. State*, 439 Md. 698, 708–09 (2014). A witness’s prior inconsistent statement is “[a] witness’s earlier statement that conflicts with the witness’s testimony at trial.” *Belton v. State*, 152 Md. App. 623, 632 (2003) (alteration in original) (*quoting* Black’s Law Dictionary 1212 (7th ed. 1999)). Generally, “prior statements by a witness that are inconsistent with the witness’s in-court testimony are admissible to impeach the credibility of the witness.” *Stewart v. State*, 342 Md. 230, 236 (1996). “Evidence is ‘extrinsic’ when it is ‘proved through another witness, or by an exhibit not acknowledged or authenticated by the witness sought to be contradicted.’” *Anderson v. State*, 220 Md. App. 509, 519 (2014) (*quoting* 6 Lynn McLain, *Maryland Evidence State and Federal* § 607:3, at 553 (3d ed. 2013)).

Maryland Rule 5-616 permits extrinsic evidence of a prior inconsistent statement for the purpose of impeachment if Rule 5-613(b) is satisfied. Rule 5-613 looks, among other things, at whether the witness admits making it:

(a) **Examining witness concerning prior statement.** A party examining a witness about a prior written or oral statement made by the witness need not show it to the witness or disclose its contents at that time, provided that before the end of the examination (1) . . . if the statement is oral, the contents of the statement and the circumstances under which it was made, including the persons to whom it was made, are disclosed to the witness and (2) the witness is given an opportunity to explain or deny it.

(b) **Extrinsic evidence of prior inconsistent statement of witness.** Unless the interests of justice otherwise require, extrinsic evidence of a prior inconsistent statement by a witness is not admissible under this Rule (1) until the requirements of section (a) have been met and the witness has failed to admit having made the statement and (2) unless the statement concerns a non-collateral matter.

Before a party can offer extrinsic evidence of a prior allegedly inconsistent oral statement of a witness, (1) the content of the statement and the circumstances under which it was made must be disclosed to the witness; (2) the witness must be given an opportunity to explain or deny making the statement; (3) the witness must fail to admit having made the statement; and (4) the statement must not be collateral to the issues. *Brooks*, 439 Md. at 717–18.

The objection Mr. Matthews preserved bears on the third element—the witness must “fail[] to admit having made the statement.” *Id.* at 718 (*quoting* Md. Rule 5-613(b)(1)). Mr. Matthews contends this foundational element is missing because Mr. Hicks “did not say, no, I didn’t speak to him. He said, I don’t remember telling him anything about that

night.” We disagree. The purpose of the foundational requirements “is to accord the witness the opportunity to reflect upon the prior statement so that he may admit it or deny it, or make such explanation of it as he considers necessary or desirable.” *Devan v. State*, 17 Md. App. 182, 193 (1973). But “[i]f the witness denies making the designated statement or asserts that he does not remember whether he made it, the foundation contemplated by the general rule for the introduction of the statement has been satisfied.” *McCracken v. State*, 150 Md. App. 330, 342–43 (2003) (quoting *State v. Kidd*, 281 Md. 32, 47 (1977)); see also *Moxley v. State*, 205 Md. 507, 516 (1954) (“Impeaching testimony can be offered when the witness states that she does not remember whether she did or did not make the designated statement.”). Moreover, the plain language of Rule 5-613(b) does not require an affirmative denial, but only that the witness “*failed to admit* having made the statement.” Md. Rule 5-613(b) (emphasis added).

Here, Mr. Hicks was asked if he recalled telling his uncle Edward that he saw more about the night in question than what he described in his testimony, and he answered, “No, ma’am.” The trial court did not abuse its discretion in finding that Rico “failed to admit having made the statement” for purposes of Rule 5-613(b) when he denied saying anything at all.

Finally, Mr. Matthews argues that the State only called Mr. Hicks to testify as a “subterfuge” to admit otherwise inadmissible hearsay as impeaching evidence. The State asserts again that this argument was not advanced in the trial court, we agree that it wasn’t, and it is not before us.

B. The Circuit Court Did Not Abuse Its Discretion In Limiting The Defense's Cross-Examination.

Until roughly two weeks before he testified at Mr. Matthews's trial, Mr. Tongue had three criminal cases pending against him, all in Anne Arundel County. Shortly before trial, Mr. Tongue entered into a plea agreement that encompassed two guilty pleas and caused the other case to be stetted.

Mr. Tongue's first case arose from an incident that occurred on May 22, 2017, before the murders of Linda McKenzie and Leslie Smith. Mr. Tongue was charged in that case with second-degree assault and reckless endangerment. That case was stetted on October 5, 2018. His second case stemmed from an incident on November 29, 2017. He was charged in that case with kidnapping, first and second-degree assault, reckless endangerment, false imprisonment, theft, and malicious destruction of property less than one thousand dollars, and he pleaded guilty to reckless endangerment on October 5, 2018, shortly before Mr. Matthews's trial. The final case arose from an incident that occurred on June 6, 2018. Mr. Tongue was charged with home invasion, first- and fourth- degree burglary, second-degree assault, malicious destruction of property, theft, credit card theft, and false imprisonment. He pleaded guilty in that case to second-degree assault, also on October 5, 2018. Under the plea agreement, Mr. Tongue received a combined sentence of four years of active incarceration with three years of supervised probation, but sentencing was delayed until after Mr. Matthews's trial.

At Mr. Matthews's trial, the defense argued that they should be allowed to cross-examine Mr. Tongue about (a) all three cases, including the fact that the lead charges in

two of the cases were kidnapping and home invasion; (b) the charges to which he pleaded guilty; (c) the statutory maximums for those charges; (d) the fact that “stet” means a case can be brought back and set for trial; and (e) how he perceived the terms of his plea agreement. Counsel noted that his sentencing had been postponed until after the trial and asserted her good faith belief (based on her own conversation with him) that Mr. Tongue thought he could “do better” than the agreed-upon amount of time. Finally, the defense maintained that the issue was not whether there actually was a deal with the State for Mr. Tongue’s trial testimony, but whether Mr. Tongue perceived that his testimony could get him a benefit or leniency at sentencing.

The trial court ruled the defense was entitled to cross-examine Mr. Tongue about the case that preceded his grand jury testimony, which took place on September 22, 2018, and about the terms of the plea agreement that encompassed all three cases. The court reasoned that Mr. Tongue could not, at the time of his grand jury testimony, have perceived he would receive some benefit in connection with future offenses. The court precluded the defense from eliciting the charges brought against Mr. Tongue in the two cases that arose after the grand jury testimony and the statutory maximums for the charges to which Mr. Tongue had pleaded guilty, although the court allowed that if Mr. Tongue’s testimony was inconsistent with his grand jury testimony to the benefit of the State, the court would be willing to revisit the issue.

Mr. Tongue turned out to be a rather uncooperative trial witness.⁵ He testified

⁵ The prosecutor argued to the jury in rebuttal, “[i]f he’s here lying for the purposes of gaining a benefit, do you think it would be like pulling teeth to actually get him to

repeatedly that he couldn't remember the night of the murders, and his memory had to be refreshed on multiple occasions with his own grand jury testimony. Overall, his trial testimony remained consistent with his grand jury testimony and the court declined to extend the scope of Mr. Matthews's cross-examination.

Mr. Tongue testified that on October 5, 2018, he pled guilty to second-degree assault and reckless endangerment pursuant to a plea agreement that resolved the three separate cases against him, and his sentencing was postponed until November 16, 2018. He understood the first case was put on the stet docket, meaning it would not be prosecuted at this time, but could be prosecuted at a later date. The court permitted defense counsel to elicit, over the State's objection, that one of the charges in the case that had been stotted was second-degree assault, which carried a maximum penalty of ten years. Mr. Tongue confirmed that the plea agreement called for four years' active incarceration, but that there was no agreement as to suspended time or probation and that he hoped to get time served instead of four years. The defense never asked Mr. Tongue whether he had a subjective expectation of receiving a benefit as a result of testifying in this case. And on redirect, the State addressed this point directly—Mr. Tongue denied having any such expectation and confirmed that he didn't want to testify against his cousin.

1. A threshold level of inquiry.

Mr. Matthews takes issue with the extent of questioning he was allowed about the plea agreement and the fact that Mr. Tongue's sentencing was postponed until after trial.

remember anything or to answer anything?"

In particular, he argues he was limited impermissibly in questioning Mr. Tongue about his subjective expectation of obtaining a benefit in his cases, the charges stemming from his prior arrests, and the statutory maximum penalties for those charges. The State counters that Mr. Matthews was given the opportunity to reach the “threshold level of inquiry” regarding possible bias stemming from a subjective expectation of benefit. We agree with the State.

The right of a criminal defendant to cross-examine a State’s witness is “essential to the truth-finding function of a trial.” *Peterson v. State*, 444 Md. 105, 122 (2015); *see also* *Martinez v. State*, 416 Md. 418, 428 (2010) (“The right of confrontation includes the opportunity to cross-examine witnesses about matters relating to their biases, interests, or motives to testify falsely.” (citing *Davis v. Alaska*, 417 U.S. 308, 316–17 (1974))). This right is safeguarded by the confrontation clauses contained in both the federal and Maryland constitutions.⁶ This tenet also is incorporated in Md. Rule 5-616(a)(4), which provides that “[t]he credibility of a witness may be attacked through questions asked of the witness, including questions that are directed at . . . [p]roving that the witness is biased, prejudiced, interested in the outcome of the proceeding, or has a motive to testify falsely.” Md. Rule 5-616(a)(4).

⁶ The Sixth Amendment to the United States Constitution, as applied to the states through the Fourteenth Amendment, guarantees that “[i]n all criminal prosecutions, the accused shall enjoy the right . . . to be confronted with the witnesses against him.” Similarly, Article 21 of the Maryland Declaration of Rights provides “[t]hat in all criminal prosecutions, every man hath a right . . . to be confronted with the witnesses against him; to have process for his witnesses; [and] to examine the witnesses for and against him on oath.”

The court must allow a defendant the opportunity to reach a “threshold level of inquiry” that “expose[s] to the jury the facts from which jurors, as the sole triers of fact and credibility, could appropriately draw inferences relating to the reliability of the witness” to not run afoul of the afforded rights granted by the Confrontation Clause. *Martinez*, 416 Md. at 428 (first quoting *Smallwood v. State*, 320 Md. 300, 307 (1990); then quoting *Davis*, 415 U.S. at 318). So long as the defendant is allowed this “threshold level of inquiry,” the trial courts retain discretion to limit the scope of questioning to prevent “harassment, prejudice, confusion of the issues, and inquiry that is repetitive or only marginally relevant.” *Peterson*, 444 Md. at 123 (quoting *Martinez*, 416 Md. at 428). We review limitations on cross-examination for an abuse of discretion. *Id.* at 124.

2. *The trial court didn’t abuse its discretion.*

“Cross-examination is the principal means by which the believability of a witness and the truth of his testimony are tested.” *Davis*, 415 U.S. at 316. But the right to cross-examine isn’t absolute—it guarantees only “an *opportunity* for effective cross-examination, not cross-examination that is effective in whatever way, and to whatever extent, the defense might wish.” *Delaware v. Fensterer*, 474 U.S. 15, 20 (1985) (per curiam) (emphasis in original). The record in this case reflects that Mr. Matthews was provided with ample opportunity to elicit from Mr. Tongue information about his pending charges that relate to his credibility as a witness. Before the jury, Mr. Tongue confirmed that he understood that he could be subject to prosecution on his statted second-degree assault charge, that the maximum sentence on that charge was ten years, that he pled guilty to second-degree assault and reckless endangerment, that the sentence contemplated by his

plea agreement was four years, that his sentencing hearing was postponed to November, and that he hoped to get as close to time served as possible.

Trial courts have “wide latitude” to impose reasonable limits on cross-examination. *Peterson*, 444 Md. at 123 (quoting *Smallwood*, 320 Md. at 307–08). In this instance, the trial court grounded its limitations on Mr. Matthews’s questioning to his grand jury testimony, while allowing for the possibility to revisit the issue if Mr. Tongue strayed from it:

THE COURT: [T]he reason why I’ve fashioned my ruling in this manner is that [Mr. Tongue] would have had to have been able to see in the – into the future, essentially, in order to gain some benefit regarding future offenses at the time he gave his Grand Jury testimony. So we’ll see how he testifies. And, if appropriate, I’m open to revisiting the issue.

The defense maintains that they were prohibited from eliciting Mr. Tongue’s expectations of a benefit in exchange for information or testimony and from being allowed to paint the full picture of the charges Mr. Tongue was facing when he entered the plea agreement. But despite the defense’s claim they it had a “good faith” understanding of Mr. Tongue’s subjective mindset from their own pre-trial discussions with him, counsel never asked Mr. Tongue if he had a subjective expectation of a benefit for his testimony. That opportunity distinguishes this case from *Manchame-Guerra v. State*, 457 Md. 300, 320–22 (2018) and *Calloway v. State*, 414 Md. 616 (2010), in which the defendants were prohibited altogether from making any inquiry as to whether witnesses had a subjective expectation of benefit in their own criminal cases. *See Manchame-Guerra*, 457 Md. at 307; *see Calloway*, 414 Md. at 632–33.

Montague v. State, 244 Md. App. 24 (2019), *aff'd on other grounds*, 471 Md. 657, (2020),⁷ provides a closer analogy. In that case, the defendant asserted that the trial court had erred by limiting defense counsel from cross-examining a State witness about the sentence her charges carried and by instructing the jury to disregard her potential seventy-year sentence (compared to the nine-month sentence she received). 244 Md. App. at 65. We held that the defense had had sufficient opportunity to ask the witness about her prior convictions and, in response to the State's objection to questions about the maximum sentences, that the court had informed the defense properly that those questions would be appropriate if she had received a plea bargain in return for her testimony. *Id.* The defense counsel declined to show the witness had received any special treatment. *Id.* at 66.

In this case, the trial court observed “both sides agree that there was no deal in place here” in exchange for Mr. Tongue's testimony. On these facts, the trial court afforded Mr. Matthews reasonable latitude to demonstrate and argue why Mr. Tongue's testimony should be viewed with skepticism, and he was given the opportunity to inquire about Mr. Tongue's subjective belief. That got Mr. Matthews to a “threshold level of inquiry,” and we see no abuse of discretion in the trial court's decision to prevent him from going farther.

⁷ The Court of Appeals granted *certiorari* in *Montague* solely to consider a different question—“Is artistic expression, in the form of rap lyrics, that does not have a nexus to the alleged crime relevant as substantive evidence of a defendant's guilt?”—and did not address the proper scope of cross-examination. *Montague v. State*, 467 Md. 690 (2020).

C. The Trial Court Erred In Denying Mr. Matthews's Motion To Preclude Testimony And A Report Pertaining To The Use Of Photogrammetry And Reverse Photogrammetry Projection.

Mr. Matthews filed a motion *in limine* to preclude the testimony and report of Kimberly Meline and Jenna Walker, an FBI physical scientist and her trainee, in which they used photogrammetry and reverse photogrammetry projection to identify the shooter from contemporaneous videos. He argued that allowing the testimony and report of Ms. Meline would violate Rules 5-702 and 5-403, the then-prevailing *Frye-Reed*⁸ standard, and the due process and fair trial rights guaranteed by the Sixth and Fourteenth Amendments of the United States Constitution and Article 24 of the Maryland Declaration of Rights.

On September 21, 2018, Ms. Meline took the stand at a pre-trial hearing. She testified that she was a physical scientist with the FBI who had completed dozens of photogrammetric exams and had testified in court about photogrammetry four or five times. She clarified that she specializes in multimedia evidence and explained that photogrammetry involves taking measurements from photographs to determine how fast a vehicle is moving through a video, the length of a firearm, or how tall a subject is. From there, she explained that reverse photogrammetry projection is a specific type of photogrammetry that involves going back to a scene, recreating the image conditions, and then placing a calibrated measuring device where the subject was standing as a way of determining how tall the person was. Following a thorough discussion of Ms. Meline's

⁸ *Frye v. United States*, 293 F. 1013 (D.C. Cir. 1923); *Reed v. State*, 283 Md. 374 (1978).

qualifications, she was admitted as an expert in photogrammetry and reverse photogrammetry projection.

Ms. Meline testified that she was asked to analyze surveillance video from the Blunt house to determine whether she could find an image that would be conducive to an accurate photogrammetric analysis for the case against Mr. Matthews. She and her trainee concluded that there was one still image “that would be within a reasonable margin of error” to complete the analysis. On November 28, 2017, Ms. Meline and Ms. Walker traveled to the Blunt house and used the same surveillance cameras that had captured the “questioned image.” They ensured the camera was still in the same position, overlaid the live video with the questioned image using software, aligned the stationary items such as trees in both images, and placed a height chart in the location where the suspect appeared to be standing in the questioned image. To simplify, she explained that the overlay between the questioned image and the image with the height chart was used to estimate how tall the suspect was.

Next, Ms. Meline detailed her process for estimating the uncertainty or error associated with the height measurements. She explained that the margin of error is calculated by using positional accuracy and the resolution of the imagery. Positional accuracy is determined by pixels in the image; in this case, each pixel of the questioned image represented 0.53 inches, so if they were off by one pixel in placing the height chart, the height estimate would be off by 0.53 inches. Ms. Meline estimated the suspect’s height as 5’8”, with a margin of error of plus or minus 0.67 of an inch.

Additionally, Ms. Meline explained that along with the 0.67 inch margin of error,

termed as “calculated uncertainty,” there was “incalculable uncertainty” based on factors such as the quality of the image (it was taken at night), the unevenness of the terrain, the body position of the individual, the inability to see his feet, and the head covering the individual was wearing. She expressed concern about this particular examination because the subject was standing a “considerable distance” from the camera, felt obligated to “qualify” her results because the uneven terrain would make a difference in whether the camera lens height was actually at the position of the suspect, and noted that “because the terrain was somewhat uneven it wasn’t able to be completely, accurately collected.” Finally, she admitted that she had concerns about the “stature of the individual.” When performing this kind of analysis, she looks for an image “in which the individual is at as near full stature as possible,” *i.e.*, visible from head to toe and at the full height of their stride. She testified that she chose the best image she could, where the suspect was “as near full height as possible,” but confessed “there was some concern about that.” She specified that she “d[idn’t] have a scientific way of quantifying how these dimensions had an effect on my measurement,” and agreed that the degree of uncertainty could be “significantly greater” than 0.67 inches and ultimately could not be quantified.

In closing, the defense argued that that the photogrammetry evidence should be precluded because it was improper to tell the jury that the FBI had estimated a suspect height of 5’8” when there were so many variables not included in the calculation. As a result, the defense argued, the evidence was significantly more prejudicial than probative, Rule 5-403, because the jury would be misled into thinking the number was more accurate than it was; that there was an insufficient factual basis to support the height estimate as

required by Rule 5-702; and that it was inadmissible under *Frye-Reed* because, while photogrammetry can be reliable, in these circumstances there was an analytical gap between the methodology and the conclusion. The State responded that the incalculable uncertainty could be pointed out on cross-examination and disagreed that any analytical gap existed.

Ultimately, the court denied the motion. The court ruled that the evidence was not unfairly prejudicial under Rule 5-403 because it had probative value, that the report's conclusion was qualified by the statement about the unquantifiable uncertainty, and the unquantifiable uncertainty could be showcased on cross-examination. Under Rule 5-702, the court ruled that the evidence was admissible because the expert was qualified, her testimony was appropriate to her particular subject of expertise, and "there was a sufficient factual basis to support the opinion she will express." Finally, the court acknowledged that Mr. Matthews was also challenging admission of the evidence "under the second prong of *Frye-Reed*," but denied the motion without making explicit findings.

On appeal, Mr. Matthews contends the evidence was inadmissible under Rule 5-702, Rule 5-403, and the *Frye-Reed* standard. The State disputes that Mr. Matthews preserved his *Frye-Reed* argument because the trial court failed to make a particular ruling on the theory. To the extent preserved, the State argues that no analytical gap exists. Additionally, the State characterizes Mr. Matthews's 5-702 argument as "unavailing" and urges us to find no abuse of discretion as the admission of the evidence at issue would have been harmless. We disagree.

1. Preservation, Frye-Reed, and Md. Rule 5-702

The State contends that Mr. Matthews’s argument that the expert’s conclusion as stated in the report should have been excluded due to an “analytic gap” is not properly before us because the trial court did not make findings or a ruling on this particular theory when it denied the pre-trial motion. But the issue isn’t whether the trial court ruled—what matters is whether Mr. Matthews brought “his argument to the attention of the trial court with enough particularity that the court is aware . . . what the parameters of the issue are.” *Harmony v. State*, 88 Md. App. 306, 317 (1991). He did.

At the time this case was in the trial court, the *Frye-Reed* standard still governed “the admissibility of scientific evidence and expert scientific testimony.” *Montgomery Mut. Ins. Co. v. Chesson*, 399 Md. 314, 327 (2007) (citing *Reed*, 283 Md. at 389). The *Frye-Reed* standard worked in tandem with Md. Rule 5-702, which governs the admission of expert testimony generally:

Expert testimony may be admitted, in the form of an opinion or otherwise, if the court determines that the testimony will assist the trier of fact to understand the evidence or to determine a fact in issue. In making that determination, the court shall determine (1) whether the witness is qualified as an expert by knowledge, skill, experience, training, or education, (2) the appropriateness of the expert testimony on the particular subject, and (3) whether a sufficient factual basis exists to support the expert testimony.

Md. Rule 5-702.

In the time since, the Court of Appeals rejected the *Frye-Reed* standard in favor of the standard set forth in *Daubert v. Merrell Dow Pharmaceuticals, Inc.*, 509 U.S. 579 (1993). See *Rochkind v. Stevenson*, 471 Md. 1 (2020). Because this case was pending on

direct appeal at the time *Rochkind* was decided, and because we already have found the question preserved, the new standard applies to this case. *Id.* at 39. That said, Rule 5-702 remains the primary analytical rubric—the standard contributes to the application of the Rule, not the other way around. As *Rochkind* itself directs, “[a]dopting *Daubert* eliminates the duplicative analysis [of the reliability of the expert’s methodology] and permits trial courts to evaluate *all* expert testimony—scientific or otherwise—under Rule 5-702.” *Id.* at 35 (emphasis in original).

The primary analytical difference between the two standards here—the elimination of *Frye-Reed*’s focus on the acceptance of the methodology in the scientific community versus *Daubert*’s look at the overall reliability of the testimony—doesn’t shift the analysis in this case in any seismic way.⁹ That’s true primarily because Mr. Matthews does not challenge Ms. Meline’s expert qualifications or the general scientific possibility that reverse photogrammetry projection may be used to obtain the individual’s height. Instead, Mr. Matthews’s arguments focus on the third prong of Rule 5-702, and specifically on the trial court’s finding that “a sufficient factual basis exists to support the expert testimony.” That is still a reliability question, but it turns on the application of this universe of facts to the established method rather than on questions about the reliability of the method itself. We review the ultimate evidentiary decision for abuse of discretion. *Exxon Mobil Corp. v. Ford*, 204 Md. App. 1, 30, 40 (2012), *aff’d in part, rev’d in part*, 433 Md. 426 (2013).

⁹ At our invitation, the parties filed supplemental briefs on the question of whether *Rochkind v. Stevenson* affected their positions in the case. At the risk of oversimplifying, both sides argued in essence that *Rochkind* supported and enhanced their earlier view of the case.

The analysis of Rule 5-702(3) “consists of two distinct sub-factors. It is first required that the expert have available an adequate supply of data with which to work. It is then required that the expert employ a reliable methodology in analyzing that data.” *CSX Transp., Inc. v. Miller*, 159 Md. App. 123, 189 (2004). Moreover, “[f]or expert testimony to be admissible, his or her conclusions must be based on a sound reasoning process explaining how the expert arrived at those conclusions.” *Roy v. Dackman*, 445 Md. 23, 43, (2015) (quoting *Exxon Mobil Corp.*, 433 Md. at 483). An expert witness’s testimony is expected to “give the jury assistance in solving a problem for which their equipment of average knowledge is inadequate.” *Radman v. Harold*, 279 Md. 167, 169 (1977) (quoting *Casualty Ins. Co. v. Messenger*, 181 Md. 295, 298–99 (1943)). But “[w]here the trial judge has admitted the testimony, the appellant must convince the appellate court that, as a matter of law, the expert’s methodology ‘was not even *arguably* reliable and that any judge who could even think otherwise would be guilty, ipso facto, of an abuse of discretion.” *Exxon Mobil Corp.*, 204 Md. App. at 30 (quoting *CSX Transp., Inc.*, 159 Md. App. at 208).

The purpose of this expert testimony was to measure the height of the person in the video as a way of narrowing down the identity of the shooter. The height mattered: Ms. Bragg testified that the man she saw walking past her house with a gun was 5’11” or taller, white, and in his mid-20s; Mr. Matthews is African-American and was 5’8”, and the contemporaneous videos weren’t clear enough to allow a distinction even between these two possible suspects. Ms. Meline concluded that the person in the video was 5’8” with a “calculable uncertainty” of 0.67 inches, which would seem to eliminate a taller white man

as the shooter. But without shrinking from her estimate, she undermined her calculation by acknowledging that there was no scientific way to calculate the actual uncertainty, and that the margin of error could be significantly greater due to the “far from pristine” circumstances of this case. When first confronted with the Blunt surveillance video, she opined that the poor resolution of the footage and the distance of the suspect from the camera would lead to a margin of error that would likely be plus or minus three inches. But even after she refined her initial estimation, Ms. Meline admitted that she was unable to see the individual’s feet, that the individual was wearing a head covering, and that there was “concern” about the subject not being at “full height” in the video she was measuring.

Under these circumstances, the missing input variables that had not been considered in the seemingly precise height calculation prevented a reliably accurate height calculation. Put another way, the analytical gap between the data available for reverse photogrammetry projections and the conclusion Ms. Meline offered to the jury remained unbridged. Although Mr. Matthews was able to challenge Ms. Meline’s conclusions by cross-examining her about the missing pieces, it should not have fallen to the jury to work through the science on its own. And the unreliability of the height estimate resulting from this expert testimony raises serious doubt about whether the probativity of allowing it in outweighed the danger of unfair prejudice, especially where the video itself was unilluminating and the remaining testimony so equivocal. Md. Rule 5-403; *State v. Simms*, 420 Md. 705, 724 (2011).

We hold that the trial court should have excluded Ms. Meline from testifying, on this record, to a specific height estimate, and that the error in allowing that testimony wasn’t

harmless. This holding requires us to reverse Mr. Matthews's convictions and remand for further proceedings consistent with this opinion.

**JUDGMENTS OF THE CIRCUIT COURT
FOR ANNE ARUNDEL COUNTY
REVERSED AND CASE REMANDED FOR
FURTHER PROCEEDINGS CONSISTENT
WITH THIS OPINION. ANNE ARUNDEL
COUNTY TO PAY THE COSTS.**