

CASE NO. _____

CAPITAL CASE

IN THE UNITED STATES SUPREME COURT

DANNY LEE HILL,

Petitioner,

v.

STATE OF OHIO,

Respondent.

APPENDIX TO PETITION FOR WRIT OF CERTIORARI

3720, 3745, 1989 WL 142761 (Nov. 27, 1989); *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E.2d 884 (1992).

Mr. Hill filed a Petition to Vacate or Set Aside Judgment and/or Sentence pursuant to Ohio R.C. 2953.21. The trial court denied the petition and the decision was affirmed by the 11th District Court of Appeals. *State v. Hill*, 11th Dist. No. 94-T-5116, 1995 WL 418683 (June 16, 1995). The Ohio Supreme Court declined to accept jurisdiction. *State v. Hill*, 74 Ohio St. 3d 1456,656 N.E.2d 951 (1995).

From 1986 until present day, the Petitioner, by and through a number of different attorneys has filed several post-conviction motions in federal and state court. On December 2, 1996, Mr. Hill filed a Petition for Writ of Habeas Corpus, pursuant to 28 U.S.C. 2254 in federal district court. On September 29, 1999, the district denied the petition. Thereafter, the Petitioner raised a claim in an appeal to the Sixth Circuit Court of Appeals pursuant to the ruling in *Adkins v. Virginia*, 536 U.S. 304 (2002). On November 27, 2002, the Petitioner filed an initial *Atkins* claim in Trumbull County Common Pleas Court which was denied. The Court of Appeals affirmed the denial on July 11, 2008. The Ohio Supreme Court declined to accept jurisdiction on August 26, 2009. *State v. Hill*, 122 Ohio St. 3d1502, 2009-Ohio-4233, 912 N.E.2d 107.

Mr. Hill filed an amended petition based on the *Atkins* decision in the district court after he had exhausted the claim in state court. The petition was denied on June 25, 2014. The Sixth Circuit Court of Appeals affirmed the district court's ruling that the Petitioner did not establish a valid claim under *Adkins v. Virginia, supra*. Petitioner has appealed the decision.

On November 14, 2014, the Petitioner filed a request for leave to file a motion for a new trial pursuant to Ohio Crim. R. 33 (B). On November 20, 2014, the State filed a brief in opposition. On February 12, 2015, the Petitioner filed a reply brief. On March 19, 2015, the

judges in the Trumbull County Common Pleas Court voluntarily recused themselves from hearing the Petitioner's motion for leave to file a motion for new trial. On April 10, 2015, the Ohio Supreme Court appointed this Court to preside over the proceedings in this case. On May 14, 2015, the Petitioner, without leave of court, filed a brief citing supplemental authority in support of its request to file a motion for a new trial. The Respondent-Defendant filed a motion in opposition. The Court grants leave, *instanter*, to Petitioner to file the brief.

This Court conducted several pretrial conferences by telephone with the attorneys in this case. The Petitioner, in addition to filing this motion for leave to file a motion for new trial in state court, is still litigating a pending appeal of a the denial of a habeas corpus by the district court, based on the *Adkins* claim. As of December 21, 2015, the date of the hearing on this motion, the Sixth Circuit had not rendered a decision on the Petitioner's denial of his most recent habeas corpus petition.

STANDARD OF REVIEW

Crim. R. 33 (B) governs the filing of an application for a new trial based on newly discovered evidence and states in pertinent part:

Motions for new trial on account of newly discovered evidence shall be filed within one hundred twenty days after the day upon which the verdict was rendered, or the decision of the court where trial by jury has been waived. If it is made to appear by clear and convincing proof that the defendant was unavoidably prevented from the discovery of the evidence upon which he must rely, such motion shall be filed within seven days from an order of the court finding that he was unavoidably prevented from discovering the evidence within the one hundred twenty day period.

A defendant is "unavoidably prevented" from filing a motion for a new trial if the defendant "had no knowledge of the existence of the ground supporting the motion and could not have learned of that existence within the time prescribed for filing the motion in the exercise of

due diligence.” *State v. Trimble*, 2016-Ohio-1307 (11th Dist. March 28, 2016 at page 8), quoting *State v. Alexander*, 11th Dist. Trumbull No. 2011-T-0120, 2012-Ohio-4468, para. 17, quoting *State v. Walden*, 19 Ohio App. 3d 141, 145-146 (10th Dist). 1984).

The crux of Petitioner’s argument for leave to file a motion for a new trial pursuant to Crim. R. 33 (B) pivots on the scientific advances in forensic odontology made since 1986 that call into question the reliability of bite mark evidence presented in Hill’s trial. In 2013, the American Board of Forensic Odontology (ABFO) Reference Manual established new guidelines for bite mark analysis. The 2013 guidelines utilize a flow chart modality and (with the exception of unique or distinct dental anomalies), do not recognize the identification of a specific biter in the open population. The ABFO guidelines were again modified in 2015 and are subject to continuing modification. However, the accuracy and consistency of the guidelines have been subject to intense scrutiny, even in the ABFO community.

The Petitioner relies on the affidavit by Dr. Franklin Wright in his motion seeking leave to file a motion for a new trial. Dr. Wright was hired by Petitioner in 2014 to render an opinion regarding the reliability of the expert opinions rendered by the forensic odontologists that testified in Hill’s 1986 trial, utilizing the 2013 ABFO guidelines. In his report generated on March 30, 2014, Dr. Wright concluded that that the patterned injuries on the victim’s penis do not represent a human bite mark using the 2013 guidelines (Exhibit K).

The Respondent argues that Dr. Wright’s opinion based on the 2013 ABFO guidelines does not constitute “newly discovered evidence”, but merely a new theory based upon on old evidence. However, for the Court to delve into this issue would require ruling on the merits of the motion for a new trial. Pursuant to case law the Court may not consider the merits of the motion until it makes a finding of unavoidable delay. *State v. Barrow*, 2016-Ohio-2839, para. 4,

quoting *State v. Stevens*, 2d Dist. Montgomery Nos. 23236 and 23315, 2010-Ohio-556, para. 11, *State v. Brown*, 8th Dist. Cuyahoga No. 95253, 2011-Ohio-1080, Para. 12-14.

In *State v. Trimble*, 11th Dist. Portage No. 2013-P-0088, 2015-Ohio-942, the Court delineated the bi-furcated procedure for granting a request for leave to file for a new trial made pursuant to Crim. R. 33.

The foregoing rule anticipates a two-step process where the motion for new trial is made outside the permissible timeframe for filing the motion. First, the trial court must find the party was unavoidably prevented from filing his motion within the prescribed window set forth in Crim. R. 33 (B). The party must then file his or her motion within seven days of the trial court's determination. Crim. R. 33 does not specify the procedure by which the initial order is to be obtained.

Trimble, supra, *State v. Elersic*, 11th Dist. Geauga No. 2006-G-2740, 2007-Ohio-33 71.

The threshold issue to be decided by this Court is whether the Petitioner-Defendant has demonstrated by clear and convincing evidence that he was unavoidably prevented from filing the motion for leave to file a motion for new trial within one hundred twenty days after the verdict. Crim. R. 33 (B). Petitioner seeks a new trial based on the testimony of Dr. Wright regarding the ABFO guidelines promulgated in 2013 that bring into question the reliability of bite mark evidence. The Respondent posits that that his opinion does not constitute new evidence, rather "a new opinion" that seeks to impeach old evidence.

The first witness called by Petitioner at the hearing was Dr. Franklin Wright. Dr. Wright obtained his degree in dentistry in 1984 and began specializing on forensic odontology in 1985. He is a diplomate with the American Board of Forensic Odontology (hereinafter "ABFO"). ABFO was founded in 1976. Dr. Wright has served in various positions with ABFO. He currently serves as chair of the Ethics Committee and is chairman of the Bite Mark Proficiency Examination Development Committee. Dr. Wright has testified as an expert in forensic odontology between to 24-36 times in his career.

Dr. Wright testified that he was retained by Petitioner's counsel on January 16, 2014 to review the case. He reviewed the photographs of the bite mark in question on March 14, 2014 (TOP – 25). Dr. Wright acknowledged that he had seen the photographs years earlier but did not relate them to this case. He identified portions of the ABFO guidelines and procedures that were published in 1984. (Exhibit H).

Dr. Wright testified that the guidelines published by ABFO in 1984 have been under scrutiny by forensic odontology profession since 1985. (TOP – 28). As an example, he referenced a 2009 report issued by the National Academy of Sciences calling into question the weaknesses and strengths in entire forensic odontology field. (TOP – 28).

Dr. Wright identified an excerpt from 2013 edition of the American Board of Forensic Odontology Diplomates Reference Manual. He testified that ABFO changed the guidelines and terminology in the field of bite mark analysis. (TOP – 30). In fact, the terminology was updated in 1999 and again in 2013.

Dr. Wright testified that the 1984 ABFO guidelines were very generic and offered a range linking suspected biters to bite mark patterns from absolute certainty to no chance and gradations in between. (TOP – 30). He stated that the analysis was based upon subjective observation science. (TOP – 31). According to Dr. Wright, the terminology was changed in 2013 and the ABFO adopted a bite mark flow chart. The current guidelines call for a four-step process in the examination of bite mark evidence. After utilizing the guidelines, an examiner could conclude that it was a bite mark, suggestive of a bite mark, or not a bite mark. (TOP – 32). If the pattern injury was created by teeth, the biter's dentation would be examined.

In response to the Court's questioning as to why the motion was not filed earlier since concerns about bite mark evidence have been ongoing in since at least 2009, as evidenced by

articles on the Project Innocence website, Dr. Wright stated that the 2013 changes were the culmination of a process that started in 1999 or 2000, and this process is “ongoing” (TOP – 32-33). He testified that a report from the National Academy of Science (NAS) was a big motivator for all the forensic sciences, including odontology to “examine the methodology to re-examine the scientific basis and support for their findings.” (TOP – 33).

Dr. Wright also testified that the 2013 guidelines were not “widely publicized” in the legal community (TOP – 33). Dr. Wright testified that the guideline changes were highly publicized in the forensic odontology community, posted on ABFO’s website, and posted in the Diplomat’s Reference Manual. (TOP – 34 - 35).

On cross-examination by Respondent’s attorney, Dr. Wright admitted that the 2013 guidelines did not change all of his previous opinions in the more than two or three dozen cases where he testified as an expert in the past. (TOP – 40).

The last witness called was Dennis Terez, the federal public defender for the Northern District of Ohio. He became aware of the claim of alleged new bite mark evidence through conversations with Petitioner’s attorney, Vicki Werneke and other members of the Capital Habeas Unit. (TOP – 42). First, Attorney Terez testified that he authorized the funds to hire a forensic odontologist to prepare a report. Second, pursuant to the national policy of his office, he testified that he needed to obtain federal judicial authority to file a motion for leave to file a motion for new trial in state court to exhaust the Petitioner’s state court remedies. (TOP – 44).

On March 31, 2014, the Petitioner filed a motion in federal district court requesting authorization for habeas counsel to participate in any state court proceedings. (Exhibit M), TOP– 48 – 49). On May 15, 2014, Judge John Adams of the federal district court denied the

request of habeas counsel to represent the Petitioner in state court proceedings. (TOP – 51). On June 24, 2014, Judge Adams denied the Petitioner’s motion for reconsideration. (TOP – 53).

On July 21, 2014, Attorney Sarah Kostick was contacted by the federal public defender’s office to serve as pro bono counsel in the state. As a law student, Ms. Kostick had been an intern with the Capital Habeas Unit and is currently an attorney in private practice in Texas. (TOP – 54).

On cross-examination, Attorney Terez testified that Attorney Kostick and not the State Public Defender’s Office, was contacted to serve as counsel in the state case due to a conflict of interest (TOP – 57 – 58). Attorney Terez testified that his office did not at any time contact the Ohio Public Defenders Office in Warren or Trumbull County to serve as counsel in the state proceeding. Terez acknowledged that the his office is not more qualified than the Ohio Public Defenders to file an application for leave to file a motion for new trial in a capital case (TOP – 61).

On cross-examination, Mr. Terez admitted that there was no continuity of counsel problems when the local Public Defender, State and not the Federal Public Defender filed the initial *Adkins* claim (TOP – 62-63). The local Public Defender turned over the *Adkins* claim to the State Public Defender’s Office and again there were no problems with the continuity of the representation of the Petitioner since they were a new unit (TOP – 64). Terez testified that the Petitioner’s original counsel was with the Trumbull Public Defender’s in 2014 so it would have been a conflict to ask the office to represent Hill in this litigation (TOP – 74-75).

“[A] party is unavoidably prevented from filing a motion for new trial if the party had no knowledge of the existence of the ground supporting the motion for new trial and could not have learned of the existence of that ground within the time prescribed for filing the motion for new

trial in the exercise of reasonable diligence.” *State v. Barrow*, supra, *State v. Walden*, 19 Ohio App3d 141, 145-146, 438 N.E.2d 859 (10th Dist.1984).

CONCLUSION

Prior to the Court ruling on Petitioner’s motion for leave to file a motion for new trial pursuant to Crim. R. 33 (B), it has considered all of the following: Petitioner’s motion with attached exhibits, the motion in opposition filed by the Respondent-State of Ohio, Petitioner’s reply brief containing supplemental authority, the testimony at the hearing by Dr. Wright and Attorney Dennis Terez, the exhibits introduced at the hearing (and admitted with no objection by the Respondent), oral arguments of counsel offered at the December 21, 2015 hearing, as well as applicable case law.

Based upon the foregoing, the Court finds, by clear and convincing evidence, the Petitioner was unavoidably prevented from filing his motion for leave to file a motion for new trial within the time parameters delineated in Crim. R. 33 (B). The ABFO guidelines on the reliability of bite mark evidence were implemented in 2013. Since the guidelines were not in existence in 1986 at the time of Petitioner’s trial, no amount of due diligence by Petitioner’s trial counsel, could have discovered the information that was not in existence.

The Court finds that based on the unrefuted testimony of Dennis Terez, the Federal Public Defender for the Northern District of Ohio, that the local and state Public Defender’s Office had a conflict of interest in preparing and filing the motion for leave for a new trial, the Court finds that any delay in filing the motion for leave was unavoidable. The testimony of Mr. Terez, together with the exhibits admitted at the hearing, demonstrate at least a half-dozen attempts to

garner permission from the federal court to litigate this motion in state court, before counsel was finally obtained.

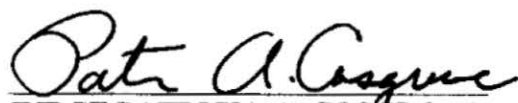
The Court, having found by clear and convincing evidence that the Petitioner was unavoidably prevented from filing his motion within the prescribed window set forth in Crim. R. 33 (B), the Petitioner is instructed to file within seven (7) days of the receipt of the filed order, a motion for new trial. A courtesy copy of the motion shall be furnished to opposing counsel and the Court.

At this juncture, the Court's decision addresses only the threshold issue as to whether the Petitioner was unavoidably prevented in filing the motion for leave to file a motion for a new trial. The Court's ruling should not be construed by either side as addressing the merits of Petitioner's claims for a new trial.

The Court schedules a telephone conference to be initiated by the Trumbull County Prosecutor's Office to the Court and opposing counsel on June 21, 2016, at 1:00 p.m., to schedule a hearing date on the merits of the Petitioner's motion for new trial.

The Trumbull County Clerk of Courts is instructed to furnish a time-stamped copy of this order, electronically, if possible, to the attorneys and the Court.

IT IS SO ORDERED.


JUDGE PATRICIA A. COSGROVE
(Sitting by Assignment)
Ohio Constitution
Art. 6, Sect. IV

FILED
COURT OF COMMON PLEAS
JUN - 7 2016
TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK

cc: Attorney Sarah R. Kostick, Pro Bono Counsel for Petitioner
Attorney Vicki Ruth Adams Werneke, Assistant Public Defender
Dennis Watkins, Trumbull County Prosecutor
LuWayne Annos, Assistant Trumbull County Prosecutor
Judge Patricia A. Cosgrove

**IN THE COURT OF COMMON PLEAS
TRUMBULL COUNTY, OHIO**

STATE OF OHIO

Plaintiff-Respondent,

v.

DANNY LEE HILL

Defendant-Petitioner.

**CASE NO, 85-CR-317
CAPITAL CASE)**

**JUDGE PATRICIA A. COSGROVE
(Sitting by Assignment)**

**ORDER ON PETITIONER'S MOTION FOR
EVIDENTIARY HEARING ON MOTION
FOR NEW TRIAL**

On June 7, 2016, this Court granted leave to Petitioner to file a motion for a new trial based on newly discovered evidence relating to expert testimony that was not in existence in 1986 at the time of Petitioner's death penalty trial in 1986. On June 13, 2016, the Petitioner filed his motion for new trial and requested an evidentiary hearing. On June 16, 2016, the Respondent ("hereinafter referred to as the State") filed a motion to strike pursuant to Civ. R. 12 (F), on the basis that the additional claims were barred by res judicata and added without leave of court. In order to give context to the arguments of Petitioner and the State, it is necessary to discuss the evidence in this case that was presented at trial.

PROCEDURAL HISTORY

On January 31, 1986, after a trial presided over by a three-judge panel, Danny Lee Hill (hereinafter referred to as Petitioner), was found guilty of Aggravated Murder with four separate death penalty specifications. The Petitioner, indicted as a principal offender, and was found guilty of Aggravated Murder with specifications of Aggravating Circumstances under R.C.



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2903.01 (B) for committing the crime during the commission of Kidnapping or Rape, or Aggravated Arson. Hill was also found guilty of Count 2, Kidnapping (R.C. 2905.01), Count 3, Rape (R.C. 2907.02), Count 4, Aggravated Arson (R.C. 2909.02), and Count 6, Felonious Sexual Penetration. (R.C. 2907.12 (A) (1) (3)). Hill was acquitted on Count 5, Aggravated Robbery under R.C. 2911.01.

On February 28, 1986, the three-judge panel unanimously found that the aggravating circumstances of the crimes outweighed the mitigating factors beyond a reasonable doubt. One of the aggravating circumstances cited by the trial court in the sentencing entry referenced bite marks on the victim's penis. The three-judge panel, after hearing the evidence, opined in its judgment entry that both Danny Lee Hill and the Co-Defendant, Timothy Combs, jointly participated in the torture, rape, and murder of the minor victim, Raymond Fife, who at the time was twelve (12) years old.

On March 5, 1986, the three-judge panel imposed the sentence of death on Danny Lee Hill. The convictions and sentences were affirmed on direct appeal. *State v. Hill*, 11th Dist. Nos. 3720, 3745, 1989 WL 142761 (Nov. 27, 1989), 1989 Ohio App. LEXIS 4461* 1); *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E.2d 884 (1992); Rehearing denied by *State v. Hill*, 65 Ohio St. 3d 1421, 598 N.E. 2d 1172, 1992 Ohio LEXIS 2122 (1992), Writ of certiorari denied *Hill v. Ohio*, 507 U.S. 1007, 113 S. Ct. 1651, 123 L.Ed. 2d 272 (1993); Writ of habeas corpus denied, Dismissed by *Hill v. Anderson*, 1999 U.S. Dist. LEXIS 23332 N.D. Ohio, Sept. 29, 1999).

The Petitioner filed a Petition to Vacate or Set Aside Judgment and/or Sentence pursuant to Crim. R. 33 (B). The trial court denied the petition and the decision was affirmed by the 11th District Court of Appeals. *State v. Hill*, 11th Dist. No. 94-T-5116, 1995 WL 418683 (June 16,

1995). The Ohio Supreme Court declined to accept jurisdiction. *State v. Hill*, 74 Ohio St. 3d 1456, 656 N.E.2d 951 (1995).

Petitioner has filed subsequent motions in state court to have his death sentence vacated based upon claims of reduced mental capacity or retardation under *Adkins v. Virginia*, 536 U.S. 304 (2002). On November 27, 2002, the Petitioner filed an amended *Atkins* claim in Trumbull County Common Pleas Court which was later denied. The 11th District Court of Appeals affirmed the denial on July 11, 2008, *State v. Hill*, 177 Ohio App. 3d 171, 2008-Ohio-3509, 894 N.E. 2d 108, and on August 26, 2009, the Ohio Supreme Court declined to review the case. *State v. Hill*, 122 Ohio St.3d 1502, 2009-Ohio-4233, 912 N.E. 2d 107.

The Petitioner filed a habeas corpus petition in the Northern District of Ohio on March 15, 2010. On June 25, 2014, the Northern District of Ohio denied Hill's habeas petition. This decision is currently on appeal to the United States Court of Appeals for the Sixth Circuit. *Hill v. Anderson*, Case No. 99-4317.

MOTION FOR LEAVE TO FILE A MOTION FOR NEW TRIAL

On November 14, 2014, the Petitioner filed a request for leave to file a motion for a new trial pursuant to Ohio Crim. R. 33 (B). On November 20, 2014, the State filed a brief in opposition. On February 12, 2015, the Petitioner filed a reply brief. On March 19, 2015, the judges in the Trumbull County Common Pleas Court voluntarily recused themselves from hearing the Petitioner's motion for leave to file a motion for new trial. Thereafter, the Ohio Supreme Court appointed Judge Patricia A. Cosgrove to preside over this case. On May 14, 2015, the Petitioner, without leave of court (and opposed by the State) filed a brief citing supplemental authority in support of its request to file a motion for a new trial. Later, this Court granted leave to Petitioner to file the supplemental brief.

This Court conducted several pretrial conferences by telephone with the attorneys in this case. On December 21, 2015, this Court, in an abundance of caution and in its discretion, conducted an evidentiary hearing on the Petitioner's motion for leave to file a motion for a new trial under Crim. R. 33. The *sole basis* of Petitioner's motion for leave to file a motion for a new trial is predicated on "newly discovered" bite mark evidence that did not exist in 1985.

On June 7, 2016, this Court, in its discretion granted leave to Petitioner to file a motion for new trial, finding that the Petitioner was "unavoidably prevented" from discovering new evidence relating to "bite mark" evidence that was not in existence at the time of Petitioner's trial. The Court also based its decision, in part, on the testimony of Dennis Terez, the Federal Public Defender for the Northern District of Ohio. Attorney Terez testified regarding the complex and protracted process of obtaining leave from the federal court to file a motion for a new trial in state court.

On June 13, 2016, the Petitioner filed his motion for new trial. Without seeking leave of court, Petitioner's motion expanded the grounds for his motion to include arguments regarding interrogation techniques used by police in questioning Hill, mental capacity claims, and arguments regarding the admission of a stick found at the crime scene that was believed to be used in the assault on the victim.

On June 16, 2016, the State filed a motion to strike Petitioner's motion for a new trial. The State posits that an evidentiary hearing on the Petitioner's motion for new trial is not warranted based upon the case law. On July 5, 2016, the State filed its motion in opposition to Petitioner's motion for a new trial. On July 19, 2016, the Petitioner filed a reply brief.

ISSUES PRESENTED

There are four salient issues before this Court:

- (I) First, the Court will address the State's Civ. R. 12 (F) motion to strike portions of the Petitioner's motion for a new trial that were filed without leave of Court.
- (II) Second, the Court will discuss whether the bite mark evidence is contradictory or impeaching evidence under *State v. Petro*, (1947), 148 Ohio St. 505, 76 N.E.2d 370, and its progeny.
- (III) Third, the Court discuss the application of "*the-law-of-the-case*" and "*res judicata*" to issue preclusion.
- (IV) The Court will determine whether the Petitioner has shown that the bite mark evidence discloses a "strong probability" that the outcome would change if a new trial is granted.

Before rendering an opinion in this case, the Court has considered the following documents and information. The Court has reviewed the entire transcript (four volumes) from the 1986 trial, totaling 1,275 pages. The Court has considered the testimony and exhibits presented by Petitioner at the December 21, 2015 hearing. The Court has read and considered all the briefs (with attached exhibits) filed by the Petitioner and the State throughout the course of these proceedings. This includes the Petitioner's motion for a new trial filed on July 13, 2016, (48 pages including 369 pages of exhibits). The Court has reviewed case law from Ohio, as well as from other jurisdictions, on the legal issues presented in this case.

EVIDENCE IN THE CASE

The key facts surrounding this case can be found in *State v. Hill*, 64 Ohio St. 3d 313, 595 N.E. 2d 884 (1992). The Ohio Supreme Court, after reviewing the sufficiency of the evidence, including the testimony of Dr. Mertz, the State's dental expert, who identified Hill as the person

who bit the victim on the penis, affirmed the Petitioner's convictions and death sentence. The following facts discussed in the next six pages of this opinion are gleaned directly from this decision. *Hill, supra.*

On September 10, 1985, at approximately 5:15 p.m., twelve-year old Raymond Fife left his home on his bicycle to visit a friend, Billy Simmons. According to Billy, Raymond would usually get to Billy's residence by cutting through a wooded field with bicycle paths located behind the Valu-King Store on Palmyra Road in Warren. Both Billy and Raymond were planning on attending a Boy Scouts meeting scheduled after school.

Mathew Hunter, a Western Reserve High School student, testified that he went to the Valu-King on the same date, shortly before 5:00 p.m. When he reached the front of the store, Hunter saw Danny Hill and Timothy Combs standing in front of a nearby laundromat. Hunter testified that he saw Raymond Fife at that time riding his bike into the Valu-King Parking lot.

Timothy Combs was convicted in a separate trial of aggravated murder with specifications of aggravating circumstances, including rape and kidnapping. Combs, a juvenile at the time of the crimes, had his case bound over to the Portage County Common Pleas Court. Combs, was convicted in a jury trial of Aggravated Murder with aggravating circumstances specifications. He was sentenced to life in prison with parole eligibility after serving 30 years.

Darren Ball, another student at the high school testified that he and Tony Cree left football practice at approximately 5:15 p.m. on September 10, and walked to a trail behind the Valu-King. Ball said that he saw Combs walking on the trail in the opposite direction from the Valu-King. Ball testified that he heard a child's scream, "like, somebody needed help or something."

Donald Allgood, another student from the high school, testified that he and a friend were walking in the vicinity of the wooded field behind the Valu-King between 5:30 p.m. and 6:00

p.m. on the date in question. Allgood noticed Hill and Combs and two other persons walking out of the field. Allgood testified that he saw Danny Hill throw a stick back into the woods. He observed Combs pull up the zipper of his pants. Combs put his head down when he saw Allgood.

At approximately 5:50 p.m. on September 10, 1985, Billy Simmons called Raymond's home trying to locate him because they were going to attend a Boy Scouts meeting. Simmons rode his bicycle to the Fife's residence around 6:10 p.m. When he found that Fife was not there, Simmons proceeded to his Boy Scouts meeting. Members of the Fife family began searching for Raymond.

At approximately 9:30 p.m., Raymond's father found his son in the wooded field behind the Valu-King. He testified that Raymond was naked and appeared to have been severely beaten with burns on his face. One of the medics at the scene testified that Raymond's groin was swollen and bruised, and it appeared that his rectum had been torn. The medic found Raymond's underwear tied around his neck and he appeared to have been lit on fire.

Raymond died in the hospital two days later. The coroner ruled Raymond's death a homicide. The cause of death was found to be cardiorespiratory arrest secondary to asphyxiation, subdural hematoma and multiple trauma. The coroner testified that the victim had been choked and had a hemorrhage in his brain, which normally occurs after trauma or injury to the brain.

The coroner testified that Raymond sustained multiple burns, damage to his rectal-bladder area and had bite marks on his penis. The victim also sustained numerous external injuries and abrasions. Dr. Adelman, the pathologist who performed the autopsy, noticed profuse bleeding from the victim's anus and rectum. He testified that the victim had been impaled with an object

that had been inserted through the anus and penetrated through the rectum into the urinary bladder.

On September 12, 1985, Hill went to the Warren Police Station to inquire about a \$5,000 reward that was being offered for information concerning the murder of Raymond Fife. Hill met with Sergeant Thomas Stewart of the Warren Police Department and told him that he had "just seen Reecie Lowery riding the boy's bike who was beat up." When Stewart asked Hill how he knew the bike belonged to the victim, Hill replied "I know it is." Detective Stewart noted that Hill "knew a lot about the bike and about the underwear around the victim's neck." When Stewart asked him whether he knew Tim Combs, Hill responded that "yeah, I know Tim Combs. * * * I ain't seen him since he has been out of the joint. He likes boys. He could have *** done it too."

On September 13, 1985, after Sergeant Dennis Steinbeck of the Warren Police Department read the summary of Stewart's interview with Hill the day before, he went to Hill's residence and requested that he come to the police station to make a statement. Hill voluntarily went with Steinbeck to the police station whereupon Hill was advised of his *Miranda* rights and signed a waiver of rights form. Hill made a statement that was transcribed but the sergeant forgot to have him sign the statement. Subsequently Steinbeck discovered some eyewitnesses had seen the defendant at the Valu-King on the date of the murder.

On September 16, 1985, Steinbeck went to Hill's residence, accompanied by the defendant's uncle, Detective Morris Hill of the Warren Police Department. Hill again voluntarily went to the police station with his mother. Hill was given his *Miranda* rights, which he again waived. After further questioning by Sergeants Stewart and Steinbeck and Detective Hill, the defendant indicated that he wanted to speak alone to his uncle, Detective Hill. After

several minutes, Detective Hill stated that the defendant told him that he was "in the field behind Valu-King when the young Fife boy got murdered."

Hill, once more, was again given and waived his *Miranda* rights, and made two more voluntary statements, one on audiotape and the other on videotape. In both statements, Hill admitted that he was present during the beating and sexual assault of Raymond Fife, but that Combs did everything to the victim. Hill told police that Combs had knocked the Fife off the bicycle and threw him onto the bike several times. Hill stated that he saw Combs rape the victim anally and pull on his penis so hard he thought it came off. Hill admitted to police that he stayed with Raymond when Combs left the area of the attack to get the broomstick and lighter fluid that was used to burn the victim. Hill denied that he caused any injuries to Raymond after Combs went to the Valu-King to get lighter fluid.

Upon further investigation by authorities, Hill was indicted on Aggravated Murder with aggravating circumstances (committed in the course of Kidnapping or Rape). Hill was also indicted on charges of Kidnapping; Rape, Aggravated Arson, Felonious Sexual Penetration, and Aggravated Robbery.

On December 16, 1985, a suppression hearing was conducted by the trial court. The Defendant's motion to suppress all statements to police was denied on January 17, 1986. The trial court found no Fourth or Fifth Amendment violations and denied the motion. The Court also considered the defendant's claim that he was mental impaired or retarded to the extent that he was incapable of given a knowing or voluntary statement to police. The trial court reviewed the defendant's in statements, in particular, Hill's audio and video taped interviews with the Warren Police detectives and found no merit in these arguments.

In the videotaped statement given to police on September 16, 1985, and provided by the State to this Court, Hill described the murder and torture of Raymond Fife in graphic detail. (State's Exhibit M). Petitioner, in this statement, as well as in his other statements to police, denied that he participated in the attack on Fife. In all of his interviews with the Warren Police Department the Petitioner denied any involvement in the attack on Fife. While, Hill admitted that he was in the field when Raymond was tortured and murdered by Combs, he has maintained that he had no part in the attack on the victim.

On January 21, 1986, the defendant's trial commenced in front of a three-judge panel. Among the voluminous testimony from the witnesses and the numerous exhibits, the following evidence was adduced.

At trial, Petitioner's brother, Raymond Vaughn testified that he saw the Hill wash his gray pants on the night of the murder as well as on the following two days. Vaughn testified that it looked like Hill was washing out "something red. * * * It looked like blood to me * * *." In the September 16, 1985 interview with Warren Police investigators, Hill, denied, at least four times that he got any blood on him since he did not participate in the crimes. (State's Exhibit M). Sometime after the trial, Raymond Vaughn recanted his testimony that he saw his brother wash what appeared to be blood out of his pants.

Detective William Carnahan of the Warren Police Department testified that on September 15, 1985, he and Dennis Allgood went to the place where Allgood saw Hill and Combs come out of the wooded area when he observed Hill toss a stick into the woods. Carnahan testified that he returned to the area with workers from the Warren Parks Department, and that he and Detective James Teeple found a stick about 6-10 six feet from the path where Allgood saw Hill throw a stick.

Dr. Curtis Mertz, a dentist and oral surgeon testified at trial on behalf of the State that one of the injuries found on Raymond Fife's penis could be linked definitely to the dentition of Mr. Hill, to the exclusion of any possible contributors.

Dr. Lowell Levine, a forensic odontologist testified on behalf of the Petitioner at trial. According to Dr. Levine, he could not determine with any reasonable degree of medical certainty whether Hill or Combs made the injuries on the victim's penis. Dr. Levine testified that at least one of the marks was most likely made by Hill.

Dr. Howard Adelman, the pathologist who performed the autopsy on the victim's body, testified that the size and shape of the point of the stick found by Detective Carnahan was "very compatible" with the size and shape of the opening through the victim's rectum. Adelman described the fit of the stick in the victim's rectum as "very similar to a key in a lock."

At the close of trial, the three-judge panel, unanimously found Danny Lee Hill guilty on all counts, except the aggravated robbery count and the specification of aggravated robbery to the aggravated murder count. The convictions of the Defendant and imposition of the death sentence was affirmed by the Ohio Supreme Court. *Hill, supra.*

CIVIL RULE 12 (F) MOTION TO STRIKE

Prior to filing a responsive pleading in opposition to Petitioner's motion for new trial, the State filed a motion, pursuant to Civ. R. 12 (F), to strike all or portions of his motion for new trial. Civ. R. 12 (F) provides that upon "motion made by a party before responding to a pleading * * *, the court may order stricken from any pleading any insufficient claim or defense or any redundant, immaterial, impertinent, or scandalous matter." Crim. R. 57 (B) provides that the Court may look to the rules of civil procedure where no comparable criminal rule exists.

Courts have broad discretion in ruling on a motion to strike. *Squire v. Geer*, 117 Ohio St. 3d 506, 508 (2008). A motion to strike will be granted when a party fails to follow procedural requirements enforced by a court. *State ex rel. Ebbing v. Ricketts*, 133 Ohio St. 3d 339, 342, (2012). In *Ebbing*, the trial court did not abuse its discretion in striking a reply brief from the record since party did not first obtain the court's permission to file the same.

On June 7, 2016, after previously conducting an evidentiary hearing on Petitioner's motion for leave to file a new trial, this Court determined that the Petitioner was "unavoidably prevented" from filing the motion within the time parameters of Crim. R. 33 (B). The Court's decision granting leave to file a motion for new trial was based in large measure on the guidelines enacted in 2013 by of the American Board of Forensic Dentistry ("ABFO"). The 2013 ABFO guidelines did not recognize the identification of a specific individual as a "biter" in the open population.

Dr. Franklin Wright, a respected forensic odontologist, testified at the prior hearing in December 2015 that the 2013 ABFO guidelines were not widely disseminated beyond the forensic odontology field in 2013. In April, 2016, ABFO, placed further limitations on the parameters of expert opinions in relation to questioned dentition claimed to be a bite mark.

The Court also found that the Petitioner was "unavoidably prevented" from filing the motion earlier within the time frame of Crim. R. 33 (B) based on the testimony of Dennis Terez, the Public Defender for the Northern District of Ohio. Attorney Terez testified regarding the complex and protracted procedure that was necessary in this case to obtain leave from the federal court to file a motion for new trial in state court. The Court incorporates by reference the findings in its June 7, 2016 order into this decision.

The Court unequivocally stated in its June 7, 2016 order granting leave to Petitioner to file a motion for new trial that the new trial motion should be confined solely to the issue of the bite mark evidence.

“Since the (ABFO) guidelines were not in existence in 1986 at the time of Petitioner’s trial, no amount of due diligence by Petitioner’s counsel, could have discovered the information that was not in existence. (Court’s Order on Petitioner’s Request for Leave to File a Motion for New Trial, June 7, 2016, pg. 9).

However, when the Petitioner filed his motion for a new trial on June 13, 2016, without any attempt to seek leave from this Court, he included issues that were never raised in his prior motion for leave to file a new trial motion. Pursuant to Civ. R. 12 (F), the State filed a motion to strike the Petitioner’s motion for a new trial.

The first claim unilaterally added to Petitioner’s motion for new trial attempts to resurrect claims that have been considered and rejected by the Ohio Supreme Court regarding the voluntariness of Hill’s statements given to the Warren Police Department after the murder of Raymond Fife in 1985. Hill continues to argue that his statements to law enforcement were not knowingly and volunteered rendered. Petitioner alleges that the interrogation tactics used in 1985 by law enforcement are now “disfavored” “based upon mounting empirical evidence” that people give false confessions under the “pressure of custodial interrogation.” (Petitioner’s motion, at pg. 35).

The highest court in this state, the Ohio Supreme Court, has previously reviewed and rejected Petitioner’s claim that his statements to police were not voluntarily given and/or were the result of impaired mental capacity. *State v. Hill, supra*, 64 Ohio St.3d 313, 318-320. The Ohio Supreme Court ruled that Petitioner’s statements to the Warren Police Department were

given of his own volition and free will, and the statements were either volunteered by Hill or given with appropriate *Miranda* admonitions. *Hill, supra*, at 317-320.

As part of this Court's review of this case, it watched Hill's interview with the Warren Police Department that was video-taped on September 16, 1985, days after Raymond Fife was murdered. (State's Exhibit M). In the videotaped interview with police, Petitioner is lucid and coherent, as he calmly answered questions and volunteered details about the murder and protracted torture of Raymond Fife, conduct that he attributed to the Co-Defendant Timothy Combs. During the interview, Hill even demonstrated the location of the parties during the attack on a chalkboard.

What this Court found most striking about the videotaped interview is the calm, detached manner that Hill described the struggle of Raymond Fife during the brutal attack. Hill, without any emotion in his voice, described the boy's struggle to run, and at times, Fife's attempts to crawl away from the scene several times. Hill told police that at one point he looked into Raymond's eyes and "the boy looked back at him." The Petitioner stayed with the victim while Combs got the stick that was used to impale the victim. By Hill's own admission, he continued to stay with the boy while Combs went to Valu-King to obtain lighter fluid that was used to set the victim on fire.

There is good reason that the Ohio Supreme Court, the U.S. District Court, the 11th District Court of Appeals, and the Trumbull County Common Pleas Court, have all concluded that Petitioner's statements were voluntarily and intelligently given to law enforcement. Likewise, these same courts have consistently rejected claims that Hill's statements were affected by any claims of limited mental capacity. The common thread in all of the above opinions was that the Petitioner clearly knew right from wrong.

“Upon careful review of the testimony and the audiotape and videotape statements, we do not find that the interrogation tactics used by the police officers, even in light of defendant’s mental capacity, rendered the statements involuntary, or that officers improperly induced the defendant to make incriminating statements. *State v. Hill*, supra., 64 Ohio St. at 319 (direct appeal).

The second issue raised by Petitioner, without leave of Court in his motion for new trial, involved the stick or broomstick handle that was introduced by the State in Hill’s trial. (State’s Tr. Ex. 47). Dr. Zhongxue Hua, a pathologist, takes issue with Dr. Adelman’s trial testimony regarding the stick or broken broom handle. (Petitioner’s Exhibit E). At trial, Dr. Adelman compared the dimensions and configuration of the State’s Trial Exhibit 47 with the anal and rectal injuries suffered by the victim.

Dr. Adelman testified that he found two different types of injuries to the rectal area, one penetrating the anus, rectum and urinary bladder and one none-penetrating injury that reached, but did not penetrate the rectum wall. Dr. Adelman testified that the one of the injuries was a “circular” injury that measured slightly under an inch that penetrated the anus and left an imprint on the wall of the rectum. (Tr. TOP -359).

The other rectal injury was made by an object with a sharp pointed end that perforated the rectum, through the urinary bladder and went through the urinary bladder. (Tr. TOP – 355). In order to penetrate these organs, the object inserted had to be at least six (6) to eight (8) inches to reach the urinary bladder. (Tr. TOP -355). Dr. Adelman testified after that these penetrating injuries were partially circular and similar in diameter to the other injury except the point of the object inserted had a sharp pointed edge. (Tr. TOP – 359). The insertion of the object would have caused a “terrible amount of pain” to the victim. (Tr. TOP – 356).

Dr. Hua is critical of Dr. Adelman's conclusions that the stick was compatible with the victim's injuries and "very similar to a key in a lock." (Tr. TOP at 418).

In Dr. Hua's affidavit, he opines "it [was] not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Fife by Adelman – let alone, to identify the instrument to the level of certainty necessary to describe it through the analogy of a key. (Hua affidavit, at para. 12).

The irony in Dr. Hua's affidavit is that it ignores the other evidence in this case that tends to corroborate the findings of Dr. Adelman. It is the Petitioner, himself, who provided some of the best corroborating evidence of the description of the stick or broom handle used by Combs on the victim. Unlike, Dr. Adelman, who had the stick or broken broom handle to compare with the injuries at the time of the autopsy, Dr. Hua was not present during the autopsy and did not have the opportunity to actually compare the injuries with the stick.

In Hill's videotaped interview with police on September 16, 1985, Hill described the item used by Combs to penetrate the victim's rectum as a stick or "broom handle thing." Hill told police that it was "smooth on one end with ridges on the other end." (State's Exhibit M). Hill's description to investigators appears to be an accurate description of the stick introduced at trial (State's Tr. Exhibit 47).

A microscopic examination of State's Exhibit 47 was conducted by Dr. Adelman. He testified that the stick was made of wood and contained plant cells. (Tr. TOP – 377-338). The same type of plant cells were similar to the plant cells found in the anal tissue of Fife. (Tr. TOP – 378). Dr. Adelman testified that the size and shape of the point of the stick were "very compatible" with the size and shape of the openings of the wound, similar to a "lock in a key." (Tr. TOP – 382-383).

In addition to the similarities in the description of the injuries when compared with the stick or broom handle provided by Dr. Adelman and the Petitioner, the trial testimony of Donald Allgood further corroborated that a stick was used in the attack of Fife. Donald Allgood testified that he saw Hill “throw a “stick” back into the woods at the time and near the place where the homicide occurred. *State v. Hill*, supra, 64 Ohio St.3d, at 313, 324. The stick or broom handle (State’s Exhibit 47) was found six to ten feet from the path where Allgood saw Hill throw the stick. This was contrary to Hill’s contention that he never had the stick.

In the final analysis, while there was strong evidence that the stick or broken broom handle (State’ Exhibit 47) that was found approximately 6 to 10 feet from where Allgood saw Hill throw a stick, is of little import. The fact remains that an object or objects that had a jagged end and a smooth end was used to impale the victim. Dr. Hua’s testimony merely impeaches the trial testimony and has no effect on the totality of the sufficiency of the evidence in this case.

The Court’s order filed on June 7, 2016, granting leave to Petitioner to file a new trial motion, was limited only to the issue of the scientific reliability of bite mark evidence based upon the scientific advances in field of forensic dentistry and the 2013 ABFO guidelines.

The Court finds the additional claims unilaterally added by Petitioner in his motion for new trial are redundant, impertinent, and immaterial under Civ. R. 12 (F), and are hereby ordered stricken. In addition, any further discussion of these claims is barred by the “*law of the case*” doctrine and “*res judicata*.” *State v. Ketterer*, 126 Ohio St.3d 448, 2010-Ohio 331, *State v. Gray*, 8th Dist. No. 85677, 2004-Ohio7030, jurisdiction declined, 105 Ohio St.3d 1363.

II. NEW EVIDENCE v. NEW THEORY & THE “PETRO” DOCTRINE

The State argues that the Petitioner’s request for an evidentiary hearing on his motion as well as the motion for new trial itself should be denied because the bite mark evidence

contradicts or impeaches prior trial testimony which cannot serve as the basis for a new trial.

State v. Petro, (1947), 148 Ohio St. 505, 76 N.E.2d 370. *Petro* remains good law. Conversely, the Petitioner maintains that the bite mark evidence does not merely impeach the opinions of the testimony of the trial experts, it demonstrates there was no reliable scientific basis for the testimony and therefore Hill is entitled to a new trial.

This Court has examined the definition of “newly discovered” evidence as utilized in state and federal courts in criminal as well as civil cases. There is a plethora of case law defining the term “newly discovered evidence” both in the context of a motion for a new trial made pursuant to Crim. R. 33, and a motion to set aside a judgment under Civ. R. 60 (b).

In *U.S. v. Olender*, 338 F.2d 629 (2003), the Defendant was found guilty of being a felon in possession of a weapon based upon a 2001 conviction of Felonious Assault. In 2003 it was determined that the Defendant had previously pled guilty to a misdemeanor, not a felony. The Sixth Circuit Court of Appeals upheld the ruling of the Federal District Court, Northern District, finding that the State produced evidence beyond a reasonable doubt that he was a convicted felon. Any information discovered after trial could not be used to retroactively change the facts presented at trial.

“Newly discovered evidence does not include new legal theories or new interpretations of the legal significance of the evidence.”

U.S. v. Olender, supra at 635-636. See, *U.S. v. Seago*, 930 F.2d 482, 489 (6th Cir. 1991).

“Evidence will not be deemed “newly discovered” simply because it appears in a different light under a new theory. A party who desires to present his case under a different theory in which facts available at the original trial now first become important, will not be granted a new trial.” *U.S. Olender, supra* at 636. *U.S. v. Hamling*, 525 F.2d 758-759 (9th Cir. 1975).

“An attempt to relitigate the case on a new theory is not considered newly discovered evidence but is merely a newly discovered issue

law. *U.S. v. Olender, supra* at 636, citing *U.S. v. Shelton*, 459 F.2d 1005 (9th Cir. 1972).

It is settled practice that the phrase “newly discovered evidence” refers to evidence that existed at the time of trial but of which the moving party was ignorant. *Brown v. Penn R.R.*, 282 F.2d 522 (3rd Cir. 1960), cert denied 365 U.S. 818 (1961). The majority of courts have concurred with this reasoning in a myriad of factual scenarios.

In *Swope v. Siegel-Robert, Inc.*, 243 F.3d, 486, para. 35, (8th Cir. 2001), held that an IRS appraisal report that did not exist at the time of trial but was prepared, afterwards, is not “newly discovered evidence.” See also, *Lapiczak v. Zaist*, 54 F.R.D. 546, 548 (D. Vt. 1972) (witness opinions developed after trial were not permitted under Civ. R. 60 (b) (2)), *Ryan v. U.S. Lines Co.*, 303 F.2d 430 (2nd Cir. 1962) (result of new physical examination was not “newly discovered evidence”), *Corex Corp. v. United States*, 638 F.2d 119 (9th Cir. 1981) (fact that the district court considered after-occurring events in granting a Civ. R. 60 (b) (2) motion was grounds for reversal).

In *Foley v. Kentucky*, 425 S.W. 3d 380 (2014), the Kentucky Supreme Court denied the defendant’s request for a new trial based upon a ballistics report prepared by a forensic firearm specialist compiled eighteen (18) years after the defendant was convicted of murder. In *Foley*, as in the instant case, the expert had reviewed the trial testimony, autopsy report, and other information, in arriving at his conclusions. The forensic firearm expert concluded that based on his analysis the trajectory of the bullets supported the claim of self-defense. “An opinion consisting simply of a reexamination and reinterpretation of previously known facts cannot be regarded as “newly discovered evidence,”

In *State v. Unsworth*, 2010-Ohio-398, the Defendant argued that he was entitled to a new trial under Crim. R. 33 (b), since post-trial a new DNA database became available through the

National Center for Forensic Science (“NCFS”) that cast doubt that the race of the perpetrator. contradict the trial testimony.

In *State v. Johnson*, 2010-Ohio-4117; 2010 Ohio App LEXIS 3486, ** 1, the Defendant sought a new trial based on new evidence that challenged the scientific accuracy of the gunshot residue (Atomic Absorption Spectrometry or “AAS”) test introduced in his trial. Johnson presented expert testimony at a hearing that the AAS method of testing was no longer accepted in the scientific community, and therefore he was entitled to a new trial. Relying on *Petro*, the Court denied Johnson’s motion for a new trial, holding that the gunshot residue evidence was not “newly discovered” evidence and the expert’s testimony “would do nothing more than impeach the trial testimony of the coroner relating to the gunshot residue testing.” *Id.*, at 5-19.

While, the “*Petro*” doctrine paints with a broad brush a general statement that contradictory or impeaching evidence can never serve as the basis to grant a motion for new trial, this Court will determine from a due process analysis, whether the new evidence even if contradictory and impeaching, can serve as the basis for a new trial in this case.

In *Dayton v. Martin* (1987), 43 Ohio App. 3d. 87, 539N.E.2d 646, the court rejected a *per se* interpretation of *Petro* that would exclude all newly discovered evidence as a basis for a new trial simply because that evidence is in the nature of impeaching or contradicting evidence. *Dayton* held that the primary focus should be on whether the newly discovered evidence would create a “strong probability” of a different result at trial, or whether the impeaching or contradicting evidence would be “insufficient to create a strong probability” of a different result. *Id.* at 90; *State v. Beavers*, 2d Dist. Montgomery No. 22588, 2009-Ohio-5604.

Petitioner's Affidavits Critical of the 1986 Trial Testimony

The crux of Petitioner's basis for a new trial pivots on the scientific advances in forensic odontology made since 1986. The Court previously conducted an evidentiary hearing on December 21, 2015, in which Petitioner introduced the 2013 guidelines of the American Board of Forensic Odontology (ABFO) Reference Manual. The guidelines were established by the "Diplomates" of the American Board of Forensic Odontology for the analysis of bite mark evidence. The 2013 guidelines did not recognize the identification of a specific biter in the open population.

In March 16, 2016, as the result of continued scientific study, and empirical and peer review, the 2013 ABFO guidelines, were amended. The 2016 ABFO guidelines restricted, even further, the scientifically accepted standards relating to the identification of a pattern injury as a human bite mark.

The 2016 ABFO guidelines provide that "terms assuring unconditional identification of a perpetrator, or identification "without doubt", are not sanctioned as a final conclusion in an open population case." (Petitioner's Exhibit S). The 2016 ABFO guidelines recognize that even where a patterned injury is determined to be "human", only the following terms should be used as they relate to questioned dentition to a bite mark: A) Excluded as Having Made the Bitemark, B) Not Excluded as Having Made the Bitemark, C) Inconclusive.

The Petitioner's motion for an evidentiary hearing on the motion for new trial is based on the enactment of the ABFO guidelines in 2013 and 2016, and upon sworn affidavits from nationally recognized forensic odontologists that are attached as exhibits to his motion.

Petitioner submits an affidavit of Dr. Franklin Wright as an exhibit to his motion. Based upon his review of the materials from the 1986 trial, Dr. Wright concluded that Dr. Mertz's

testimony was not based upon any reliable scientific principles, much less, the ABFO-approved methodology, that was not in existence at the time of trial. Dr. Wright avers in his affidavit that the patterned injury on the victim's penis... "is not a human bite mark." (Wright affidavit at pg. 3).

Dr. Iain Pretty, a widely published British forensic odontologist and former chair of the American Academy of Forensic Science's Odontology Section, also concluded that there was insufficient evidence to determine whether the marks on the penis were human in origin. (Pretty affidavit at pg. 5).

Dr. Pretty avers that there is insufficient evidence to reach a conclusion at any level of scientific certainty regarding the causation of the small circular wounds to portions of the glans penis of the victim. (Pretty affidavit, at 3-4). The Petitioner submitted additional affidavits echoing the findings of Dr. Wright and Dr. Pretty.

The Petitioner submitted an affidavit from Dr. Zhongxue Hua. Dr. Hua criticized the testimony of Dr. Adelman and Dr. Mertz and concluded that there was no scientific basis to support their conclusions that Fife's penis was erect at the time the patterned injuries occurred. (Hua affidavit, pgs. 2-6, Petitioner's Exhibit E).

Trial Testimony of Dr. Curtis Mertz, Dr. Howard Adelman & Dr. Lowell Levine

In the Petitioner's 1986 trial, Dr. Curtis Mertz, a forensic odontologist testified for the State. Mertz, a board certified forensic odontologist, was a past president of the American Society of Forensic Odontology (forerunner organization of ABFO) and a founder of ABFO. (Tr. TOP – 908-909).

Dr. Mertz viewed the victim's body at the morgue. At trial, he testified "I saw what I felt was a human bite mark." (Tr. TOP – 920). Dental impressions were later made of the lower

and upper teeth of Danny Lee Hill and Co-Defendant Timothy Combs. Photographs and x-rays were also taken of the suspects' teeth. (Tr. TOP – 932). The doctor found the models or dental impressions to be of “excellent quality.” (Tr. TOP – 933).

Dr. Mertz testified that based on the photographs and dental impressions, he found to a reasonable degree of professional certainty that Hill made at least some of the bite marks on the victim's penis. (Tr. TOP -937-960). Dr. Mertz testified, “My opinion is very strong that you can exclude Combs, and in my opinion is, if you want to put it on a varying scale, slightly stronger that it is Hill's bite.” (Tr. TOP – 952).

Dr. Mertz not only identified Hill as the biter, but testified that the victim's penis was erect at the time the marks were inflicted. This testimony was necessitated in part to explain the discrepancy between the measurements of Hill's teeth when compared to the size of the “teeth” marks on the penis. (Tr. TOP – 946-947, 956).

In arriving at the conclusion that the victim's penis was erect, Dr. Mertz testified that he relied on data gathered from textbooks and studies. (Tr. TOP – 955 - 957).

On cross-examination, Dr. Mertz admitted that he had involved in approximately 35 bite mark cases, but only one of the cases dealt with a claimed bite mark on a penis. (Tr. TOP – 964).

Dr. Howard Adelman, the pathologist who performed the autopsy on Raymond Fife on September 13, 1985, testified that as the result of the attack, Raymond Fife suffered several life-threatening injuries, any one of which, or in combination with the others, could have resulted in his death. The fatal injuries included, a subdural hemorrhage, penetration and perforation of the rectum and urinary bladder, strangulation (ligature marks were found on the victim's throat) burns, and contusions that were indicative of a severe beating of the victim. (Tr. TOP – 370).

Dr. Adelman also addressed the issue as to whether the victim's penis was erect or flaccid at the time of the attack. Dr. Adelman testified that he was familiar with certain medical articles (no citations were provided in court), including one study that discussed a known connection between asphyxia during a legal hanging and the cause of an erection (Tr. TOP – 418).

Dr. Lowell Levine, a dentist and forensic odontologist, testified for Petitioner at trial that he had been involved in hundreds of bite mark cases over the years, although he had “rarely” seen a case involving a bite mark on a penis. (Tr. TOP -113).

After reviewing the same information as Dr. Mertz, Dr. Levine concluded that the marks on the penis were human in origin and could have been made by either Hill or Combs. (Tr. TOP 1145 – 1148). Dr. Mertz testified that there was one mark on the victim's penis “that was most likely made by Hill” (Tr. TOP – 1153).

2013 & 2016 ABFO Guidelines

Although there have been concerns over the years calling into question the reliability of bite mark evidence, it is only during the period 2013-2016, that forensic odontologists, including the Diplomates of ABFO, have almost universally recognized that any expert opinion on bite evidence that purports to identify a specific biter from the open population is without any scientific basis. However, the science of bite mark evidence continues to evolve and be in flux.

The scientific validation of the 2013 ABFO guidelines that Petitioner relied on so heavily in his motion for a new trial have been severely questioned by the Diplomates of the ABFO. In 2015, Dr. Ian Pretty (one of Petitioner's experts in this case) and Dr. Adam Freeman, another forensic odontologist, conducted a study entitled, *Construct Validity Bitemark Assessments Study Using the ABFO Bitemark Decision Tree (“Construct Validity Study”)*. (See, Petitioner's brief at 18-20). Using 100 photographs of patterned injuries, 103 ABFO board-certified Diplomates

were asked to decide 1) whether there was sufficient evidence to render an opinion whether the patterned injury was a human bite mark; 2) whether, consistent with the 2013 ABFO guidelines, the injury could be determined to be either a human bite mark, not a human bite mark, or suggestive of a human bite mark, and; 3) if a human bite mark, whether it had distinct, identifiable arches and individual tooth marks.

The results of the study were shocking to say the least. On the most basic question as to whether they could determine the origin of the mark based upon the on the information provided, only 39 analysts came to unanimous agreement on just 4 of the 100 case studies. By the time the analysts finished question three of the study, the experts were significantly fractionalized on nearly all the cases. Of the initial 100 cases, there remained just 8 case studies in which at least 90 percent of the analysts were still in agreement.

Considering the inability of top forensic odontologists to arrive at a consensus as to whether a patterned injury constituted a bite mark, much less a human one, it is no wonder that the ABFO scrapped the 2013 guidelines in 2016.

The import of this study as it applies to this case is that even respected scientists, such as Iain Pretty, have recommend further study on the reliability of the scientific methodology and constructs recommended in the ABFO guidelines. The 2013 ABFO guidelines that Petitioner relied on his motion for leave for a new trial have been discredited. Now, Petitioner argues that this Court should apply the 2016 ABFO guidelines which have not been subjected to controlled studies or peer review.

There is no question that the advancements in forensic odontology impeach and contradict the trial testimony of the experts. However, this determination alone, does not resolve the

question as to whether the bite mark evidence creates a “strong probability” that there would be a different outcome in a future trial.

III. DOCTRINE OF “THE-LAW-OF-THE CASE” & “RES JUDICATA” AS APPLIED TO THE EVIDENCE IN THIS CASE

The “*law-of-the case doctrine*” provides that the “decision of a reviewing court in a case remains the law of the case on the legal questions involved in all subsequent proceedings in the case at both the trial and reviewing levels.” *Hubbard ex. rel Creed v. Sauline*, 74 Ohio St.3d 402, 404, 659 N.E.2d 781 (1996), quoting *Nolan v. Nolan*, 11 Ohio St.3d 1, 3, 462 N.E.2d 410 (1984). The rule is necessary to ensure consistency of results and avoid endless litigation.

“*Res judicata*” operates in a similar way. A final judgment of conviction bars a convicted defendant, who was represented from counsel from raising any defense or claimed lack of due process that could have been raised at trial or in an earlier appeal. *State v. Szeftcyk*, 77 Ohio St.3d 93, 95, 671 N.E.2d 233 (1996).

The Petitioner claims that the doctrines of “*law-of-the case*” and “*res judicata*” are inapplicable to this case because the unreliability of the bite mark evidence did not become apparent until recent years. However, the Ohio Supreme Court decision affirming Petitioner’s convictions only briefly mentioned the bite mark testimony as one of many factors supporting the sufficiency of the totality of the evidence.

This Court is bound by the decision of the Ohio Supreme Court (*State v. Hill*, 1989 Ohio App. LEXIS 4462) that weighed the sufficiency of the evidence on the Aggravated Murder count and independently weighed the sufficiency of the Rape, Kidnapping, and Aggravated Arson specifications.

The Petitioner was indicted on Aggravated Murder and charged that Danny Lee Hill did purposely cause the death of Raymond C. Fife, * * * while committing Kidnapping or Rape, or Aggravated Arson. Imposition of a death sentence in Hill's case was triggered by the unanimous verdict of the three-judge panel that found Hill guilty on the Aggravated Murder with the specifications that the crime was committed during the commission of Kidnapping (specification 1), Rape (specification 2) or Aggravated Arson (specification 3). A conviction any one of the specifications made Hill eligible to receive a death sentence. R.C. 2941.14 and R.C. 2929.04 (A) (7).

On February 28, 1986, the three-judge panel unanimously found the above statutory aggravating circumstances outweighed the mitigating factors beyond any reasonable doubt and sentenced the Petitioner to death.

Dr. Adelman who performed the autopsy in this case testified that Raymond Fife's death was due to cardiorespiratory arrest secondary to asphyxiation, subdural hematoma, and multiple trauma. At no time, did Dr. Adelman testify that the victim died from being bitten on the penis.

Under Ohio law, there can be more than one principal offender in the commission of a crime. "Principal offender" means the "actual" killer and not the "sole offender. As there can be more than one actual killer, there can be more than one principal offender. *State v. Skatzes*, 104 Ohio St.3d 195; 2004-Ohio-6391; 819bN.E. 2d 215; 2004 Ohio LEXIS 2859.

The bite mark evidence was one factor, of many, in determining whether Hill was a principal offender in the commission of the Rape. The Ohio Supreme Court not only affirmed Petitioner's Aggravated Murder conviction but analyzed the evidence on each specification, independently. Even without taking into account the bite mark evidence, the Ohio Supreme

Court discussed in detail the totality of the evidence in the case that supported Hill's conviction on the Rape specification.

"The evidence which supported the rape conviction indicated the victim was subjected to a significant amount of force. This is consistent with the relative size and age differences between the appellant and the victim. Initially, the victim was restrained and his mouth covered, but as the various sexual acts were performed, he was rendered unconscious. The physical attacks perpetrated on the deceased caused him to vomit and also caused extensive physical damage.

Specifically, during the assault, which lasted approximately forty-five minutes, the victim was repeatedly bitten on the penis, which was evidenced by the bite marks. In addition, the autopsy revealed that the deceased had suffered multiple contusions, abrasions, and lacerations on his back, face, and thigh. Furthermore, his genitalia was pulled with egregious force.

He was impaled repeatedly with both the blunt end and sharp end of an instrument which was long enough to perforate the rectum and rupture the victim's urinary bladder. As an apparent result of the agony of the cumulative torture, the victim was heard screaming continuously, for a period of twenty to thirty seconds, by a passersby. At this time, witnesses observed Combs on the path behind the Valu-King.

Additionally, appellant's own statement indicated he remained with the victim while Combs absented himself from the scene, and he did not go for help. This direct evidence base provides, at the very least, that appellant was the only other person {present} when the victim was experiencing the pinnacle of excruciating pain from these egregious assaults."

State v. Hill, 1989 Ohio App. LEXIS 4462, at 84-85.

The reasoning in the Supreme Court decision evinced a detailed understanding of the trial record. For instance, the Supreme Court noted that Hill continued to stay with the victim while Combs went to the Valu-King to obtain lighter fluid. At trial, Troy Cree, testified that he and his friend Darren Ball were returning home from football practice around 5:30 p.m. when they saw Timothy Combs walking toward the Valu-King. Cree testified at the same time

he saw Combs, he heard a “kid” scream that lasted approximately 30 seconds. (Tr. TOP -860-862). Cree’s testimony was corroborated by Darren Ball, who testified he heard a “child” scream at the time he saw Combs near the Valu-King. (Tr. TOP -847-849).

In Hill’s initial statement to Warren police made on September 10, 1985, as well as in subsequent statements, Hill admitted that he stayed with the victim while Combs went to Valu-King. Hill denied raping the victim either orally or anally or inserting the broom handle into the victim’s rectum in Combs’ absence. However, Hill admitted to police that Raymond was still alive when Combs went to Valu-King.

“The boy was laying down –He was on his back. He was still moving.” (Petitioner’s Exhibit L at 2).

The Ohio Supreme Court independently weighed all of the trial evidence and found that Petitioner’s conviction for Aggravated Murder and the rape specification; as well the kidnapping and aggravated arson specifications, were supported by evidence beyond a reasonable doubt. Even when the Supreme Court discussed the bite mark testimony, because both Hill and Combs were principal offenders acting in concert with one another, the Court made no conclusion as to whether Hill or Combs made the bite marks. This decision of the Ohio Supreme Court is binding on this Court and constitutes “*the law of the case.*”

IV. DOES THE BITE MARK EVIDENCE SHOW A “STRONG PROBABILITY” THAT THE OUTCOME WOULD CHANGE IF A NEW TRIAL IS GRANTED?

A Crim. R. 33 (A)(6) motion for a new trial on the ground of newly discovered evidence may be granted only if the evidence shows all of the following:

- (1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and does not merely impeach or contradict the former

evidence. *State v. Petro*, (1947) 148 Ohio St. 505, 76 N.E.2d 370, syllabus.

The entire underpinning of Petitioner's argument for a new trial is predicated on the changes in forensic dentistry made in the last several years. Hill contends that without the bite mark evidence there is a "strong probability" that a new trial would yield a different outcome. There are several legal impediments to Petitioner's position.

The Petitioner was convicted of Aggravated Murder as a principal offender with three (3) separate specifications of aggravating circumstances. (R.C. 2903.01(B). Hill was convicted of Aggravated Murder count with the following specifications; (Kidnapping – R.C. 2905.01, specification 1), (Rape – R.C. 2907.02, specification 2), (Aggravated Arson) – R.C. 2929.04, specification 3). A conviction on Aggravated Murder with one of the above aggravated circumstances triggered the imposition of the death penalty.

On February 28, 1986, after a mitigation hearing, the three-judge panel found the aggravating circumstances outweighed any mitigating factors. Hill was sentenced to death for Aggravated Murder with specifications that the crime was committed during the commission of Kidnapping, Rape, or Aggravated Arson.

In Count three of the indictment, Hill was charged with Rape, in violation of R.C. 2907.02, stating "Danny Lee Hill, did, engage in **sexual conduct** with Raymond C. Fife..., the said Danny Lee Hill having purposely compelled Raymond C. Fife to submit by force or threat of force, and the said Raymond C. Fife being less than thirteen (13) years of age.) R.C. 2907.01 defines sexual conduct to include all of the following; anal intercourse, fellatio, and cunnilingus between persons regardless of sex. R.C. 2907.01. The pertinent essential element of Rape is sexual conduct, not the exact type of sexual conduct. *State v. Himes*, 7th Dist. No. 08MA 146 at para. 30.

The relevancy of bite-mark testimony was a factor in proving whether Hill's mouth came into contact with the victim's penis (oral sex). The bite mark evidence had no relevance on the question of whether Hill had anal intercourse with Fife. In one of Hill's statements made to police, he admitted that one point during the attack, he turned the victim over to see if "he was still breathing." (Petitioner's Exhibit M, pg. 25). This statement is somewhat incredulous considering that by Hill's own admissions he did nothing to help the boy escape, did not seek medical attention for Fife, even when he was alone with him, and never attempted to intervene in the protracted torture of the victim.

Most importantly, the bite mark evidence does nothing to vitiate the sufficiency of the overwhelming evidence against the Petitioner on the Kidnapping specification to the Aggravated Murder count. The Kidnapping specification provides a separate and independent basis for imposition of the death penalty in this case.

According to evidence at trial, cited previously in this opinion, Hill refused to help Fife as he repeatedly attempted to run or crawl away from the attack. He watched over or kept Fife in the secluded wooded area while Combs got the lighter or charcoal fluid. Although Hill denied he ever inflicted any injuries on Fife (who was still alive at that time) when Combs went to Valu-King, passersby heard screams of "pain" from a "child" that lasted 20 to 30 seconds during the time Combs was at Valu-King.

Even if this Court were to conclude based on today's advances in forensic odontology and the ABFO guidelines, that the bite-mark evidence is unreliable and could not be introduced in a future trial, there is no probability, much less a strong probability that a new trial would result in different outcome. This is especially true considering the overwhelming evidence supporting the

Petitioner's conviction on the Kidnapping specification. Much of this evidence came from the Petitioner admissions and observations from passersby.

Petitioner, in his brief refers to cases on the "Project Innocence" website that purport to "exonerate" individuals based on new bite mark evidence. (Petitioner's brief at pg. 35). The vast majority of these "exonerations" are based on cases that involved new DNA evidence. Many of the reversals also involve egregious misconduct on the part of prosecutors such as withholding exculpatory evidence or suborning perjury. (See, Petitioner's brief at p. 35, case involving Steven Mark Chaney).

It is important to emphasize that while the results of new DNA testing can be "outcome determinative" pursuant to R.C. 2953.73 and positively identify or exclude the perpetrator, no ABFO guideline, now or in the future, will ever be able to identify the person who made the bite mark on Fife's penis or whether it was a bite mark.

For all of the above reasons, the Court finds that even if the bite mark evidence is excluded, considering the totality of the evidence against the Petitioner, particularly on the Kidnapping specification, Petitioner has failed to demonstrate a "strong probability" that there would be a different outcome if a new trial were granted in this case.

CONCLUSION

This Court cannot consider the bite mark evidence in a jurisprudential vacuum. Although, the Court has serious concerns about the scientific reliability of bite mark evidence, this does not automatically translate into a conclusion that the Petitioner is entitled to a new trial pursuant to Crim. R. 33. The granting of a new trial based on newly discovered evidence by its obvious terms involves consideration of newly discovered evidence. What is less obvious, is that the Court, should determine if there exists a strong probability of a different result, less

consideration of the evidence adduced at trial. *State v. Gillespie*, 2nd Dist. No. 24456, para. 36, 2012-Ohio1656.

Although Petitioner believes that without the bite mark evidence the outcome of a new trial would be different or Hill would be “exonerated” this conclusion is not based in law or fact. Petitioner’s asserts that the evidence supporting Hill’s convictions was weak. To the contrary, considering the evidence “adduced” at trial, there is more than sufficient evidence to support Hill’s conviction on Aggravated Murder and three death penalty specifications. *Compare, Gillespie, supra* (conviction based on identification of suspect made two years after crime).

The Ohio Supreme Court thoroughly reviewed the sufficiency of the evidence in this case when it affirmed the Petitioner’s convictions. This Court previously recounted some of the salient findings of the Ohio Supreme Court in when it affirmed Hill’s convictions. The majority of the Court’s findings on sufficiency had nothing to do with the bite mark evidence.

The Supreme Court honed in on Hill’s claim that he never participated in the assault and torture of Raymond Fife. The Court determined that the victim had been impaled repeatedly with both the blunt and sharp end of an instrument that was long enough to perforate the rectum and rupture the urinary bladder.

“As an apparent result of the agony of the cumulative torture, the victim was heard screaming continuously, for a period of twenty to thirty seconds, by a passerby. At this time witnesses observed Combs on the path behind the Valu-King.”

The Supreme Court discussed the issue of causation citing to Hill’s incriminating admissions made to law enforcement on several occasions.

“Additionally, appellant’s own statement indicated he remained with the victim while Combs absented himself from the scene, and he did not go for help. This direct evidence

base provides, at the very least, that appellant was the only other person {present} when the victim was experiencing the pinnacle of excruciating pain from these egregious assaults” *State v. Hill*, 1989 Ohio App. LEXIS 4462, at 84-85. (emphasis added).

The Court finds that the bite mark evidence contradicts and impeaches the trial evidence. *State v. Petro*. More significantly, however, when considering the sufficiency of the evidence on the Aggravated Murder count and the death penalty specifications, in particular, the Kidnapping specification, the evidence does not create a strong possibility that the outcome would be any different if a new trial were granted pursuant to Crim. R. 33. *Dayton, supra*.

The Court grants the State’s Civ. R. 12 (F) motion to strike the portions of Petitioner’s motion for a new trial that added without leave of court.

The decision to conduct an evidentiary hearing , as with the decision whether to grant a motion for new trial is entrusted to the sound discretion of the trial court. *State v. Smith*, 30 Ohio App. 3d 138, 139, 506 N.E.2d 1205 (9th Dist. 1986); *Toledo v. Stuart*, 11 Ohio App.2d 292, 293, 11 OBR 557, 456 N.E.2d 474 (6th Dist. 1983).

For all of the foregoing reasons, the Petitioner’s motion for a new trial is DENIED.

This is a final and appealable order. There is no just cause for delay.

IT IS SO ORDERED.


JUDGE PATRICIA A. COSGROVE

(Sitting by Assignment)
Ohio Constitution
Art. IV, Sec. 6
15JA-0843

FILED
COURT OF COMMON PLEAS
OCT - 3 2016

TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK

cc: Trumbull County Prosecuting Dennis Watkins
Assistant Trumbull Prosecuting Attorney
Attorney Vicki Ruth Adams Werneke, Assistant Ohio Public Defender
Attorney Sarah R. Kostick, Pro Bono Attorney for Petitioner
Judge Patricia A. Cosgrove

DEC 03 2018

IN THE COURT OF APPEALS
ELEVENTH APPELLATE DISTRICT
TRUMBULL COUNTY, OHIO

TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK

STATE OF OHIO,	:	OPINION
	:	
Plaintiff-Appellee,	:	CASE NO. 2016-T-0099
	:	
- vs -	:	
	:	
DANNY LEE HILL,	:	
	:	
Defendant-Appellant.	:	

Criminal Appeal from the Trumbull County Court of Common Pleas, Case No. 85 CR 317.

Judgment: Affirmed.

Dennis Watkins, Trumbull County Prosecutor, and *LuWayne Annos*, Assistant Prosecutor, Administration Building, Fourth Floor, 160 High Street, N.W., Warren, OH 44481 (For Plaintiff-Appellee).

Sarah Kostick, 33 N. Stone Avenue, 21st Floor, Tucson, AZ 85701, and *Vicki Ruth Adams Werneke*, Assistant Federal Public Defender, 1660 West Second Street, Suite 750, Cleveland, OH 44113 (For Defendant-Appellant).

DIANE V. GRENDELL, J.

{¶1} Defendant-appellant, Danny Lee Hill, appeals the decisions of the Trumbull County Court of Common Pleas to deny his Motion for New Trial without hearing and to deny his Motion to Disqualify the Office of the Trumbull County Prosecutor. The issues before this court are whether a trial court may strike portions of a motion for new trial based on newly discovered evidence that exceeded the scope of the court's order granting leave to file the motion for new trial; whether the doctrines of

res judicata and law of the case may be applied in analyzing the merits of a motion for new trial; whether a trial court must formally recognize evidence as newly discovered in its analysis of whether the evidence justifies the granting of a motion for new trial; whether an aggravated murder conviction may be sustained based solely on circumstantial evidence; whether a trial court errs in denying a motion for new trial without holding a hearing where the determinative issue turns on the probability of a different outcome at trial in the absence of certain evidence; whether a county prosecutor's office must be disqualified where defendant's former trial counsel takes a position with the office in the absence of actual prejudice; and whether a demonstration of the unreliability of bite mark evidence renders trial proceedings so fundamentally unfair as to deprive a defendant of due process. For the following reasons, we affirm the decision of the court below.

{¶2} On November 14, 2014, Hill filed a Request for Leave to File a Motion for New Trial pursuant to Ohio Criminal Rule 33(B). On November 20, 2014, the State filed its Response to Hill's Request, to which Hill filed a Reply on February 12, 2015. On May 14, 2015, Hill filed Supplemental Authority in Relation to his Request for Leave to File a Motion for New Trial.

{¶3} On May 22, 2015, Hill filed a Motion to Disqualify the Office of the Trumbull County Prosecutor. On June 16, 2015, the State filed its Response to Hill's Motion to disqualify, to which Hill filed a Reply on July 7, 2015.

{¶4} On December 21, 2015, the trial court held an evidentiary hearing on Hill's Request for Leave, at the conclusion of which it orally denied the Motion to Disqualify the Office of the Trumbull County Prosecutor.

{¶5} On June 7, 2016, the trial court issued its Order on Petitioner's Request for Leave to File a Motion for New Trial pursuant to Ohio Criminal Rule 33(B). The court noted that on January 31, 1986, after a trial presided over by a three-judge panel, Hill was found guilty of Aggravated Murder in violation of R.C. 2903.01(B) with Specifications for Kidnapping, Rape, and Aggravated Arson (Count #1); Kidnapping in violation of R.C. 2905.01 (Count #2); Rape in violation of R.C. 2907.02 (Count #3); Aggravated Arson in violation of R.C. 2909.02 (Count #4); and Felonious Sexual Penetration in violation of former R.C. 2907.12(A)(1) and (3) (Count #6). The court further noted that, on March 5, 1986, Hill was sentenced to death for Aggravated Murder.¹

{¶6} Hill's convictions are based on the murder of Raymond Fife on September 10, 1985. The factual record is set forth in detail in *State v. Hill*, 11th Dist. Trumbull Nos. 3720 and 3745, 1989 WL 142761 (Nov. 27, 1989), and *State v. Hill*, 64 Ohio St.3d 313, 595 N.E.2d 884 (1992).

{¶7} The trial court determined, by clear and convincing evidence, that Hill was unavoidably prevented from filing his Motion for Leave within the one hundred twenty day period provided for by Criminal Rule 33. The court noted that "[t]he crux of Petitioner's argument for leave to file a motion for new trial * * * pivots on the scientific advances in forensic odontology made since 1986 that call into question the reliability of bite mark evidence presented in Hill's trial." In 2013, the American Board of Forensic Odontology established new guidelines for bite mark analysis which could not have been discovered by any amount of due diligence in 1986. Moreover, the court found

1. Hill was sentenced to imprisonment for the indeterminate period of ten to twenty-five years for Kidnapping, the determinate period of life for Rape, the indeterminate period of ten to twenty-five years for Aggravated Arson, and the determinate period of life for Felonious Sexual Penetration.

that “the local and state Public Defender’s Office had a conflict of interest in preparing and filing the motion for leave for a new trial” resulting in unavoidable further delay.

{¶8} On these grounds, the trial court granted Hill leave to file a motion for new trial.

{¶9} On June 13, 2016, Hill filed a Motion for New Trial. On July 5, 2016, the State filed its Response, to which Hill filed a Reply on July 19, 2016.

{¶10} On June 16, 2016, the State filed a Motion to Strike Defendant’s Motion for New Trial. On June 27, 2016, Hill filed a Response

{¶11} On September 21, 2016, Hill filed Supplemental Authority and Renewed Motion for Evidentiary Hearing. On September 23, 2016, the State filed its Response, to which Hill filed a Reply on September 26, 2016.

{¶12} On October 3, 2016, the trial court issued its Order on Petitioner’s Motion for Evidentiary Hearing on Motion for New Trial.

{¶13} With respect to the State’s Motion to Strike, the trial court found that, in his June 13, 2016 Motion for New Trial, Hill “included issues that were never raised in his prior motion for leave to file a new trial motion.” These issues included “the voluntariness of Hill’s statements given to the Warren Police Department after the murder of Raymond Fife in 1985” and Dr. Adelman’s testimony regarding “the stick or broomstick handle that was introduced by the State at Hill’s trial.” The court found these additional claims, “unilaterally added by Petitioner in his motion for new trial,” to be redundant, impertinent, and immaterial under Civil Rule 12(F). Moreover, the court found “any further discussion of these claims * * * barred by the ‘law of the case’ doctrine and ‘res judicata.’” The court ordered these claims stricken.

{¶14} The trial court then considered whether Hill’s newly discovered bite mark evidence, even if contradicting or impeaching prior trial testimony, “can serve as the basis for a new trial in this case,” which question turned on “whether the bite mark evidence creates a ‘strong probability’ that there would be a different outcome in a future trial.” Without conducting an evidentiary hearing on the issue, the court concluded that, “even if the bite mark evidence is excluded, considering the totality of the evidence against the Petitioner, particularly on the Kidnapping specification, Petitioner has failed to demonstrate a ‘strong probability’ that there would be a different outcome if a new trial were granted in this case.” In reaching its conclusion, the court noted that the “Ohio Supreme Court thoroughly reviewed the sufficiency of the evidence in this case when it affirmed the Petitioner’s convictions,” and the “majority of the Court’s findings on sufficiency had nothing to do with the bite mark evidence.”

{¶15} Accordingly, the trial court denied Hill’s Motion for New Trial.

{¶16} On October 26, 2016, Hill filed a Notice of Appeal. On appeal, Hill raises the following assignments of error.

{¶17} “[1.] The trial court committed prejudicial and reversible error when it held it was precluded under the doctrines of *res judicata* and/or ‘law of the case’ from an independent review of the evidentiary record and/or an independent determination of the merits of Mr. Hill’s motion for new trial based on newly discovered evidence, thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution.”

{¶18} “[2.] The trial court committed prejudicial error when it held that Mr. Hill’s new evidence did not satisfy the requirements of *State v. Petro* because the bitemark

evidence proffered by Mr. Hill did not create a 'strong probability' of a different result if Mr. Hill is granted a new trial thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶19} "[3.] The trial court committed prejudicial and reversible error when it failed to hold that Mr. Hill's bitemark evidence constituted 'new evidence' under Criminal Rule 33 and *State v. Petro* thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶20} "[4.] The trial court committed prejudicial and reversible error when it granted the State's Rule 12 motion to strike Mr. Hill's non-bitemark evidence based on an erroneous interpretation of *State v. Petro* and/or an inappropriate application of 'law of the case' and/or *res judicata* thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶21} "[5.] The trial court committed prejudicial and reversible error when it failed to conduct an evidentiary hearing before denying Mr. Hill's motion thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶22} "[6.] The trial court abused its discretion by not granting Mr. Hill's motion to disqualify the Trumbull County Prosecutor thus denying Mr. Hill due process of law in violation of the Fifth, Sixth, Eighth, and Fourteenth Amendments to the United States Constitution."

{¶23} "[7.] The trial court committed prejudicial and reversible error when it failed to consider and rule on Mr. Hill's argument that the fabricated expert evidence at his trial constituted a violation of his Eighth and Fourteenth Amendment rights."

{¶24} When considering an untimely motion for new trial based on newly discovered evidence, a trial court is required to engage in a “two-step process,” first determining whether the motion should be allowed and then considering the merits thereof. *State v. Elersic*, 11th Dist. Geauga No. 2006-G-2740, 2007-Ohio-3371, ¶ 23.

{¶25} With respect to the timeliness requirement, the Rules of Criminal Procedure provide:

Motions for new trial on account of newly discovered evidence shall be filed within one hundred twenty days after the day upon which the verdict was rendered, or the decision of the court where trial by jury has been waived. If it is made to appear by clear and convincing proof that the defendant was unavoidably prevented from the discovery of the evidence upon which he must rely, such motion shall be filed within seven days from an order of the court finding that he was unavoidably prevented from discovering the evidence within the one hundred twenty day period.

Crim.R. 33(B).

{¶26} With respect to the merits of a motion for new trial, Criminal Rule 33 provides:

A new trial may be granted on motion of the defendant * * * [w]hen new evidence material to the defense is discovered which the defendant could not with reasonable diligence have discovered and produced at the trial. When a motion for a new trial is made upon the ground of newly discovered evidence, the defendant must

produce at the hearing on the motion, in support thereof, the affidavits of the witnesses by whom such evidence is expected to be given, and if time is required by the defendant to procure such affidavits, the court may postpone the hearing of the motion for such length of time as is reasonable under all the circumstances of the case. The prosecuting attorney may produce affidavits or other evidence to impeach the affidavits of such witnesses.

Crim.R. 33(A)(6).

{¶27} “To warrant the granting of a motion for a new trial in a criminal case, based on the ground of newly discovered evidence, it must be shown that the new evidence (1) discloses a strong probability that it will change the result if a new trial is granted, (2) has been discovered since the trial, (3) is such as could not in the exercise of due diligence have been discovered before the trial, (4) is material to the issues, (5) is not merely cumulative to former evidence, and (6) does not merely impeach or contradict the former evidence.” *State v. Hawkins*, 66 Ohio St.3d 339, 350, 612 N.E.2d 1227 (1993), citing *State v. Petro*, 148 Ohio St. 505, 76 N.E.2d 370 (1947), syllabus.

{¶28} Moreover, a “trial court would only need to consider whether the evidence is, in fact, ‘newly discovered’ if it finds that appellant ‘had no knowledge of the existence of the ground supporting the motion and could not have learned of that existence within the time prescribed for filing the motion in the exercise of reasonable diligence.’” (Citation omitted.) *State v. Trimble*, 2015-Ohio-942, 30 N.E.3d 222, ¶ 19 (11th Dist.).

{¶29} “The allowance of a motion for a new trial on the grounds of newly discovered evidence is within the competence and discretion of the trial judge; and in

the absence of a clear showing of abuse such decision will not be disturbed.” *State v. Williams*, 43 Ohio St.2d 88, 330 N.E.2d 891 (1975), paragraph two of the syllabus; *State v. Schiebel*, 55 Ohio St.3d 71, 564 N.E.2d 54 (1990), paragraph one of the syllabus.

{¶30} Hill’s assignments of error will be considered out of order.

{¶31} In the fourth assignment of error, Hill contends that the trial court erred in applying Civil Rule 12(F) to strike portions of his Motion for New Trial.

{¶32} Civil Rule 12(F) provides: “Upon motion made by a party before responding to a pleading or, if no responsive pleading is permitted by these rules, upon motion made by a party within twenty-eight days after the service of the pleading upon him or upon the court’s own initiative at any time, the court may order stricken from any pleading any insufficient claim or defense or any redundant, immaterial, impertinent, or scandalous matter.”

{¶33} Hill notes that the “trial court cited no authority for applying Civil Rule 12(F) in a criminal context.” Appellant’s brief at 41. On the contrary, the trial court cited to Criminal Rule 57(B) which provides: “If no procedure is specifically prescribed by rule, the court may proceed in any lawful manner not inconsistent with these rules of criminal procedure, and shall look to the rules of civil procedure and to the applicable law if no rule of criminal procedure exists.” *Compare State v. Schlee*, 117 Ohio St.3d 153, 2008-Ohio-545, 882 N.E.2d 431, ¶ 10 (“the plain language of Crim.R. 57(B) permits a trial court in a criminal case to look to the Rules of Civil Procedure for guidance when no applicable Rule of Criminal Procedure exists”); *Elersic*, 2007-Ohio-3371, at ¶ 23 (Criminal Rule 33 “does not specify the procedure by which the initial order is to be obtained”). The court also cited precedent for striking a reply brief when it was not filed

by rule or with leave of the court. *State ex rel. Ebbing v. Ricketts*, 133 Ohio St.3d 339, 2012-Ohio-4699, 978 N.E.2d 188, ¶ 15.

{¶34} In the present case, the trial court granted the State's Motion to Strike to the extent that Hill's Motion for New Trial included material supporting additional claims beyond the scope of Hill's Motion for Leave, which was "limited * * * to the issue of the scientific reliability of bite mark evidence based upon the scientific advances in [the] field of forensic dentistry and the 2013 ABFO guidelines." These materials included the affidavits of Dr. Zhongxue Hua (challenging the opinions of pathologist Dr. Howard Adelman regarding the victim's injuries), Dr. Stephen Greenspan (challenging opinions proffered in the course of proceedings on Hill's *Atkins* petition), and Dr. Deborah Davis (opining that "little weight should be given to [Hill's] confession² as evidence of guilt").

{¶35} The trial court understood that it had granted Hill leave to file his Motion for a New Trial only on the basis of bite mark evidence. This conclusion is hardly controversial given that Hill's Request for Leave only referenced and/or discussed bite mark evidence. See pages 11 to 13 of the Request for Leave discussing "newly discovered evidence" and "due diligence." Moreover, at the evidentiary hearing held on the Request for Leave, Hill's two witnesses only discussed the bite mark evidence. Accordingly, we reject Hill's argument that there was "an absence of any formal direction to Mr. Hill that he must confine his motion for new trial solely to bite mark issues." Appellant's brief at 43. The trial court could not be expected to grant leave beyond what was formally sought and argued for by Hill.

2. As a practical matter, Hill never confessed to inflicting any harm to the victim but, rather, made incriminating/inculpatory statements.

{¶36} Hill also contends that the affidavits in question are “new” inasmuch as “[n]either Dr. Hua nor Dr. Davis have previously testified on behalf of Mr. Hill” and “[n]o court has ever ruled on the admissibility or inadmissibility of their testimony.” Appellant’s brief at 43. Hill’s argument fails to appreciate that the crucial issue is whether there was unavoidable delay in obtaining their testimony. Dr. Hua’s affidavit essentially concedes that his opinions are not based on any advances in scientific knowledge. He states: “At no point, *including at the time the opinions were proffered in 1985-86 or today*, has there been a reliable scientific basis for Dr. Adelman’s testimony regarding the nature of the wounds to Raymond Fife’s rectum, or any object purportedly used to create those wounds.”³ Dr. Davis offers nothing more than her opinion that “Danny Hill’s confession was highly unreliable” based “on the evidence surrounding the interrogations themselves and Danny’s personal characteristics.”

{¶37} Nothing about these affidavits suggests that Hill could not have learned of the existence of the grounds for their testimony in the exercise of reasonable diligence. On the contrary, the grounds for Hua’s and Davis’ testimony were expressly acknowledged at the time of trial. At trial, counsel for Hill spoke derisively of Dr. Adelman’s testimony identifying the stick that was used to sodomize Fife:

This must be the stick! So, they submit it, and at a point in time * *

* Mr. Adelman comes up with the conclusion this could be the stick.

3. Dr. Hua also challenged the validity of Dr. Adelman’s trial testimony regarding asphyxia and erection. As this testimony pertained to the bite mark evidence on which the Request for Leave was granted, it should have been and in fact was considered by the trial court in ruling on the merits of the Motion for New Trial. The court stated: “The Petitioner submitted an affidavit from Dr. Zhongxue Hua. Dr. Hua criticized the testimony of Dr. Adelman and Dr. Mertz and concluded that there was no scientific basis to support their conclusions that Fife’s penis was erect at the time the patterned injuries occurred.”

Well, he's assuming, first off, it's a stick or piece of wood of some sort, okay, evidentially [sic], from the plant material later on, but he assumes it's the stick. So, he shows sections and everything else, and yeah, it could have caused that. You could have taken any broom handle, anything; implement handle, anything, split it, crack it like it usually does like that, and it probably would have fit also. The prosecutor's got this wonderful stick. This is evidence. Boy! That is great!

{¶38} Similarly, many of the salient points raised by Dr. Davis were previously raised by trial counsel. He emphasized that Hill had been placed in classes for the educable mentally retarded since the first grade. Counsel also suggested that the officers and detectives were fully aware of Hill's diminished capacity and intentionally interrogated Hill before his more intellectually competent co-principal, Timothy Combs, because "they know damn well how basically stupid Danny is and they could break him down." Both Davis and trial counsel describe Hill's statements as being the product of manipulative interrogation techniques and inherently unreliable.

{¶39} In the absence of any evidence that Hill was unavoidably delayed in obtaining the testimony of Drs. Hua and Davis, their testimony was properly struck from consideration by the trial court as the court could not have properly considered its merits. *Trimble*, 2015-Ohio-942, 30 N.E.3d 222, at ¶ 12 ("[a] trial court may not consider the merits of the motion for a new trial until it makes a finding of unavoidable delay"); *State v. Rodriguez-Baron*, 7th Dist. Mahoning No. 12-MA-44, 2012-Ohio-5360, ¶ 11 ("[l]eave of court must be granted before the merits of the motion are reached").

{¶40} Hill also objects to the trial court's reference to res judicata and the law of the case doctrine as barring further discussion of the issues raised by Drs. Hua and Davis. For the law of the case doctrine, see *Nolan v. Nolan*, 11 Ohio St.3d 1, 3, 462 N.E.2d 410 (1984) ("the decision of a reviewing court in a case remains the law of that case on the legal questions involved for all subsequent proceedings in the case at both the trial and reviewing levels"); for res judicata, see *State v. Szefcyk*, 77 Ohio St.3d 93, 671 N.E.2d 233 (1996), syllabus ("a final judgment of conviction bars a convicted defendant who was represented by counsel from raising and litigating in any proceeding, except an appeal from that judgment, any defense or any claimed lack of due process that was raised or could have been raised by the defendant at the trial, which resulted in that judgment of conviction, or on an appeal from that judgment").

{¶41} We note, however, that, where leave to file a motion for new trial is based on issues that could have been raised on direct appeal the doctrine of res judicata is properly invoked to deny leave. *State v. Shuster*, 5th Dist. Morgan No. 16AP0012, 2017-Ohio-2776, ¶ 18 (cases cited).

{¶42} The fourth assignment of error is without merit.

{¶43} In his first assignment of error, Hill contends that the trial court erred in its application of res judicata and the law of the case doctrine as a way of excusing itself "from engaging in an independent re-examination of the new evidence and evidentiary record as required by Criminal Rule 33 and *State v. Petro*." Since "the trial court's denial of Mr. Hill's motion rests upon its finding of preclusion, * * * its Order must be reversed." Appellant's brief at 11-12.

{¶44} The trial court invoked the law of the case doctrine and res judicata to establish the following as binding: “[t]he Ohio Supreme Court independently weighed all of the trial evidence and found that Petitioner’s conviction for Aggravated Murder and the rape specification, as well [as] the kidnapping and aggravated arson specifications, were supported by evidence beyond a reasonable doubt.” We disagree, however, that the court based its denial of Hill’s Motion for New Trial solely on the Supreme Court’s determination that there was sufficient evidence to support Hill’s convictions.

{¶45} The trial court did independently consider whether the bite mark evidence satisfied the standard set by *Petro*, in particular whether the evidence disclosed a “strong probability” that it would change the outcome if a new trial were granted, albeit not doing so “in a jurisprudential vacuum.” The court appealed to prior judicial review of the evidence to convict Hill to support its own conclusion that Hill’s convictions could stand independently of the bite mark evidence.

{¶46} The trial court frankly acknowledged that “[t]he granting of a new trial based on newly discovered evidence by its obvious terms involves consideration of newly discovered evidence.” The court noted the “relevancy of bite-mark testimony [as] a factor in proving whether Hill’s mouth came into contact with the victim’s penis,” but “had no relevance on the question of whether Hill had anal intercourse with Fife.” Similarly, “the bite mark evidence does nothing to vitiate the sufficiency of the overwhelming evidence against the Petition on the Kidnapping specification to the Aggravated Murder count,” and the same could be said of the Aggravated Arson charge. The court’s appeal to the Supreme Court’s review of the evidence is used to support its conclusion that Hill’s convictions remain valid even in the absence of the bite

mark evidence, rather than the proposition that consideration of Hill's evidence is foreclosed. Hill may certainly disagree with the court's conclusion regarding the significance of the bite mark evidence to his convictions, but this does not render the court's invocation of res judicata and the law of the case doctrine reversible error per se.

{¶47} The first assignment of error is without merit.

{¶48} In the third assignment of error, Hill faults the trial court for "never formally acknowledg[ing] that Mr. Hill's bitemark evidence constituted new evidence pursuant to Criminal Rule 33." Appellant's brief at 26.

{¶49} Hill's argument is undermined by the trial court's own statements acknowledging that the bite mark evidence is newly discovered evidence. *See, e.g.*, "this Court, in its discretion granted leave to Petitioner to file a motion for new trial, finding that the Petitioner was 'unavoidably prevented' from discovering new evidence relating to 'bite mark' evidence that was not in existence at the time of Petitioner's trial," and "[t]he *sole basis* of Petitioner's motion for leave to file a motion for a new trial is predicated on 'newly discovered' bite mark evidence that did not exist in 1985." Moreover, the court subjected Hill's bite mark evidence to the *Petro* analysis, which action would be nonsensical unless the evidence was considered newly discovered evidence.

{¶50} The third assignment of error is without merit.

{¶51} In the second assignment of error, Hill challenges the trial court's decision to deny his Motion for New Trial on the grounds that, "even if the bite mark evidence is excluded, considering the totality of the evidence against the Petitioner, particularly on the Kidnapping specification, Petitioner has failed to demonstrate a 'strong probability'

that there would be a different outcome if a new trial were granted in this case.” Hill counters that, in the absence of the bite mark evidence, “there existed *no other direct evidence* supporting Mr. Hill’s active involvement in those specific crimes.” Appellant’s brief at 22. Thus, the court could not simply assume, based on the sufficiency of the non-bite mark evidence, that the results of Hill’s trial would have been the same. According to Hill, “the bitemark was essential to showing that [he] was an active participant, not a passive accomplice.” Appellant’s brief at 24.

{¶52} Before considering the trial evidence, it should be emphasized that “[c]ircumstantial evidence and direct evidence inherently possess the same probative value,” and that, “[w]hen the state relies on circumstantial evidence to prove an essential element of the offense charged, there is no need for such evidence to be irreconcilable with any reasonable theory of innocence in order to support a conviction.” *State v. Jenks*, 61 Ohio St.3d 259, 574 N.E.2d 492 (1991), paragraph one of the syllabus. It follows that “circumstantial evidence alone may be sufficient to support a conviction for murder.” *State v. Nicely*, 39 Ohio St.3d 147, 529 N.E.2d 1236 (1988), paragraph one of the syllabus.

{¶53} It should also be recognized that: “It is today universally conceded that the fact of an accused’s flight, escape from custody, resistance to arrest, concealment, assumption of a false name, and related conduct, are admissible as evidence of consciousness of guilt, and thus of guilt itself.” (Citation omitted.) *State v. Williams*, 79 Ohio St.3d 1, 11, 679 N.E.2d 646 (1997); *State v. Wagner*, 8th Dist. Cuyahoga No. 48433, 1985 WL 7448, *2 (Jan. 17, 1985) (“Ohio law is clear that evidence of flight from the scene of a crime may be considered as some evidence of guilt”).

{¶54} Similarly, exculpatory statements, “when shown to be false or misleading, are circumstantial evidence of guilty consciousness and have independent probative value.” (Citation omitted.) *State v. Thompson*, 10th Dist. Franklin No. 05AP-1268, 2006-Ohio-3440, ¶ 21; *Wilson v. United States*, 162 U.S. 613, 620-621, 16 S.Ct. 895, 40 L.Ed. 1090 (1896) (“if the jury were satisfied, from the evidence, that false statements in the case were made by defendant * * *, they had the right * * * to regard false statements in explanation or defense, made or procured to be made, as in themselves tending to show guilt”).

{¶55} Turning to the evidence at trial, it cannot be reasonably doubted that Hill was present during the kidnapping, assault, rape, and burning of Fife. The issue, then, is whether there was evidence from which Hill's participation in the kidnapping, assault, rape, and burning of Fife may be inferred. Finally, we must consider whether there was a strong probability of Hill's convictions in the absence of the bite mark evidence.⁴

{¶56} The testimony from the following witnesses established Hill's presence with Combs at the scene of the crime both before and after the attack:

{¶57} Matthew Hunter, a student at Warren Western Reserve on September 10, 1985, saw Hill and Combs together while he was cutting grass for a neighbor on Jackson Street at about 3:00 p.m. Later that afternoon, around 5:00 p.m., Hunter took a trail through a wooded area from Jackson Street to the Valu-King on Palmyra Road. At this time, Hunter saw Hill and Combs “in the parking lot coming towards the store.” Hunter went into the store to purchase cookies and juice. Upon exiting, he saw Hill and Combs standing in front of a Laundromat connected to the Valu-King. After passing by

4. The focus is not whether the bite mark evidence contributed to Hill's convictions, which it certainly did, but, rather, was there a strong probability of conviction had such evidence not been presented.

Hill and Combs, Hunter saw "Raymond Fife coming in the parking lot off Palmyra Road" on a bike. Hunter described the bike as "a small dirt bike," red with "knobby tires." Hunter re-entered the woods and returned home.

{¶58} Darren Ball, a student at Warren Western Reserve at the time, was walking home with a friend, Troy Cree, after football practice at about 5:30 p.m. From Willow Drive, they entered a trail leading through a field/woods toward the Valu-King. They met Combs on the trail "coming from the Valu-King." After acknowledging Combs, they jogged for about twenty seconds to the end of the trail where they heard a child's scream "like somebody needed help or something." Ball explained that they began to jog because Combs is "a fag" and "does it on boys." Upon hearing the scream, Ball turned around but did not see Combs.

{¶59} Cree likewise recalled passing Combs on the trail and hearing a child scream about thirty seconds later.

{¶60} Donald Allgood, a student at Warren Western Reserve, was walking on Willow Drive around 5:30, 6:00 p.m. and saw Hill, Combs, Andre McCain, and one other person "walking out of the field coming from Valu-King." From Willow, they turned north on Hemlock Avenue. Allgood observed that Hill "with a little flick of his wrist * * * threw a stick to his right." Allgood estimated the stick to be about twelve inches long. Allgood noted that Combs was pulling up his zipper and held his head down.

{¶61} Raymond Fife was found that evening by his father in the wooded area behind the Valu-King.

{¶62} On September 12, 1985, the day that Fife died from his injuries, Hill came to the Warren Police Department claiming to have "some information about that boy that

was beat up.” At this point, Hill had not been contacted by the police in connection with the crime. Hill spoke with Sergeant Thomas Stewart and offered that he had seen a person named Reecie Lowry riding Fife’s bike. Hill correctly described the bike as a reddish dirt bike with knob wheels. Hill could not explain how he knew it was Fife’s bike. When asked if Lowry still had the bike, Hill replied that Lowry probably had put the bike back in the field where Fife was attacked (and where the bike was found the next day). Hill also mentioned seeing Lowry together with Andre McCain. Another detail of the attack mentioned by Hill was Fife had been choked with underwear.

{¶63} Earlier that day, the police had learned from Cree that Combs had been in the woods behind the Valu-King at the time of the attack (as noted above, neither Cree nor Ball had seen Hill or Fife although they had heard a child’s scream). Since Combs was a suspect, Sergeant Stewart mentioned his name. Hill responded by suggesting that Combs “could have done it,” since he “likes to * * * mess with [white boys] in the butt.” However, Hill denied seeing Combs since Combs had been released from “the joint.”

{¶64} On September 13, 1985, Hill was interviewed by Detective Dennis Steinbeck. Hill claimed that, on September 10, he was at home sleeping until 7:00 p.m. Hill repeated his statements that he had seen Lowry on Fife’s bike on a couple of occasions since the attack; he had not seen Combs since he had gone to jail; and he was not present at the Palmyra Road Valu-King.

{¶65} Hill’s initial statements to the police are indicative of his guilt for several reasons. In them, he tried to implicate persons in the crime who were not found to have any connection with the crime. Hill also misled the police about his own involvement by

denying his presence at the crime scene and his association with the other principal convicted for murdering Fife.

{¶66} On September 16, 1985, Hill was brought to the police station by Detectives Steinbeck and Morris Hill (Danny's uncle). Hill consented to conduct recorded interviews, one audio and the other video. Hill admitted that he was with Combs when Fife was attacked but denied participating. Hill's statements during the interviews were generally inconsistent and incoherent. Hill claimed it was Combs' idea to attack Fife in order to take his bike. Hill described the attack in some detail. Some details were corroborated by other evidence and some details were demonstrably false. Some details were suggested by police officers and some Hill proffered of his own accord. Hill's description of the attack also varied as he told it. For example, when asked by the police Hill affirmed in both the audio and video interviews that Fife vomited during the assault, a detail confirmed by emergency personnel.⁵ However, in the audio interview Fife vomited because Combs had smashed his head against the bike pedal while in the video interview Fife vomited because Combs was abusing his genitals.

{¶67} Hill's account of his own behavior during the assault was similarly inconsistent. At one point, Hill remained by the Valu-King and watched the attack from a distance. At another point, Hill was only a few feet from the attack. At another point, Hill had taken a board with the intent of hitting Combs with it. At another point, Hill was left alone with Fife while Combs went to Valu-King.

{¶68} While much of Hill's testimony is of doubtful veracity, Hill betrays his guilt by making several statements which were not suggested by police, were contradicted

5. EMT Raleigh Hughes spoke with Fife's father who described his son as "engulfed with vomit" and having "vomited all over himself." Hughes himself did not observe any vomit as the father wiped it off prior to his arrival.

by other evidence or were of an incredible nature, and served to deflect blame away from him.

{¶69} Hill consistently testified that, after the attack, he chased and/or followed Combs out of the field onto Jackson Street, despite the police suggesting that they exited onto Willow Drive as witnessed by Allgood. It was necessary for the otherwise suggestible Hill to deny being seen exiting onto Willow Drive because Allgood, in addition to seeing him in Combs' company, testified that Hill possessed a stick matching the description of the stick used to sodomize Fife.

{¶70} Dr. Adelman testified that one of Fife's several mortal injuries was "the penetration and perforation of the rectum and the urinary bladder." He described two wounds in particular, a contusion in the rectum and a penetration into the urinary bladder through the rectum. Dr. Adelman was able to identify the presence of plant cells in the injured areas of the rectum and bladder.

{¶71} Allgood testified that he observed Hill throw a stick about twelve inches long back into the woods. During the September 16 interviews, Hill described a stick which he claimed Combs used to sodomize Fife as "like a broom handle thing * * * but some of it was broke"; "it had ridged ends like and the other end wasn't ridged, it had like a round -- it was like a round head." After Combs had finished "grind[ing] it in his butt," Hill "didn't see the stick no more" because Combs "must of just threw it."

{¶72} Notably, Hill advised the police that the stick would not or could not be found. Hill suggested that a garbage man might have come and taken the stick, insisting, despite police incredulity, that "they come back there to pick up the garbage."

Hill added that Combs might have returned and picked up the stick and, alternatively, that Combs was looking for the stick the next day but was unable to find it.

{¶73} On the same day that Hill was providing these statements to the police, Officer James Teeple was searching the area near Willow Drive where Allgood had seen Hill throw the stick (Allgood had been taken to the scene and pointed out the specific area police officers). Teeple found a stick matching Hill's (yet unknown) description - a broken broom handle - about six feet from the path. Teeple focused on this particular stick because in size it matched Allgood's description and because "it appeared to have been freshly put": "All the other sticks were under grass, were covered with moss, were securely attached or growing there. It looked like a broom handle and * * * was not covered with any moss or it was not dirty, it wasn't grown with weeds."

{¶74} Although no blood or other physical evidence linking it to Fife was found on the stick, the inference remains reasonable that it was the stick involved and it was in Hill's possession as he exited the path. Even without this inference, Allgood's testimony remains that Hill exited the trail holding a twelve inch stick and a stick of that size is consistent with the injuries to Fife's rectum and bladder.

{¶75} Hill's own testimony also implicates him. Hunter testified that Hill and Combs were standing near Valu-King when Fife was approaching the parking lot. Hill claimed that Combs wanted Fife's bike and went after Fife for that purpose. Hill continued that Combs wanted him to help but he refused. Combs then went into the field several hundred feet distant while Hill remained by the building. From this position, Hill claimed he saw Combs knock Fife off the bike, strip Fife, begin to strangle him, and

throw him to the ground. In the course of describing the events of the attack, Hill's position changes to within ten feet of the events he is describing, close enough that Fife, in Hill's words, "was looking at me, like he wanted me to come over there and get him." Hill's explanations as to how he came to join Combs in the woods are risible, as he variously describes hiding in the bushes and/or attempting to sneak up on Combs with a board to hit him. No factfinder would be bound to accept Hill's proffered reasons as to how he came to be present in the woods where Fife was attacked. And any rational factfinder would be justified in inferring from Hill's proffered nonsense that his real motivation and reason for accompanying Combs was to participate in Fife's rape, beating, strangulation, burning, and, ultimately, murder.

{¶76} There are other aspects of Hill's statements to the police that support his convictions. Hill was asked why he never attempted to contact the police, intervene in the attack, or seek medical help for Fife after the attack. Hill explained: "If I would have ran and tried to find my uncle [Detective Morris] or you or one of you all, tell one of you all -- his mother don't like me anyway. She would have found him down here, he would have went home and told his mother that I was the one that did it, and she would have followed him down here and said that she probably know that I would do something like that." While theoretically possible, the more reasonable inference is that Hill failed to report the crime because he committed the crime.

{¶77} Such examples could be multiplied. As a final point, it is worth noting that Hill admits he was left alone with Fife. According to Hill's statements, Combs left the scene to obtain a stick and/or lighter fluid used to sodomize and/or burn Fife respectively. There is some corroboration for this fact in the testimony of Ball and Cree

who encountered Combs alone on the trail but who did not see either Hill or Fife, whose testimony also suggests that Combs may have been serving as a lookout for Hill. Whether Combs was looking for a stick or serving as lookout, the fact remains that Combs trusted Hill to be left alone with Fife from which the obvious implication may be inferred.

{¶78} Raymond Vaughn, Hill's brother, testified that on the evening of September 20, 1985, Hill was washing a pair of pants in the bathtub (the family did not have an automatic washer) that were stained with something red that "looked like blood." Vaughn saw Hill wash the same pair of pants on two successive nights.⁶

{¶79} The State also presented testimony pursuant to Evid.R. 404(B) and R.C. 2945.59 for the purpose of showing motive, plan, and identity of the defendant. *Hill*, 64 Ohio St.3d at 322, 595 N.E.2d 884. Candyce Jenkins testified that, in 1984, Hill anally raped and bit her during an attack in which he also threatened to sodomize her with a knife.⁷ Mary Ann Brison testified that, in 1984, Hill raped her in the woods behind the Valu-King. Stephen Melius testified that, in 1984, he was in juvenile detention with Hill and that Hill importuned him to engage in homosexual acts.

{¶80} The foregoing evidence fairly supports the trial court's conclusion, "[e]ven if this Court were to conclude based on today's advance in forensic odontology and the ABFO guidelines, that the bite-mark evidence is unreliable and could not be introduced

6. Hill contends Vaughn's testimony has little probative value because he recanted following trial. Reply brief at 28. Although Vaughn subsequently claimed his testimony was coerced, he also testified that he first confided his observations to his grandmother at the time Hill was arrested – prior to any possible coercion.

7. Hill maintains that Jenkins' testimony would have been inadmissible without the bite mark evidence but this is doubtful. Jenkins' testimony was nonetheless indicative of motive, plan, and identity inasmuch as Hill raped her anally, demonstrated a delight in inflicting pain, threatened sodomy with an inanimate object, and, according to Hill's own statement, disposed of evidence following the rape in the woods behind Valu-King where Fife was attacked.

in a future trial, there is no probability, much less a strong probability that a new trial would result in a different outcome.” That Hill was present during the attack cannot be seriously questioned. The issue is whether his active participation can be inferred from his efforts to conceal his involvement and to place the blame on others. Such an inference is legally permissible and, given the facts of the present case, compelling. *Compare State v. Trewartha*, 165 Ohio App.3d 91, 2005-Ohio-5697, 844 N.E.2d 1218, ¶ 40 (10th Dist.) (finding the following facts “more than enough for a jury to directly or circumstantially find defendant guilty of aggravated murder while committing an aggravated robbery”: “[t]he state’s witnesses linked defendant to procurement of the alleged murder weapon, placed defendant at the scene of the crime with the weapon, proximally connected defendant and the only other possible shooter to the victim at the time of the fatal gunshot, and associated defendant with property last seen on the victim’s person”).

{¶81} Although the foregoing analysis focuses on the sixth *Petro* factor, the trial court noted without elaboration that “[t]here is no question that the advancements in forensic odontology impeach and contradict the trial testimony of the experts.” Further considering this *Petro* factor, it is noteworthy that Hill’s trial counsel raised many of the same arguments advanced by Hill as newly discovered evidence, albeit without the endorsement of expert witnesses. Hill’s bite-mark evidence is to a degree cumulative. For example, regarding the bite mark testimony, Hill’s trial counsel emphasized that the two experts who testified at trial contradicted each other to such a degree that the reliability of the expertise itself was called into question:

[I]f these are the giants; maybe the top two or third, fourth best * * *, if that's what we've got here and they disagree, what does that make the state of the evidence? How can you consider that? * * * You got the two best supposedly, or at least Mr. Levine, I would say, is better, but you got two experienced people, and they give different opinions. Mr. Levine also said that it could be caused by -- he ruled out Mr. Combs because he didn't see any fractured teeth. Of course, he said it could be caused by any person. In other words, the characteristics aren't that great that he would pin it down to anybody. Just a fractured tooth, maybe. So, what do we have? We don't have proof beyond a reasonable doubt involved in the tooth mark, and that's the only thing that really ties Danny in.

{¶82} Conversely, the prosecutor at trial made the point during closing arguments that the bite mark evidence was not at all necessary to convict Hill:

[T]he other important factors in the evidence in this case and in --- especially through the pathologist, is that we know that no one person could have done all these things, and Danny Lee Hill knew that also. And this is a key. For example, when you listen to the tapes and the video cassette about knocking the boy off the bike and then removing the bike to hide it in the woods, how could one person take care of the little boy and get rid of the bike? And that makes more sense when we look at Danny Lee Hill himself; the fact that he came to the police station. Why? We know that he was

trying to take the blame from himself; to place the heat somewhere else. And he mentions two individuals by the name of Lowry and McCain. Talks about shorts. He talks about the bike that he saw Maurice Lowry on which he later admits were not true. But why, when he homes in to blame somebody initially, does he blame two people? Reason and common sense. That's all this case takes to realize that -- you don't even need two experts to say his teeth marks were on this little boy's penis -- he's guilty.

{¶83} The second assignment of error is without merit.

{¶84} In the fifth assignment of error, Hill contends that the trial court abused its discretion by denying his Motion for New Trial without holding an evidentiary hearing. "In light of the trial court's inexperience with the facts of Mr. Hill's trial, its attempt to avoid independent analysis in favor of inapplicable theories of preclusion, and its repeated mischaracterization of the trial and appellate court records, an evidentiary hearing was, at a minimum, necessary." Appellant's brief at 53.

{¶85} Criminal Rule 33 does not require a hearing on a motion for new trial and the decision to conduct a hearing lies within the sound discretion of the trial court. *State v. White*, 8th Dist. Cuyahoga No. 105430, 2017-Ohio-6984, ¶ 28.

{¶86} We find no abuse of discretion in the trial court's decision not to hold a hearing on the Motion for New Trial. The court did not question the validity of Hill's bite mark evidence and proceeded on the assumption that his evidence would have precluded the admission of the State's evidence at trial. The court then considered whether the absence of bite mark evidence would have been outcome determinative.

Hill, 64 Ohio St.3d at 333, 595 N.E.2d 884 (finding no abuse of discretion in the failure to hold a hearing where, even considering the newly discovered evidence, “the result of the defendant’s trial would not have been different”).

{¶87} The fifth assignment of error is without merit.

{¶88} In the sixth assignment of error, Hill argues that the trial court erred by denying his Motion to Disqualify the Office of the Trumbull County Prosecutor.

{¶89} With respect to motions for disqualification, the Ohio Supreme Court has established the following test:

{¶90} In ruling on a motion for disqualification of either an individual (primary disqualification) or the entire firm (imputed disqualification) when an attorney has left a law firm and joined a firm representing the opposing party, a court must hold an evidentiary hearing and issue findings of fact using a three-part analysis:

- (1) Is there a substantial relationship between the matter at issue and the matter of the former firm’s prior representation;
- (2) If there is a substantial relationship between these matters, is the presumption of shared confidences within the former firm rebutted by evidence that the attorney had no personal contact with or knowledge of the related matter; and
- (3) If the attorney did have personal contact with or knowledge of the related matter, did the new law firm erect adequate and timely screens to rebut a presumption of shared confidences with the new firm so as to avoid imputed disqualification?

Kala v. Aluminum Smelting & Refining Co, Inc., 81 Ohio St.3d 1, 688 N.E.2d 258 (1998), syllabus.

{¶91} When the motion for disqualification is directed against the entire prosecutor's office, however, Ohio courts of appeals have consistently held that the mere appearance of impropriety is insufficient to merit disqualification, and that there must be evidence of an actual breach of confidence resulting in prejudice to the defendant. *State v. Bachman*, 5th Dist. Stark No. 2014CA00198, 2015-Ohio-2054, ¶ 24 (cases cited).

{¶92} Hill maintains that a conflict of interest exists as the result of his trial counsel, James Lewis, being hired by the prosecutor's office in January 2013, following his retirement from the Trumbull County Public Defender. Hill maintains this "creates a real and significant conflict of interest that, by itself, warrants disqualification of the office." Appellant's brief at 54.

{¶93} Any presumption of shared confidences that may exist by virtue of the fact that Attorney Lewis began working for the county prosecutor's office were effectively rebutted by the following considerations. Lewis represented Hill from 1985 to 1986, but was not hired by the prosecutor's office until 2013. According to the State, Lewis was hired for a part-time position in the child support division and "has had no input in any felony case * * * includ[ing] any postconviction litigation or appeal filed by [Hill]." Hill's Motion to Disqualify was filed in May 2015, almost thirty years after Lewis' representation of Hill had terminated and was filed in connection with a Motion for New Trial based on newly discovered evidence, i.e., evidence discovered after Lewis' representation of Hill had ceased.

{¶94} Hill has proffered no evidence of an actual breach of confidence resulting from Attorney Lewis' employment by the prosecutor's office. Rather, Hill relies upon "the proposition that a presumption of shared confidences—and thus a conflict of interest—exists where a defendant's counsel later joins the prosecutor's office trying defendant's case." Reply brief at 39. The cases cited by Hill fail to substantiate this claim. See *Bachman*, 2015-Ohio-2054, at ¶ 24 ("[a] decree disqualifying the prosecutor's office should only be issued by a court when actual prejudice is demonstrated"); *State v. Richardson*, 2014-Ohio-3541, 17 N.E.3d 644, ¶ 32 (3d Dist.) ("the mere appearance of impropriety in a government office is not sufficient, in and of itself, to warrant disqualification of the entire office") (citation omitted).

{¶95} Hill also claims disqualification is merited on account of Attorney Lewis hiring Hill's uncle, Detective Morris Hill, as an investigator with the public defender's office and Fife's mother, Miriam Fife's, employment by the prosecutor's office as a victim's advocate. This court notes that neither Hill's uncle nor Fife's mother are attorneys and thus their employments, either past or present, have no bearing on whether the prosecutor's office should be disqualified under the framework established by *Kala*.

{¶96} The sixth assignment of error is without merit.

{¶97} In the seventh and final assignment of error, Hill maintains that bite mark testimony of Dr. Curtis Mertz, who testified on behalf of the State at trial, "was so contrary to science and logic, and so demonstrably false, that it should be treated as pure fabrication." Appellant's brief at 57. Hill relies on the case of *Ege v. Yukins*, 485 F.3d 364 (6th Cir.2007), in which the federal court granted habeas relief on the grounds

the bite mark evidence (“Dr. Warnick’s statement that among the 3.5 million residents of the Detroit metropolitan area, Ege’s teeth, and *only* Ege’s teeth, could have made the mark on Thompson’s cheek”) was so egregiously prejudicial as to constitute the denial of fundamental fairness at trial. *Id.* at 375-376.

{¶98} *Ege* is readily distinguishable. Unlike the present case, in *Ege* “none of [the State’s non-bite mark evidence] placed Ege at the scene of Thompson’s murder.” *Id.* at 377. On the other hand, the *Ege* court recognized that, “[o]bviously, many cases are tried on nonphysical circumstantial evidence alone, and in many cases this circumstantial evidence overwhelmingly points toward the defendant’s guilt.” *Id.* Hill’s is such a case.

{¶99} The seventh assignment of error is without merit.

{¶100} For the foregoing reasons, the decision of the Trumbull County Court of Common Pleas to deny Hill’s Motion for New Trial without hearing and to deny his Motion to Disqualify the Office of the Trumbull County Prosecutor is affirmed. Costs to be taxed against appellant.

THOMAS R. WRIGHT, P.J., concurs in judgment only,

COLLEEN MARY O’TOOLE, J., dissents with a Dissenting Opinion.

COLLEEN MARY O’TOOLE, J., dissents with a Dissenting Opinion.

{¶101} Based on the decision in *Hill v. Anderson*, 881 F.3d 483 (6th Cir.2018), I would dismiss the instant appeal as moot. In that case, the United States District Court for the Northern District of Ohio had dismissed Hill’s petition for habeas corpus, which was premised on the contention that his low intelligence prevents the death penalty from being applied to him; ineffective assistance of trial counsel; prosecutorial misconduct; and violation of his due process rights. *Id.* at 486-487. On appeal, the Sixth Circuit affirmed the judgment of the district court regarding the last three claims, but reversed and remanded for the district court to grant Hill’s petition on his claim his low intelligence prevents him from being executed. *Id.* at 487.

{¶102} In its lengthy analysis, the Sixth Circuit paid considerable attention to the decision of this court in *State v. Hill*, 177 Ohio App.3d 171, 2008-Ohio-3509 (11th Dist.) It found that this court misapplied the law regarding adaptive deficits, and misread the record regarding Hill’s adaptive deficits. *Hill v. Anderson*, 881 F.3d, at 492-501.⁸

{¶103} In *In re Guardianship of Weller*, 2d Dist. Montgomery No. 24337, 2011-Ohio-5816, ¶7, the court stated:

{¶104} “The doctrine of mootness is rooted in the “case” or “controversy” language of Section 2, Article III of the United States Constitution and in the general notion of judicial restraint.’ *James A. Keller, Inc. v. Flaherty* (1991), 74 Ohio App.3d 788, 791, * * *. ‘While Ohio has no constitutional counterpart to Section 2, Article III, the courts of Ohio have long recognized that a court cannot entertain jurisdiction over a moot question.’ *Id.* ‘It has been long and well established that it is the duty of every judicial tribunal to decide actual controversies between parties legitimately affected by

8. I respectfully note that the Sixth Circuit cites to this writer’s dissent in *Hill*, 177 Ohio App.3d 171, for which this writer received a storm of public attacks, with approval. *Hill v. Anderson*, 881 F.3d at 500.

specific facts and to render judgments which can be carried into effect. It has become settled judicial responsibility for courts to refrain from giving opinions on abstract propositions and to avoid the imposition by judgment of premature declarations or advice upon potential controversies.’ *Fortner v. Thomas* (1970), 22 Ohio St.2d 13, 14, * * *. In other words, an issue is moot when it has no practical significance, being instead merely hypothetical or academic.” (Parallel citations omitted.)

{¶105} I admit the issues presented in the appeal before us, and those presented to the Sixth Circuit. Further, the State of Ohio might petition the United States Supreme Court for certiorari regarding the Sixth Circuit’s decision. Pursuant to U.S. Sup.Ct. Rule 13(1), petitions for certiorari must be filed within 90 days of the date the lower court’s decision becomes final. The Sixth Circuit denied the state’s motion for rehearing en banc in *Hill v. Anderson* April 9, 2018, which means the state has until July 9, 2018 to petition the U.S. Supreme Court.⁹ A further 60 days can be provided on a showing of good cause. U.S. Sup.Ct. Rule 13(5).

{¶106} But, otherwise, unless and until the United States Supreme Court reverses the decision of the Sixth Circuit, any decision this court renders has no practical significance.

{¶107} Again, I would dismiss this appeal as moot.

{¶108} I dissent.

9. The 90 day period actually concludes July 8, 2018, which, however, is a Sunday.

STATE OF OHIO)
) SS.
COUNTY OF TRUMBULL)

IN THE COURT OF APPEALS
ELEVENTH DISTRICT

STATE OF OHIO,
Plaintiff-Appellee,

JUDGMENT ENTRY

- vs -

CASE NO. 2016-T-0099

DANNY LEE HILL,
Defendant-Appellant.

For the reasons stated in the Opinion of this court, the assignments of error are without merit. The order of this court is that the judgment of the Trumbull County Court of Common Pleas is affirmed. Costs to be taxed against appellant.

**FILED
COURT OF APPEALS**

DEC 03 2018

**TRUMBULL COUNTY, OH
KAREN INFANTE ALLEN, CLERK**



JUDGE DIANE V. GREDELLE

THOMAS R. WRIGHT, P.J., concurs in judgment only,

COLLEEN MARY O'TOOLE, J., dissents with a Dissenting Opinion.

The Supreme Court of Ohio

FILED

JUN 12 2019

CLERK OF COURT
SUPREME COURT OF OHIO

State of Ohio

v.

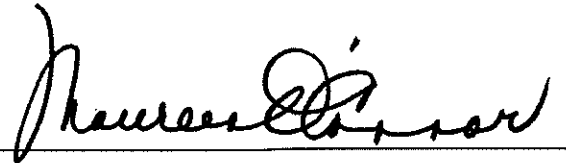
Danny Lee Hill

Case No. 2019-0068

ENTRY

Upon consideration of the jurisdictional memoranda filed in this case, the court declines to accept jurisdiction of the appeal pursuant to S.Ct.Prac.R. 7.08(B)(4).

(Trumbull County Court of Appeals; No. 2016-T-0099)



Maureen O'Connor
Chief Justice

The Official Case Announcement can be found at <http://www.supremecourt.ohio.gov/ROD/docs/>

1 And then he washes it on Sunday. There's only one 1199
2 inference: He had the blood of Raymond Fife on him
3 and he was washing it out, and he can wash, wash,
4 wash. It's never going to come out. I mean I don't
5 have three pair of gray pants. Danny's the type
6 of guy that had three pair of gray pants. Okay.
7 You believe that? Okay.

8 Now we get to the other evidence. In
9 closing, I attempted to go through what I believe
10 is important evidence, and I think that especially
11 significant is the odontology evidence in this
12 case. In fact, Mr. Levine -- Doctor Levine, I
13 should say, even -- for the defense, I feel has
14 helped our case. You will notice on the tape when
15 Danny Hill responds about biting how his eyes
16 moved around and he's kind of nervous when he's
17 asked "did you bite that boy?" Well, Judges, all
18 I can say is that we've had two of the foremost
19 experts in this country testify. Uncontradicted
20 that they combined exclude Timmy Combs on part of
21 the injury and parts on that boy's penis. Exclude
22 without question Timmy Combs. That leaves one.
23 Him (indicating to the defendant). And we go further
24 than that because not only do we have exclusion of
25 Timmy Combs, we have, with reasonable medical cer-

CLOSING ARGUMENTS

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tainty from Doctor Mertz, that Danny Hill's tooth, 1200
 number 8 -- let's thank Danny Hill for not having
 any dental work done because that jagged little tooth
 gives us the best evidence because that's what
 Doctor Mertz says is a trademark and blueprint that
 we can follow in the pattern of injury on that little
 boy's private. And in fact, Doctor Levine said it
 is likely to be that of Danny Hill, and he said it
 had to be a chipped tooth or jagged tooth to cause
 one of the injuries on the little boy's private.

So, when you take Danny Hill from beginning
 to end, and you take all the evidence together in
 its logical, rational sense, and you filter out the
 self-serving contradictions and lies of this defen-
 dant, and when you consider expert testimony of
 Doctor Adelman, Doctor Mertz, and Doctor Levine,
 I submit that the State has proved beyond question
 that the defendant committed the crimes charged, and
 he's guilty on all of the specifications of aggra-
 vating circumstances.

Thank you, Your Honors.

JUDGE McLAIN: All right. Gentlemen,
 we're going to stand in recess for 25 minutes.

(Court in recess at 10:10 A.M.)

(Back in session at 10:40 A.M.)

CLOSING ARGUMENTS

1 that that could have killed him by itself. And 30
2 there were no -- there was no evidence of any knife,
3 any blunt object other than what was used in the
4 rectum, and that is totally consistent with Dan
5 Hill's version of how he was stomped on, punched
6 and slammed about and brutalized.

7 Doctor Adelman, on the 13th, also saw
8 something else. He saw on the little boy's penis
9 human bite marks. Doctor had enough experience that
10 he could recognize, even though he's not an odon-
11 tologist, bite marks. He also saw that the scrotum
12 was bruised and it was stretched. Dan Hill, he'll
13 tell you on his tape of how -- how Tim Combs was
14 pulling on his penis and pulling it off. Doctor
15 Adelman, when he saw the bite marks, felt there
16 should be follow up work done. He knew of a foren-
17 sic odontologist who was nearby by the name of
18 Doctor Curtis Mertz, who is one of the founders of
19 The American Association of Forensic Odontologists,
20 and Doctor Mertz came down with his camera on that
21 Friday to collect evidence, if any could be col-
22 lected, concerning the bite marks.

23 Evidence will show that in odontology,
24 that teeth, like fingerprints in a way, leave
25 identifying characteristics which can be compared

OPENING STATEMENTS

1 between human beings. Doctor Mertz came down and
2 photographed and inspected the bite marks. Doctor
3 Adelman also took photographs. As a result of
4 doing that, he suggested to the authorities that he
5 would need evidence to compare bite marks. Pursuant
6 to that end, the Warren Police Department got search
7 warrants on the 19th day of September for impressions
8 -- dental impressions of the teeth of Dan Hill and
9 Timothy Combs. Doctor Walton, local doctor in
10 Howland, was available to take those impressions of
11 the teeth of Dan Hill and Timothy Combs. On or
12 about the 19th day of September, the defendants were
13 taken to the Howland doctor's office to get teeth
14 impressions. That was done. Those impressions
15 were given to Doctor Mertz along with photographs
16 of the penis that was magnified one to one, dif-
17 ferent angles, colors, blacks and whites. Doctor
18 Mertz will tell this Court that in his opinion,
19 with reasonable medical and dental certainty, that
20 the teeth marks on the private part of Raymond Fife
21 were made by Danny Hill, and he will tell you that
22 there's only one way you get teeth marks on a pri-
23 vate part, and that is by way of fellatio, which is
24 a crime of rape in and of itself.

25 Danny Hill has a diastema, a gap between

OPENING STATEMENTS

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his teeth. That's 5% of the population. His co-defendant also has diastema, but Danny Hill has something else. He has a rotated tooth and a chipped tooth which is sufficient enough for Doctor Mertz to come to the conclusion that Danny Hill's teeth marks are on that young man's penis. Danny Hill will tell you that he didn't -- yeah, he will tell you that he did touch the boy once at the end to see if he was dead, but he will tell you that Tim Combs was the only one that was down there by the young man's penis, but he says he doesn't know if Tim Combs bit him. All these things, all these multiple injuries, I would submit, can make no better case for premeditated acts of murder. I can't think of a better case where -- where persons would commit such a series of events over such a long period of time where you have the qualitative evidence of premeditation. We feel that you will find those facts to be true and you will find premeditation on the part of this defendant in all the crimes charged.

Going on, the defendant, by admitting the crime or crimes taking place by being present during the commission or perpetration of all the crimes, puts in issue his mental state. Because

OPENING STATEMENTS

SF-AZ-13
PENGAD/INDY. MUNCIE, IN 47302

- 1 A Took a shower.
- 2 Q And after you took a shower?
- 3 A Called a friend of mine.
- 4 Q And who was that?
- 5 A Terry Schellman.
- 6 Q Terry Schellman?
- 7 A Yes.
- 8 Q Okay. And is that your girlfriend?
- 9 A No. She's a friend of mine.
- 10 Q Friend of yours. Okay. And then what'd you proceed to
- 11 do?
- 12 A I ate.
- 13 Q Okay. And then what?
- 14 A She had came over, and we took a walk.
- 15 Q Okay. Now, do you recall what time that was?
- 16 A It was about 5:30.
- 17 Q About 5:30. Okay. And do you recall -- okay. About
- 18 5:30. And can you tell us once again the direction
- 19 of travel? Was it down Kenwood, down Hemlock?
- 20 A Yes, it was.
- 21 Q North then west on Willow?
- 22 A Yes.
- 23 Q Okay. And where was the place where you were at the time
- 24 when you first saw the individuals coming out of
- 25 the woods?

DONALD E. ALLGOOD

- 1 A On the corner of Hemlock and Willow.
- 2 Q Hemlock and Willow. In other words, right in this area
3 right here (indicating on the map)?
- 4 A Yes.
- 5 Q Okay. And was Toshona with you at the time? I'm sorry.
6 Terry. Terry.
- 7 A Yes, she was.
- 8 Q She was. Okay. And tell me exactly what you saw.
- 9 A I saw them -- Tim and Danny and two other people walking
10 out of the field.
- 11 Q Do you know who the other two people are or one of the
12 other people?
- 13 A Andre McCain. I saw him later on.
- 14 Q You saw him later on?
- 15 A Yes.
- 16 Q Do you know Andre McCain?
- 17 A Yeah, I know him.
- 18 Q Okay. Did you tell the police? Remember giving state-
19 ments?
- 20 A Yes, I do.
- 21 Q Okay. If you knew it was Andre McCain, is there any
22 reason why you didn't tell the police in your first
23 statement it was Andre McCain?
- 24 A I didn't know him at first.
- 25 Q You didn't know him at first. When you say you didn't

DONALD E. ALLGOOD

- 1 A Yes.
- 2 Q Did you notice Tim do anything in particular?
- 3 A He was pulling up his zipper.
- 4 Q He was what?
- 5 A Pulling up his zipper.
- 6 Q Okay. When you saw this happen -- you mentioned the
7 name Tim Combs right off the bat.
- 8 A Yes.
- 9 Q Did you know him personally by name at that time?
- 10 A Yes, I did.
- 11 Q And was there a visual contact with him? I mean did you
12 look at him?
- 13 A Yes, I did.
- 14 Q And how did he look or appear when you were looking at
15 him?
- 16 A Well, when he had saw me, he had put his head down.
- 17 Q Put his head down?
- 18 A Yes.
- 19 Q Like -- would you show the Court.
- 20 A I saw him. He put his head down like that (demonstrating).
- 21 Q How about Danny Hill?
- 22 A Danny, he was walking behind him.
- 23 Q Okay. And the two other individuals?
- 24 A They was walking, too.
- 25 Q Now, at the time, did you know Danny Hill's name?

DONALD E. ALLGOOD

- 1 A No, I don't.
- 2 Q Okay. Was Andre McCain doing anything unusual when he
3 was coming out of the woods?
- 4 A No.
- 5 Q Okay. You saw Tim Combs, though, pull up his zipper,
6 is that correct?
- 7 A Yes.
- 8 Q Did you ever indicate to the police that there was two
9 people pulling up their zippers?
- 10 A Yes, I do.
- 11 Q And who was that? Who was the other individual?
- 12 A I couldn't identify him.
- 13 Q Okay. Let me ask you this: Was it Danny Hill?
- 14 A No, it wasn't.
- 15 Q It wasn't Danny Hill?
- 16 A No.
- 17 Q Okay. So, we have accounted for Andre McCain. So, he
18 wasn't pulling up his zipper, right?
- 19 A No.
- 20 Q We've accounted for Tim Combs who was pulling up his
21 zipper?
- 22 A Right.
- 23 Q Danny Hill wasn't pulling up his zipper, right?
- 24 A Right.
- 25 Q That leaves one other person, right? What did that other

DONALD E. ALLGOOD

- 1 person have on?
- 2 A He had on blue jeans.
- 3 Q Had you ever seen him before?
- 4 A No.
- 5 Q You never saw him before at all?
- 6 A No.
- 7 Q So, he wasn't a familiar face to you?
- 8 A Huh-uh.
- 9 Q Okay. And can you tell us the order in which they were
10 coming out of the woods?
- 11 A It was Tim, Danny behind him, Andre and that other guy
12 I didn't know.
- 13 Q The other guy. Okay. And you indicated this was at
14 5:30?
- 15 A Around in that area.
- 16 Q Around in that area some time. Okay. Are you absolutely
17 sure of the time frame?
- 18 A Yes -- I'm not absolutely sure of the time, but it was
19 around in that area.
- 20 Q Okay. You gave a statement to the police. I think it
21 was on -- what day was it? A Saturday?
- 22 A Yes.
- 23 Q Okay. And you subsequently went out to the area on
24 Sunday, is that correct?
- 25 A Yes.

DONALD E. ALLGOOD

- 1 correct (indicating)?
- 2 A Yes.
- 3 Q Okay. And the boys are -- the four individuals are
4 coming out directly at you, basically, is that
5 correct?
- 6 A They was walking towards the sidewalk at an angle like
7 this (indicating).
- 8 Q Okay. Well, pretty close directly on target for you.
9 You mean sidewalk on this side (indicating)?
- 10 A Hum?
- 11 Q Is there any sidewalk on this side (indicating)?
- 12 A Yes, there is.
- 13 Q Were they walking over in that direction?
- 14 A Yes.
- 15 Q Okay. You indicate that Tim Combs was the first one?
- 16 A Yes.
- 17 Q Okay. And you saw him pull up his zipper. And where was
18 that at approximately off the dead end of Willow?
19 Just give us an idea. Off the dead end portion of
20 the pavement?
- 21 A He was still in the path.
- 22 Q Okay. How far back do you think it was?
- 23 A About 10 feet.
- 24 Q About 10 feet. Had the stick been thrown by that time?
- 25 A No.

DONALD E. ALLGOOD

1 Q It hadn't been thrown?

2 A No.

3 Q Okay. And you indicated the fact that the fourth indi-
4 vidual was pulling up his zipper, is that correct?

5 A Yes.

6 Q Okay. The way you positioned the people -- if I'm
7 correct, we've got Tim up in front, you've got Danny
8 behind him off to the left over here (indicating)?

9 A Um-hum.

10 Q Okay. Then you've got the other individual right behind
11 him and then the fourth individual off the left?

12 ATTORNEY WATKINS: You have to repeat
13 that.

14 JUDGE SHAKER: Put the microphone in front
15 of him.

16 Q (By Attorney Lewis) Speak in the microphone, Donald.

17 JUDGE SHAKER: Move it closer. Take it
18 in your hand.

19 Q (By Attorney Lewis) So, let me go one more time. Tell
20 me if I'm right. You've got Tim Combs up in front,
21 Danny behind him off to the left?

22 A Yes.

23 Q Okay. Then you've got Andre McCain who is third, right?

24 A Yes.

25 Q And then the fourth individual, he's back, but he's a

DONALD E. ALLGOOD

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said was that some time that evening, late, he saw 1252
Andre McCain and Reecie Lowry walking through a
wooded area, and he also suggested that he saw
Reecie Lowry with the bike, and at that particular
time is the first time that he mentioned, without
Detective Stewart even knowing anything about it,
that there were shorts that were wrapped around the
neck of the victim, Raymond Fife.

Now, why did he give the names Andre McCain
and Reecie Lowry when we know from his own state-
ment, the video and the tape recording, the only two
people back there, the only two, were Tim Combs and
Danny Hill? And they kept asking him: "Are you
sure there was nobody else back there?" "Yes, no-
body else." Why did he say those names? Because he
knew that if the police went to ask Andre McCain or
Reecie Lowry about what happened, they wouldn't have
the slightest idea, and they couldn't come back and
say that he did it. And the reason he went down
there, he started feeling paranoid. He wanted to
throw the police off. That's the only reason he
went down.

Then the next day, he gave a similar
story, and this time, he conveniently stated that he
slept all the way to 7:00 P.M. He's a heavy sleeper.

CLOSING ARGUMENTS

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to the stick. When asked which direction they left, he¹²⁶⁵ says they both left in this direction (indicating) going to Jackson Street. And he was very adamant about this. A couple things that he was inconsistent I'll mention before I get to how adamant he was, one occasion, he says he chased Tim Combs up this way (indicating), but he couldn't catch him. And by the way, you'll hear in the video where he says that ultimately, Tim Combs went across and would have gone through Westlawn, underneath the bridge on West Market Street near where you have to cross from Reserve and went to his Aunt's house. How does he know that? How does he know that's the way he went? I know why. They all walked out together. Allgood saw them walking out together. Why is he so adamant about Jackson Street? Because if he said he came out Jackson Street as opposed to saying he's coming here (indicating), then they wouldn't be able to determine that maybe somebody saw him throwing that stick. He knew that people saw him here (indicating). He didn't know who they were at the time, but I imagine if Tim Combs knew Allgood, he put his head down and said, "Hey! I know this guy." That's why he didn't want anybody to know he came out this direction (indicating) because this is the

CLOSING ARGUMENTS

1 would be?

2 A (Witness indicates on the map.)

3 Q Around in there where "C" is?

4 A Yes.

5 Q Okay. Did you see anybody else throw anything at that
6 time?

7 A No, I didn't.

8 (Witness resumes stand.)

9 Q (By Attorney Watkins) Okay. Would you describe the
10 wooded area for the Judges as far as its denseness.

11 A It's heavily wooded.

12 Q And at the time that you saw these four individuals, did
13 you see what they were wearing?

14 A No. I saw what Tim had on. A leather jacket.

15 Q Okay. And how about his pants?

16 A He had on blue jeans.

17 Q Were they long pants?

18 A Yes.

19 Q Okay. Are you sure about that?

20 A Yes.

21 Q And you don't recall what the others had on particularly?

22 A No, I don't.

23 Q Okay. And you indicated to the Court that you noticed
24 Danny Hill and Tim and the two other individuals,
25 correct?

DONALD E. ALLGOOD

1 A Yeah.

2 Q Go and have a seat.

3 (Witness resumes the stand.)

4 Q (By Attorney Kontos) Did you say anything to Tim when
5 you saw him?

6 A Yeah.

7 Q What'd you say?

8 A We said, "What's up?"

9 Q Did Tim say anything back to you?

10 A Yeah. He said, "What's up?"

11 Q Now, what direction was he going on the path when you saw
12 him?

13 A He was like coming from the Valu-King.

14 Q So, he was coming from this direction (indicating),
15 exactly the opposite direction of what you were
16 going?

17 A Yeah.

18 Q Okay. Do you remember what he was wearing when you saw
19 him?

20 A Yes.

21 Q What was he wearing?

22 A He had on a black stocking cap, some mirror glasses, a
23 white T-shirt and some blue shorts.

24 Q Blue shorts?

25 A Yeah.

DARREN BALL

1 boys on bikes?

2 A No, I didn't.

3 Q Okay. When you went beyond the Valu-King, where did you
4 go?

5 A Home. Went straight on Palmyra, walked home.

6 Q Did you walk this way or down (indicating)?

7 A Down.

8 Q And when you were in front of the Valu-King, did you
9 notice any little boys on bikes?

10 A No, I didn't.

11 Q Did you see any boys on bikes on your way home that day?

12 A No, I didn't.

13 Q Okay. When you went through this entire path, did you
14 see anybody else other than Tim Combs?

15 A No, I didn't.

16 Q Okay. Now, from over here (indicating) where you pointed,
17 from the time that you got up here by the pavement
18 (indicating) and you heard the scream over your
19 right shoulder, was that a long period of time or a
20 short period of time?

21 A Short.

22 Q Do you have any idea how long it might have been?

23 A A couple -- about 30 seconds maybe.

24 Q Okay. When you saw Tim over here (indicating), do you
25 remember what he was wearing at all?

TROY CREE

1 A He had light colored clothes on, like shorts, and a
2 T-shirt and a cap, glasses.

3 Q He had cap, glasses, and shorts?

4 A Yeah.

5 Q Okay. Did you ever have an occasion to talk to the
6 police about what you observed that day?

7 A No, I didn't.

8 Q You never talked to the police about it?

9 A Oh! Yeah, I did.

10 Q When did you talk to them? Do you know?

11 A About two days after maybe.

12 Q Okay. Did you talk to them at your house or did you go
13 to the police station?

14 A They took us down to the police station.

15 Q Who'd they take down?

16 A Me and Darren. Come and got us from school.

17 Q Okay. Did you give a statement to the police?

18 A Yeah, I did.

19 Q Okay. Did the police show you any photographs?

20 A Yeah.

21 Q And how many photographs did they show you?

22 A It was a stack.

23 Q Okay. And in that stack, did you point out anybody?

24 A Tim Combs.

25 Q Okay. Positive of that?

TROY CREE

1 Q Okay. And do you recall what you stated in your state- 456
2 ment on Saturday?

3 A I told them that when I came home from football practice,
4 I took a shower, called a friend of mine, sat down
5 and ate. She had came over, and we walked around
6 the block. And I told them that I saw Tim and
7 them coming out of the field, and we just turned
8 and walked up the street and went home.

9 Q Okay. Did the police ask you when you made the statement
10 and everything else, did they ask you questions and
11 tell you to say everything you saw at the time?

12 A They told me to say everything that I saw.

13 Q Okay. I notice that you also made a statement -- or at
14 least -- let me ask you this. Strike that. Okay.
15 So, you gave the statement on Saturday, right?

16 A Yes.

17 Q Was that everything you thought you saw?

18 A Everything.

19 Q Or everything you saw?

20 A That's everything I thought I saw.

21 Q Everything you thought you saw. Okay. How did it come
22 about that you ended up at the location at the dead
23 end on Willow on Sunday? Can you tell me about
24 that?

25 A Well, Teeple and Carnahan had came over, and -- and Mr.

DONALD E. ALLGOOD

- 1 Watkins, and they had asked me if I had saw anything 457
2 else, seen him do anything else, and I told him he
3 -- Danny had threw a stick, and they took me back
4 there to show them what area it was I saw him throw
5 the stick.
- 6 Q Is there any reason why you didn't say that on Saturday?
- 7 A I didn't think it was important.
- 8 Q You didn't think it was important. Do you recall what
9 kind of stick it was?
- 10 A It was 12 or more inches. I don't recall what kind it
11 was.
- 12 Q Okay. And the line of order of the people coming out of
13 the woods, once again, was Danny second?
- 14 A Yes.
- 15 Q Okay. And describe how the stick was thrown.
- 16 A With the flick of the wrist.
- 17 Q Okay. I notice -- did the police ask you how it was
18 thrown?
- 19 A Yes, they did.
- 20 Q Okay. And it was on that Sunday when you were out there?
- 21 A Yes.
- 22 Q Okay. How long were you out there?
- 23 A About five minutes.
- 24 Q About five minutes?
- 25 A If that long.

DONALD E. ALLGOOD

1 Q Continue.

2 A The next injury was a penetration and perforation of the
3 anus, the rectum and the urinary bladder with ex-
4 tensive hemorrhage found in the abdomen.

5 Q Would you in lay terms again go through and try to de-
6 scribe that.

7 A Yes. This type of injury is usually seen in someone
8 who has been impaled with an object. The object
9 penetrated through. Was inserted into the anus,
10 penetrated through the rectum and into the urinary
11 bladder, which is just in front of the rectum.

12 Q Okay. And when you say "impaled," would you -- what do
13 you mean by that?

14 A Impaled infers an -- an object placed into the rectum
15 which cuts and penetrates the tissues.

16 Q And how far did that object go in?

17 A The object went in approximately six to eight inches.

18 Q And it went in the rectum and then it perforated other
19 organs or tissues?

20 A Yes. It perforated through the rectum, through the rec-
21 tal wall and penetrated into the urinary bladder
22 and then went right through the posterior wall of
23 the urinary bladder. It apparently did not touch
24 the front wall. It stopped at the -- after pene-
25 trating the back wall of the urinary bladder.

DOCTOR HOWARD ADELMAN

1 corner of the location where you were at and the
2 location of where the stick was actually thrown?

3 A About 30 yards.

4 Q About 30 yards. Okay. And how about Terry? Did Terry
5 see this?

6 A Yes, she did.

7 Q She did. Okay. And does Terry know the individuals that
8 came out of the woods?

9 A She knew Tim.

10 Q She knew Tim. Okay. Can you describe the stick any
11 better than it was 12 inches long or it looked like
12 about 12 inches long?

13 A It was about 12 inches long.

14 Q Could it have been a conventional wood stick, a branch?

15 A It could have been.

16 Q Okay. All you know the approximate length from 30 yards,
17 right?

18 A Yes.

19 Q Okay. You never included that, however, in your state-
20 ment on Saturday, is that correct?

21 A Yes.

22 Q Okay. Your feeling was, at the time, it wasn't impor-
23 tant?

24 A Yes.

25 Q Okay. The police did ask you, though, to tell everything

DONALD E. ALLGOOD

1 A No.

2 Q Do you remember on September 10th, 1985, a Tuesday,
3 whether or not you were living on Fifth Street at
4 that time you were living --

5 A Yes.

6 Q Okay. And was Danny there at that time?

7 A Yes.

8 Q And did you see anything on that Tuesday that belonged to
9 Danny? Clothing?

10 A I seen him washing his pants.

11 Q Okay. What day did you see him washing his pants?

12 A That Tuesday night.

13 Q Okay. Did you see him wash them any other night?

14 A Tuesday, Wednesday, and Thursday.

15 Q He washed those pants three days in a row?

16 A Right.

17 Q And what color were the pants?

18 A They was gray.

19 (State's Exhibit No. 1 marked
20 for identification.)

21 Q (By Attorney Watkins) You were shown these before, were
22 you not?

23 A Right.

24 Q And that's been marked as Exhibit Number 1. Would you
25 tell the Court whether or not you recognize those.

RAYMOND L. VAUGHN

1 Q And did you do testing on there to examine to see if
2 there was blood on it?

3 A Yes.

4 Q And what was the results of the test that you did?

5 A I did not find any blood.

6 Q No blood was found?

7 A That's correct.

8 Q Are there a variety of reasons why blood may or may not
9 be found on an item?

10 A May have never been there in the first place.

11 ATTORNEY LEWIS: I'm going to object,
12 Your Honor.

13 JUDGE McLAIN: Yeah. The question makes
14 little sense to me. Why the reason is why every-
15 thing isn't somewhere.

16 ATTORNEY KONTOS: What's wrong with
17 asking?

18 JUDGE McLAIN: Well, it's a waste of time
19 as I see it. If you want to argue the point -- what
20 you've said is are there a variety of reasons why
21 blood isn't somewhere. Of course! There's many
22 reasons.

23 ATTORNEY KONTOS: There's a lot of ques-
24 tions that are probably a waste of time, Your Honor.

25 JUDGE McLAIN: I suggest you stop arguing

JAMES W. WURSTER

1 about it right now and ask the proper question!

2 ATTORNEY KONTOS: I'd like to give the
3 witness a hypothetical, if I may.

4 Q (By Attorney Kontos) Mr. Wurster, I'm going to give you
5 a hypothetical, and I'd like for you to respond
6 after I've given you the facts behind it. Let's
7 assume that there was an item of clothing that had
8 received some blood on it, and let's assume within
9 hours of receiving blood on that item of clothing,
10 that that item was washed, and let's assume that
11 the very next day, that item was once again washed,
12 and let's assume that four or five days later, that
13 item was found hanging in a bathroom drying, and
14 that two or three days after that, that item was
15 submitted to you in order for you to determine
16 whether or not there was blood on it. Now, with
17 all those variables, in your opinion, is it likely
18 that the blood may have washed off?

19 ATTORNEY LEWIS: Objection, Your Honor.
20 We're talking about --

21 JUDGE McLAIN: Well, the phrase "likely"
22 may have washed off, what does that mean exactly?
23 It's likely there is a possibility? If you ask
24 if there's a possibility -- what you asked now is
25 it likely a possibility. I don't understand the

JAMES W. WURSTER

1 A No, no, no! I'm sorry. I removed particles and sub-
2 jected them to tests.

3 Q And you found zero?

4 A That's correct.

5 Q And you didn't find anything on the pants whatsoever?
6 No indication of blood whatsoever?

7 A Correct.

8 Q You didn't have anything to do with, basically, any of
9 the materials as far as accelerants or anything of
10 that nature? You don't get involved in that?

11 A No.

12 Q The substance -- exactly what you're saying is that you
13 found no indication whatsoever that State's Exhibit
14 Number 41 had any human blood or any blood of any-
15 thing on it, is that correct?

16 A Correct.

17 Q Okay. The same with State's Exhibit Number -- I think
18 it's 1?

19 A Correct.

20 Q No blood whatsoever.

21 ATTORNEY LEWIS: That's all.

22 ATTORNEY KONTOS: Just a couple questions.

23 RE-DIRECT EXAMINATION BY ATTORNEY KONTOS:

24 Q Mr. Wurster, the -- would the amount of blood on an ob-
25 ject initially have anything to do with whether or

JAMES W. WURSTER

1 question.

2 Q (By Attorney Kontos) Well, how about this: Can the
3 blood wash off and not be detectable?

4 A Yes.

5 Q Could you explain what effect washing and time might have
6 on a blood stain that might be on an item of
7 clothing.

8 A Depending upon the amount of blood present on an article,
9 any article -- in this case, we'll assume clothing.
10 The amount of washing, the methods used in washing,
11 it's going to remove little or all of the blood.

12 Q Mr. Wurster, I'm going to hand you now what's been marked
13 as State's Exhibit Number 47. You recognize that
14 item?

15 A Yes, I do.

16 Q And could you tell the Court when that item was submitted
17 to you.

18 A It was submitted to our laboratory on 9/19/85.

19 Q And did you analyze or test that particular item?

20 A Yes, I did.

21 Q And when was that?

22 A I completed my examination of the broom handle on 10/4/
23 85.

24 Q And what were you testing the broom handle for?

25 A The presence of blood.

JAMES W. WURSTER

1 Q Were you able to find any blood on it?

2 A No.

3 ATTORNEY KONTOS: I'd like to ask another
4 hypothetical, if I might?

5 JUDGE McLAIN: You're allowed to ask
6 hypotheticals. Go ahead.

7 Q (By Attorney Kontos) If that stick -- or if a stick --

8 ATTORNEY LEWIS: Excuse me, Your Honor.
9 Before he gets to the hypothetical, I'll object
10 for the record.

11 JUDGE McLAIN: You can't object to a
12 hypothetical question because you don't know what
13 the content of it is. Go ahead.

14 Q (By Attorney Kontos) If that stick were stuck into a
15 human being, into their rectal area, perforated
16 into the urinary bladder and was quickly removed
17 and discarded --

18 ATTORNEY LEWIS: Objection, Your Honor.

19 JUDGE McLAIN: Well --

20 ATTORNEY LEWIS: We're talking about
21 medically --

22 JUDGE McLAIN: I think what you're saying
23 is essentially in evidence except for the word
24 "quickly," which is a possibility. That would
25 not make that question inadmissible. It would go

JAMES W. WURSTER

1 Donald Allgood and they go right back -- and this
2 is the point in time where he tells about did you
3 see Danny Hill. He says yeah, he threw something
4 which he thought was a stick. The stick is some-
5 thing around 18 inches long. It's a broom handle
6 or a shovel handle that's been broken off. It's
7 jagged at one end. He didn't -- Donald Allgood
8 didn't get a good look at it. He just said he
9 threw something on his right as he's walking out of
10 the woods like that (demonstrating).

11 The Warren Police Officers, the next day,
12 come back and they cut down the thick woods and
13 brush that's really high. Jaggers and weeds.
14 That's cut down so they can go in there and look.
15 And approximately six feet off the path, 19 feet
16 from the road, they find a stick. This stick,
17 which was taken by Officer -- or Detective Teeple,
18 was a stick that was not covered with weeds, not im-
19 planted in the dirt. It was loosely on the ground.
20 It was taken at that particular time. It was sub-
21 mitted to the lab for blood, and the lab did not
22 find any blood. In fact, there is no evidence of
23 blood in this case, and we feel that it's reasonably
24 explained. When I say there is no evidence of
25 blood, I'm not talking about -- there is a lot of

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evidence concerning blood, but there is no blood test with any object on it that has the defendant or co-defendant's blood on it. That's what I was referring to. We do have bloody evidence when Raymond was beaten and brutalized. It started to rain. It poured. In fact, the defendant describes how a lot of blood -- because of the perforation of his rectum, he bled anally. He was beaten severely on the face. There was a lot of blood, but the police, when they came the next day, didn't find blood. The rain had washed it away. That stick was taken and finally, it was taken to St. Joseph's Hospital, given to Doctor Adelman. But I better go back and show how the stick comes in play, but before I do that, I want to come up to the point in time where we have, on the 10th day of September, these witnesses reconstructing the event. These facts known by the police. But prior to the time that we have some of the evidence recovered, we have the defendant, interestingly on September 12th, a Thursday, going to the police department.

On September 12th, evidence will show the defendant went to the police department around 7:30 and asked for Morris Hill -- or -- he finally did see Tom Stewart, and he told him about other people

OPENING STATEMENTS

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1 at times. We have a lot of rain according to the
2 evidence. And there is not a situation, as this
3 Court is aware, where you don't have some evidence.
4 We like to have the forensic evidence. We'd like to
5 have it. We do have some in this case, obviously,
6 but the bike didn't have fingerprints on it. Maybe
7 Mr. Lewis will argue that Raymond wasn't on the
8 bike. It didn't have fingerprints. Well, there's
9 an explanation you don't necessarily have finger-
10 prints on everything. And rain will affect finger-
11 prints as it will affect blood. I mean the best
12 evidence is -- I submit everybody agrees you can
13 wash blood out of cloth and it soaks it up. Every-
14 body agrees. All the witnesses agree, and I would
15 suggest that there's a big difference, and I think
16 that's kind of important. Who does this Court feel
17 is more qualified? Mr. Dehus or Mr. Gelfius on the
18 charcoal lighter as to paint thinner and hydrocar-
19 bons? I thought that his testimony was much more
20 credible. I don't feel Mr. Dehus; it couldn't
21 break down; very unlikely, and I don't think that's
22 the case. I think that the witness from the Arson
23 Lab who deals strictly with arson is the most
24 credible witness in this case, and that substantiates
25 the State's case.

CLOSING ARGUMENTS

1 For instance, wood?

2 A Not in a fresh state. Cold water will take it off.

3 Q Is blood -- how long would you assume -- if blood were
4 placed on a piece of steel that's non-porous, how
5 long do you think it would dry or does most of it
6 evaporate?

7 A The fluid part would evaporate, and I'm not sure how
8 long it would take, but you would have a residue of
9 the dried portion of the blood.

10 Q Okay.

11 A Cellular portion.

12 Q Cellular portion. The residue, right? Now, let's direct
13 our attention to wood, particularly this material.
14 In fact, not even the treated outside portion of
15 the stick, but the internal portion, the splintered
16 portion. Now, if blood came into contact with that,
17 how long do you think it would take before the blood
18 would go into the cellular structure of the wood?

19 A It would probably be absorbed right away.

20 Q Right away. Okay. Doctor, I'll hand you what's been
21 labeled as State's Exhibit -- let's do two of them,
22 72 and 73. The black discoloration around the
23 anal of -- the anus, is that the ecchymosis, the
24 contusion? Is that what --

25 A Yes.

DOCTOR HOWARD ADELMAN

1 though it were under pressure.

2 Q Let's go on.

3 A I listed next visceral pallor. This means that the or-
4 gans generally in the body were pale, which is a
5 sign of a depleting type of hemorrhage. A large
6 amount of hemorrhage would tend to make the organs
7 have a pale appearance.

8 Q And can you explain that more thoroughly in lay terms?

9 A There was a great deal of blood loss involved in the
10 death of this boy, and the amount of blood loss
11 tended to make the organs themselves look very pale,
12 and that's what's meant by visceral pallor. The
13 organs had a pale appearance.

14 Q Continue, Doctor.

15 A There were -- the next included the external contusions,
16 the abrasions, lacerations, and burns both of second
17 and third degree burns. These were particularly
18 around the neck, the head, the face, the upper
19 portions of the shoulders. These were extensive
20 injuries. Most of the third degree burning areas
21 were found around the neck region and on the right
22 side of the face.

23 Q Do you have an opinion as to the nature of the burns as
24 to what would be possible causes?

25 A Yes. Third degree burns are caused either by a flame or

DOCTOR HOWARD ADELMAN

1 JUDGE McLAIN: You can ask questions in
2 accordance to what they individually may affect an
3 item, but you may not ask a long question if all
4 these things happened, then what would be the con-
5 dition of the stick.

6 Q (By Attorney Kontos) Would wiping the stick have an
7 effect on the amount of blood or if blood would be
8 present on it when you would test it?

9 A If there were blood on it?

10 Q If there were blood on it.

11 A And subjected to various mechanical procedures to remove
12 it?

13 Q Yes.

14 A Yes, it's possible to remove blood.

15 Q If the stick were to be stuck into the ground and there
16 had been blood on it previously and then removed,
17 what effect would that have on it or could have on
18 it?

19 A It could be removed.

20 Q What if the stick had been left in an area where heavy
21 amount of rain could have poured on it, what effect
22 would that have on it?

23 A It could be removed.

24 ATTORNEY KONTOS: No further questions.
25

JAMES W. WURSTER

1 A There are areas from -- you can see they're outlined in
2 black magic marker. Three here, one on the end,
3 and there was also one on the tip that was tested.
4 They were all negative.

5 JUDGE McLAIN: You do that all at the
6 same time?

7 A They were done sequentially. This was examined under
8 microscope. Areas were outlined, swabbed --

9 JUDGE McLAIN: All simultaneously?

10 A Okay.

11 JUDGE McLAIN: You mean within the same
12 hour?

13 A Yes.

14 Q (By Attorney Lewis) You're saying you examined it
15 microscopically, is that correct?

16 A That's correct.

17 Q And you also tested it for blood in what other fashion?

18 A They tested it for -- with a presumptive chemical test,
19 and samples were removed for human blood testing.

20 Q Okay. Presumptive human blood testing. How is that
21 done? Is that done chemically?

22 A Yes.

23 Q Let me ask you first about the stick itself, about wood.
24 Is wood a porous material?

25 A Yes. In some conditions, yes.

JAMES W. WURSTER

1 Q In some conditions. Okay. And if you were to -- if you
2 were to have some blood right now and just pour that
3 on that particular stick and everything else, would
4 it have a porous effect before it dried? Would some
5 of it go into the internal part of the stick? In
6 other words, go below the surface?

7 A I would expect with a broken area, if a volume of blood
8 were placed upon it, by capillary reaction, it would
9 seep up into the cracks and remain.

10 Q Like a sponge? Put water on top -- not necessarily that
11 fast --

12 A It's a good analogy.

13 Q It's a good analogy?

14 A Fair analogy.

15 Q It would go into the stick?

16 A Correct.

17 Q And the faster it would go into the stick or go into the
18 cellular structure, it would dry itself out, right?
19 In other words, it would be --

20 A Not really.

21 Q Go ahead.

22 A Because it's not exposed to the air. It will dry at a
23 slower rate than if it were on the surface exposed
24 to dry air.

25 Q So, on the surface, it would dry quicker, correct?

JAMES W. WURSTER

1 A Correct.

2 Q As it went internally into the stick, it would dry slowly
3 because it doesn't have access to oxygen and so
4 forth?

5 A Correct.

6 Q Once it went past the surface of the stick, if you wiped
7 it off with a piece of cloth, would you get what's
8 underneath?

9 A I don't think so.

10 Q Okay. If you stuck it in the ground and pulled it back
11 out, would you get what's underneath?

12 A You might.

13 Q You might. Okay. If it were to -- okay. Rain, for in-
14 stance. And it rained maybe two hours, three hours
15 afterwards, okay, would it presumptively wash all
16 the blood off?

17 A Yes.

18 Q It would?

19 A I believe so, yes.

20 Q Ironically, through all the stick?

21 A Yes.

22 Q The cells, too?

23 A Yes.

24 Q On what basis would you come to that conclusion?

25 A I've seen articles of clothing, I've seen knives that

JAMES W. WURSTER

1 have been subjected to rain --

2 Q No. Well, no, no, Mr. Wurster. I'm not talking about
3 that.

4 ATTORNEY KONTOS: Let him answer the
5 question!

6 Q (By Attorney Lewis) Let's talk about clothing.

7 A I've seen objects subjected to washing. Even a car wash.
8 I know that water, under certain conditions, can
9 ruin absolutely everything, and yet, I've seen
10 blood on a truck go through a car wash that was
11 never touched. You never really know. The only
12 adequate way you can really try to determine some-
13 thing like this is try and test it. You'd have to
14 take sticks and put blood on them and dry them
15 under various conditions. That obviously was not
16 done. Anything else of those -- that material that
17 I did not find, and the reasons why it did not ap-
18 pear is really speculative. It's based upon other
19 objects I've seen and other events I've seen, but
20 it is not based upon any actual test that I've per-
21 formed.

22 Q Can we distinguish clothing, though, from the wood --

23 A Sure.

24 Q -- as the object or the material itself?

25 A Sure.

JAMES W. WURSTER

1 Q Okay. And, of course, we can distinguish that between
2 steel of a knife, right?

3 A Correct.

4 Q Non-porous material. And your analysis of that was that
5 you found no blood whatsoever?

6 A Correct.

7 Q That was under chemical testing as well as microscopic?

8 A Correct.

9 Q They gave you the hypothetical in regard to the washing
10 of pants. Can clothes be washed and blood still
11 remain after they've been washed?

12 A If it's not done properly, yes.

13 Q Okay. If you put them in a washer and run them around
14 for about two, three hours with a lot of suds and
15 a lot of good hard soap, would that do it? Probably
16 take the blood out?

17 A If it hasn't been set, if it's still somewhat still in
18 the process of drying, yes.

19 Q How long -- give me an opinion in regard to if there
20 was blood on a piece of clothing on the outside, how
21 long it would take for something like that to dry
22 the blood? Just give you a temperature of about --
23 oh, 75 degrees, 70 degrees, with not a great excess
24 of humidity. How long do you think it would take
25 for the blood --

JAMES W. WURSTER

- 1 A Large volume? Small splatters?
- 2 Q Say small splatters first.
- 3 A I would not expect it would take very long to dry.
- 4 Q Okay. Well, let's go -- give me some time. You say not
5 a large amount of time. What are we talking about?
- 6 A If I placed blood on a cotton thread in my laboratory,
7 that material would be dried within an hour, and
8 that's saturating a piece of cotton fabric or cotton.
- 9 Q Does that mean all the blood is dried at that point?
- 10 A It's dried enough to preserve the enzymes and that ma-
11 terial for my testing purposes.
- 12 Q Okay. All right. And how about a large amount of blood?
- 13 A It would take considerably longer, but I don't know the
14 volume or anything like that.
- 15 Q Have you had cases where articles had been washed or --
16 well, when you explained that with the car wash
17 theory, you've had occasions where things have been
18 washed and you still found the blood?
- 19 A Yes.
- 20 Q So, there's no predictability to it, is that basically --
- 21 A Absolutely correct.
- 22 Q In other words, if that thing was covered with blood,
23 you could stick it in -- in the ground 50 times,
24 pull it out, you may still find the blood on it?
- 25 A Correct.

JAMES W. WURSTER

Friday, January 31, 1986, at 9:03 A.M.

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1
2 JUDGE McLAIN: Mr. Watkins, will you be
3 opening for the State?

4 ATTORNEY WATKINS: Yes, Your Honor. Thank
5 you, Your Honor. May it please this Honorable
6 Court, Mr. Lewis, Mr. Kinney, the defendant, Mr.
7 Kontos.

8 Judges, at this time, as the prosecuting
9 attorney representing the people of Ohio, we are
10 here to give our final argument in this case in-
11 volving the State of Ohio versus Danny Lee Hill.
12 We will attempt to be as organized as possible, but
13 as the Court knows, I'm not as organized as I should
14 be. But this case comes here by way of an indict-
15 ment. State of Ohio brought charges by way of six
16 counts. Those six counts, as the Court is aware,
17 we must prove beyond a reasonable doubt. I would
18 want to begin this case by, in part, responding to
19 defense counsel's opening comments and my opening
20 statement, that we felt that one, the defendant, by
21 his own confession, has convicted himself, and we
22 will go through why we feel that is true, but more-
23 over and more importantly, the other evidence proves
24 beyond question that this defendant was a principal
25 in the offense.

CLOSING ARGUMENTS

1 You know, back on September 10th, our com- 1167
2 munity had a little boy, and we've had a lot of
3 little boys in our community, but this 12-year old
4 boy we have not talked about too much. We've dealt
5 with him in an abstraction. He hasn't been here.
6 And the Court is aware of the leaps and bounds and
7 the rights of victims. I'm not trying to ignore the
8 procedural rights of the defendants in cases, but
9 sometimes we forget and don't pay attention when we
10 talk about Constitutional Rights of the defendant,
11 and we don't, in the balance -- how about Raymond
12 Fife's right to live? How about his Constitutional
13 Rights to be here today, to be in school, to cele-
14 brate his 13th birthday with his parents?

15 I submit that Mr. Lewis and the defense,
16 which I consider a no defense defense, has spent a
17 lot of time trying the Warren Police Department.
18 That was resolved at the Suppression Hearing. The
19 question that is to be determined by this Court is
20 whether that man (indicating to the defendant) and
21 his buddy, Timothy Combs, engaged in a criminal
22 enterprise wherein he destroyed and devoured a little
23 boy on the 10th day of September of 1985. And as
24 you listen to the evidence, and as we listen to the
25 evidence, I submit that without question, that the

CLOSING ARGUMENTS

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taped statement, admissions made by the defendant, the cassette recording and other statements, there is something very important about the police work in this case. The details were not released to the public at large, and in any criminal case when you have a person telling he did something, that he was there, he was involved, when he can tell things about the crime that nobody but the actual killer or killers could know, that kind of evidence, we would submit, is compelling. For example, when Danny Lee Hill told police officers the afternoon of September 16th, 1985, in response to a question about was anything used on the little boy's rear end, Danny Hill describes the stick that was used to invade his private part, and, in fact, the evidence will show, perforate his urinary bladder. Danny Hill knew about the noose; his underpants, that evidence will show was used to strangle this young man. Danny Hill told about the burning. All this information, Your Honors, was not known to the public. His rendition is such that just listening to the tape and knowing some of the physical facts, without any question, we submit the State will show complicity. And, as the law provides, a person, whether he be a principal or an aider or abetter, is

11

OPENING STATEMENTS

1 testified here the other day. Were you aware that
2 there was other public citizens, not police or para-
3 medics or anything else, that were out there in the
4 field that saw the victim when he was recovered that
5 evening?

6 A There probably was. I can't say for sure. I wasn't at
7 the scene.

8 Q So, suffice to say, that the community via the faster
9 network, even faster than the newspaper and every-
10 thing, some fiction, some reality got out in the
11 community as to what the details -- or possibly what
12 some people had seen right there on the scene,
13 right?

14 A Yes.

15 Q And that might be the underwear were tied around the
16 neck?

17 A I can't answer what all the rumors were.

18 Q Okay. But suffice to say, that they were out there?

19 A Yes.

20 Q Some truth, some fiction?

21 A Correct.

22 Q Okay. Going back now, but you didn't give him any de-
23 tails of the crime?

24 A No, I didn't.

25 Q So, Officer Stewart comes in, and then yourself and --

DENNIS STEINBECK

1 Q Okay. Up until that time, you had not given him any of
2 the details of the crime, is that correct?

3 A Correct.

4 Q Okay. You mentioned that there was a beating, there was
5 an assault, I think, and there was some injuries?

6 A Danny knew a lot about the details from so many rumors
7 flying around the projects, and it wasn't from what
8 I knew or told him. It was from what he had learned
9 on the street or thought he knew on the street.

10 Q Thought he knew on the street. All the rumors flying
11 around. Do you recall yesterday when Mr. Kontos
12 asked you the question: "Mr. Steinbeck, did the
13 newspapers or the police release any details of
14 this crime"? "No." Let me ask you this: In all
15 reality, when you were out there investigating, the
16 entire community -- at least that section of town
17 and everything else, had a good idea, and some of it
18 was myth as to what happened to this boy, is that
19 correct?

20 A Yes, there was a lot of rumors going around.

21 Q Okay. And tell us about an organization, if you happen
22 to know, called BLOCK WATCH. You know about BLOCK
23 WATCH?

24 A I know it exists.

25 Q Okay. And let me ask you this. Officer Skoczylas

DENNIS STEINBECK

1 tell us what your findings were as to which indi-
2 vidual, if any, made the bite marks that were found
3 on the penis of Raymond Fife.

4 A It's my professional opinion, with reasonable degree of
5 medical certainty, that Hill's teeth, as depicted by
6 the models and the photographs that I had, made the
7 bite on Fife's penis.

8 Q And Doctor, would you explain in your own words how you
9 made that finding.

10 A Well, first thing I did was to spend a great deal of
11 time analyzing and studying the models and the
12 photographs. And it is correct that I measured at
13 great length all of the teeth involved, or those
14 that could possibly be involved, of both Hill's
15 models and Combs' models. And then through my con-
16 clusions when they turned out almost exactly one-
17 third less in size, in consistency across; the bite
18 to be one-third less, the space between the teeth;
19 the diastema, the fractured tooth, the alignment of
20 the teeth, or arch form, were all consistent with
21 the bite. But I was not there. I have no idea of
22 the size of the penis at the time of the bite. And
23 I think it was substantiated in another exhibit.
24 I don't know what your exhibit number is.

25 Q We'll get to that. Continue.

DOCTOR CURTIS A. MERTZ

1 which were the European men, I believe that was the 977
2 only study you could find in regard to the enlarge-
3 ment of the penis?

4 A Yes.

5 Q Okay. I guess they studied those things in Europe. You
6 don't have anything for the American --

7 A No. It was published by a Canadian.

8 Q Published by a Canadian. Okay. And their figure was
9 1.307, is that correct?

10 A When you get it all figured out is 1.307 greater.

11 Q 1.307 greater. So, that's the proportional figure to
12 use --

13 A Yeah.

14 Q -- right? Okay. And when we're talking about the
15 measurements of the teeth marks there, give me an
16 example. Give me the measurement, if you could, of
17 -- what is the measurement of Mr. Combs' upper right
18 incisor?

19 A I do not have the measurements here with me.

20 Q You don't have the measurements with you?

21 A No. And I do not have them from memory nor do I have a
22 metal ruler with me to give you the measurements.

23 Q Okay. Well, let me ask you this: From your recollection,
24 how much difference would you say there was in dis-
25 tance, millimeter wise, if you can use that figure

DOCTOR CURTIS A. MERTZ

1 we're objecting to this document as well. Same 956
2 basis.

3 JUDGE McLAIN: Overruled at this time. Go
4 ahead.

5 A This was measuring the difference in the sizes of the
6 flaccid penis and the erect penis in a hundred and
7 seventy-seven healthy men aged 18 to 20 years of age.
8 And in here -- if I can find the spot -- well, it
9 ends up with the average circumference of a penis
10 upon erection is 1.3075 larger than in the flaccid
11 state. Now, there's a lot of other things in here,
12 but that is what I think is significant in this case.

13 Q (By Attorney Watkins) Why is it significant?

14 A Because based on this research; in my mind, valid re-
15 search, this explains the difference in the measured
16 size of approximately a third less than in the
17 measurements when teeth mark sizes are compared.

18 Q Now, I notice that was studied for 18-year olds.

19 A Yeah.

20 Q Did you look for studies, if there are any known, as to
21 young 12-year olds, 14-year olds --

22 A The -- our hospital librarian could not find any reference
23 to size differentials in younger individuals. There
24 may be in the literature.

25 Q From your own experiences, would you have an opinion as

DOCTOR CURTIS A. MERTZ

- 1 to object. He says he can't --
- 2 Q (By Attorney Lewis) Well, it's very small, would you
3 agree with that, Doctor Mertz?
- 4 A It is small, yes.
- 5 Q Okay. And going back for a moment, you indicated the
6 fact that all your measurements are based upon this
7 hypothetical 1.307, is that correct?
- 8 A I didn't know anything about the 1.307 until after I had
9 made all the measurements.
- 10 Q Okay. And you made all the measurements, and, of course,
11 they were all, you said, approximately --
- 12 A They were consistently about a third less in size.
- 13 Q Okay. And how about Mr. Combs' teeth? Would they fit
14 into the pattern? Just from the standpoint --
15 measurements now.
- 16 A Now, let's qualify and -- have you qualify and tell me
17 what pattern you're talking about.
- 18 Q Okay. What I'm talking about is this. Give you an
19 example. If we used -- you measured the mark on
20 the penis? This mark right here (indicating), right?
- 21 A Yes.
- 22 Q Okay. And that's supposed to be the number 8 central
23 incisor, is it not, from the maxillary?
- 24 A You're talking about -- here's -- number 8 --
- 25 Q Um-hum.

DOCTOR CURTIS A. MERTZ

1 two physicians that are -- one a pediatrician and one 954
2 a urologist --

3 ATTORNEY LEWIS: Objection. Just the docu-
4 ments, Your Honor, not he's talked to somebody.
5 He's talked to other people in the medical field.
6 He's talking about documents.

7 JUDGE McLAIN: It's too close to -- I'm
8 not sure exactly -- I guess the other members of the
9 Court are not sure. I guess what we don't think is
10 that you can say what the other physicians or some-
11 body in some other medical field told you about the
12 human body, particularly as it relates to this case.
13 Or are they just people who told you about these
14 journals?

15 A They recommended that I look or have a literature search
16 ran -- run on this and -- because they felt it was
17 documented and it found that erection is much quicker
18 in preadolescent boys than in adults, although the
19 speed with which climax is reached in preadolescent
20 males varies considerably in different boys. That
21 essentially -- I wanted to satisfy myself regarding
22 the possible erection in a 12-year old boy. That's
23 the reason I went to this literature.

24 Q (By Attorney Watkins) Would you continue, Doctor.

25 JUDGE SHAKER: Go ahead.

DOCTOR CURTIS A. MERTZ

1 we're objecting to this document as well. Same 956
2 basis.

3 JUDGE McLAIN: Overruled at this time. Go
4 ahead.

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21 young 12-year olds, 14-year olds --

22 A The -- our hospital librarian could not find any reference
23 to size differentials in younger individuals. There
24 may be in the literature.

25 Q From your own experiences, would you have an opinion as

DOCTOR CURTIS A. MERTZ

- 1 Q Okay. Now, I'm going to hand you 134 and 135, and would 947
2 you tell the Court what those exhibits are.
- 3 A Well, 134 is a report that I sent to Mr. Watkins of
4 November the 4th, 1985, and 135 is the notes that
5 I made in studying these cases. I'm always making
6 notes of what I'm doing so that I can refer back to --
- 7 Q And those notes and the two documents are your written
8 conclusions?
- 9 A Yes, sir.
- 10 Q And they outline your findings that you've testified to
11 today?
- 12 A Yes. And they indicate about the prevalence of the
13 diastema or diastema, and then gave the reason here
14 for the lower teeth not matching or imprint clearly,
15 as I've explained, and --
- 16 Q Okay. You mentioned diastema. Did you have an occasion
17 to use any medical, scientific journals that would
18 show the range of population that would have midline
19 diastema?
- 20 A Well, in the Journal of Prosthetic Dentistry by McVay
21 and Latta, Volume 52, Number 6, December 1984, they
22 report that there's a space between the central in-
23 cisors of 3.5% in white, 5.2% in blacks, and 3.4%
24 in Mongolians of the American population ages 18 to
25 25 range.

DOCTOR CURTIS A. MERTZ

STRENGTHENING
**FORENSIC
SCIENCE**
IN THE UNITED STATES

A PATH FORWARD

Committee on Identifying the Needs of the Forensic Science Community

Committee on Science, Technology, and Law
Policy and Global Affairs

Committee on Applied and Theoretical Statistics
Division on Engineering and Physical Sciences

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By contrast, much more research is needed on the natural variability of burn patterns and damage characteristics and how they are affected by the presence of various accelerants. Despite the paucity of research, some arson investigators continue to make determinations about whether or not a particular fire was set. However, according to testimony presented to the committee,¹¹⁸ many of the rules of thumb that are typically assumed to indicate that an accelerant was used (e.g., “alligatoring” of wood, specific char patterns) have been shown not to be true.¹¹⁹ Experiments should be designed to put arson investigations on a more solid scientific footing.

FORENSIC ODONTOLOGY

Forensic odontology, the application of the science of dentistry to the field of law, includes several distinct areas of focus: the identification of unknown remains, bite mark comparison, the interpretation of oral injury, and dental malpractice. Bite mark comparison is often used in criminal prosecutions and is the most controversial of the four areas just mentioned. Although the identification of human remains by their dental characteristics is well established in the forensic science disciplines, there is continuing dispute over the value and scientific validity of comparing and identifying bite marks.¹²⁰

Many forensic odontologists providing criminal testimony concerning bite marks belong to the American Board of Forensic Odontology (ABFO), which was organized in 1976 and is recognized by the American Academy of Forensic Sciences as a forensic specialty. The ABFO offers board certification to its members.¹²¹

Sample Data and Collection

Bite marks are seen most often in cases of homicide, sexual assault, and child abuse. The ABFO has approved guidelines for the collection of evidence from bite mark victims and suspected biters.¹²² The techniques for obtaining bite mark evidence from human skin—for example, various forms of photography, dental casts, clear overlays, computer enhancement, electron microscopy, and swabbing for serology or DNA—generally are

¹¹⁸ J. Lentini. Scientific Fire Analysis, LLC. Presentation to the committee. April 23, 2007. Available at www7.nationalacademies.org/stl/April%20Forensic%20Lentini.pdf.

¹¹⁹ NFPA 921 Guide for Explosion and Fire Investigations, 2008 Edition. Quincy, MA: National Fire Protection Association.

¹²⁰ E.g., J.A. Kieser. 2005. Weighing bitemark evidence: A postmodern perspective. *Journal of Forensic Science, Medicine, and Pathology* 1(2):75-80.

¹²¹ American Board of Forensic Odontology at www.abfo.org.

¹²² Ibid.

well established and relatively noncontroversial. Unfortunately, bite marks on the skin will change over time and can be distorted by the elasticity of the skin, the unevenness of the surface bite, and swelling and healing. These features may severely limit the validity of forensic odontology. Also, some practical difficulties, such as distortions in photographs and changes over time in the dentition of suspects, may limit the accuracy of the results.¹²³

Analyses

The guidelines of the ABFO for the analysis of bite marks list a large number of methods for analysis, including transillumination of tissue, computer enhancement and/or digitalization of the bite mark or teeth, stereomicroscopy, scanning electron microscopy, video superimposition, and histology.¹²⁴ The guidelines, however, do not indicate the criteria necessary for using each method to determine whether the bite mark can be related to a person's dentition and with what degree of probability. There is no science on the reproducibility of the different methods of analysis that lead to conclusions about the probability of a match. This includes reproducibility between experts and with the same expert over time. Even when using the guidelines, different experts provide widely differing results and a high percentage of false positive matches of bite marks using controlled comparison studies.¹²⁵

No thorough study has been conducted of large populations to establish the uniqueness of bite marks; theoretical studies promoting the uniqueness theory include more teeth than are seen in most bite marks submitted for comparison. There is no central repository of bite marks and patterns. Most comparisons are made between the bite mark and dental casts of an individual or individuals of interest. Rarely are comparisons made between the bite mark and a number of models from other individuals in addition to those of the individual in question. If a bite mark is compared to a dental cast using the guidelines of the ABFO, and the suspect providing the dental cast cannot be eliminated as a person who could have made the bite, there is no established science indicating what percentage of the population or subgroup of the population could also have produced the bite. This follows from the basic problems inherent in bite mark analysis and interpretation.

As with other "experience-based" forensic methods, forensic odontology suffers from the potential for large bias among bite mark experts in evaluating a specific bite mark in cases in which police agencies provide the suspects for comparison and a limited number of models from which

¹²³ Rothwell, *op. cit.*

¹²⁴ American Board of Forensic Odontology, *op. cit.*

¹²⁵ Bowers, *op. cit.*

to choose from in comparing the evidence. Bite marks often are associated with highly sensationalized and prejudicial cases, and there can be a great deal of pressure on the examining expert to match a bite mark to a suspect. Blind comparisons and the use of a second expert are not widely used.

Scientific Interpretation and Reporting of Results

The ABFO has issued guidelines for reporting bite mark comparisons, including the use of terminology for conclusion levels, but there is no incentive or requirement that these guidelines be used in the criminal justice system. Testimony of experts generally is based on their experience and their particular method of analysis of the bite mark. Some convictions based mainly on testimony by experts indicating the identification of an individual based on a bite mark have been overturned as a result of the provision of compelling evidence to the contrary (usually DNA evidence).¹²⁶

More research is needed to confirm the fundamental basis for the science of bite mark comparison. Although forensic odontologists understand the anatomy of teeth and the mechanics of biting and can retrieve sufficient information from bite marks on skin to assist in criminal investigations and provide testimony at criminal trials, the scientific basis is insufficient to conclude that bite mark comparisons can result in a conclusive match. In fact, one of the standards of the ABFO for bite mark terminology is that, "Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion."¹²⁷

Some of the basic problems inherent in bite mark analysis and interpretation are as follows:

- (1) The uniqueness of the human dentition has not been scientifically established.¹²⁸
- (2) The ability of the dentition, if unique, to transfer a unique pattern to human skin and the ability of the skin to maintain that uniqueness has not been scientifically established.¹²⁹
 - i. The ability to analyze and interpret the scope or extent of distortion of bite mark patterns on human skin has not been demonstrated.
 - ii. The effect of distortion on different comparison techniques is not fully understood and therefore has not been quantified.

¹²⁶ Bowers, *op. cit.*

¹²⁷ American Board of Forensic Odontology, *op. cit.*

¹²⁸ Senn, *op. cit.*

¹²⁹ *Ibid.*

- (3) A standard for the type, quality, and number of individual characteristics required to indicate that a bite mark has reached a threshold of evidentiary value has not been established.

Summary Assessment

Despite the inherent weaknesses involved in bite mark comparison, it is reasonable to assume that the process can sometimes reliably exclude suspects. Although the methods of collection of bite mark evidence are relatively noncontroversial, there is considerable dispute about the value and reliability of the collected data for interpretation. Some of the key areas of dispute include the accuracy of human skin as a reliable registration material for bite marks, the uniqueness of human dentition, the techniques used for analysis, and the role of examiner bias.¹³⁰ The ABFO has developed guidelines for the analysis of bite marks in an effort to standardize analysis,¹³¹ but there is still no general agreement among practicing forensic odontologists about national or international standards for comparison.

Although the majority of forensic odontologists are satisfied that bite marks can demonstrate sufficient detail for positive identification,¹³² no scientific studies support this assessment, and no large population studies have been conducted. In numerous instances, experts diverge widely in their evaluations of the same bite mark evidence,¹³³ which has led to questioning of the value and scientific objectivity of such evidence.

Bite mark testimony has been criticized basically on the same grounds as testimony by questioned document examiners and microscopic hair examiners. The committee received no evidence of an existing scientific basis for identifying an individual to the exclusion of all others. That same finding was reported in a 2001 review, which “revealed a lack of valid evidence to support many of the assumptions made by forensic dentists during bite mark comparisons.”¹³⁴ Some research is warranted in order to identify the circumstances within which the methods of forensic odontology can provide probative value.

¹³⁰ Ibid.

¹³¹ American Board of Forensic Odontology, op. cit.

¹³² I.A. Pretty. 2003. A Web-based survey of odontologists’ opinions concerning bite mark analyses. *Journal of Forensic Sciences* 48(5):1-4.

¹³³ C.M. Bowers. 2006. Problem-based analysis of bite mark misidentifications: The role of DNA. *Forensic Science International* 159 Supplement 1:s104-s109.

¹³⁴ I.A. Pretty and D. Sweet. 2001. The scientific basis for human bitemark analyses—A critical review. *Science and Justice* 41(2):85-92. Quotation taken from the abstract.

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TEXAS FORENSIC SCIENCE COMMISSION

Justice Through Science

BITE MARK CASE REVIEW REPORT

November 3, 2017



A. SUMMARY OF THE COMMISSION’S STATUTORY AUTHORITY

The Texas Legislature created the Texas Forensic Science Commission (“Commission”) during the 79th Legislative Session by passing House Bill 1068 (the “Act”). The Act amended the Texas Code of Criminal Procedure to add Article 38.01, which describes the composition and authority of the Commission.¹ During subsequent Legislative Sessions, the Legislature further amended the Code of Criminal Procedure to clarify and expand the Commission’s jurisdictional responsibilities and authority.²

The Commission has nine members appointed by the Governor of Texas.³ Seven of the nine commissioners are scientists or medical doctors and two are attorneys (one prosecutor nominated by the Texas District and County Attorney’s Association, and one criminal defense attorney nominated by the Texas Criminal Defense Lawyer’s Association).⁴ The Commission’s Presiding Officer is Jeffrey Barnard, MD. Dr. Barnard is the director of the Southwestern Institute of Forensic Science and the Chief Medical Examiner of Dallas County, Texas.⁵

B. BACKGROUND LEGAL ISSUES

1) Procedural History and Status of Steven Mark Chaney Case

Mr. Chaney was tried on October 28, 1987, for the murder of John and Sally Sweek. A mistrial was declared on November 16, 1987. On December 8, 1987, the State proceeded to trial against Mr. Chaney again for the murder of John Sweek. Mr. Chaney was convicted of murder on December 14, 1987, sentenced to life in prison, and fined \$5,000. His conviction was affirmed by the Court of Appeals, Dallas in 1989.

¹ See Act of May 30, 2005, 79th Leg., R.S., ch. 1224, § 1, 2005.

² See e.g., Acts 2013, 83rd Leg., ch. 782 (S.B.1238), §§ 1 to 4, eff. June 14, 2013; Acts 2015, 84th Leg., ch. 1276 (S.B.1287), §§ 1 to 7, eff. September 1, 2015, (except TEX. CODE CRIM. PROC. art. 38.01 § 4-a(b) which takes effect January 1, 2019).

³ *Id.* at art. 38.01 § 3.

⁴ *Id.*

⁵ *Id.* at § 3(c).

Mr. Chaney filed a Writ of Habeas Corpus on October 12, 2015, on the grounds that he was entitled to relief under Article 11.073 because new scientific evidence about bite mark comparison contradicted the bite mark testimony presented at his trial. He also presented claims for relief under Article 11.07 on the grounds that false evidence about the probability that he made the bite mark was presented at his trial in violation of his due process rights; that the State's failure to disclose an exculpatory blood test and certain impeachment evidence violated his due process rights under *Brady v. Maryland*, 373 U.S. 83 (1963); and that newly discovered evidence demonstrated his actual innocence.

On October 12, 2015, the trial court entered agreed findings of fact and law concluding that Mr. Chaney was entitled to relief on his 11.073 claim and his claim under Article 11.07 regarding false testimony. The Court reserved findings and recommendations on Mr. Chaney's claims under Article 11.07 regarding *Brady* and actual innocence.

On May 4, 2016, the Texas Court of Criminal Appeals remanded the case back to the trial court to enter findings of fact and law within 90 days on Mr. Chaney's *Brady* and actual innocence claims, or to make a determination that Mr. Chaney was abandoning those claims. On August 4, 2016, an extension was granted. On September 9, 2016, Mr. Chaney filed a Second Amended Application, which included new developments related to his claim under Article 11.703, an additional false evidence claim relating to the timing of the purported bite mark, and new evidence of actual innocence.

On September 9, 2016, the trial court entered agreed findings of fact and law concluding that Mr. Chaney demonstrated entitlement to relief on his *Brady* claim and that he had shown no reasonable juror would have convicted him in light of the new evidence. The court also concluded

that Mr. Chaney's new evidence relating to 11.073 further supported his claim and that he was entitled to relief on his additional false evidence claim.

Mr. Chaney's application was ordered filed and set for submission on April 19, 2017. The Texas Court of Criminal Appeals has not yet ruled.

Because the Commission already addressed Mr. Chaney's complaint and issued a related report on February 12, 2016 as discussed in Section C below, the transcript in his case was not reviewed by the team.

2) Admissibility of Bite Mark Comparison Analysis in Texas Courts

Article 38.35 of the Texas Code of Criminal Procedure prohibits forensic analysis from being admitted in criminal cases if the entity conducting the analysis is not accredited by a national accrediting body recognized by the Commission:⁶

"...a forensic analysis of physical evidence under this article and expert testimony relating to the evidence are not admissible in a criminal action if, at the time of the analysis, the crime laboratory conducting the analysis was not accredited by the commission under Article 38.01."⁷

The term "forensic analysis" is defined as follows:

"Forensic analysis" means a medical, chemical, toxicologic, ballistic, or other expert examination or test performed on physical evidence, including DNA evidence, for the purpose of determining the connection of the evidence to a criminal action, except that the term does not include the portion of an autopsy conducted by a medical examiner or other forensic pathologist who is a licensed physician.⁸

The term "crime laboratory" is broadly defined, as follows:

"Crime laboratory" includes a public or private laboratory or other entity that conducts a forensic analysis subject to this article.⁹

⁶ Until the 84th Legislative Session, the accreditation program was under the authority of the Department of Public Safety ("DPS").

⁷ TEX. CODE CRIM. PROC. § 38.35(a)(4).

⁸ *Id.* at 38.35 § (a)(4).

⁹ *Id.* at § 38.35(d)(1).

The statute also exempts certain forensic disciplines from the accreditation requirement either by statute, administrative rule, or by determination of the Commission.¹⁰ On July 18, 2016, the Commission submitted a request for legal opinion to the Texas Attorney General's office regarding the applicability of the Code to bite mark comparison. (See **Exhibit A**). A key threshold question was whether the discipline is subject to the accreditation requirement.¹¹ Neither the statute nor the administrative rules transferred to the Commission from the Department of Public Safety which previously performed the accreditation function for Texas mentioned forensic odontology specifically. The term “forensic analysis” undoubtedly includes bite mark comparison, but no national accreditation body currently recognized under Texas law offers accreditation in bite mark comparison. The Commission also asked the Attorney General to provide an opinion regarding whether the Commission has the legal authority to withhold an accreditation exemption for a forensic discipline based on concerns regarding the integrity and reliability of the discipline.

On January 17, 2017 Attorney General Ken Paxton issued a response to the Commission's request. (See **Exhibit B**.) The Opinion (KP-0127) concluded the following:

1. Article 38.35 of the Texas Code of Criminal Procedure prevails over Rule 702 of the Texas Rules of Evidence to the extent the two may conflict.
2. Article 38.35 requires "forensic analysis" to be either accredited or exempt by the Commission.
3. The Commission has the discretion to withhold an exemption from the accreditation requirement pending resolution of concerns regarding the integrity and reliability of the forensic analysis.

¹⁰ *Id.* at 38.01 § 4-d(c).

¹¹ The Commission specifically used the term “bite mark comparison” to refer to the act of analyzing a patterned injury for purposes of either associating or excluding a suspect or group of suspects based on the observable characteristics of the patterned injury. The Commission had no objection to the components of bite mark analysis that include swabbing a patterned injury site for possible DNA analysis or to determine the presence or absence of salivary amylase.

Bite mark comparison is not an accredited discipline. Due to concerns expressed in February 2016 report, the Commission has not exempted bite mark comparison from the accreditation requirement though it has exempted other forensic odontology disciplines including human identification and age estimation.¹²

It is important to note that Attorney General Opinions do not carry the same weight as opinions issued by a court of law and thus an appellate court's interpretation of the statutory language could diverge from the Attorney General's Opinion. Interested parties should continue to monitor case law developments in this area.

C. HISTORY OF BITE MARK COMPARISON REVIEW TEAM

On February 12, 2016, the Texas Forensic Science Commission published a report in response to a complaint filed by the national Innocence Project on behalf of Steven Mark Chaney.¹³ By unanimous vote, the Commission made a number of recommendations in the report, including the development of a collaborative plan for retroactive bite mark comparison case review led by a multidisciplinary team of forensic odontologists and attorneys.

In the months following the report's release, the Commission worked with the American Board of Forensic Odontology (ABFO) and stakeholders in the legal community to form a bite mark comparison review team to conduct a retroactive review of cases. The team was structured in a similar manner to a previous team convened to conduct a review of Texas microscopic hair comparison cases, consisting of four subject matter experts, two defense attorneys and two prosecutors. On January 27, 2017, the team held its first meeting. The team also held subsequent

¹² TEX. ADMIN. CODE Title 37, Part 15, Ch. 651, subch. A, § 651.7(a)(9).

¹³ The Commission's report may be accessed at the following link: <http://www.fsc.texas.gov/blog/2016-04-18/fsc-releases-report-forensic-bitemark-comparison-complaint-filed-national-innocence>

meetings on March 10, 2017 and September 8, 2017. All meetings were open to the public. This report describes the team's work and conclusions for cases reviewed.

D. COMPOSITION OF BITE MARK COMPARISON CASE REVIEW TEAM

The following experts are members of the team. Each member's curriculum vitae is attached as **Exhibit C**.

- 1) Paula Brumit, DDS, ABFO Current President, Austin Road Dental Clinic, Graham, Texas
- 2) Adam Freeman, DDS, ABFO Recent Past President, Westport Dental Associates, Westport, Connecticut
- 3) William Lee Hon, Polk County Elected District Attorney
- 4) David Senn, DDS, Director of the Center for Education and Research in Forensics School of Dentistry, University of Texas Health Science Center at San Antonio
- 5) Bob Wicoff, Chief Appellate Division Harris County Public Defender's Office
- 6) Russell Wilson, Esq., Russell Wilson Law Office Dallas
- 7) Bill Wirskye, Assistant District Attorney, Collin County
- 8) Franklin Wright, DDS, Forest Hills Family Dentistry, Cincinnati, Ohio

E. PROCESS OF GATHERING CASES

Because there is no central repository of bite mark cases, compiling a comprehensive list of Texas bite mark cases was not an easy task. Additionally, because bite mark comparison is typically performed outside a crime laboratory setting by dentists in private practice, a multifaceted approach is necessary to identify potentially affected cases. Where forensic laboratories have LIMS systems which enable them to track and search for cases, bite mark comparison cases are typically performed by individual forensic odontologists who maintain their own case file tracking systems. Indeed, though Commission staff made a good faith effort to identify cases, there is no

way to guarantee that cases could not have been missed that the team would review if provided the opportunity.

Despite these challenges, staff had several helpful resources to consult at the outset of the project. First, staff referred to the list of Texas convictions referenced in the *Forensic Dentistry, Second Edition* textbook edited by Drs. Senn and Stimson. This textbook contains an appendix entitled “U.S. Federal and State Court Cases of Interest in Forensic Odontology,” that provides chronological case citations. After a close review, 22 Texas convictions were identified from the appendix.

In addition, the national Innocence Project also provided the Commission with a list of Texas bite mark comparison convictions of which they were aware. This list provided an additional six cases that were not listed in the *Forensic Dentistry* textbook.

In an attempt to fill any gaps left by the first two lists, staff generated a list of cases using a LexisNexis search. That search returned a total of 221 appellate decisions requiring a careful review to determine relevancy. Once this review was completed, an additional six cases were added to the master list.

In discussions with the American Board of Forensic Odontology (ABFO) leadership, staff learned that a handful of retired ABFO Diplomates had provided their personal case files to the archives at the National Museum of Health and Medicine (“NMHM”) in Silver Spring, Maryland. Staff contacted the museum for assistance in accessing information concerning Texas casework stored there. The Museum responded with short list providing very little information due to the limited nature of the archived information. The NMHM information added one potential additional case to the list but ultimately the archived files were too limited to provide for extensive case identification.

The Harris County District Attorney's Office Conviction Integrity Unit provided the Commission with an additional two cases to add to the review. An additional two cases were provided by Dr. Paula Brumit. Upon review, it was determined that comparisons were not ultimately made in those cases. The Tarrant County Medical Examiner's Office also provided a list of cases submitted by Dr. Roger Metcalf.

Ultimately, staff identified 36 cases were for initial screening by the team. (*See Exhibit D.*) The initial list of cases compiled through the process outlined above was shortened when review parameters are set and further scrutiny is applied to the case facts. Several cases were eliminated from the list at the outset because they did not involve an identification, or because the bite marks in question were inflicted by animals. It should also be noted that the list of 36 cases includes the Steven Mark Chaney case along with two cases where the defendants were later exonerated as a result of DNA evidence, as discussed below.

F. PROCESS OF OBTAINING TRIAL TRANSCRIPTS

Obtaining trial transcripts for post-conviction review can be difficult, especially for older cases. Obviously, the more recent a conviction the easier it is to obtain the transcript. Relatively recent convictions can often be obtained from the Courts of Appeals, the Court of Criminal Appeals or the State Archives. The Texas court system has a transcript retention policy that allows for the retention of records in felony convictions for a number of years depending on the severity of the charge(s). Some are retained indefinitely, namely capital convictions where the death penalty was imposed. Each Court of Appeals has its own policy concerning obtaining copies of transcripts which often makes for an uneven retrieval process. Records were obtained via compact disc from Courts of Appeals, hard copies from the State Archives, digital or paper copies from District Attorney offices, and finally a number were digitally scanned by Commission staff.

G. SUMMARY OF CRITERIA (SCREENING AND REVIEW)

As a threshold matter, it is critical to note that the review team's work was *limited to the review of testimony*. The team did not have access to the evidence in any case and thus did not make an assessment of the quality of the bite mark comparison performed. The team limited its analysis to whether the testimony was supportable or not. Team members with expertise in forensic odontology may consider future requests to review evidence such as photographs of injuries, molds, etc. (to the extent available) for individual cases upon the request of stakeholders.

The criteria for the transcript review were developed based on two main factors: (1) the Commission's previous experience in developing criteria for the microscopic hair comparison review; and (2) a common desire to ensure that any retroactive case review makes prudent and effective use of limited state resources. Thus, team members and Commissioners agreed to refrain from reviewing cases solely for the purpose of identifying overstatements in testimony regardless of whether there could be any conceivable argument that the erroneous bite mark testimony impacted the case outcome. Instead, team members focused resources solely on those cases for which the defendant could have a plausible argument that flawed bite mark comparison testimony may constitute grounds for legal relief. Of course, those who disagree with the Commission's decision to exclude their cases are free to pursue legal remedies through the court system.

Initial Screening Criteria

The first question answered by the team in approaching a given case was whether it contained a bite mark comparison that included a positive, probative association. The term is defined as follows:

The term “*positive, probative association*” means the expert expressed an association of any kind between the defendant’s dentition and the patterned injury on human skin, and that association provided information, regardless of significance, about the suspect’s connection to a criminal act.

If the answer to this question was "no," the team stopped the review. If the answer was "yes," the team proceeded to ask the following questions:

1. Was there a high-quality DNA profile or profile(s) connecting the Defendant to the crime?¹⁴
2. Were there multiple additional overwhelmingly inculpatory case facts in the form of physical evidence and/or witness testimony such that an alternative theory, explanation or suspect is not plausible?

It is important to note the team answered the second question affirmatively only when non-bite mark related case facts were abundantly clear and overwhelming. Members always erred on the side of including cases rather than excluding them.

Transcript Review Questions

If the review team answered "no" to the two preliminary screening criteria, members then proceeded to review the case transcript. After reading the transcript, the team answered the following questions:

1. Did the testimony contain a statement of identification?
2. Did the testimony assign probability or statistical weight?
3. Did the testimony contain any other potentially misleading statements or inferences?

If the answer to any of these questions was "yes," the panel recommended to the full Commission that notification be provided to the following potentially impacted individuals:

- Defendant and/or last known counsel;¹⁵
- Elected District Attorney for county in which case was prosecuted;
- Conviction Integrity Unit if one exists in jurisdiction;
- Court with original jurisdiction over trial;

¹⁴ By "high quality," we are referring to single source profile(s), a simple two-person mixture, or a mixture for which a major contributor may be deduced.

¹⁵ Cases in which defendant is deceased are included in final report.

- Texas publicly funded innocence clinics;
- President of ABFO;
- Forensic odontologist who provided testimony (unless deceased).

H. CASE REVIEW RESULTS

Commission staff identified 36 total cases for possible transcript review. Of these, six cases were prescreened out by the staff (three of the cases were *Washington, Williams and Chaney*; two cases had no bite mark testimony; one case was a 1954 robbery involving bite mark impressions in cheese (*Doyle v. State*, 159 Tex. Crim. 310, 263 S.W.2d 779 (1954))). The team screened the remaining 30 cases and removed another 21 from transcript review after analyzing the cases under the initial screening criteria. (See **Exhibit D.**) The team reviewed five transcripts at its March 10, 2017 meeting and recommended notification for four of the five cases. (See **Exhibit E** for notification letters and transcripts.) Of the cases for which notification was recommended, three resulted in the team answering all review questions affirmatively. The fourth case involved two experts providing testimony with the team answering all three review questions affirmatively for the first expert and only the first review question affirmatively for the second expert.

At its September 8, 2017 meeting, the team reviewed the remaining four transcripts and recommended notification for three cases. Of these three cases, one involved the team answering the first and third review questions affirmatively while the team answered all three review questions affirmatively in the other two cases. It is also important to note that one case involved the team answering all three review questions affirmatively for two witnesses.

I. DECEASED INDIVIDUALS AND INDIVIDUALS EXONERATED BY DNA

- 1) David Wayne Spence

David Wayne Spence's case is not new to the forensic odontology community and this is not the first time the bite mark evidence and/or related testimony has been reviewed by ABFO experts. Spence was executed in 1997 for the 1982 murders of three teenagers near Lake Waco in McLennan County, Texas. Forensic odontologist Dr. Homer Campbell identified Spence as having made several of the wounds on two of the victims. To make his determination, Dr. Campbell reviewed autopsy photos and compared the wounds to a dental mold taken of Spence's teeth. Based on this comparison Dr. Campbell concluded that Spence's teeth had made the marks, testifying that Spence was "the only individual" to a "reasonable medical and dental certainty" who could have made the bite marks in question. In 1993, Spence's appellate lawyers assembled a blind team of ABFO odontologists to perform a two-part review. First, to review the autopsy photos for marks and then to compare the marks with dental molds from Spence and four other individuals. While they could identify a few patterns that may have been indicators of human bite marks, the experts were unable to state much else about the evidence. None of the experts were able to "match" Spence's mold to the marks. Only one was able to "match"¹⁶ a mark to one of the molds but it was not Spence's.

The team reviewed Dr. Campbell's testimony and concurred with the ABFO panel's prior assessment that the testimony was unsupported. The team reviewed the transcripts of both of Spence's murder trials at their March 10, 2017 meeting. For each trial, the team answered all three review criteria questions affirmatively.

2) Calvin Washington and Joe Sydney Williams

¹⁶ See Commission's prior report for discussion regarding why the concept of "matching" human dentition to a patterned injury is scientifically unsupported: <http://www.fsc.texas.gov/blog/2016-04-18/fsc-releases-report-forensic-bitemark-comparison-complaint-filed-national-innocence>

Approximately a year after the Lake Waco murders occurred, David Spence's mother was sexually assaulted and murdered in her McLennan County home. Dr. Homer Campbell was again consulted and he determined that Spence's mother had been bitten and the bites were "consistent with" the dentition of Joe Williams. Based largely on this finding, both Williams and Washington were convicted of the rape and murder. In 2000, DNA testing was conducted on the vaginal and anal swabs from the victim and both Washington and Williams were excluded. Because both men were previously exonerated the team did not obtain or review the testimony from their convictions.

J. CONCLUDING COMMENTS

While Texas may be one of the first states to undertake a statewide review of bite mark comparison cases, it should not be the last. The Commission and review team encourage other jurisdictions to take a similar approach to conducting retroactive case reviews for the purpose of protecting against potential miscarriages of justice. No review process is perfect, and every state would need to consider the approach that makes most sense given the resources available. The Commission and review team would welcome the opportunity to assist other states interested in performing a similar review.

Finally, the Commission is grateful for the assistance of numerous individuals and organizations, including the members of the review team, the ABFO, the national Innocence Project, the Conviction Integrity Units of the District Attorney's Offices in Dallas, Tarrant and Harris counties, the National Museum of Health and Medicine, the Texas Court of Criminal Appeals and the Texas State Archives.

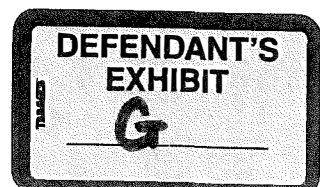
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*American Board of Forensic Odontology, Inc.
Diplomates Reference Manual
Section I: Preface, Acknowledgments, Background, Functions & Purposes*

American Board of Forensic Odontology

Diplomates Reference Manual

January 2012 Edition



- Variation from normal, unusual, infrequent.
- Not one of a kind but serves to differentiate from most others.
- Highly specific, individualized.
- Lesser degree of specificity than unique.

Bitemark Definitions

Bitemark:

- A physical alteration in a medium caused by the contact of teeth.
- A representative pattern left in an object or tissue by the dental structures of an animal or human.

Describing the Bitemark

A circular or oval patterned injury consisting of two opposing (facing) symmetrical, U-shaped arches separated at their bases by open spaces. Following the periphery of the arches are a series of individual abrasions, contusions, and/or lacerations reflecting the size, shape, arrangement, and distribution of the class characteristics of the contacting surfaces of the human dentition.

Variations:

1. Additional features:

- Central Ecchymosis (central contusion).
- Linear Abrasions, Contusions or Striations
- Double Bite - (bite within a bite)
- Weave Patterns of interposed clothing.
- Peripheral Ecchymosis

2. Partial Bitemarks

3. Indistinct/Faded Patterned Injury (e.g., fused or closed arches, solid ring pattern)

4. Multiple Bites.

5. Avulsive Bites.

Terms Indicating Degree of Confidence That an Injury is a Bitemark:

Bitemark - Teeth created the pattern; other possibilities were considered and excluded.

• *criteria*: pattern conclusively illustrates a) classic features. b) all the characteristics, or c) typical class characteristics of dental arches and human teeth in proper arrangement so that it is recognizable as an impression of the human dentition.

Suggestive – The pattern is suggestive of a bitemark, but there is insufficient evidence to reach a definitive conclusion at this time.

• *criteria*: general shape and size are present but distinctive features such as tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a bitemark – Teeth did not create the pattern.

Descriptions and Terms Used to Relate a Suspected Biter to a Bitemark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

ABFO Standards for "Bitemark Terminology"

The following list of Bitemark Terminology Standards has been accepted by the American Board of Forensic Odontology.

1. Terms assuring unconditional identification of a perpetrator, or without doubt, are not sanctioned as a final conclusion.
2. Terms used in a different manner from the recommended guidelines should be explained in the body of a report or in testimony.
3. All boarded forensic odontologists are responsible for being familiar with the standards set forth in this document.

2/2006

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Terms Indicating Degree of Confidence That an Injury is a Human Bite mark:

Human Bite mark – Human Teeth created the pattern; other possibilities were considered and excluded.

- *criteria:* the injury pattern displays features that reflect the class and individual characteristics of human teeth.

Suggestive – The pattern is suggestive of a human bite mark, but there is insufficient evidence to reach a definitive conclusion at this time.

- *criteria:* general shape and size are present but distinctive features such as individual tooth marks are missing, incomplete or distorted or a few marks resembling tooth marks are present but the arch configuration is missing.

Not a human bite mark – Human teeth did not create the injury.

Descriptions and Terms Used to Relate a Suspected Biter to a Bite mark

All opinions stated to a reasonable degree of dental certainty

The Biter

The Probable Biter

Not Excluded as the Biter

Excluded as the Biter

Inconclusive

The ABFO does not support a conclusion of "The Biter" in an open population case(s).

ABFO Bite mark Case Review Guideline

A case review should be performed by a second ABFO Diplomat. The reviewer will not be required to provide a second opinion (but may do so if he/she wishes), but will provide an administrative review of the analysis that was done. This review should determine if the analysis and report adhered to the standards, guidelines, methodology and terminology of bite mark investigation as the required by these standards and guidelines.

TEXAS FORENSIC SCIENCE COMMISSION

Justice Through Science

**FORENSIC BITEMARK COMPARISON
COMPLAINT FILED BY NATIONAL
INNOCENCE PROJECT ON BEHALF OF
STEVEN MARK CHANEY - FINAL REPORT**

Finalized at Quarterly Meeting

on April 12, 2016



I. SUMMARY OF THE COMMISSION’S STATUTORY AUTHORITY

A. Legislative Background and Jurisdiction

The Texas Legislature created the Texas Forensic Science Commission (“Commission”) during the 79th Legislative Session by passing House Bill 1068 (the “Act”). The Act amended the Texas Code of Criminal Procedure to add Article 38.01, which describes the composition and authority of the Commission.¹ During the 83rd and 84th Sessions, the Legislature further amended the Code of Criminal Procedure to clarify and expand the Commission’s jurisdictional authority.²

The Commission has nine members appointed by the Governor of Texas.³ Seven of the nine commissioners are scientists and two are attorneys (one prosecutor nominated by the Texas District and County Attorney’s Association, and one criminal defense attorney nominated by the Texas Criminal Defense Lawyer’s Association).⁴ The Commission’s Presiding Officer is Dr. Vincent J.M. Di Maio.⁵

1. Accreditation Jurisdiction

Texas law prohibits a forensic analysis from being admitted in a criminal case if the entity conducting the analysis is not accredited by the Commission:⁶

“...a forensic analysis of physical evidence under this article and expert testimony relating to the evidence are not admissible in a criminal action if, at the time of the analysis, the crime laboratory conducting the analysis was not accredited by the commission under Article 38.01.”⁷

¹ See Act of May 30, 2005, 79th Leg., R.S., ch. 1224, § 1, 2005.

² See Acts 2013, 83rd Leg., ch. 782 (S.B.1238), §§ 1 to 4, eff. June 14, 2013; Acts 2015, 84th Leg., ch. 1276 (S.B.1287), §§ 1 to 7, eff. September 1, 2015, (except TEX. CODE CRIM. PROC. art. 38.01 § 4-a(b) which takes effect January 1, 2019).

³ *Id.* at art. 38.01 § 3.

⁴ *Id.*

⁵ *Id.* at § 3(c).

⁶ Until the 84th Legislative Session, the accreditation program was under the authority of the Department of Public Safety (“DPS”).

⁷ TEX. CODE CRIM. PROC. § 38.35(a)(4).

The term “forensic analysis” is defined as follows:

“Forensic analysis” means a medical, chemical, toxicologic, ballistic, or other expert examination or test performed on physical evidence, including DNA evidence, for the purpose of determining the connection of the evidence to a criminal action, except that the term does not include the portion of an autopsy conducted by a medical examiner or other forensic pathologist who is a licensed physician.⁸

The term “crime laboratory” is broadly defined, as follows:

“Crime laboratory” includes a public or private laboratory or other entity that conducts a forensic analysis subject to this article.⁹

Texas law exempts certain forensic disciplines from the accreditation requirement—either by statute, administrative rule, or by determination of the Commission.¹⁰ A key threshold question is whether bitemark comparison¹¹ is subject to the accreditation requirement. Neither the statute nor the administrative rules (carried over from DPS) mention forensic odontology specifically. The term “forensic analysis” undoubtedly includes bitemark comparison, but no national accreditation body recognized under Texas law (e.g., ASCLD/LAB, ANAB, etc.) offers accreditation in bitemark comparison. Accreditation by one of these nationally recognized bodies is mandatory for entities seeking to be accredited under Texas law.¹²

Under a strict reading of the statute, bitemark comparison should not be admissible in Texas criminal courts because it does not meet the accreditation

⁸ *Id.* at § (a)(4).

⁹ *Id.* at § (d)(1).

¹⁰ *Id.* at 38.01 § 4-d(c).

¹¹ The Commission specifically uses the term “bitemark comparison” to refer to the act of analyzing a patterned injury for purposes of either associating or excluding a suspect or group of suspects based on the observable characteristics of the patterned injury. The Commission has no concerns regarding the components of bitemark analysis that include swabbing a patterned injury site for possible DNA analysis or to determine the presence or absence of salivary amylase.

¹² 37 Tex. Admin. Code § 651.4.

requirement set forth in the Code of Criminal Procedure and neither DPS nor the Commission has ever exempted forensic odontology by administrative rule. In an abundance of caution, the Commission has instructed staff to seek confirmation of this interpretation through a legal opinion request to the Attorney General's office. This report will be updated to reflect the Attorney General's opinion once it is received.

Most Texas judges are unlikely to be aware of the statutory requirement for accreditation outside of traditional forensic disciplines such as toxicology, drug chemistry, DNA, etc. This is especially true considering the small number of bitemark cases in Texas. Because bitemark comparison has been admitted in Texas courts since 1954 (with the *Doyle* case involving a bitemark in cheese), it continues to be admitted.¹³

2. Investigative Jurisdiction

Texas law requires the Commission to “investigate, in a timely manner, any allegation of professional negligence or professional misconduct that would substantially affect the integrity of the results of a forensic analysis conducted by an accredited laboratory, facility or entity.”¹⁴ The Act also requires the Commission to: (1) implement a reporting system through which accredited laboratories, facilities or entities may report professional negligence or professional misconduct; *and* (2) require all laboratories, facilities or entities that conduct forensic analyses to report professional negligence or misconduct to the Commission.¹⁵

The Commission is also expressly authorized to investigate allegations of professional negligence and misconduct for forensic disciplines that are *not currently*

¹³ See *Doyle v. State*, 159 TEX. CRIM. 310, 263 S.W.2D 779 (JAN. 20, 1954).

¹⁴ TEX. CODE CRIM. PROC. art. 38.01 § 4(a)(2).

¹⁵ *Id.* at § 4.

subject to accreditation, such as the forensic bite mark comparison at issue in this case.¹⁶

However for cases involving forensic disciplines not subject to accreditation, the Commission's reports are limited to the following:

- Observations regarding the integrity and reliability of the forensic analysis conducted;
- Best practices identified by the Commission during the course of the investigation; and
- Other recommendations deemed relevant by the Commission.¹⁷

II. INVESTIGATIVE PROCESS

A. Complaint Process

When the Commission receives a complaint, the Complaint Screening Committee conducts an initial review of the document at a publicly noticed meeting.¹⁸ After discussing the complaint, the Committee votes to recommend to the full Commission whether the complaint merits any further review.¹⁹

In this case, the Committee discussed the complaint (*See Exhibit I*) at a publicly noticed meeting of the Complaint and Disclosure Screening Committee in Austin, Texas on August 13, 2015. The Commission discussed the complaint again the following day, on August 14, 2015, at its quarterly meeting, also in Austin, Texas. After deliberation, the Commission voted unanimously to create a four-member investigative panel to review the complaint pursuant to Section 4.0(b)(1) of the Policies and Procedures. Members voted to elect Dr. Harvey Kessler, Dr. Vincent Di Maio, Dr. Ashraf Mozayani and Mr. Richard Alpert as members of the panel, with Dr. Harvey Kessler (Director of Pathology

¹⁶ *Id.* at § 4(b-1).

¹⁷ *Id.*

¹⁸ *See* Policies and Procedures at 3.0.

¹⁹ *Id.*

and Professor at the Texas A&M University Baylor College of Dentistry) serving as Chairman.

Once a panel is created, the Commission's investigations include: (1) relevant document review; (2) interviews with stakeholders as necessary to assess the facts and issues raised; (3) collaboration with affected agencies; (4) requests for follow-up information where necessary; (5) hiring of subject matter experts where necessary; and (6) any other steps needed to meet the Commission's statutory obligations.

B. Other Important Limitations on the Commission's Authority

In addition to the limitations described above regarding reports involving disciplines not subject to accreditation, the Commission's authority contains other important statutory limitations. For example, *no finding contained herein constitutes a comment upon the guilt or innocence of any individual.*²⁰ Additionally, the Commission's written reports are not admissible in a civil or criminal action.²¹

The Commission also does not have the authority to issue fines or other administrative penalties against any individual, laboratory or entity. The information the Commission receives during the course of any investigation is dependent upon the willingness of stakeholders to submit relevant documents and respond to questions posed. The information gathered has *not* been subjected to the standards for admission of evidence in a courtroom. For example, no individual testified under oath, was limited by either the Texas or Federal Rules of Evidence (*e.g.*, against the admission of hearsay) or was subjected to formal cross-examination under the supervision of a judge.

²⁰ TEX. CODE CRIM. PROC. 38.01 at § 4(g).

²¹ *Id.* at § 11.

The Commission has no jurisdiction in civil cases or administrative proceedings such as case falling within the jurisdiction of the Texas Department of Family and Protective Services. The recommendations in this report apply exclusively to bitemark analyses performed in the context of criminal actions. Moreover, the recommendations are specific to the bitemark comparison sub-discipline of forensic odontology, and do not apply to human identifications, age estimations or other areas of forensic odontology unrelated to the analysis of patterned injuries on skin. Finally, as previously noted the Commission is not concerned about the components of bitemark analysis that are limited to swabbing a patterned injury site for possible DNA analysis or to determine the presence or absence of salivary amylase.

III. Summary of Steven Mark Chaney Criminal Case

Steven Mark Chaney was convicted of the murder of John Sweek and sentenced to life in prison on December 14, 1987. John Sweek and his wife, Sally, sold cocaine from their East Dallas apartment and were found brutally murdered in June 1987, with autopsy reports indicating multiple stab wounds and slit throats. Despite suspicions pointing to the couple's Mexican drug supplier, Mr. Chaney became a suspect when another customer of the Sweeks informed police that Chaney had a motive because he owed the Sweeks \$500 for drugs he had purchased. Mr. Chaney offered nine alibi witnesses but was still found guilty.

At trial, two forensic odontologists, Drs. Jim Hales and Homer Campbell, testified the mark on John Sweek's forearm was a human bitemark that matched Chaney's dentition. Dr. Campbell testified that Chaney made the bitemark to a reasonable degree of dental certainty while Dr. Hales testified that there was a "one to a million" chance

someone other than Mr. Chaney could have left the bitemark. This testimony was compelling to the jury. As one juror stated after the verdict, “Do you want me to tell you what made my decision? [...] The bitemark.” Mr. Chaney unsuccessfully appealed his case and his conviction became final in December of 1989.

In 2015, Mr. Chaney’s lawyers filed a writ of habeas corpus challenging his conviction. On October 12, 2015, after Dr. Jim Hales recanted his testimony and the Dallas County District Attorney’s Office agreed the bitemark evidence was unsupportable, Mr. Chaney was released from prison. Mr. Chaney’s writ is pending with the Texas Court of Criminal Appeals where additional writ grounds are being litigated.

IV. BITE MARK PANEL: PROCESS

The Commission formed a Bite Mark Investigation Panel at the August 14, 2015 quarterly meeting. Since that time the Panel has met three times to conduct its inquiry. Under Dr. Kessler’s leadership, the Bite Mark Panel focused its efforts on collecting and reviewing the existing scientific literature and data underlying bitemark comparison and providing recommendations to the full Commission as a result of the review. Dr. Kessler sought input from the American Board of Forensic Odontology (“ABFO”) and its members, as well as other interested forensic odontologists and criminal justice stakeholders.

The first Panel meeting was held on September 16, 2015, in Dallas, Texas at the Dallas County District Attorney’s Office. The Panel discussed correspondence with the ABFO regarding Dr. Kessler’s request for scientific data along with the other materials that had been submitted prior to meeting. The Panel also heard from Chris Fabricant on behalf of Mr. Chaney. Mr. Fabricant provided a summary of the case facts and key

issues contained in the complaint. Following Mr. Fabricant was Dr. David Senn, DDS, Clinical Assistant Professor at the University of Texas Health Science Center at San Antonio. Dr. Senn gave a summary response to the complaint, provided information and answered questions concerning the ABFO's historical and current initiatives. Dr. Senn expressed his belief that the Chaney complaint contained some "truths, half-truths, and non-truths." Dr. Kessler requested that Dr. Senn delineate each of the categories in a written document. The Panel also discussed the best way to approach case identification and review with input from the ABFO and other stakeholders. In addition to Chris Fabricant and Dr. Senn, the Panel also received public comment from Dr. Roger Metcalf, DDS/JD, Patricia Cummings of the Dallas County Conviction Integrity Unit and Julie Lesser of the Dallas County Public Defender's Office, co-counsel for Mr. Chaney.

The Panel held its next meeting on November 16, 2015 at the Tarrant County District Attorney's Office in Fort Worth, Texas. The Panel sought and received numerous research studies, presentations and related information concerning the state of scientific research and data underlying bitemark comparison. Mr. Chaney, who had his conviction set aside and was released from prison on October 12, 2015, was present at the meeting. The Panel then heard from an impressive list of experts in the field of forensic odontology. To begin, Dr. David Senn presented a PowerPoint (*See Exhibit D*) in which he focused on agreements and disagreements with the original complaint as well as his observations regarding cadaver research conducted by Mr. Peter and Dr. Mary Bush and current research in his program at UTHSC San Antonio. The Panel next welcomed Dr. Frank Wright who gave a presentation on the appropriate use, role and limitations of

bitemark evidence and his perspective on needed research and next steps. (*See*

Exhibit E.)

Drs. Iain Pretty and Adam Freeman also presented their Construct Validity of Bitemark Assessments study using the ABFO Decision Tree that was originally presented at the American Academy of Forensic Sciences (“AAFS”) Annual Scientific Meeting in February 2015. (*See Exhibit B.*) The presentation included lessons learned and the scientific implications of the results. Participants further commented on the various action items from the study including their opinions on the next steps needed in research, scientific reporting and a possible moratorium recommendation. Finally, the Panel heard a presentation from Mr. Peter Bush regarding the current context of research and limitations in bitemark comparison, including numerous clinical studies he conducted at SUNY Buffalo with Dr. Mary Bush and colleagues.

Panel members, staff and stakeholders asked questions of the presenters and engaged in a spirited discussion regarding the implications of the research. Upon conclusion of the presentations, the Panel agreed that due to the volume and breadth of materials, members needed further time to thoroughly review the data before making any recommendations. Forensic odontologists in attendance, specifically Drs. Pretty, Freeman, Wright and Senn discussed a possible follow-up study to the Freeman/Pretty study that could help more clearly identify threshold criteria for determining human bitemarks.

The Panel also discussed the retroactive case identification and review process, including a list of 33 cases developed through stakeholder input and staff research. The Panel discussed obtaining further case information directly from the ABFO Diplomates

along with historical data from the National Museum of Health and Medicine archives. The Panel decided to wait to establish a case review subcommittee until further input was sought from the full Commission.

The Panel held its third meeting on February 11, 2016 in Austin, Texas. The Panel heard from Dr. Senn who gave a brief presentation on the ABFO's progress since the Panel's November 16, 2015 meeting in Fort Worth. Dr. Senn explained the research related to bitemark comparison is slow going but being developed. (*See Exhibit D.*) Dr. Senn also offered the assistance of all nine Texas ABFO-certified members in any multidisciplinary bitemark case review conducted by the Commission.

The Panel next heard from General Counsel Lynn Garcia regarding jurisdictional issues under Texas law and possible recommendations for the full Commission. Garcia summarized the actions taken, presentations given, and research provided to the Panel. The Panel discussed a number of recommendations to be made to the full Commission. Dr. Frank Wright addressed the Panel regarding his longstanding quest for meaningful proficiency testing in the discipline, as well as his agreement regarding the need for foundational research using agreed upon criteria to test proficiency and reliability.

The Panel unanimously voted to make several recommendations to the full Commission, all of which were accepted and are outlined in Section VI below.

V. COMMISSION OBSERVATIONS: INTEGRITY & RELIABILITY

A. Scientific Research

The Commission makes two threshold observations that should be universally accepted among forensic odontologists and stakeholders in the broader criminal justice community. First, there is no scientific basis for stating that a particular patterned injury

can be associated to an individual's dentition. Any testimony describing human dentition as "like a fingerprint" or incorporating similar analogies lacks scientific support. Second, there is no scientific basis for assigning probability or statistical weight to an association, regardless of whether such probability or weight is expressed numerically (*e.g.*, 1 in a million) or using some form of verbal scale (*e.g.*, highly likely/unlikely). Though these types of claims were once thought to be acceptable and have been admitted into evidence in criminal cases in and outside of Texas, it is now clear they have no place in our criminal justice system because they lack any credible supporting data.

After addressing these historical issues, the Commission turned its focus to the remaining questions facing the community. First, can forensic odontologists reliably and accurately identify whether a patterned injury is a human bitemark? Second, if they are able to determine that the patterned injury is a human bitemark, can they reliably and accurately distinguish between patterned injuries made by adults versus those made by children? Third, is there any support for the contention that where the forensic evidence is of high enough quality, a well-trained forensic odontologist can reliably and accurately *exclude an individual* from having been the source of the bitemark?

At the current time, the overwhelming majority of existing research does not support the contention that bitemark comparison can be performed reliably and accurately from examiner to examiner due to the subjective nature of the analysis. While the research is too extensive to repeat in the body of this report (*See Exhibits A-G*), one recent study by Drs. Iain Pretty and Adam Freeman was of tremendous concern to the Commission. (*See Exhibit B.*) Because the Bitemark Panel spent significant time reviewing the study and consulting with its authors and critics, it is summarized here.

The study, entitled *Construct Validity Bitemark Assessments Using the ABFO Bitemark Decision Tree* (“Freeman/Pretty Study”) asked ABFO board-certified Diplomates to review photographs of 100 patterned injuries. The Diplomates were asked to answer the following 3 questions: (1) Was there sufficient evidence to render an opinion on whether injury was a human bitemark? (2) Using the ABFO decision tree as a guide, was the injury a human bitemark? (3) If a human bitemark, did it have distinct, identifiable arches and individual tooth marks?

Thirty-eight ABFO Diplomates completed the whole study and an additional six partially completed the study. The study revealed an enormous spread of decisions among the Diplomates *on the basic question of whether the patterned injury was a human bitemark*. The Diplomates agreed unanimously in only four of the cases. They achieved 90% agreement in eight of the cases.

The inability of ABFO Diplomates to agree on the threshold question of whether a patterned injury constitutes a human bitemark was of great concern to the Commission. Also of significant concern (and discussed extensively at the November 2015 meeting in Fort Worth) is the fact that the Freeman/Pretty Study was not published in a timely manner due to various political and organizational pressures within the ABFO. For many Commissioners who have experience in other areas of forensic science, such a resistance to publish scientific data contradicts the ethical and professional obligations of the profession as a whole, and is especially disconcerting when one considers the life and liberty interests at stake in criminal cases.

B. Lack of Quality Control and Organizational Inflexibility

In addition to the foundational science and research issues described above (as well as in the Exhibits to this report) the Commission noted significant quality control and infrastructure differences between forensic odontology and other patterned and impression disciplines subject to the Commission’s jurisdiction. The following is a non-exhaustive list of those issues:

1. There is no ISO-accrediting body (like ASCLD/LAB or ANAB) that offers an accreditation program in bitemark comparison;
2. The criteria for identification published on the American Board of Forensic Odontology (ABFO) website, including the decision tree, was outdated until recently and included the use of terms like “The Biter” and “The Probable Biter.” Though the terms were recognized as unsupportable, they remained on the website until the 2016 AAFS meeting when the ABFO Diplomates voted to remove the decision tree and replace it with a new one.
3. There is significant disagreement among ABFO members about how to establish criteria for the identification of bitemarks, and how to test that criteria through research studies;
4. There is no system for outside auditing of the analytical criteria as applied in casework;
5. There is no systemic requirement for peer review or technical review;
6. There is no consistency in the way analytical results are reported;
7. There is no meaningful proficiency testing system; and
8. There is no system for identifying or providing notification of non-conformances, or a method for conducting retroactive case reviews when necessary to protect against miscarriages of justice.

While the ABFO is accredited by the Forensic Specialties Accreditation Board (“FSAB”),²² it is a voluntary process; certification bodies are invited to participate in

²² White House Subcommittee on Forensic Science, *Interagency Working Group on Accreditation and Certification, Observations Concerning Certification of Forensic Science Practitioners* at 3 (2013).

FSAB accreditation if they meet basic eligibility requirements.”²³ Programs accredited by FSAB vary greatly in certain key areas, such as: “eligibility, use of proficiency tests, practical exercises, training, continuing education, recertification requirements, etc.”²⁴ There are “vast differences in the certification examination processes and essential elements for forensic science disciplines which leads to fragmentation of the various certification programs accredited by the same entity.”²⁵

FSAB accreditation standards “are not recognized by a third party or accredited under ISO-17011.”²⁶ As the NAS report noted in Recommendation 7, certification should take into account established and recognized standards, such as those published by ISO.²⁷ ISO-17024 (Conformity assessment – General requirements for bodies operating certification of persons) describes the necessary standards for organizations that certify individuals. In recommending that all certification bodies achieve ISO-17024 accreditation within 10 years, the White House Interagency Working Group on Accreditation and Certification asserted that accreditation under ISO-17024, “ensures the validity, reliability, and quality of the certification programs.”²⁸ Given all current information available to the Commission, it is unlikely the ABFO would be able to achieve ISO-17024 accreditation for its certification program anytime in the near future.

VI. RECOMMENDATIONS

The Commission recommends that bitemark comparison not be admitted in criminal cases in Texas unless and until the following are established:

²³ Nat’s Res. Council, Nat’l Acad. of Scis., *Strengthening Forensic Science in the United States: A Path Forward*, (2009) at 209.

²⁴ <http://thefsab.org/accredited.htm>

²⁵ *Id.*

²⁶ White House Subcommittee on Forensic Science at 4.

²⁷ *Id.*

²⁸ Subcommittee on Forensic Science at 4.

1. *Criteria for identifying when a patterned injury constitutes a human bitemark.* This criteria should be expressed clearly and accompanied by empirical testing to demonstrate sufficient inter and intra-examiner reliability and validity when the criteria are applied.
2. *Criteria for identifying when a human bitemark was made by an adult versus a child.* This criteria should be expressed clearly and accompanied by empirical testing to demonstrate sufficient inter and intra-examiner reliability and validity when the criteria are applied.
3. Rigorous and appropriately validated proficiency testing using the above criteria.
4. A collaborative plan for case review including a multidisciplinary team of forensic odontologists and attorneys.

Assuming the first two research areas can be addressed sufficiently, the Commission believes follow-up research should focus on the criteria that form the basis for the “exclude” and “cannot exclude” categories contemplated by new decision trees making their way through the ABFO and the Organization for Scientific Area Committees (“OSAC”) processes. (See **Exhibit J.**) ABFO guidelines should also follow the example of other forensic disciplines by including peer/technical review of cases as well as the development of a model report that provides information to the trier of fact regarding the limitations of the forensic analysis.

The Commission understands these items are already high priorities for the ABFO leadership, and the organization will need to work with other stakeholders (academic institutions, etc.) in implementing the recommendations. To that end, the Commission encourages collaboration and participation between the ABFO, researchers and practitioners.

A. Special Word About Victims of Child Abuse

The Commission understands that victims in bitemark cases are often small children. There is no question that the health and safety of our most vulnerable

population must be protected. For this reason, the Commission reiterates that its recommendations do not apply to civil cases involving Child Protective Services, but are limited to those cases in which an individual is accused of a crime and faces the loss of liberty if convicted. The Commission's recommendations for foundational research are focused on what it understands to be the most important issues in child abuse cases. If subsequent published data supports the ability of forensic odontologists to identify human bitemarks reliably and accurately based on defined criteria and to distinguish between the bitemarks of adults and children reliably and accurately, the Commission will revise its recommendations to reflect these developments.

During one of the Bitemark Panel meetings, Commissioners were told that recommending a moratorium on bitemark comparison would "hurt children." The Commission disagrees. First, if anyone should take responsibility for the current state of bitemark comparison, it is the very organization of practitioners that, due to its glacial pace, reticence to publish critical data, and willingness to allow overstatements of science to go unchecked for decades, is facing a barrage of well-founded criticism. As many Texas prosecutors have indicated, no conviction for child abuse or other violent crime should rest solely on bitemark comparison evidence. While the Commission understands and appreciates the important and helpful role forensic science plays in providing justice to victims, we must be vigilant to ensure the science used in criminal cases stands on a solid foundation of research and data, both for the benefit of victims and the accused.

VII. DEVELOPMENTS SINCE FEBRUARY 12, 2016 MEETING

The ABFO held its annual meeting at the AAFS meeting in Las Vegas the week of February 22, 2016. During that meeting, Dr. Adam Freeman was elected President of

the organization, and he released a letter to the stakeholder community describing organizational progress shortly after the meeting. (See **Exhibit H.**) Some non-exhaustive highlights of developments since the Commission’s last meeting are:

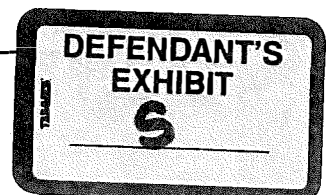
1. The old decision tree including the terms “Biter” and “Probably Biter” has been removed from the ABFO website and guidelines. New guidelines were adopted which do not permit for biter identity, and additional guideline revisions are in progress.
2. A research team including Drs. Pretty, Freeman, Wright and Wood has begun working on the Commission’s first recommendation regarding foundational research set forth above. An update on that research is expected within six months.
3. Significant efforts are underway to improve the ABFO proficiency testing and should be adopted in February 2017.
4. An ABFO subcommittee has been established to assist with case reviews to guard against miscarriages of justice. Individual odontologists in and outside of Texas have expressed willingness to assist with these cases.
5. The Bitemark Committee has been charged with the task of developing a mandatory blinded second opinion methodology.
6. The ABFO has implemented a bylaws change to allow for changes of standards and guidelines as new information becomes available, and not only at the organization’s annual meeting. Dr. Freeman has publicly expressed his commitment to making the ABFO a more nimble and responsive organization. (See **Exhibit H.**)

The Commission looks forward to working with the ABFO, the Complainant and other interested stakeholders regarding these and other developments in the weeks and months ahead. This report may be updated to reflect the results of additional research and/or case reviews. Any questions regarding the contents of this report may be directed to the Commission’s General Counsel, Lynn Garcia at lynn.garcia@fsc.texas.gov.

American Board of Forensic Odontology

Diplomates Reference Manual

March 2016 Edition



Terms Indicating Degree of Confidence That an Injury is a Human Bitemark:

- A. **Human Bitemark** – human teeth created the pattern.
 - *Criteria:* the pattern demonstrates class and/or individual characteristics of human teeth.
- B. **Not a Human Bitemark** – human teeth did not create the pattern.
 - *Criteria:* the pattern does not demonstrate class and/or individual characteristics of human teeth.
- C. **Inconclusive** – there is insufficient information to reach an opinion whether or not the pattern is a bitemark.
 - *Criteria:* class and/or individual characteristics of human teeth are missing, incomplete, distorted, or otherwise insufficient in the pattern.

Terms Used to Relate a Questioned Dentition to a Bitemark:

A. Excluded as Having Made the Bitemark

- *Criteria:* the bitemark demonstrates class and/or individual characteristics that could not have been created by the dentition in question.

B. Not Excluded as Having Made the Bitemark

- *Criteria:* the bitemark demonstrates class and/or individual characteristics that could have been created by the dentition in question.

C. Inconclusive

- *Criteria:* although the analyst has concluded the pattern is a human bitemark, there is missing, incomplete, or otherwise insufficient information to form an opinion whether or not the dentition in question caused the bitemark.

ABFO Bitemark Case Review Guideline

A case review should be performed by a second ABFO Diplomate. The reviewer will not be required to provide a second opinion (but may do so if he/she wishes), but will provide an administrative review of the analysis that was done. This review should determine if the analysis and report adhered to the standards, guidelines, methodology and terminology of bitemark investigation as the required by these standards and guidelines.

**IN THE COURT OF COMMON PLEAS
TRUMBALL COUNTY, OHIO**

----- x
THE STATE OF OHIO, :
 :
 Plaintiff, :
 :
 v. : Case No.: 85-CR-317
 :
 DANNY LEE HILL, :
 :
 Defendant. :
----- x

AFFIDAVIT OF FRANKLIN D. WRIGHT, D.M.D.

I, Dr. Franklin D. Wright, hereby declare as follows:

BACKGROUND

1. I am a board-certified practicing forensic dentist with nearly three decades of experience as the forensic dental consultant to the Hamilton County, Ohio, Coroner's Office. I have presented lectures and workshops in forensic odontology throughout the United States, Europe, Central America, and South America, including to the President of the United States National Science and Technology Council, Committee on Science, Subcommittee on Forensic Science.
2. I am a past president of the American Board of Forensic Odontology ("ABFO"), and currently chair of the ABFO Bitemark Proficiency Examination Development Committee.
3. I have reviewed, investigated, and consulted on hundreds of bite-mark cases.

4. I have been retained by the State of Ohio on numerous occasions to analyze bitemarks in criminal investigations and trials. I have also testified on behalf of the State of Ohio in criminal trials, including homicides.

5. A detailed curriculum vitae is attached as Exhibit A to this Affidavit.

6. On January 26, 2014, Counsel for Danny Lee Hill requested that I review certain case files and evidence relating to the prosecution of Mr. Hill for the murder of Raymond Fife. I understand that Mr. Hill was tried and convicted in the Trumbull County Court of Common Pleas in January 1986. At that trial, the court heard testimony relating to alleged bitemark evidence from two forensic dentists: Dr. Curtis Mertz and Dr. Lowell Levine. Such evidence is directly in my field of expertise.

7. After my review of the materials provided to me, I authored a letter to Mr. Hill's counsel, dated March 30, 2014, in which I reported my findings. This Affidavit confirms and supplements my findings as set forth in that letter, which is incorporated by reference and a copy of which is attached as Exhibit B to this Affidavit.

MATERIALS CONSIDERED

8. In reaching my opinions and as part of preparing this Affidavit, I have reviewed the following materials: Report of Dr. Curtis Mertz Report, Report of Dr. Lowell Levine, Trial Testimony of Dr. Mertz, Trial Testimony of Dr. Levine, and twenty-two black-and-white images that were photographs of the victim in the case of *State v. Danny Lee Hill*. I have been informed these were admitted as evidence during the trial of Danny Lee Hill.

9. In addition, I have relied on the experience and training acquired over my nearly three-decade career as a forensic dentist and consultant.

10. Finally, I have considered conversations that I had with Dr. Curtis Mertz, who is now deceased.

OPINION

11. It is my opinion, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim, Raymond Fife, is not a human bitemark.

12. Using the ABFO Bitemark Decision Tree first adopted by the ABFO in February 2013, when a patterned injury is defined by the ABFO Bitemark Terminology Guidelines as not representing a human bitemark, then analysis and comparison to any suspected biter is not sanctioned under any circumstances, and as a rule cannot be performed to a reasonable degree of medical/dental certainty.

13. Even if the patterned injury on the victim was a human bitemark, which it is not, its location on the penis of the victim makes the scientifically supportable identification of a particular biter impossible.

14. It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that patterned injury on Raymond Fife's penis was created by a human teeth.

15. It is not possible to determine from the evidence reviewed by Drs. Mertz and Levine that the patterned injury on Raymond Fife's penis was created by Danny Lee Hill to the exclusion of millions of other individuals in the open universe of possible biters.

THE TESTIMONY AND OPINION OF DR. CURTIS MERTZ

16. Dr. Mertz erred when he conclusively identified Mr. Hill as the source of the patterned injury on the victim.

17. In my opinion, applying the current guidelines and standards of the ABFO, there is no scientific support for the conclusion that Mr. Hill left any portion of the patterned injury on the victim.

18. Furthermore, it is my opinion that the location of the patterned injury in this case renders it impossible to make any positive association between a suspected biter and the patterned injury in question. Dr. Mertz's assertion that Mr. Hill caused the injury on the victim's penis required him to speculate that the victim's penis was erect when the bite occurred, that this erect penis would have been one and a third the size of a flaccid penis, and that therefore the dimensions of the bite-mark that were actually measured were approximately a third smaller than the dentition of the alleged biter. This speculation is nothing but a blind guess. Such blind guessing is not a reasonable or reliable scientific methodology, nor is it permitted under the ABFO Guidelines (or the ABFO-recommended "Decision Tree" based on those Guidelines). In my opinion, the extrapolations that Dr. Mertz made from his actual measurements (based on his speculation regarding the presence of erection and erect versus flaccid penis circumference) are not scientifically supportable, and suggest that, rather than objective, expert opinion, Dr. Mertz's testimony suffered from predictive outcome bias and confirmation bias.

19. This bias is evidenced by the fact that Dr. Mertz chose to address only those aspects of the patterned injury that he felt that he could link to Mr. Hill's dentition, ignoring other aspects of the patterned injury that he could not link to Mr. Hill.

DR. MERTZ'S POST-TRIAL STATEMENTS

20. Dr. Mertz passed away in 2005. He was my mentor, as well as a respected teacher and scholar in the forensic odontology community. However, Dr. Mertz confided in me

that he regretted the testimony that he gave in this case, and that he did not believe that it was scientifically supportable.

21. These statements, or statements like them, were made to me by Dr. Mertz on two occasions. I discussed this case with Dr. Mertz at the time that I was preparing to take my ABFO certification examination in 1988 and then again in the 1990s. During both conversations, Dr. Mertz and I discussed the testimony that he gave in Mr. Hill's case.

22. On both occasions, in 1988 and again in the 1990s, Dr. Mertz confided to me that he no longer believed, to a reasonable degree of medical/dental certainty, that the patterned injury on the victim in this case was a human bite mark. He also stated, on both occasions, that he no longer believed, to a reasonable degree of medical/dental certainty, that Mr. Hill's dentition was the source of that injury. Dr. Mertz clarified that if he had the opportunity to give further testimony in proceedings involving Mr. Hill, he would not have given the same opinion and testimony that the Court admitted as evidence.

THE TESTIMONY AND OPINION OF DR. LOWELL LEVINE


23. Dr. Lowell Levine erred when he opined that the injury on the victim represents a human bite mark.

24. Dr. Levine further erred when he stated (i) that either Mr. Hill, or his co-defendant, Tim Combs, could have been the biter, and (ii) that it is likely that one portion of the patterned injury was caused by Mr. Hill.

25. In my opinion, the only reasonable and reliable scientific conclusion that could be asserted given Dr. Levine's recorded observations about the patterned injury was either (i) that the patterned injury lacked specificity, and thus could not supply a basis for identifying either

Mr. Hill or Mr. Combs (or anyone else) as the biter, or (ii) that Mr. Hill's and Mr. Comb's dentitions were similar enough that a bitemark left by either of them would leave a pattern indiscernible from a bitemark pattern left by the other.

I declare under penalty of perjury that the foregoing is true and correct.



Franklin D. Wright, D.M.D.
Executed this 22 day of September, 2014.

Subscribed and sworn to me by the person known to me as Franklin D. Wright, D.M.D., this 22 day of September, 2014.

Notary Public: Melanie A. Sauter

My commission number: 3/3/2018
My commission expires: 3/3/2018



MELANIE A. SAUTER
Notary Public, State of Ohio
My Commission Expires
March 3, 2018

Odontology Report

In the matter of Danny Hill v. Betty Mitchell, Warden

Report consists of 7 Pages, 2 Figures, 0 Appendices and 0 Attachments

My name is Iain Alastair PRETTY and I am a qualified dental surgeon. I obtained my dental qualification, BDS(Hons), in 1998 from the University of Newcastle upon Tyne. I have obtained a further qualification in forensic dentistry, MSc, from the University of British Columbia, Vancouver, BC, Canada, a doctoral degree (PhD) from the University of Liverpool and a Masters of Public Health (MPH) from the University of Manchester. I am a member of the American Society of Forensic Odontology, a fellow of the American Academy of Forensic Sciences, a fellow of the Forensic Science Society, a member of the British Association of Forensic Odontology and the British Academy of Forensic Science. I am a Fellow of the Royal College of Surgeons of Edinburgh. I have published numerous articles and several book chapters on various aspects of forensic dentistry, in particular bitemark injuries and their analysis. A copy of my curriculum vitae has been previously provided.

I have been instructed by attorneys representing Mr. Danny Hill. In particular, I have been asked to examine a number of photographs documenting injuries to a child (Raymond Fife) - and to consider:

- a) Is the injury to Raymond's penis consistent with a bitemark?
- b) If so, are there sufficient details to enable a comparison with a suspect's dentition
- c) The reports of Drs Mertz and Levine.

1. MATERIALS SUPPLIED

1.1 I have been supplied with the following materials:



- a) Reports of Drs Mertz (November 4, 1985) and Levine (November 19, 1985)
- b) Collection of black and white photographs (9)
- c) Autopsy report of Dr Adelman (23rd October 1985)
- d) Trial testimony
- e) Defendant's dental records

2. INJURIES

2.1 When considering whether or not an injury is a bitemark there are a number of possible conclusion levels that can be drawn. These conclusion levels are those of the American Board of Forensic Odontology and have been recently adopted by the British Association of Forensic Odontology:

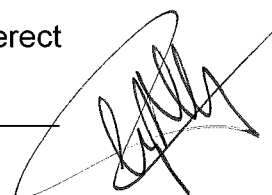
- Insufficient evidence
- Not a human bitemark
- Suggestive of a human bitemark
- A human bitemark

2.2 Bitemarks typically present as two semi-circular injuries that are separated at their open ends, and there may be an area of unaffected tissue in the centre. Bitemarks can present with a range of differing severities but a common feature is that focal points of bruising or laceration can be seen that relate to the class characteristics of teeth. Bitemarks vary in size but fall within an accepted range.

2.4 In preparing this report I have relied upon the photographs supplied to me in order to render my opinion.

3. SUSPECTED BITEMARK INJURY TO RAYMOND FIFE

3.1 I have studied the photographs supplied to me carefully. There is a single anatomical location that is of interest – the glans of the penis. Injuries to the penis are difficult to assess. The tissue is highly distortable and it is, of course, impossible to assess if the penis was flaccid, erect or semi-erect



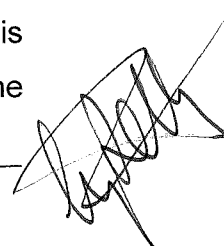
during the infliction of the injury. The surface is curved, soft and the risk of postural distortion high. Indeed, looking at the photographs supplied the positioning of the metal scale and the holding of the penis by forceps demonstrates this. The injury in question is shown in Figures 1 and 2 attached to this report.

3.2 The injury appears to consist of a number of roughly circular injuries that may be lacerations. As I am basing my assessment purely from photographs (which is not unusual) I cannot be sure of the exact nature of the marks. I am not helped by the reports of either Levine or Mertz who do not describe the injuries in any detail other than stating that the injuries represent a bitemark. There are no measurements, descriptors or locators present in their written reports. One would normally expect a bitemark to be described in detail, with salient features supporting the conclusion that the injury was caused by human teeth.

3.3 Each of the individual circular injuries ranges from approximately 2 through 4mm. The appearance of these injuries is inconsistent with the appearance of human incisor teeth – but demonstrate *some* of the class characteristics of canine teeth. However, the arrangement, spacing, and overall morphological appearance of these marks is inconsistent with the normal arrangement of a dental arch.

3.4 The forensic significance of the injury is *extremely low*. This is largely due to the anatomical location, which, for reasons described in 3.1 is difficult to assess. It is impossible to identify a dental midline, maxillary or mandibular arches, or class characteristics of incisor teeth. It is my opinion that the identification of these gross characteristics are essential before the identification of a bitemark can be made.

3.5 The absence of these features, and the presence of the injury on a highly distortable anatomical location, mean that a conclusion of a definite human bitemark cannot be reached. Indeed it is my opinion that there is simply insufficient evidence presented to reach any conclusion regarding the



likely the nature of these wounds. I understand that the body was discovered with the genitals exposed – raising the suspicion that the injuries may be related to animal predation in the peri-mortem period.

3.6 It is therefore my conclusion that there is insufficient evidence to reach a conclusion at any level of certainty regarding the causation of the small, circular wounds to the glans penis of Raymond Fife. Given this conclusion, any further analysis of the injury is inappropriate. Even if the evidence had supported a conclusion of “suggestive of a bite mark” (which it does not) further analysis, according the ABFO decision model, would still be considered inappropriate.

4. LEVINE

4.1 Levine provides a one-page report in the form of a letter with three bullet points. I am not aware if a more comprehensive report was generated – with details of measurements undertaken, reasons for conclusions or the scientific processes underpinning those conclusions. Levine simply states that human teeth caused the patterned injury, that he cannot be sure if one or both defendants caused the injury but that he feels it is “likely” that “Hall” *sic* caused one portion of it. There is no information to support which element. There is no level of certainty provided to indicate what “likely” means – for example if it is at the level of medical certainty or below.

4.2 In his Court testimony, at 1143 – 4 he accepts that the condition of the penis is unknown in such cases and “could either be flaccid or erect...you really don’t know..” Nothing else is provided in his testimony that enables us to understand how he reached his conclusion that this collection of injuries was a bite mark, nor was he asked in detail to support this conclusion. The majority of the testimony concerns his linkage of suspects to the alleged bite. Cross-examination is limited and is largely based on trying to get Levine to provide a level of certainty for his “Likely” conclusion. He concedes that the injury could have been produced by several bites and possibly from both defendants. This goes to support the lack of forensic significance of the



injury.

5. MERTZ

5.1 Mertz's report is again a single page of conclusions, although there are two pages of notes that accompany it. Again, these are focussed mainly on the comparative analysis and offer us no further insight into the reasons why the odontologist reached his conclusion that this collection of injuries should be considered a bitemark.

5.2 Testimony again is unhelpful and concentrates largely on the comparison of the injury to the dentition of the two suspects, without any real assessment of why Mertz felt that the injury was a bitemark. Mertz states that the measurements he took were inconsistent between the dentition of Hill and the injuries on the penis, to a "consistent" one-third. He states that, had the penis been erect during the time of biting, this would account for this difference. This is clearly unscientific, unsubstantiated and speculative.

5.3 In cross examination, we find that the injuries are described as "areas of ecchymosis" (970-10) rather than "indentations". The remainder of the testimony is a tortuous examination of the erect vs. flaccid argument in relation to the measurements of teeth and features such as diastemas.

6. CONCLUSIONS

6.1 Returning to my original instructions I can conclude that:

6.2 There is insufficient evidence within the photographs supplied to me to reach a conclusion regarding the causation of this injury.

6.3 It is impossible to identify crucial elements of a bitemark injury including the midline, the maxillary or mandibular teeth, or class characteristics of human incisors.



6.4 Current bitemark standards would indicate that no further analysis of the injuries would take place.

6.5 The reports of Levine and Mertz offer little in the way of scientific justification for their conclusions that the injuries are caused by human teeth.

6.6 It is my conclusion that this injury should not have been considered a bitemark and should not have been compared to the dentitions of the suspects.

6.7 The opinions rendered by Drs Levine and Mertz in this case are not based on scientific principles or processes – each odontologist agrees that bitemarks on the penis are difficult to assess and subject to distortion. These facts alone should suggest a cautious approach. Mertz utilised unrelated and spurious data to account for inconsistencies in his measurements compared to his favoured biter. I would hope that in a contemporary Court such evidence would not be allowed.

7. CONFLICTS OF INTEREST

7.1 I confirm that I have no conflict of interest of any kind in this case.

7.2 I will advise the party by whom I am instructed if, between the date of this report and the final hearing, there is any change in circumstances which affects my position in relation to conflicts of interest.

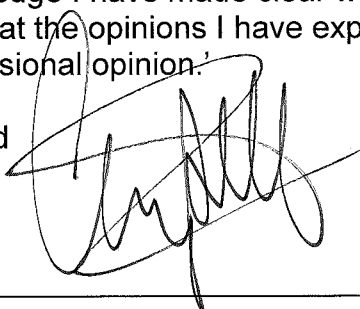
Overriding duty to the Court

'I understand my duty to the Court and I have complied with that duty.'

Statement of truth

'I confirm that insofar as the facts stated in my report are within my own knowledge I have made clear which they are and I believe them to be true, and that the opinions I have expressed represent my true and complete professional opinion.'

Signed



Date 29th September 2014

FIGURE 1 Injury to penis of Raymond Fife – view 1.

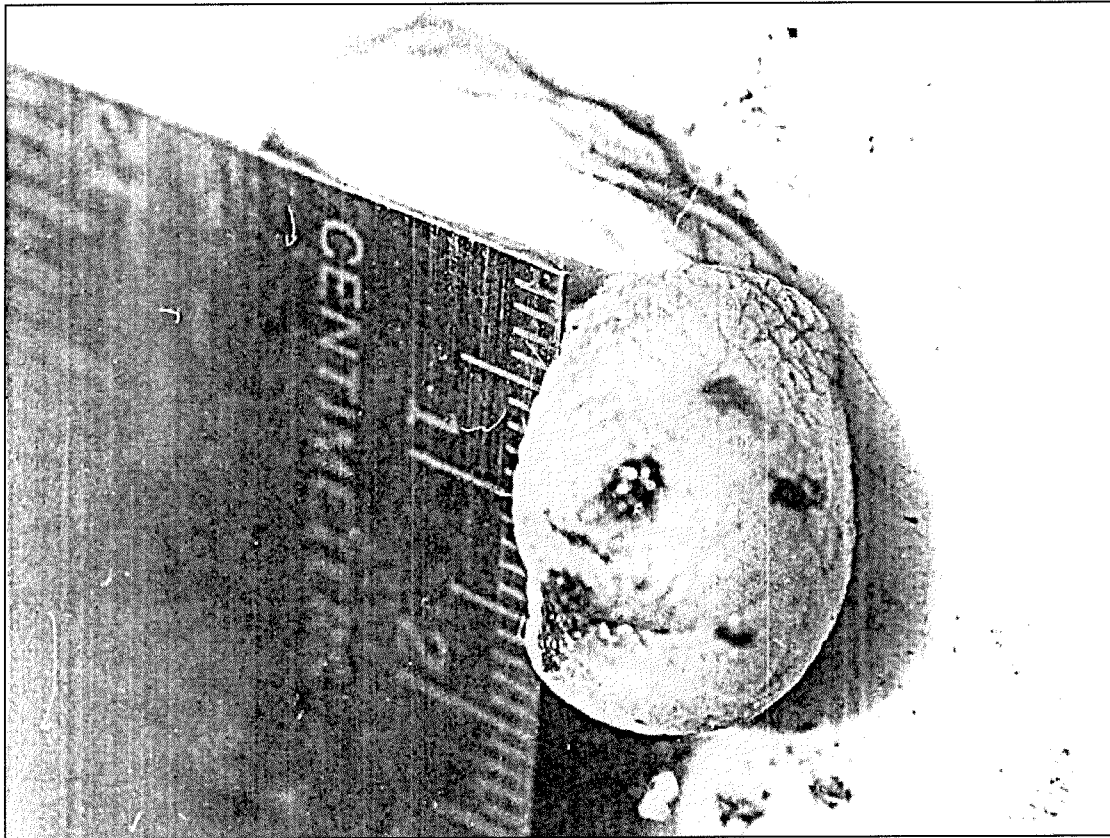


FIGURE 2 Injury to penis of Raymond Fife – view 2.





Forensic Curriculum Vitae

Dr. Iain A Pretty

BDS(Hons), MSc, MPH, MFSSoc, PhD, MFDS RCS(Ed)

DR. IAIN A PRETTY

Personal Details

Name	Iain Alastair Pretty
Date of Birth	30 th December 1974
Nationality	British

Education

1998	Bachelor of Dental Surgery, (BDS) with Honours Faculty of Medicine, Sub-Faculty of Dentistry University of Newcastle upon Tyne Merit awarded in Restorative Dentistry Merit awarded in Child Dental Health
2000	Master of Science, Dental (MSc) Faculty of Dentistry University of British Columbia, Vancouver, Canada
2003	PhD Faculty of Medicine, Department of Clinical Dental Sciences University of Liverpool, Liverpool, England
2004	MFDS Royal College of Surgeons of England

Professional Credentials

1998 - Present	Licensed dental practitioner in Great Britain General Dental Council Registration number: - 74417
2004 - Present	Member of the Royal College of Surgeons of Edinburgh

Professional Associations

1996 - Present	British Dental Association
1997 - Present	Forensic Science Society of Great Britain
1997 - Present	American Society of Forensic Odontology
2000 - Present	International Association for Dental Research, (British Division)
2000 - Present	British Association of Forensic Odontology
2000 - Present	British Academy of Forensic Sciences
2000 - Present	American Academy of Forensic Sciences (Member)
2001 - Present	European Organisation for Caries Research

Honours & Awards

1998	Award for Excellence in Health Care University of British Columbia
1998	Dental Protection & Deans' Prize University of Newcastle Upon Tyne
1998	John Hopkins' Prize University of Newcastle Upon Tyne
1999	George S. Beagrie Scholarship University of British Columbia
1999	Part Time Faculty Teaching Award – Clinical Instructor University of British Columbia
1999	University Graduate Fellowship (Full) University of British Columbia
1999	Forensic Scholarship for Research Forensic Science Society, UK
2000	Full Studentship University of Liverpool
2001	Travel award British Society of Dental Research

Court Appearances

Recognised as an expert and provided testimony in Crown, Magistrate and Coroner's Courts throughout the UK. Extensive experience in child care proceedings.

Teaching Experience & Professional Presentations

1998 - 2000	Graduate teaching assistant, undergraduate medical and dental students University of British Columbia, Vancouver, B.C., Canada
1998 - 2000	Clinical supervision (Conservation, Periodontics, Oral Surgery) University of British Columbia, Vancouver, B.C., Canada
1998 - 2000	Didactic teaching and invited lecturer Simon Fraser University, Vancouver, B.C., Canada Kwantlen University College, Vancouver, B.C., Canada
2000 - Present	Invited Speaker, Police National Training Centre, Fire Investigators Course National Fire College, Moreton-in-Marsh, Oxford
2000 - Present	Invited Speaker, Police National Training Centre, Scene of Crime Officers Course NTC, Co. Durham
2000 - Present	Invited Speaker, Undergraduate Forensic Science Course John Moores University, Liverpool, England

Nov 2000	Research Seminar, "QLF – A New Light in Dentistry" The University of Liverpool - Dental School
Nov 2000	Presentation, "Effect of Ambient Light on QLF Analyses" Light in Dentistry – University of Gronigen
July 2000	Lecture, Forensic dentistry in the investigation of murder and rape Forensic Science Society, Summer Meeting, York
March 2001	Research Seminar, "Research Focus in Forensic Dentistry" The University of Liverpool - Dental School
August 2001	Lecturer, "The use of light in diagnostic dentistry" The University of British Columbia, Vancouver, Canada
November 2001	Presentation, "Molecular Biology and Forensic Odontology" Annual Meeting of the Liverpool Medical Inst.
2001 – Present	Invited Speaker, "Topics in Forensic Science" The University of Huddersfield
February 2002	Invited Speaker, "A new diagnostic tool in dentistry – QLF" The University of Newcastle Upon Tyne
April 2002	Invited Speaker, "Developments in forensic dentistry" North West Odontological Society

Service

June - August 1998	Clinical assistant in general dental practice, Jarrow, Tyneside
March 2000- Present	Forensic dentist serving North West Region
March 2000 - Present	Clinical assistant in general dental practice, Northwich, Cheshire
September 2002- Present	Senior Lecturer, The University of Manchester

Publications

Pretty IA, Sweet D. "Teeth in the determination of human identity"; British Dental Journal, 2001; 190(7): 359-66

Sweet D, Pretty IA. "Teeth as weapons of violence – identification of bitemark perpetrators"; British Dental Journal, 2001; 190(8): 415-8

Pretty IA, Sweet D. "Adherence of forensic odontologists to the ABFO guidelines on evidence collection from suspects"; Journal of Forensic Sciences, 2001; 46(5): 1152-58

Pretty IA, Sweet D. "Digital bitemark overlays – An analysis of effectiveness"; Journal of Forensic Sciences, 2001; 46(6): 1385-1390

Pretty IA, Turnbull MD. "Lack of uniqueness between two bitemark suspects"; Journal of Forensic Sciences, 2001; 46(6): 1487-1491

Pretty IA, Higham SM, Edgar WM. "The use of QLF to monitor tooth whitening in a product testing model"; British Dental Journal, 2001; 191(10): 566-69

Arheart KL, Pretty IA. "Analysis of the results from the fourth ABFO Bitemark Workshop"; Forensic Science International, 2001; 124(2-3): 104-11

Webb DA, Sweet D, Hinman D, Pretty IA. "Forensic implications of biting behaviour: A conceptually underdeveloped area of investigation"; Journal of Forensic Sciences, 2002; 47(1): 103-6

Pretty IA, Webb DA, Sweet D. "Dental participants in mass disasters – A retrospective study with future implications"; Journal of Forensic Sciences, 2002; 47(1): 117-120

Pretty IA, Higham SM, Edgar WM. "The effect of ambient light on QLF analysis"; Journal of Oral Rehabilitation, 2002; 29(4), 369-373

Webb DA, Sweet D, Pretty IA. "The emotional and psychological impact of mass casualty incidents on forensic odontologists"; Journal of Forensic Sciences; 2002;47(3); 539-41

Gaytmenn R, Hildebrand DP, Sweet D, Pretty IA. "Determination of the sensitivity and specificity of sibship calculations using AmpF/STR Profiler"; International Journal of Legal Medicine, 2002; 116(3): 161-4

Pretty IA, Smith PW, Edgar WM, Higham SM. "The use of Quantitative Light-induced fluorescence (QLF) to identify composite restorations in forensic examinations". Journal of Forensic Sciences, 2002; 47(4): 831-6

Pretty IA, Edgar WM, Higham SM. "Quantitative light-induced fluorescence to detect early caries in primary teeth". International Journal of Paediatric Dentistry, 2002; 12(3): 158-167

Pretty IA., Hall RC. "Forensic Importance of Human Bitemarks". Hospital Medicine, 2002; 63(8): 476-82

Pretty IA, Higham SM, Edgar WM. "The Intra and Inter examiner reliability of QLF analyses"; British Dental Journal, 2002; 193(2): 105-9

Pretty IA, Addy LD. "Dental postmortem profiles – Additional findings of interest to investigators" Science and Justice; 2002; 42(2): 65-74

Pretty IA, Edgar WM, Higham SM. "A study to assess the effects of a new detergent free, olive oil formulation dentifrice *in vitro* and *in vivo*."; Journal of Dentistry, 2003; 31(5):327-332

Pretty IA, Edgar WM, Higham SM. "The erosive potential of commercially available mouthrinses as measured by QLF". Journal of Dentistry, 2003; 31(5):313-319

Pretty IA, Pender N, Edgar WM, Higham SM. "The in-vitro detection of early enamel de- and re-mineralisation adjacent to bonded orthodontic cleats using QLF." European Journal of Orthodontics, 2003; 25(3):217-223

Pretty IA, Smith PW, Edgar WM, Higham SM. "Detection of *in vitro* demineralisation adjacent to restorations using QLF", Dental Materials, 2003; 19(5):368-74

Pretty IA "A Web based survey of odontologist's opinions concerning bitemark analyses"; Journal of Forensic Sciences, 2003; 48(5):1117-20

Pretty IA, Pretty RJ, Rothwell BR, Sweet D. "The Reliability of "digital" radiographic dental identifications. A web based study" Journal of Forensic Sciences, 2003; 48(6):1325-30.

Pretty IA. "The use of dental ageing techniques in forensic odontological practice. A review of five Coroner's Cases." Journal of Forensic Sciences, 2003; 48(5):1127-32

Pretty IA, Ingram G, Edgar WM, Higham SM. "The use of fluorescein enhanced QLF to monitor de- and re-mineralisation of *in vitro* root caries", Journal of Oral Rehabilitation, 2003; 30(12):1151-56

Pretty IA, Edgar WM, Higham SM. "Validation of QLF to detect enamel erosion"; Archives of Oral Biology, 2004; 49(4):285-294

Pretty IA, Edgar WM, Higham SM. "The affect of dehydration on QLF analysis of early enamel demineralisation", Journal of Oral Rehabilitation, 2004; 31(2):179-184

Pretty IA, Edgar WM, Higham SM. "A study to assess the efficacy of a new detergent free, whitening dentifrice *in vivo* using QLF planimetric analysis." British Dental Journal; 2004 Nov; 197(9):561-566

Pretty IA, Hall RC. "Self-extraction of teeth under the influence of Gamma Hydroxybutyric Acid." Journal of Forensic Science; 2004;49(5):1069-72

Pretty IA, Maupome G. "The use of specificity, sensitivity, and predictive values in diagnostic/management procedures – Part 1 of 6". Journal of the Canadian Dental Association; 2004 Apr;70(4):251-255

Pretty IA, Maupome G. "The use of receiver operator characteristics in assessing diagnostic accuracy – Part 2 of 6". Journal of the Canadian Dental Association; 2004 May;70(5):313-316

Pretty IA, Maupome G. "The effectiveness of radiographic diagnostic/management procedures in dental practice – Part 3 of 6". Journal of the Canadian Dental Association; 2004 Jun;70(6):388-394

Pretty IA, Maupome G. "The effectiveness of non-radiographic diagnostic/management procedures in dental practice – Part 4 of 6". Journal of the Canadian Dental Association, 2004;70(7):470-4

Pretty IA, Maupome G. "Newer detection methods in caries detection and diagnosis – Part 5 of 6". Journal of the Canadian Dental Association, 2004;70(8):540

Pretty IA, Maupome G. "New developments in non-caries diagnosis – Part 6 of 6". Journal of the Canadian Dental Association, 2004;70(9):621-6

Pretty IA, Edgar WM, Smith PW, Higham SM. "Quantification of plaque in the research environment"; Journal of Dentistry; 2005;33(3):193-207

Higham SM, Pretty IA, Edgar WM, Smith PW. "The use of in situ models and QLF for the study of coronal caries"; Journal of Dentistry; 2005;33(3):235-241

Pretty IA, Edgar WM, Higham SM. "The effect of bleaching on enamel susceptibility to acid erosion and demineralisation" British Dental Journal: 2005;198: 285-290

McNamee A, Sweet D, Pretty IA. "Effectiveness of two methods of bitemark overlay production". Journal of Forensic Sciences, 2005; 50(2):400-405

Romane D, Bendika Z, Senekola E, Davies RM, Ellwood RP, Pretty IA. "The effect of video repositioning on the reliability of in vivo induced fluorescence imaging". Caries Research, 2005; 39(5):397-402

Pretty IA, Hildebrand DP. "The forensic and investigative significance of paternity testing with absent maternal sample" American Journal of Forensic Medicine and Pathology, 2005; 26(4):340-342

Ellwood RP, P Ellwood, RM Davies, IA Pretty. "The effect of illumination level and focal distance on in vitro light induced fluorescence imaging". *Caries Research*, 2006; 40(1):73-6

Pretty IA. "Contemporary forensic odontological practice. Part 1: Human Identification". *Minerva Medicolegale*; 2005; 125(2): 45-60

Pretty IA. "Contemporary forensic odontological practice. Part 2: Bite injuries". *Minerva Medicolegale*; 2005; 125(3):139-152

Ellwood RP, P Ellwood, RM Davies, IA Pretty. "The effect of illumination level and focal distance on in vitro light induced fluorescence imaging". *Caries Research*, 2006; 40(1):73-6

Coulthwaite L, Pretty IA, Smith PW, Higham SM, Verran J. The Microbiological Origin of Fluorescence Observed in Plaque on Dentures during QLF Analysis. *Caries Research*. 2006;40(2):112-6

Pretty IA, Taverner J, Browne D, Brett D, Ellwood RP. "A novel method of quantifying dental fluorosis using fluorescence imaging". *Caries Research* 2006;40(5):426-34

de Silva MF, Davies RM, Pretty IA. "Effect of whitening gels on the surface roughness of restorative materials in situ". *Dental Materials*, 2006; 22(10):919-924

Pretty IA. "The barriers to achieving an evidence base for bitemark analysis". *Forensic Science International*, 2006; 15(159):Suppl:110-20

Pretty IA, Sweet D. "The judicial view of bitemarks within the United States criminal justice system". *Journal of Forensic Odontostomatology*; June 2006; 24:1-11

Pretty IA, Brunton PA, Aminian A, Davies RM, Ellwood RP. "Bleaching in dental practice. 1 of 3. In office and supervised bleaching regimes". *Dental Update*, 2006; 33(5):288-304

Pretty IA, Brunton PA, Aminian A. "Bleaching in dental practice. 2 of 3. OTC Bleaching systems and their research support". *Dental Update*; 2006; 33(6):357-8, 360-2

Pretty IA, Brunton PA, Aminian A, Davies RM, Ellwood RP. "Bleaching in dental practice. 3 of 3. Evidence base for vital tooth bleaching and legal review". *Dental Update*, 2006; 33(7):422-432

Pretty IA, Ellwood RP. "Comparison of paired visual assessment and software analyses of changes in caries status over 6 months from fluorescence images". *Caries Research*, 2007; 41(2):115-120

Richmond R., Pretty IA. "Contemporary methods of labelling dental prostheses – a review of the literature." *Journal of Forensic Sciences*, 2006; 51(5):1120-1126

Pretty IA. "Caries diagnostics – Novel detection methods". *Journal of Dentistry*, 2006; 34(10):727-39

Lou W, Westland S, Brunton P, Ellwood RP, Pretty IA, Mohan N. "Comparison of the ability of different colour indices to assess changes in tooth whiteness". *Journal of Dentistry*, 2007; 35(2):109-16

Richmond R., Pretty IA. "Antemortem records of forensic significance among edentulous individuals." *Journal of Forensic Sciences*, 2007; 52(2): 423-427.

Yin W, Feng Y, Hu D, Ellwood RP, Pretty IA. "Reliability of the analysis of fluorescent images. An assessment of lesions adjacent to gingival tissues." *Caries Research*, 2007; 41(3):186-9

Pretty IA. "Development and validation of a human bitemark severity and significance scale" *Journal of Forensic Sciences*, 2007; 52(3):687-91

Feng Y, Yin W, Hu D, Zhang YP, Ellwood RP, Pretty IA, Yin W. "Assessment of auto-fluorescence to detect the remineralisation capabilities of NaF, MFP and non-F- containing dentifrices: a single blind cluster randomised trial". *Caries Research*, 2007; 41(5) 358-364

- Pretty IA. "Forensic Dentistry Part 1: Human Identification" Dental Update, 2007; 34(10):621-635
- Pretty IA. "Forensic Dentistry Part 2: Bitemarks" Dental Update, 2008; 35(1):48-50, 53-4, 57-8
- Richmond R, Pretty IA. "Denture marking – patient preference of various methods". Journal of Forensic Sciences, 52(6):1338-42
- Mohan N, Westland S, Brunton P, Ellwood R, Pretty IA, Lou W. "A clinical study to evaluate the efficacy of a novel tray based tooth whitening system". Journal of Dentistry; 2007; *Available online 14 November 2007*
- Cunliffe J, Pretty IA. "Patients' ranking of "black triangles" against other common aesthetic problems.". Journal of Prosthetic Dentistry, 2008, In Review
- Zakian C, Ellwood RP, Pretty IA, Hamlin D. "In vivo quantification of gingival inflammation using spectral imaging" Journal of Biomedical Optics; 2008, In Review
- Yin W., Feng Y, Hu D.Y., Fan X. Zhang Y.P., Pretty I.A., Ellwood R.P. "A clinical investigation using Quantitative Light Induced fluorescence (QLF) of the anticaries efficacy of a dentifrice containing 1.5% Arginine and 1450 ppm F as sodium monofluorophosphate." Journal of Clinical Dentistry, In Review
- Richmond R, Pretty IA. "The Use of Radio-Frequency Identification Tags for Labelling Dentures – Scanning properties." Journal of Forensic Sciences, In Review
- Richmond R, Pretty IA. "A range of post-mortem assault experiments conducted on a variety of denture labels used for the purpose of identification of edentulous individuals" Journal of Forensic Sciences, In Review

Other publications

- MSc Thesis – 2000 – Diagnostic accuracy within forensic odontology
- PhD Thesis – 2003 – Diagnostic applications of quantitative light-induced fluorescence
-

IN THE COURT OF COMMON PLEAS
TRUMBULL COUNTY, OHIO

STATE OF OHIO,)

PLAINTIFF,)

v.)

Case No. 85-CR-317

DANNY LEE HILL,)

DEFENDANT.)

AFFIDAVIT OF ZHONGXUE HUA, M.D., Ph.D.

I, Dr. Zhongxue Hua, being duly sworn under oath, hereby state to the best of my knowledge and belief as follows:

1. I am a forensic pathologist and neuropathological consultant; an assistant clinical professor of pathology at Albert Einstein College of Medicine, Bronx, New York; and an attending neuropathologist and assistant laboratory director at Jacobi Medical Center and North Central Bronx Hospital, New York. Previously, I served as Chief County Medical Examiner, Union County, New Jersey (9/2007 to 9/2012); Chief Regional Medical Examiner, counties of Essex, Hudson, Passaic and Somerset, New Jersey (7/2005 to 9/2007), and Assistant State Medical Examiner, State of New Jersey (2004-2007). I obtained my medical degree from Peking Union Medical College, Beijing, China (1989 M.D.), and a doctorate degree in biochemistry from the University of Rochester, Rochester, New York (1995 Ph.D.). I was a resident in pathology at the Albert Einstein College of Medicine, Bronx, New York (7/1995 to 6/1998), a fellow in neuropathology at Columbia Presbyterian Medical Center, Columbia University, New York, NY (7/1998 to 6/2000), and worked with the City Medical Examiner, Office of the Chief Medical

Examiner, New York, New York (7/2000 to 6/2001). A full list of my educational background, work history, publications, and professional credentials is contained in my annexed curriculum vitae.

2. I submit this Affidavit in support of the Motion for New Trial for Danny Lee Hill at the request of his attorneys. Mr. Hill was convicted and sentenced to death in 1986 for the murder of Raymond Fife, a 12 year old boy.

3. I have been asked to review the scientific and medical opinions, conclusions and testimony proffered by pathologist Dr. Howard Adelman and forensic odontologist Dr. Curtis Mertz concerning the cause and nature of Raymond Fife's injuries and death. I am qualified to comment on these matters because of my training and experience.

4. The victim Raymond Fife was attacked on September 10, 1985, and his death two days later was undisputedly caused by that attack. However, the testimony and opinions of Dr. Adelman and Dr. Mertz about the source, extent, cause and/or mechanism of Raymond Fife's injuries are not based on sound scientific principles. Indeed, the theories advanced by these experts at trial were based on unsupportable assumptions and gross inaccuracies. They do not constitute reliable, objective scientific testimony.

5. There was, and is, no scientific basis for three significant areas of the testimony and conclusions of Drs. Adelman and Mertz. First, there existed no scientific basis at the time of trial which would have supported the conclusions about the varying size of the child's penis in a flaccid or erect state. Second, there was no scientific basis at the time of trial that could have supported the conclusion that the child would have had an erect penis as a result of being strangled. Third, Dr. Adelman's testimony that a stick introduced into evidence fit the injuries to the child's rectum and bladder like a "key in a

lock” was entirely without scientific support. None of these conclusions have any more scientific support today than they did when originally given.

6. I have reviewed the following materials: 11/4/1985 Letter from Curtis Mertz to Dennis Watkins re: Bitemark; 12/19/1985 Curtis Mertz, Notes on Fife Bite Mark; Trial Testimony of Dr. Adelman; Trial Testimony of Dr. Mertz; Autopsy Report; Coroner’s Verdict; St. Joseph Riverside Hospital Records on Victim; Photographs of the Victim Raymond Fife; Affidavit of Dr. Deborah Davis re: Hill; Affidavit of Dr. Franklin Wright; *Grandwohl's Legal Medicine; Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas.

THE TESTIMONY AND OPINION OF DR. HOWARD ADELMAN

7. At no point, including at the time the opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony regarding the nature of the wounds to Raymond Fife's rectum, or any object purportedly used to create those wounds.

8. There is no reliable scientific basis for Dr. Adelman's opinion and testimony that the piece of wood entered into evidence as Exhibit 47 at trial fit Raymond Fife's anus and/or wounds like a "key in a lock." Most importantly, it is not scientifically possible to reliably identify the instrument that caused the injuries in question through the type of examination performed on Raymond Fife by Dr. Adelman – let alone, to identify the instrument to the level of specific certainty necessary to describe it through the analogy of a key and a lock. The absence of blood or other biological material tying the object to Fife's injuries strongly indicates that it was not the object used to inflict the injuries. Dr.

Adelman's testimony on this point is unsupported speculation, and his comparison to a key and lock is unscientific and inflammatory pseudo-science.

9. At no point, including at the time Dr. Adelman's opinions were proffered in 1985-86 or today, has there been a reliable scientific basis for Dr. Adelman's testimony that strangulation like that sustained by Raymond Fife causes penile erection to a specific degree.

10. As Dr. Adelman testified, there have been historical observations that judicial hanging can cause erection and/or ejaculation in its victims. Dr. Adelman's reliance on anecdotal evidence and/or historical narratives as a basis for his opinion is likewise inappropriate and renders his opinions in this specific case speculative and unreliable.

11. Although he claimed that there existed medical articles supporting his opinions, Dr. Adelman did not cite any of those articles. At trial, he conceded that he was "not exactly sure of the mechanism" through which asphyxiation caused penile erection. Dr. Adelman's admission of ignorance was the only part of his testimony regarding asphyxia and erection that was not unscientific or speculative.

12. Even setting aside the absence of a scientific foundation for his opinions, however, the differences between the biological mechanisms involved in judicial hanging, autoerotic asphyxiation, and strangulation are substantial, and any extrapolation from the effects of one to the others is baseless.

13. It is entirely speculative to conclude from such limited observations that the asphyxiation of a prone 12-year-old boy would result in an erection to a very specific degree or that it did so in this case. I am not aware of a single scientific study to support this theory, much less am I aware of any that include children the age of the victim in this

case. Put simply, there is no sound science to support the conclusion that asphyxia under these circumstances causes erection to a specific degree.

14. In sum, Dr. Adelman's testimony analogizing autoerotic asphyxiation and judicial hanging to Raymond Fife's strangulation is wholly without reliable, scientific basis.

OPINION AND TESTIMONY OF DR. CURTIS MERTZ

15. Dr. Curtis Mertz testified that the "probability that [Raymond Fife's] penis was in an erected state" was the basis for his opinion that the pattern injury on his penis matched the teeth of Danny Lee Hill.

16. At no point – including at the time Dr. Mertz proffered his opinions and testimony, in 1985-86, or today – has there been a scientifically reliable method of determining through post-mortem examination the probability that an erection may have occurred during an assault.

17. Dr. Mertz's review of the literature was cursory and inadequate, and the texts he relied upon were inapposite and outdated.


18. Dr. Mertz's reliance on *Grandwohl's Legal Medicine*, edited by Franci Camp, to support his opinion that it was probable Raymond Fife had an erection is misplaced and in error. Dr. Mertz selectively ignored the qualifications provided by his own authority, including the fact that there is "undoubtedly great variation" and there are "many factors [that] may interfere" with the symptoms listed, as well as the statement that "it is usually difficult or impossible to predict the physiological results" of asphyxia "with an accuracy at all." No reliable opinion that a penile erection was "probable" during strangulation could be based upon these limited findings.

19. Dr. Mertz testified that "the average circumference of a penis upon erection is 1.3075 larger than in the flaccid state." He further testified that "this explains the difference in the measured size of approximately a third less" when comparing the purported bite marks on Raymond Fife's penis and the teeth of Danny Lee Hill.

20. Dr. Mertz's claim that there are scientific studies that supported his calculation that the erect penis of a 12-year-old boy is one-third larger than a flaccid penis is unfounded. As far as I am aware, there have never been any such studies, medical or forensic, to support such a theory.

21. The sole study that Dr. Mertz cited, *Basic Morphological Data of the External Genitals in 177 Healthy Central European Men* by J.G. Farkas does not support his opinion. First, there is no scientific basis for extrapolating the size differential between the erect and flaccid penis of a post-pubescent adult and that of a twelve year old child. Second, there is no scientific basis for applying an average measurement of that differential to a singular case. Third, none of the cited healthy men were under the extreme suffering of Raymond Fife, with fatal head trauma, strangulation and sexual assault. As a result, Dr. Mertz ignores both biological reality and statistical methodology, rendering his opinion speculative, unscientific, and fatally flawed.

22. Dr. Mertz's opinions regarding Raymond Fife and the "probability" of his penile erection, as well as any resulting specific size differences between flaccid and erect states, are unsupported and speculative. They are post-hoc guesswork and do not constitute reliable scientific opinion.


Dr. Zhongxue Hua

Sworn to this 16th day of October, 2014

STEFANOPOULOS VITENTIA
NOTARY PUBLIC, STATE OF NEW YORK
Registration No. 01ST6099670
Qualified in Queens County
Commission Expires 10/06/2015


Notary Public

Ed. by Francis E. Camps

GRADWOHL'S LEGAL MEDICINE

EDITED BY

FRANCIS E. CAMPS

M.D. (Lond.), M.R.C.P., F.C.Path., D.M.J., D.T.M. and H. (Liverpool)

Professor of Forensic Medicine at the London Hospital Medical College, University of London; Lecturer in Forensic Medicine at the Royal Free Hospital and at the Middlesex Hospital Medical Schools; Honorary Consultant in Forensic Medicine to the Army; Associate in Police Science, Harvard University

WITH THE ASSISTANCE OF THE MEMBERS OF THE DEPARTMENT OF
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WITH A FOREWORD BY

ALAN R. MORITZ, M.D.

*Provost, Western Reserve University, Cleveland, Ohio, U.S.A.
Formerly Professor of Pathology at the Western Reserve University, Cleveland, Ohio, U.S.A., and Professor of Legal Medicine, Harvard University*

SECOND EDITION, LARGELY REWRITTEN WITH MANY NEW ILLUSTRATIONS

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1968



CHAPTER 18

UNNATURAL DEATH DUE TO ASPHYXIA

GENERAL CONSIDERATIONS

THE term 'asphyxia' is commonly applied to a variety of conditions in which interference with respiratory exchange plays a greater or lesser part. Many of these conditions vary so greatly in their physiological mechanisms and in the pathological appearances they present that the use of the term is best avoided whenever possible.

It is usual to divide the effects of 'asphyxia' into a number of stages, but it is probably only in deaths in which the predominant mechanism is one of respiratory obstruction with hypoxia and carbon-monoxide retention that these stages are seen. There is undoubtedly great variation in the time of appearance of these manifestations, and many factors may interfere with their production, which will be considered under the individual mechanisms causing the obstruction. The stages as usually described are:—

1. A stage of inspiratory dyspnoea, with deep and forceful respiration, and more or less cyanosis, lasting for a minute or so.
2. Spasmodic efforts at expiration: the stage of expiratory dyspnoea. Consciousness is lost and the pupils become dilated. The pulse slows and the blood-pressure rises.
3. The blood-pressure falls, pulse-rate increases, and it is in this stage that spontaneous defaecation, erection, and ejaculation may occur.
4. Respiratory movements cease except for terminal irregular occasional respirations, the heart often continuing to beat for 10–15 minutes.

These sequences have been arrived at in the past by observation on man and experimental animals.

Swann and Brucer (1949) produced anoxia in a variety of ways in unanaesthetized dogs. They found that when the dog's respiration was obstructed by a face mask the animals continued to make violent struggles or to have convulsions even up to the point of heart failure. Rhythmic breathing movements continued right through to circulatory failure. Within 90 seconds the pulse slowed and the slowing was accompanied by a great rise in systolic and a drop in diastolic pressure. Heart failure occurred very abruptly, although electrical activity continued in the heart for about 12 minutes after heart failure.

During the process of pure respiratory obstruction in these animals arterial oxygen-saturations fell progressively and the heart failed about 2 minutes after the oxygen-saturation had fallen below 10 per cent. The carbon-dioxide content at first rose rapidly then, as the blood lactate started to rise, the carbon-dioxide content fell until at death it was similar to the initial content. The carbon-dioxide tension rose throughout and reached very high levels terminally.

It seems probable that the classic description of the sequence of events in 'asphyxia' in man is a compilation of the effects of an obstructed airway, compression of the vessels in the neck, direct stimulation of the carotid sinuses, of the circulatory and biochemical effects of drowning, and possibly other phenomena, formerly all thought to cause death solely by anoxia.

In the sorts of assaults and injuries that result in interference with respiratory exchange in man it is usually difficult or impossible to predict the physiological results with any accuracy at all, and certainly the stages described above are not always followed.

THE INTERPRETATION OF POST-MORTEM APPEARANCES IN DEATH FROM RESPIRATORY OBSTRUCTION AND COMPRESSION OF THE NECK

It is doubtful if there are any constant post-mortem changes produced by the direct effect of anoxia upon the tissues, except the appearance of cyanosis. Most of the abnormal appearances in cases of respiratory obstruction are the result of the local effects of the obstructing or constricting agent, of raised intravascular pressure, and of the terminal heart failure.

Cyanosis

The significance of cyanosis in the cadaver must be evaluated very critically. If the body is examined within a few hours of death the presence of intense cyanosis is of some significance. The loss of oxygen by cadaveric blood is very variable, but certainly after 24 hours the appearance of cyanosis may be due entirely to post-mortem changes. Furthermore, the absence of cyanosis within a few hours of

burial by sand, earth, rock, or fallen masonry, in train crashes and similar accidents, and in crushing by other bodies in crowd accidents. The results are

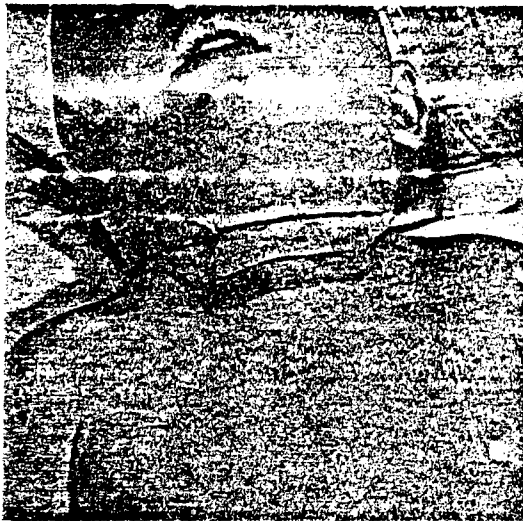


Fig. 229.—Mark caused by attempted strangulation by a nylon stocking 7 days previously. (There is strapping over a tracheostomy performed because of concomitant head injury).

partly due to failure of respiratory exchange and partly to interference with the circulation. If severe crushing takes place cyanosis and congestive changes are very severe. The face is congested,

swollen, and covered with petechial haemorrhages. The conjunctivae are oedematous and often there is confluent subconjunctival haemorrhage. The petechiae extend on to the neck and trunk and are often found on the limbs. They tend to form wide bands of congestion, cyanosis, and haemorrhage, and may in places follow the lines of folds in the clothing.

THE LATE EFFECTS OF RESPIRATORY OBSTRUCTION AND TRAUMATIC ASPHYXIA

If the victim survives strangulation the congestive petechial haemorrhages persist for several days. A ligature mark will rapidly become red and swollen and a crust may form on the epidermis if it has been abraded (Fig. 229). The mark will gradually disappear over a period of one or two weeks. Bruising from manual strangulation will follow the course of bruising anywhere else in the body. If laryngeal injury has occurred there will be difficulty in swallowing, sore throat, and a hoarse voice for some days or weeks after. Fractures heal by bony and not fibrous union (Thomas and Kluyskens, 1962).

If the period of cerebral anoxia has been long enough, coma may be irreversible. In cases that have recovered from coma there may be changes in consciousness, amounting to a psychosis, sometimes with transient or permanent neurological damage, and retrograde amnesia is common (Gamper and Stiefler, 1937).

Bibliography

- BUTLER, H. (1951), 'Veins of Oesophagus', *Thorax*, 6, 276.
 CAMPS, F. E., and HUNT, A. C. (1959), 'Pressure on the Neck', *J. forens. Med.*, 6, 116.
 CASPER, J. L. (1861), *A Handbook of the Practise of Forensic Medicine*. London: The New Sydenham Society.
 DEROBERT, L., and PIZON, P. (1953), 'Les Lésions thyroïdienne de la Strangulation', *Presse méd.*, 61, 731.
 GAMPER, E., and STIEFLER, G. (1937), 'Klinisches Bild und Anatomischer befund nach Drosselung', *Arch. ges. Psychol.*, 106, 744.
 KLAUER, H. (1935), 'Intersuchung von Strangwerkzeug und Aufhängeort beim Fraglichen Erhängungstod', *Dr. Z. ges. gericht. Med.*, 20, 375.
 MOLE, R. H. (1948), 'Fibrinolysin and Fluidity of Blood Post-mortem', *J. Path. Bact.*, 60, 430.
 PONSOLD, A. (1938), 'Ohrenbluten beim Erhängen', *Dr. Z. ges. gericht. Med.*, 29, 437.
 PRINSLOO, I., and GORDON, I. (1951), 'Post-mortem Dissection Artefacts of the Neck', *S. Afr. med. J.*, 25, 358.
 SCHRADER, G. (1940), *Handwörterbuch der Gerichtlichen Medizin und Naturwissenschaftlichen Kriminalistic*. Berlin: Springer.
 SCHWARZACHER, W. (1928), 'Beiträge zum Mechanismus des Erhängungstodes', *Dr. Z. ges. gericht. Med.*, 11, 145.
 SWANN, H. G., and BRUCER, M. (1949), 'Cardiorespiratory and Biochemical Events during Rapid Anoxic Death: Fulminating Anoxia', *Tex. Rep. Biol. Med.*, 7, 511.
 — — and MARSHALL, M. (1949), 'Cardiorespiratory and Biochemical Events during Rapid Anoxic Death: Obstructive Asphyxia', *Ibid.*, 7, 593.
 THOMAS, E., and KLUYSKENS, P. (1962), 'Beitrag zur Konsolidierungsart von Brüchen der oberen Fortsätze des Schildknorpels', *Dr. Z. ges. gericht. Med.*, 52, 253.



Basic Morphological Data of External Genitals in 177 Healthy Central European Men

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ABSTRACT Five basic measurements were made of the penis, the scrotum and the testicles of 177 healthy Bohemian (Czechoslovakian) men, 18-20 years of age. The average length of the penis was 72.18 mm. The average circumference of the penis was 95.65 mm. The length of the right testicle was 47.37 mm, the length of the left was 45.17 mm.

In 16.2% of those examined slight deformations of the urethral opening and mild malformations of the prepuce and the frenum were found. These defects did not disturb function. The method of measurement used has been described.

As a continuation of some recent studies (Trosev, '69; Farkas et al., '68) on the postnatal development of the penis from birth until the age of six or seven years in members of two national populations, I measured the male genitals in normal adults. The information gained might be useful to the surgeon and other specialists dealing with congenital and acquired defects of the male genitalia.

MATERIAL

One hundred and seventy-seven healthy men 18 to 20 years of age, selected at random from among personnel of military units stationed in Prague (Czechoslovakia) were examined during the first half of 1968.

METHOD

Five objective basic measurements of the genitals obtained by anthropometry, and three qualitative signs related to the penis, assessed by anthroposcopy, were recorded in each case. The subject was recumbent during the examination. Measurements were made with the penis flaccid. The maximum-minimum measurements in millimeters were recorded on coded charts and the mean and standard deviations calculated. All measurements were performed by one person.

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Measurements

1. The total length of the penis: measured by sliding calipers on the dorsal side of the penis between the root of the penis and the tip of the glans (fig. 1).
2. The circumference of the penis: measured by measuring tape in the mid portion of the penile shaft (fig. 1).
3. The circumference of the scrotum: measured by measuring tape from the right scrotal base along its circumference to the left scrotal base (fig. 1).
4. The size of each testicle: (a) the length: measured by sliding calipers between the two most distant points of its longitudinal axis (fig. 2), (b) the width: measured by sliding calipers in the mid portion of the testicle (fig. 2).

Qualitative signs

1. The site and the shape of the urethral orifice.
2. The shape and the state of development of the frenum.
3. The prepuce: its size, configuration, the size of the opening of the preputial pouch.

RESULTS

The results are shown in table 1 and table 2.

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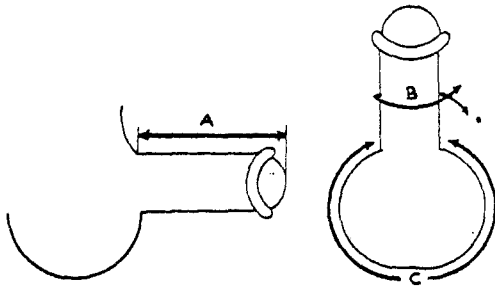


Fig. 1 Showing method of measuring penile length (A) and circumference (B) in flaccid state and circumference of the scrotum (C).

DISCUSSION AND CONCLUSIONS

The findings in both age groups (18 to 19 years and 19 to 20 years) were analyzed in one group because in my experience the size of the genitalia does not change significantly between 18 and 20 years of age. Other authors' findings support this suggestion (Schonfeld, '43; Figalova et al., '68).

The men in this study group were healthy adults, found fit for military service by a military medical committee and were under constant medical supervision. None of them had pathological body configuration, abnormal body size, or manifested endocrine disturbances.

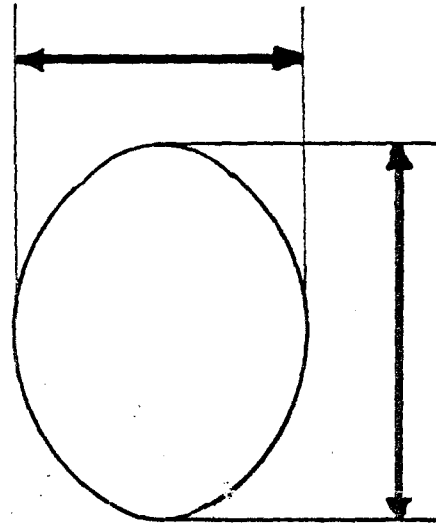


Fig. 2. Showing method of measuring testes.

No measurements other than those of the genitalia were undertaken.

The surgeon repairing congenital or acquired defects of the genitalia prefers to use penile skin (or scrotal skin) for correction of the failure. The length and circumference of the penis in the flaccid state are of great value in the planning

TABLE 1
Metric data of external genitalia in study group in millimeters

Region	Sign	N	Max-Min	Mean	SD
Penis	Length	177	110-45	72.18	11.24
	Circumference	176	120-77	95.65	8.31
Scrotum	Circumference	177	250-105	195.14	22.43
	Length	176	65-34	47.37	4.71
Right testicle	Width	176	42-17	28.02	3.44
	Length	176	62-34	45.17	4.78
Left testicle	Width	176	36-15	27.42	3.22

TABLE 2
Qualitative signs of external genitalia in study group

Region	Sign	N	%
Urethral orifice	Markedly elongated ventrally	17	9.6
	Blind hole on the tip of glans and the separated urethral meatus situated ventrally	10	5.6
Frenum	Only one of its roots was developed and placed obliquely	1	0.5
Prepuce	Phimosis	1	0.5
Total		29	16.2

of corrective surgery. The circumference of the flaccid hypospadiac penis can be decisive in choosing the method of the urethroplasty (Farkas, '68). For these practical reasons the penis was measured in the flaccid state in all studies dealing with boys with hypospadias and also in controls (Farkas et al., '68; Farkas, '70).

The penis was measured between the same landmarks used by Schonfeld ('43). In only a few cases I found similar difficulties in the localization of the landmark at the penopubic junction as Schonfeld. I do not agree with Schonfeld that assessment of the length of the stretched penis is more precise than that of the flaccid penis. Both methods are open to inaccuracy. The error in measurement of length of the penis was estimated by me $\pm 1-2$ mm, established by repeated measurement in cases where the landmark at the penopubic junction was not sufficiently visible.

The inaccuracies in measuring the scrotal circumference are even greater ($\pm 2-3$ mm) than in the length of the penis because it is difficult to determine the exact base of the scrotum.

The thickness of the scrotal skin makes the measured length and width of the testicles greater than they really are.

The average length of the penis (72.18 mm) in the study group is considerably less than the 100-120 mm recorded in some textbooks of anatomy (Borovansky, cited by Hromada), but the method of measuring is not known.

The length of the penis in this study group cannot be compared directly with the data in Schonfeld's paper because of the difference in measurement techniques. In my experience a flaccid penis 72 mm in length can be extended by approximately one-half of the original length when stretched. Thus the length of the penis of men in my study group would be markedly shorter (about 118 mm) in comparison with the findings given by Schonfeld (130 mm).

Hajnis and coworkers ('70) measuring the length of the penis between the tip of the glans and penoscrotal angle in normal Czech boys, from birth to six years of age, found the length of the erect penis almost double the length of the flaccid

penis. However, the small number of the observations makes a valid conclusion impossible.

If Schonfeld's calculation is correct stating that on an average there is about 20-30 mm difference between the circumference of a flaccid and erect penis, then the circumference of the penis in males of this study group, recorded in flaccid state as 95.6 mm would be about 125 mm in state of erection which is markedly more than the medium measurement of Schonfeld (90 mm). The differences found between the Schonfeld norms and the study group are not surprising. There are similar differences between the size of the penis of normal Czech and Bulgarian boys from birth up to six years of age (Farkas et al., '68; Trosev, '69) using the same method of measurement.

The method of assessment of the size of testicles I used differed from that used by others (Albert, '53; Schonfeld, '43), which excludes a comparison of the findings. The right testicle in men studied was larger than the left, in accordance with the observation of Trosev ('69) in normal Bulgarian boys, and of Hajnis and coworkers ('70) in normal Czech boys. Schonfeld ('43) found a larger right testis in 23% of boys studied.

The relatively high frequency in my study of slight morphological changes of the urethral orifice and the shape of the frenum is unusual but similar to those found in slight degrees of hypospadias (Farkas, '70). The question remains: which anatomical changes of the urethral opening should be considered as variations of normal state, and which should be classified as microforms (forme frustes or minor defects), of hypospadias or epispadias? A larger sample of the general population would yield more reliable results.

Precise measurements of male genitals would be helpful for evaluating the effect of treatment on hypospadias, epispadias and for establishing the growth potential of the congenitally damaged penis (Figalova et al., '68).

The above mentioned findings in different populations and those observed during my long clinical practice in Central Europe, support our belief that there

exists differences between populations (of the same racial origin) in some anthropometric signs probably caused by different ethnic, social, alimentary, geographical and other factors.

However, a man's reticence to undergo this type of examination limits the number of subjects and makes it difficult to establish the reported or valid norms for each population.

Although the sample studied cannot be regarded as representative of the general population, it offers some valuable information about the size and configuration of the genitalia of adult males.

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LITERATURE CITED

Albert, A. 1953 Male Hypogonadism: 1. The Normal Testis. Proc. Staff Meetings Mayo Clin., 28: 409.

Farkas, L. G. 1968 Experience with our urethroplasty after two years. Acta Orthoped. Traumat. CSL, 35: 540 (in Slovak).
 ——— 1970 Minor defects of the penis. Microforms or stigmata of hypospadias and epispadias? Plast. Reconstr. Surg., 45: 1.
 Farkas, L. G., K. Hajnis and M. Novakova 1968 Time of correction of chordee in hypospadias as seen from the viewpoint of postnatal development. Rev. Lat. Am. Cir. Plast., 12: 215.
 Farkas, L. G., and J. Hynie 1970 Aftereffects of hypospadias; repair in childhood. Postgrad. Med., 47: 103.
 Figalova, P., L. G. Farkas, and K. Hajnis 1968 Eine Studie zur Erforschung somatischer Merkmale bei Patienten mit Hypospadien. Z. Urol., 61: 313.
 Hajnis, K., V. Novakova, and L. G. Farkas 1970 Anthropometric parameters for operative practice of most frequent development defects of organorum genitalium masculinum (Partes Externae). Acta Univ. Carol. Biol., 1969: 421.
 Hromada, J. 1969 Quoted from J. Borovansky, Systemic Human Anatomy, Prague (in Czech).
 Schonfeld, W. A. 1943 Primary and secondary sexual characteristics. Am. J. Diseases in Children, 65: 535.
 Trosev, K. 1969 Contribution to the anthropometric study of the penis in a group of Bulgarian boys from birth to the age of seven years. Acta Chir. Plast. (Praha), 11: 140.

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