Staged Suicide

Bryan R. Burnett [a]* Cataldo Raffino [b] John D. Sabow [c]

[a] Meixa Tech, 1624 Debann Road, Cardiff, CA 92007–1102, USA

[b] Legal Medicine Centre of INAIL,via Roma 419–423, Enna 94100, Italy

[c] Medical Jurisprudence, 1145 Settlers Creek Place, Rapid City, SD 57701 USA

* Correspondence author: Meixa Tech, 1624 Debann Road, Cardiff-by-the-Sea, CA, 92007 USA

Email address: B.R. Burnett brburnett@meixatech.com

ABSTRACT

The victim died in 2008 by a near contact, penetrating 12 gauge shotgun discharge to his left head at the ear. The manner of death was "undetermined" by the medical examiner. A county grand jury and two independent pathologists concluded the death was accidental. Another pathologist concluded suicide. Five digital cameras documented the shooting scene over a period of more than 11 h. There was no expert bloodstain or crime scene examination before this report. We conclude: 1) The shotgun's position at discharge was not possible for either suicide or accident scenarios. 2) Stun gun wounds, centered within a halo of hyperemia, were on the victim's right lateral mid-lumbar skin. 3) The body was moved twice immediately after the shotgun was discharged to the victim's head. The shooting scene was staged. 4) A love note, which had a blood transfer, was left in the victim's vehicle at the scene. 5) The staging of the shooting scene continued into the scene processing, which was documented by the image metadata time stamps. 6) Multiple persons were involved in the homicide.

Keywords: Shooting Scene Reconstruction; 12 Gauge Shotgun; Stun Gun; Bloodstain Pattern Analysis; BPA; Staged Suicide; Image Metadata

1. Introduction

In the early morning of December 8, 2008 the victim, Billey Joe Johnson Jr., died from the alleged discharge of his 12 gauge shotgun (Sears Model 200) to his head. The death occurred in George County, a rural county in southern Mississippi, USA. Johnson was beside his truck on the driveway of a small business park at the time of death. According to the alleged only witness to the shooting, a police officer, "I walked back to my vehicle got down my glasses to read the driver's license [of the victim] and I heard a gunshot and glass break. I looked up, the black male fell on the ground and the gun he had in his hand fell on top of him." The time was 0530 (5:30 AM) [1].

The autopsy was conducted by Mississippi State Medical Examiner A. Lewis. She noted, "… it is not possible to determine whether the decedent discharged the weapon accidentally or intentionally. Therefore, the manner of death is best left undetermined at this time." The 12 gauge shotgun discharge was external, not intraoral [2].

The victim's manner of death was determined accidental by the George County Grand Jury in a decision published February 12, 2009, "The Grand Jury finds that Billey Joe Johnson, Jr. died from a single shotgun blast to the left side of his head entering at the approximate location of his left ear." The Grand Jury determined that Johnson died from the accidental discharge of the shotgun [3].

In a letter to the parents of Billey Joe Johnson Jr. from the United States Department of Justice, Civil Rights Division (DoJ), dated April 15, 2011 declared the death as suicide [4]. A formal, redacted report was released about the same time by the DoJ, which claimed the victim died by suicide from an intraoral shotgun discharge [5]. The report from the Armed Forces Institute of Pathology (AFIP) on which this determination was made was excluded in the discovery provided to the authors.

In 2018 J. Jones and A. Letson of Reveal–The Center for Investigative Reporting [6] became aware of the controversy surrounding the death of the victim and interviewed Medical Examiner Lewis. She changed her opinion on the manner of death from "undetermined" to "accidental" [7].

Two additional forensic pathologists were asked by Jones and Letson to comment on the manner of death. The amount of discovery they reviewed is unknown.

1) J. Melineck determined that the shotgun discharge was external to the victim's head and was a self-inflicted [8].

2) V. Weedn also supported that the shogun was discharged to the victim's head externally and was "likely" self-inflicted [9].

Jones requested author BRB for a shooting scene reconstruction (J. Jones, personal communication, May 6, 2019).

Reveal-Center for Investigative Reporting profiled this case in a series of podcasts from mid to late 2021. They noted in the final podcast that there was insufficient evidence to show that Billey Joe Johnson died by homicide [10] contrary to the evidence of homicide we presented to Jones and Letson by a report and recorded interview of BRB.

2. Materials and Methods

This shooting scene analysis described in this report used the discovery provided by Jones and Letson, which consisted of witness and police reports, an autopsy report, approximately 300 death scene and 60 autopsy images.

Photoshop (version CS5) provides numerous image processing/modification tools, some of which assisted in the analysis of images from this shooting. A tool used with most images in this report is Levels (Image/Adjustments/Levels) by which minor gamma adjustments were usually made to the figures. The Levels tool can also expand an image's pixel RGB range if less than 256 channels, which allows visualizing detail within underexposed images or reveal objects within shadows [11]. Other Photoshop tools used to enhance some of the figure images are identified in their captions.

The unmodified camera-generate formated images of the scene [12] and autopsy [13] can be downloaded. The image file names/numbers are displayed on each used in the figures.

3. Evidence analysis and discussion

3.1 Shooting scene and autopsy image documentation

The death scene was processed as a homicide or suspicious death. A probable suicide or accident scene would have limited documentation, usually a short report with few scene images and an autopsy report if performed with perhaps a few additional images [14].

Table 1. Listing of the six digital cameras used to document the scene and autopsy; the five digital cameras at the death scene all showed by their image metadata files the correct date (12/8/2008). Four of the cameras had time stamps consistent with the scene lighting and changes in the bloodstains. However, the Nikon D300 appeared to have been off by an hour. MP: megapixel size of images for that camera. TIME SPAN: from the 24-hour time stamps found in the metadata associated with each image. A camera at the autopsy (Kodak Z812) had an incorrect date and likely time stamps for its images.

CAMERA	FILE NAME IMAGE NUMBER RANGE	RESOLUTION MP	TIME SPAN	COMMENTS
SHOOTING SCENE 12/08/2008				
NIKON D300	Picture003 to Picture042	12	0708 to 0719 *	missing 016-018,026
FinePix3800	Photo_s063 to Photo_s071	1.2	0923 to 0933	Fujifilm camera
NIKON D80	DSC_0001 to DSC_0216	0.7	1011 to 1558	
CANON EOS 30D	IMG_1244 to IMG_1269	8.2	1044 to 1147	
NIKON D80	DSC_00010217 to DSC_00290245	0.7	1600 to 1804	
AUTOPSY 12/09/2008				
KODAK Z812	Picture037 to Picture070	8	1124 to 1459 ?	Wrong date, missing 055-064
FinePix3800	Photo_s077 to Photo_s106	1.2	0953 to 1101	Fujifilm camera

* Sunrise in Misssissippi was 0650. It was still dark when these images were taken.

The shooting scene was documented by five digital cameras at different time spans over a period of approximately eleven hours (Table 1). The resolution, date and time were documented by the by the metadata files associated with the images. The image time stamps appear accurate where the image contents (lighting and blood drying etc.) reflect the time taken, although the Nikon D300 camera appeared to be off by an hour (it should have been light when these images were taken).

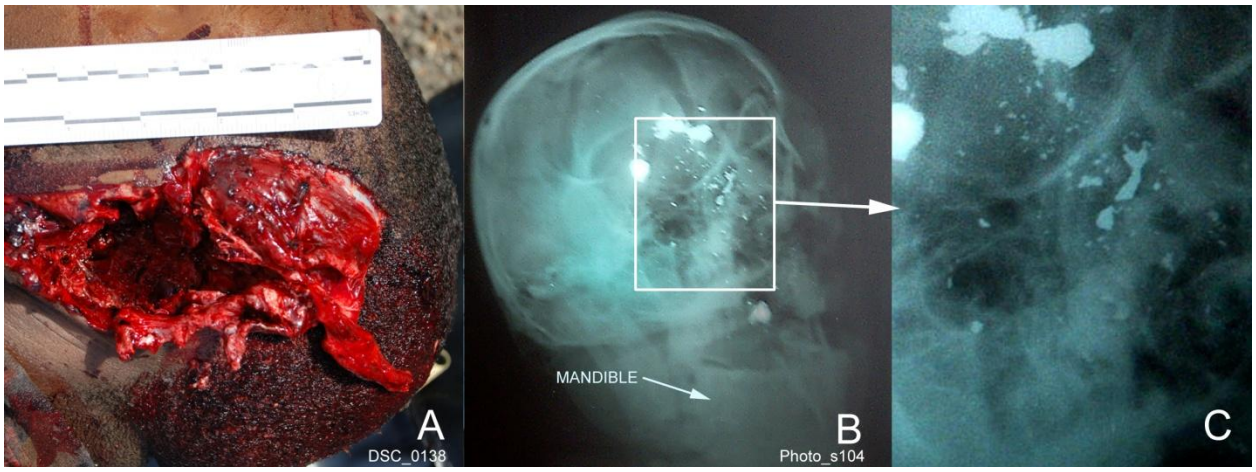

Fig. 1. (A) Image of the left side of the victim's head showing the massive defect caused by the 12 gauge shotgun's discharge; the autopsy report determined this is the entrance wound [2]. (B) LL projection X-ray of the victim's head shows lead projectiles; one of the shotgun pellets is at the victim's upper jaw, overlapping his teeth. Image enhanced by Image/Adjustments/Levels routine. (C) Enlargement of the area within the rectangle in B showing numerous fine particles from lead shot fragmentation.

3.2 Autopsy

The autopsy was conducted on the day after the shooting by A. Lewis of the Mississippi State Medical Examiner Office. She reported that Billey Johnson died from a single, external shotgun discharge to the left side of his head at the location of his left ear (Fig. 1A). The shotgun muzzle at discharge was near contact and the shot penetrating. The wound track was "left to right, front to back and upward." The victim's left pinna was destroyed. According to the autopsy report, there were no signs of a struggle or physical altercation on the victim's body and the only injury was the shotgun wound [2]. However, additional injuries to the victim were found in the scene and autopsy images (see below). The manner of death on the death certificate was "undetermined."

Multiple lead pellets and fragments within the victim's head (Figs. 1B and 1C) were shown in a LL projection X-ray image. The shotgun discharge was not intraoral, although the entrance/exit wound (Fig. 1A) appears similar to an exit wound for an intraoral shotgun discharge [15].

3.3 The death scene

Figure 2 is a graphic to scale of the shooting scene, which was revised from the poor photocopy of the graphic of the scene provided in the discovery. The locations of evidence items 1 through 5 and 13 are shown.

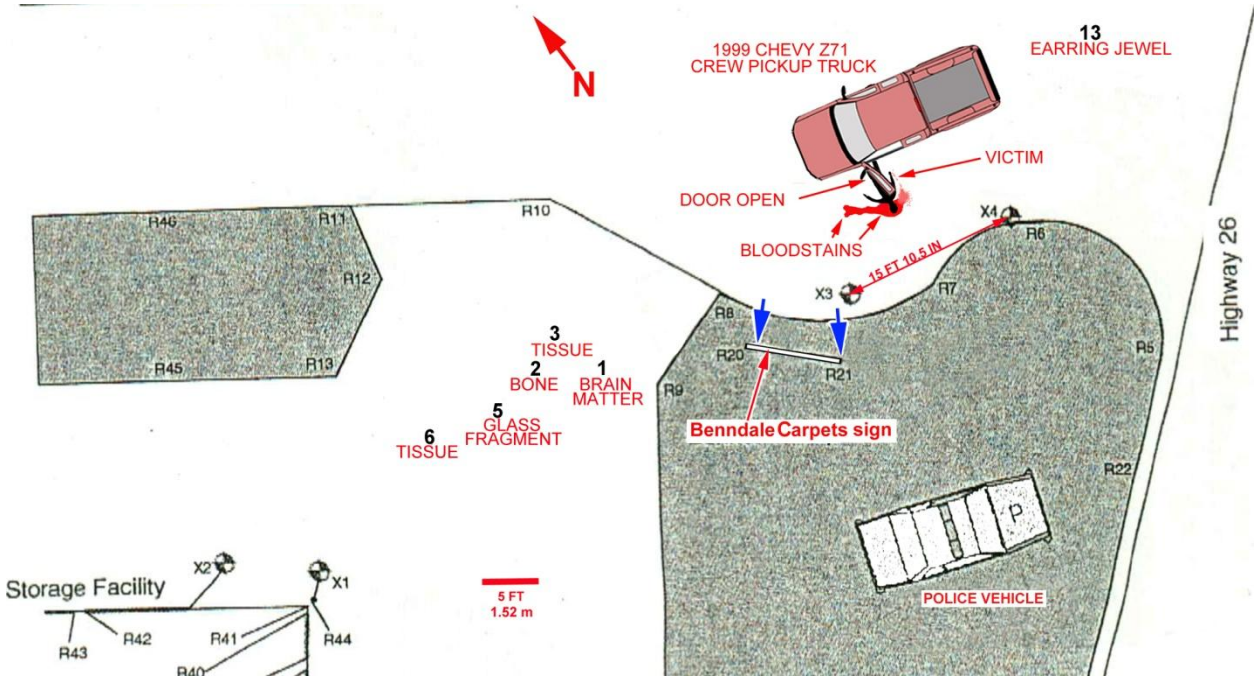

Fig. 2. The shooting scene drawing provided in the discovery; the victim, truck and bloodstains graphics were redone due to poor copy quality. The truck's driver side door was open and the victim was lying under it. The red graphics/lettering by the author and the scale of the scene drawing was verified. Blue arrows indicate the locations on the Benndale Carpets sign that was hit with blood/tissue spatter.

3.4 Blowback

Backspatter is "blood drops which can be produced when a projectile creates an entrance wound"[16], when the firearm muzzle is contact, near contact, or close intermediate range to the head, the discharge injects propellant gas into the entrance wound along with the projectile. The propellant gas that exits through the entrance wound not only can carry blood, but other tissues (skin, bone, brain matter etc.). This phenomenon has been described as "blowback" by some authors (e.g., Shields et al. [17]). In Johnson, the entrance was also the exit wound where the blowback from the shotgun discharge included shot and shot fragments along with blood and other tissue.

Figure 3A shows the interior driver side door of Johnson's truck. Blowback is evidenced by blood and tissue coating a part of the window's remaining tempered glass fracture mosaic (Fig. 3B circled area). Tissue debris also coated the door mirror (Fig. 3C) which is added evidence that the victim's head was quite close to the window at blowback. A close-up image of the remaining window shows the extent of the blood and tissue covering it (Fig. 3D lower left circled area of Fig. 3B).

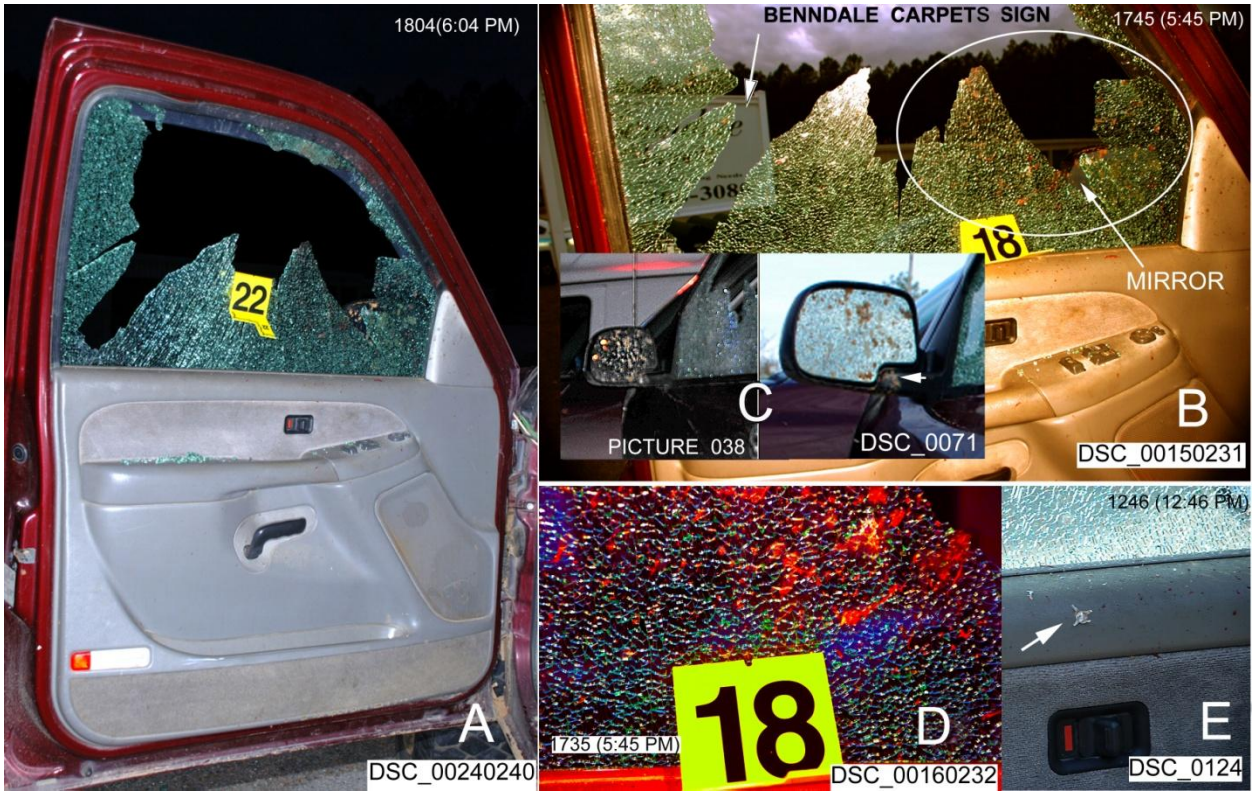

Fig. 3. (A) The driver side interior door of the victim's truck showing the window's tempered glass fracture mosaic. (B) The image of the interior door window has been color adjusted using Photoshop: Image/Adjustments/Color Balance to show extensive blood/tissue spattering on the window. (C) Two images of the driver side door mirror that shows the extensive tissue spattering. (D) Close-up of the window where red is enhanced in Photoshop: Image/Adjustments/Color Balance followed by Vibrance to show a coating of blood and tissue at the lower left part of the window circled in B. The tempered glass mosaic near evidence marker 18 showing extensive spattering of tissue; Photoshop: Image/Adjustments/Color Balance followed by Vibrance. (E) The victim's earring base attached to the windowsill at the arrow. Only small spatters are on the windowsill.

The victim's earring post was attached to the lower windowsill (Fig. 3E, arrow) and its jewel separated and deflected off the sill to the location indicated in Fig. 2 (evidence item 13) due to the shotgun blast. There was no blood association with the surface of the door sill surrounding the earring post, which indicates that the earring was blown from the victim's pinna by the shotgun blast, not by blowback. The distance from the truck's driver side door to the earring jewel was approximately 6.7 m (22 feet). The earring jewel separated from its post in the shotgun blast, bounced off the door windowsill to the pavement at the rear of the victim's truck (Fig. 2, item 13). The left side of the victim's head was estimated to be 10 to 15 cm (4 to 6 inches) from the door window for this to occur.

3.5 Glass shards on the pavement

Tempered glass, when subject to a force that fractures it, has two features: 1) The initial shock creates a fracture mosaic, which can include partial to full break-out of the glass (e.g., Fig. 3A).

2) The remaining fracture mosaic glass is fragile and subject to collapse by vibration or touch {18].

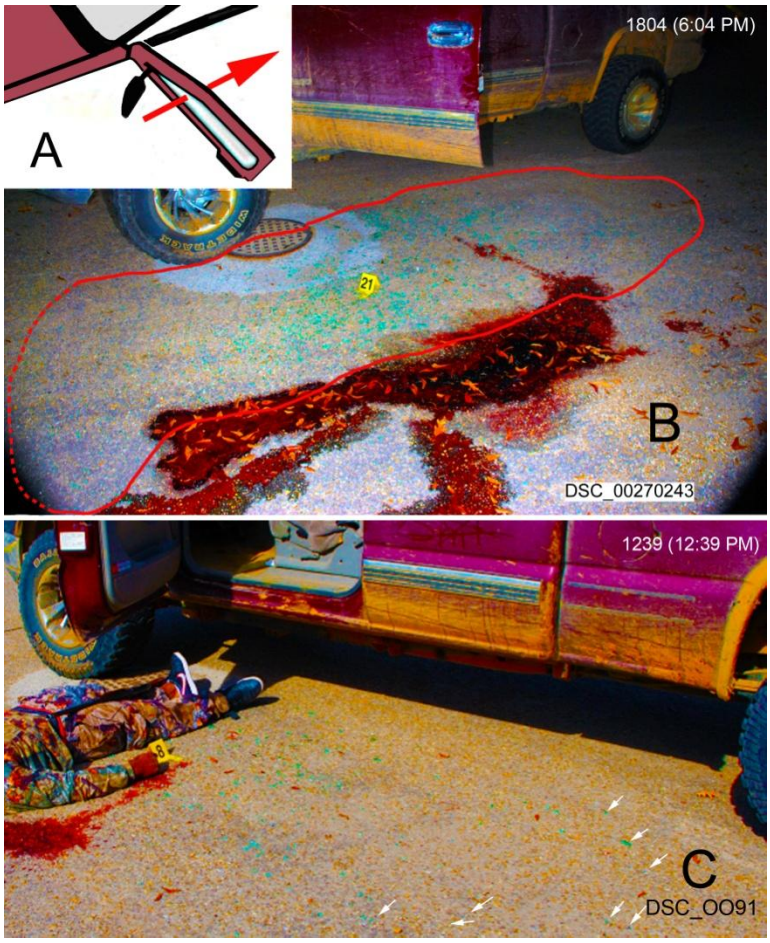

Fig. 4. (A) Graphic showing the direction of the initial breakage from the driver side door window that projected glass shards toward the rear of the truck. (B) Distribution of glass shards on the pavement with the body removed (time stamp 1804 (6:04 PM)); the glass shards on the pavement were from the initial breakage with shard projection to the rear tire. The red outlined area is the approximate demarcation of the glass shards on the pavement. The red line is dotted on the left due to the glass shards projection further than shown in the image. Adjustment by Photoshop: Image/Adjustments/Vibrance tool accentuates the glass shards (blue) on the pavement. (C) Distribution of glass shards on the pavement (time stamp 1239 (12:39 PM)); the glass shards on the pavement extend to the rear tire. Adjustment by Photoshop: Image/Adjustments/Vibrance tool accentuated the glass shards (blue) on the pavement. Due to the different ambient light from image B, not all the glass shards are color accentuated by this Photoshop application.

Glass shards were deposited onto the pavement from the driver side window at three different times. The first occurred from the initial breakage/fracturing where the breaking force was to the outside of the open door (Fig. 4A) and had sufficient force to project glass shards as far as the rear tire of the truck (Fig. 4B and 4C). Only one glass shard was found on the victim's clothing (Fig. 6A, at arrow) and none on his left shoe (Fig. 6A, insert). If the victim was standing within the area of the shard projection at breakage, the area of glass shards on the pavement without a void, and the lack of numerous glass shards on his clothing indicate the victim was not within the glass shard projection.

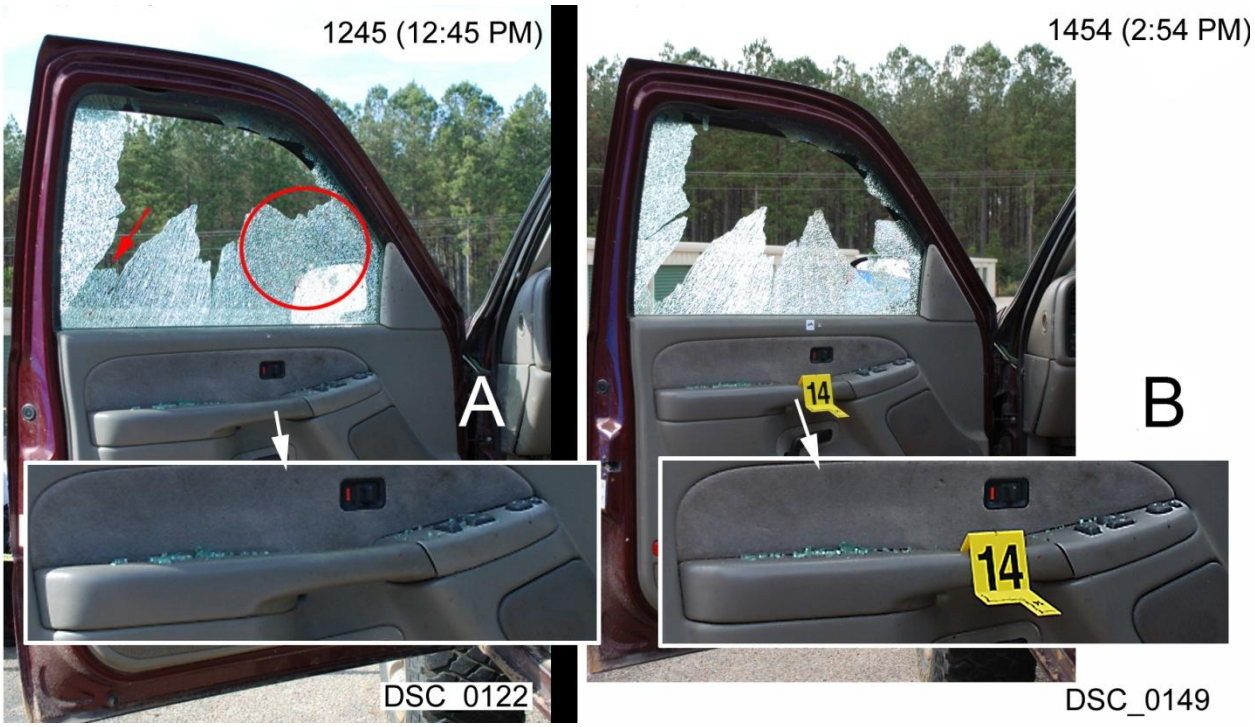

Fig. 5. (A) The appearance of the truck window from the time of initial breakage before the shooting to early afternoon (image time stamp is 1245 (12:45 PM)); the circled area has the spattered blood and tissue from blowback as well as loss of glass (see B). Red arrow points to additional glass loss shown in B. Backlighting prevents seeing blood and tissue coating on the window in this image (see Fig. 3C). Inset: enlargement of armrest showing accumulation of glass shards from the initial window break. (B) Image shows collapse of some of the glass from the window, which occurred between 1245 (12:45 PM) and 1454 (2:54 PM); the inset of the armrest glass shards shows little change from A. This indicates that the additional collapse of the tempered fracture glass mosaic was mainly toward the exterior side of the open door.

The second projecting of the glass from the truck door window mosaic was by blowback, which propelled glass fragments as far as evidence marker 5 (Fig. 2).

Between 1246 (12:46 PM) and 1454 (2:54 PM) a portion of the fractured tempered glass still in place (Fig. 5C) collapsed (Fig. 5D) onto the pavement (third deposition). This deposition was mostly exterior to the open truck door and away from the body. Some of the glass fell on the armrest on the interior side of the door (compare the armrest images (insets) Figs. 5C to 5D).

Fig. 6. The Sears M200 12 gauge shotgun. (A) Despite being identified as the source of the fatal wound to the victim, the shotgun had no associated blood or tissue; inset: enlargement of the victim's left shoe showing no associated glass shards. Arrow: points to the single glass shard on victim's pant leg. (B) Another view of the shotgun; tissue and blood would be expected to cover the victim's shotgun if this was the shotgun used in his death. Inset: the bore of the shotgun at the muzzle shows no blood or tissue.

The force that caused this later collapse was to the interior window of the open door or the door was swung hard open.

3.6 The shotgun

The shotgun barrel should have been hit with blood due to the massive blowback, brain tissue, etc., which usually occurs in either suicide or homicide scenarios by a near contact shotgun discharge to the head [15]. The exterior of the shotgun showed no tissue contamination (Figs. 6A and 6B). No tissue was within the bore of the shotgun (Fig. 6B, inset). Another shotgun discharged into the victim's head.

The 12 gauge shotgun has the strongest recoil of most firearms [19]. The trajectory of the pellets in the head [2] and the blowback occurring near the truck door window (Fig. 3) would have the shotgun elevated off the ground and unsupported in the suicide scenario. The close proximity of the victim's head to the door window and the angle at the shotgun's discharge would mean more than half the shotgun would be on the exterior side of the door window. In the suicide scenario, the victim somehow managed to reach the trigger on the exterior side of the window after breaking it with the shotgun stock. Upon the discharge in this scenario, the unsupported shotgun recoil would propel it through the widow, away from the victim. The victim's shotgun was on top of his body (Fig. 6).

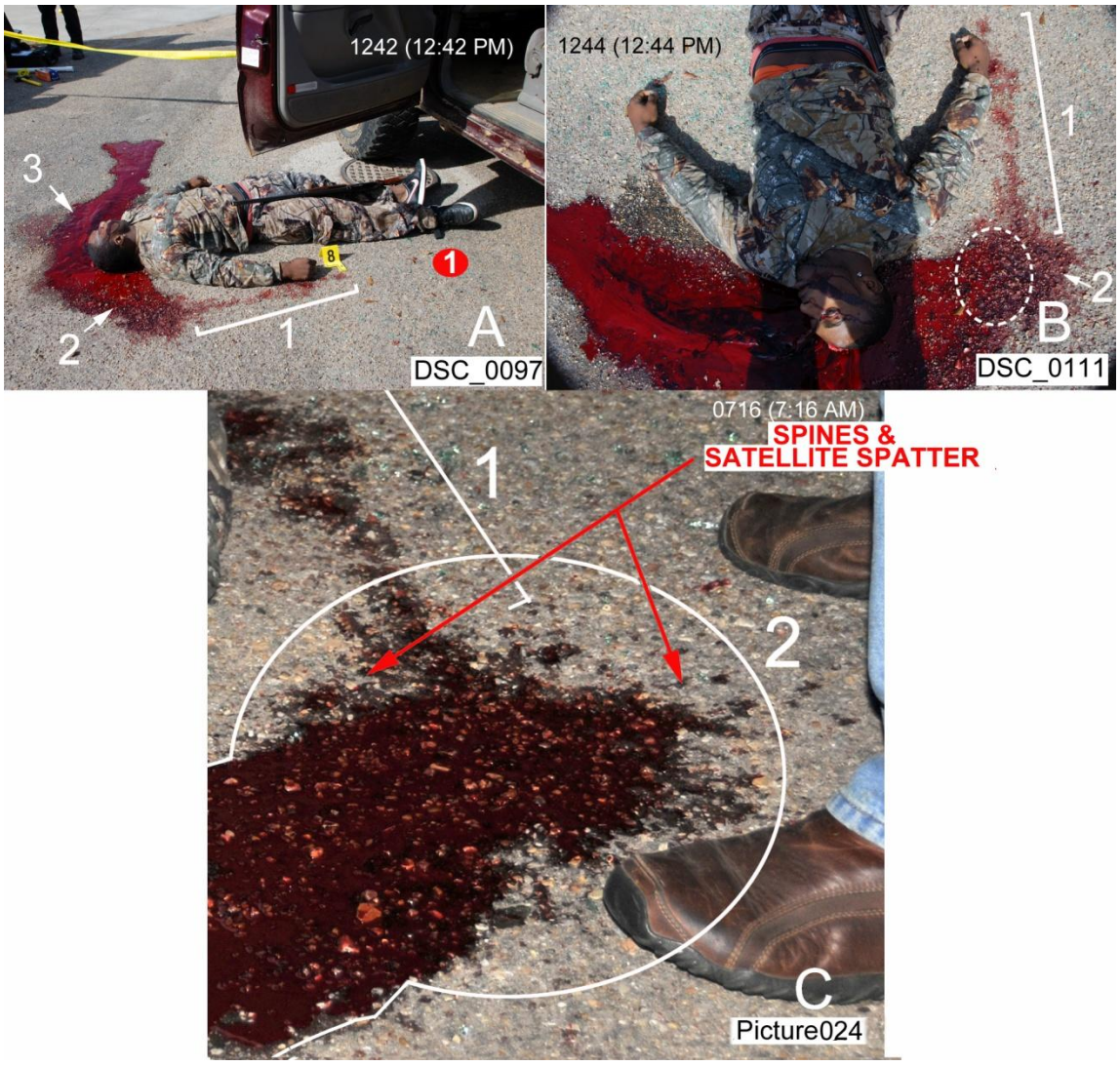

Fig. 7. Pavement bloodstains; stain numbers 2 and 3 correspond to the numbered body positions. The body is in position 3 in these images. (A) Image of the body and associated stains; blood trail 1 documents that the body was moved from the position where he collapsed (at the red dot) following the shotgun discharge. Blood trail 1 goes from the stain just in front of the right hand to the larger stain 2. Bloodstain 3 originated from the body at position 3 as shown. (B) As in A, but image was taken with the photographer standing near the victim's head with his shadow over the body; the dashed line oval is the probable location of the victim's head in body position 2. (C) Image of stains 1 and 2; a spattering event (splash pattern) occurred in circled area of stain 2 when the head was elevated above the pavement prior to setting the body down in position 2. The blood came from the massive, vessel-like head wound (Fig. 1A) when the head was turned to the left while elevated above the pavement, poring blood onto the pavement which created a pool with the spines and satellite spatter due to splashing. Image probably taken at 0616.

3.7 Bloodstains on the pavement

The victim almost vertically collapsed after the shotgun discharge. The bloodstains labeled 1 in Fig. 7 show a trail, which originated from the initial victim collapse location (at the red dot in Fig. 7A). The trail leads to a blood pool. Blood had quickly filled the massive vessel-like head

wound and creating a splash pattern (Fig. 1A) when the victim's head turned left while he was elevated above the pavement. Blood spilled from the vessel-like wound and into the developing pool, the blood-into-blood splashing created spines and satellite spatter (Fig. 7C).

The bloodstains on the pavement document Johnson's body was moved immediately following his collapse to the asphalt pavement.

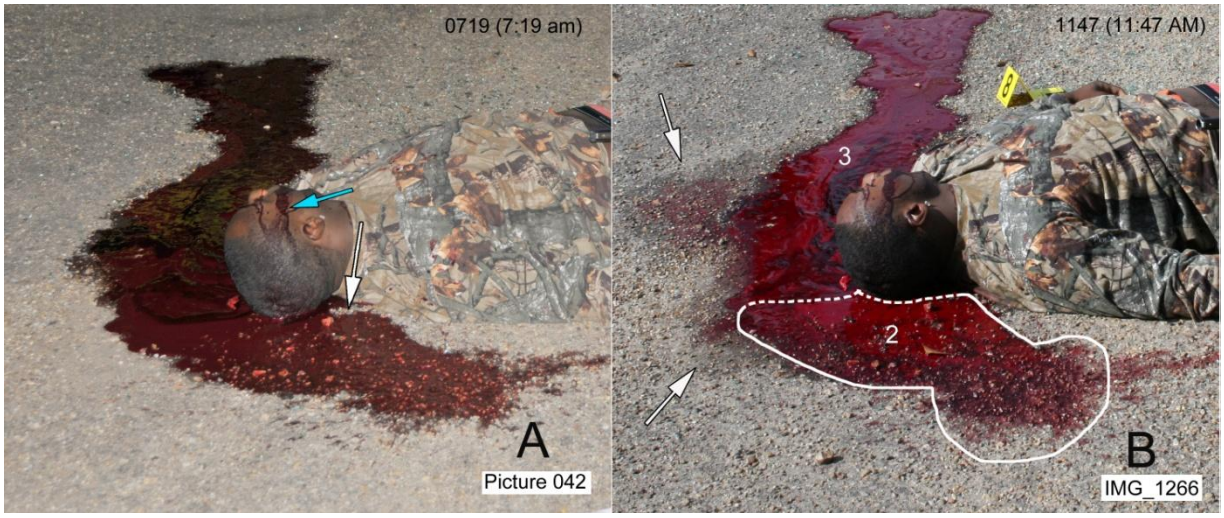

Fig. 8. Bloodstains 2 and 3 and the result of covering the body with a sheet. (A) Image taken at 0719 (likely ~ 0619 (6:19 AM)) showing a gap in the stain near the victim's neck (at white arrow) which was not present in the images taken later. Blood flow from the victim's mouth occurred when his head was facing up or to the right (at blue arrow). (B) The stain gap at the arrow in A provides demarcation estimation between the blood deposited when the body was at position 2 (Fig. 7) and the final position 3 of the body. Bloodstain 3 originated from the final position of the body. The white outline is the estimated extent of the stain when the body was at position 2 to where the blood flow from body position 3 added to the stain from the victim at position 2 (estimated at dashed line). Arrows point to the stains caused by blood and serum wicking by the cloth sheet placed over the body.

A demarcation between the bloodstain pool deposited when the body was on the pavement at position 2 and the final position can be seen in Fig. 8A at white arrow. The blue arrow in Fig. 8A points to blood flow from the mouth when the head was face up or turned to the right. The extent of stain 2 is outlined in Fig. 8B. The dashed line approximates where bloodstain 2 merged with stain 3.

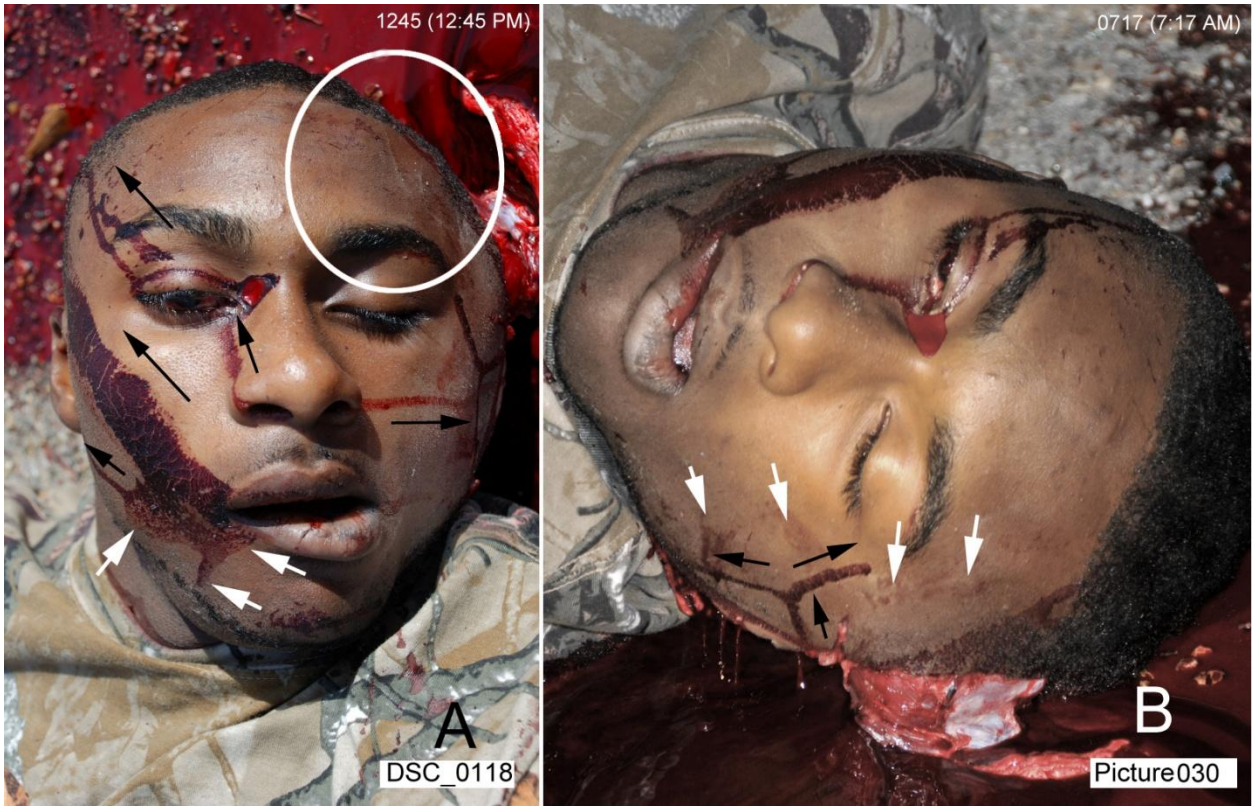

Fig. 9. (A) Bloodstains on the victim's face; black arrows indicate the direction of blood flow when each stain was created. The head had changed positions from the time of the shotgun discharge to the position shown in the scene images. The victim's forehead came in contact with dirt (circled). The white arrows point to a blood wipe that occurred immediately after the shotgun discharge by an assailant's hand when the body was being moved. (B) Transfer stains (white arrows): the time stamp on this image was likely 0617 (6:17 AM) or within one hour of the shooting; the bloodstream from the victim's left nostril shown in A had not yet occurred. Three changes in the body position occurred, which are reflected by the Y-shaped stain. These streams could not have occurred in the found body position. Black arrows show the direction of the blood flow. Transfer stains (at white arrows) occurred before the "Y" arms of the bloodstream. This image was color adjusted by Photoshop/ Image/Adjustments/Hue-Saturation.

3.8 Bloodstain modification by body covering sheet

The consequence of the sheet covering the body is a modification of the bloodstain. Figure 8A is an image of the unmodified bloodstain. Figure 8B, taken more than four hours later, shows the result of the placing a sheet over the body. Blood and serum wicked by the body-covering sheet created blood/serum stains (Fig. 8B at arrows) from the large blood pool.

3.9 Bloodstains on the victim's face

The bloodstains on the face of the victim (Fig. 9) provide additional evidence of the movement of the body immediately after the fatal shot. Dirt on the victim's forehead (Fig. 9A, circled area) indicates that his left forehead came into contact with the pavement. The black arrows in Fig. 9A show blood flow directions. The stains on the victim's right face (Fig. 9B) show his head, face down) was on pavement for a short time. This blood, which originated from his mouth,

flowed along his cheek and then to the ground and may have contributed to the stain trail 1(Fig. 7). Another source for stain trail 1 was likely from the massive shotgun wound on the left side of the victim's head (Fig. 1A).

A blood wipe was on the victim's face (Fig. 9A, white arrows). Its dried appearance, like the large blood flow from the victim's mouth to his right pinna, indicates that these two stains occurred within a short time, likely seconds, of each other. The victim's head was initially near the evidence marker 8 in Fig. 7A, immediately following the shotgun discharge.

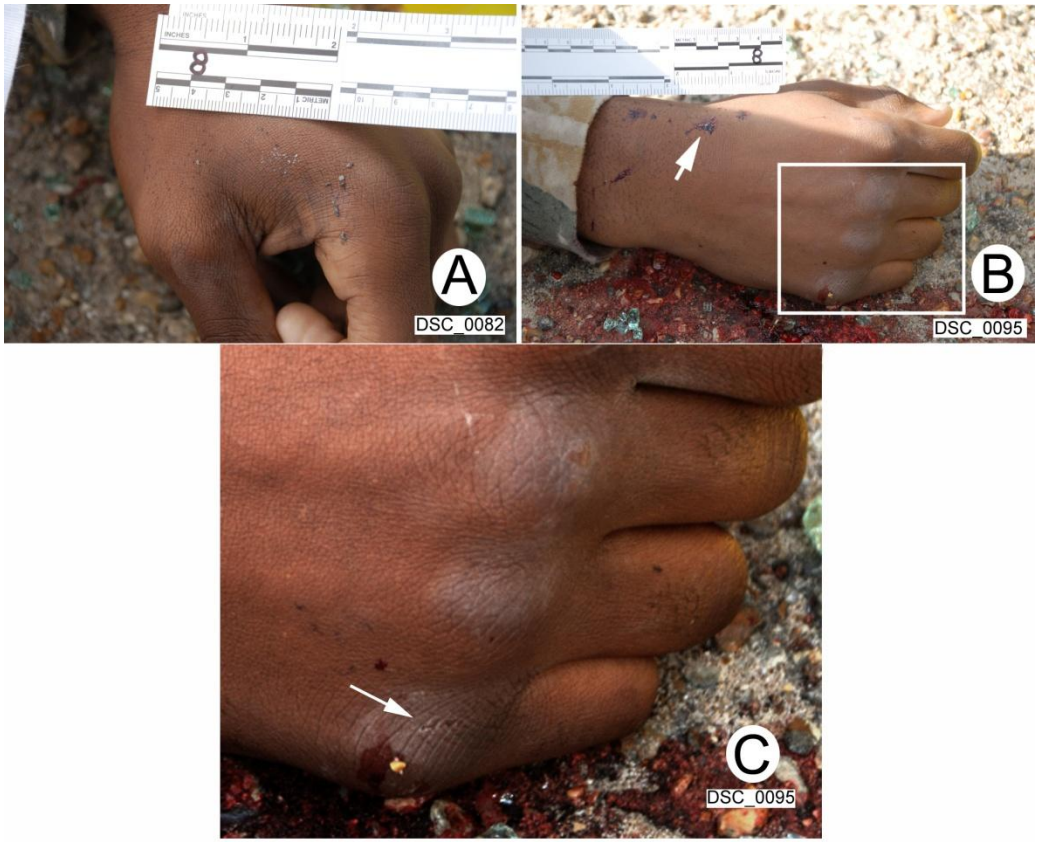

Fig. 10. (A) Left hand of the victim; the hand was in contact with the road pavement where it picked up dirt. (B) Right hand of the victim; the bloodstain at arrow has dirt associated; the outline area enlarged in C. Arrow points to road dirt associated with bloodspatter. (C) An enlargement of the outlined area in B showing the victim's knuckles were abraded; a small amount of skin was more deeply abraded at the arrow.

The Y-shaped blood flow on the victim's left face (Fig. 9B), which originated from the shotgun wound, indicates changes in the head positions occurred within seconds following the wounding. The base of the Y stain (Fig. 9B) shows that the victim's head was face down immediately after wounding and his forehead likely contacted the pavement. The head position momentarily became vertical (the left arm of the Y-shape stain), which was followed by the head angle changing to a third position (the right arm of the Y-shaped stain). The latter blood flow was approximately at the same angle as the blood flow from the victim's mouth on his right face (Fig. 9A).

Before the creation of the two arms of the Y-shaped bloodstain, multiple transfer stains (Fig. 9B, white arrows) are on the victim's left face, under the two arms of the Y-shaped stain. The victim's head/body was manipulated immediately after the shotgun discharge by blood-contaminated hands.

3.10 The victim's hands

The victim's hands had dirt on them (Figs. 10A and 10B) indicating that these surfaces had been in contact with the pavement before body position 3. The right hand knuckles (Fig. 10C) also had abrasions, which were not reported in the autopsy report [2]. The victim appeared to have been punching at his assailants before his death although he could have obtained these abrasions in a high school football game two days earlier. But an image of the victim showed he was wearing gloves at a football game [20].

3.11 Stun gun discharge wounds

Two small wounds were on the victim's right lateral mid-lumbar region (Fig. 11A and Fig. 11B at red arrows). Notable is a halo of hyperemia approximately 10 cm from the wounds (Fig. 11B). The inferior wound (Fig. 11C, left) appears superficial, dispersed and roughly square. The superior wound (Fig. 11C, right) appears to have had skin penetration. An oval brown discoloration was within the hyperemic region of this wound, suggesting penetration and perhaps singeing. However, some wounds keep margins somewhat reddened (hyperemic) as the refrigeration in the morgue reoxygenates the areas that subject to a small loss of the superficial layer of the epidermis. The distance between the wounds was approximately 3.7 cm using the scale shown in Fig.11A.

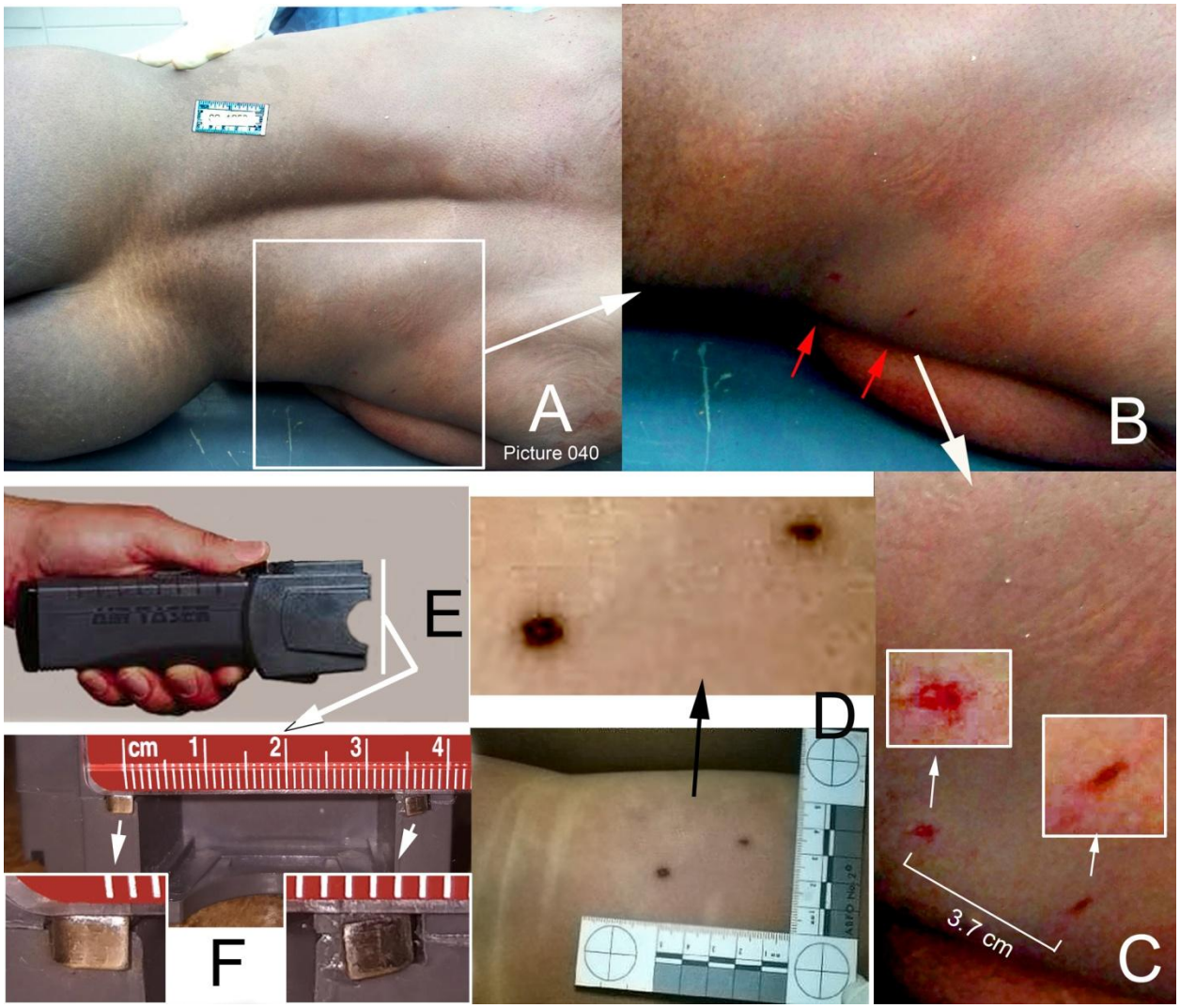

Fig. 11. Wound evidence of the stun gun used in the victim's attack. (A) The posterior torso of the victim showing two small wounds on his right lateral mid-lumbar skin. (B) Enlargement of the area in the square in A; image was color adjusted (Photoshop/Image/Adjustments/Hue/Saturation) to show a halo of hyperemia about 10 cm from the wounds. (C) Additional enlargement of this wound area reveals the two wounds have different shapes. (D) Similar wounds were attributed to a stun gun in the1996 JonBenet Ramsey homicide case; images downloaded from the Internet via Google. (E) The Air Taser 34000 without its taser dart projection module; this Taser model ceased production in 1998 [26]. (F) The Air Taser 34000 face without its taser module showing its electrodes; the two electrodes are flat, copper or copper plated tabs (image from [27]). The right electrode (inset) was forcibly lifted, breaking away part of the electrode housing (note scratch marks), likely to achieve better skin contact, thus converting the taser into a stun gun. The electrode central distance between the two in this example was approximately 3.7 cm.

In the JonBenet Ramsey homicide (Dec 25, 1996), two small wounds were found on her body and another two on her face were attributed to a stun gun by some investigators. However, a stun gun involvement in her death was disputed [20,21]. These wounds are distinctive in that they appear to be burns (Fig. 11D, top). On her abdomen one was square (Fig. 11D, left) and the other was smaller and elongated (Fig. 11D, right).

The Air Taser 34000 was manufactured from 1994 to 1998, and came in two parts: the handle power source and the dart/electrode projection module or taser [23]. When the dart projection module is removed (Fig. 11E) two flat copper-colored electrodes are revealed. It appears that a requirement to convert the base taser to a stun gun necessitates forcibly lifting one of the electrode tabs (Fig. 11F, right inset). The Air Taser 34000 base unit shown with this modification Fig. 11F is consistent with the wounds with the JonBenet Ramsey (Fig. 11D). The distance between the wounds was 3.5 cm [22] when measured from the center of each.

The difference between these wounds in Johnson (3.7 cm) and those of Ramsey (3.5 cm) appears due to the one electrode (the right one in Fig.11F) had been bent to 90 degrees in Johnson, increasing this distance by 2 mm. Evidence that an electrical current was applied via a stun gun to Johnson was the victim's clothing (3 shirts, Picture 005 [12]) and skin impedance reduced the electrical current to cause vasodilatation [24] generating a halo of hyperemia approximately 10 cm from the wounds (Fig. 11B). This halo remained at Johnson's death and although distinctive, was not noted in the autopsy report [2].

3.12 Love card on the truck's instrument panel

Figure 12 shows a 7.6 x 20.3 cm (3 X 5 inch) card on the instrument panel area of the victim's truck at three different times during the shooting scene processing. This is a hand-written love note (Fig. 13). Figure 12A, an image likely taken at 0609 (6:09 AM), shows the original position of the card on the instrument panel of the victim's truck. The victim did not place the card there simply because it was not in a stable position and there is a transfer stain on the card's top left corner (Fig. 13B). The card was also slightly bent (Fig. 12A, arrow).

Fig. 12. Images taken at different times of the victim's truck instrument panel with the love card (see Fig. 13). (A) Image taken at 0709 (7:09 AM); the time stamp is likely off by an hour would mean this image was taken at 0607 or within an hour of the victim's death. This image is out of focus. However, there is enough focus and resolution to show that the card is slightly bent at the arrow and positioned with its left side propped on the side of the instrument panel and its right lower corner on the steering column base bracket. Image sharpened by Photoshop: Filter/Sharpen/Unsharp Mask. (B) Image taken at 0924 (9:24 AM) and is enlarged by pixel addition (Photo: Image//Image Size/Pixel Dimensions – pixels added), but due to low resolution of the original image, is pixilated. The card is now fully on the instrument panel. It is in this card position that a secondary transfer bloodstain occurred (Fig. 12B). (C) By 1147 (11:47 AM), the card had shifted from the position shown in B.

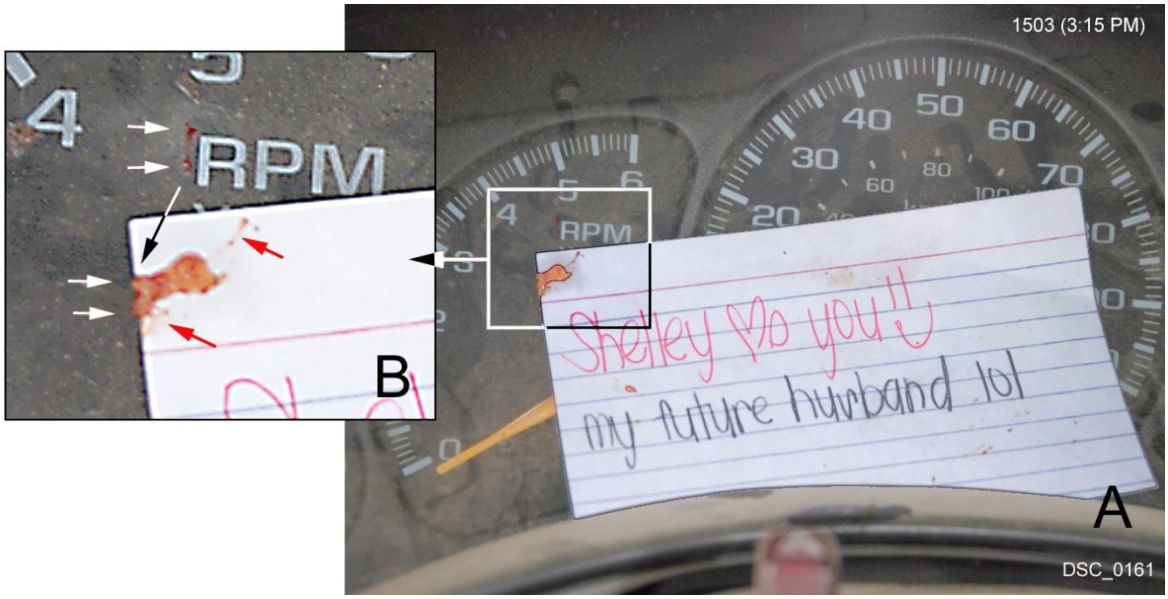

Fig. 13. (A) The instrument panel love card; the upper corner (in square) is a transfer bloodstain. (B) The enlargement (Image//Image Size/Pixel Dimensions – pixels added) of the edge of the card shows the transfer bloodstain, which had an edge accumulation of blood that secondarily transferred to the instrument surface (upper pair of white arrows); this occurred at the time the card attained the position shown in Fig. 12B. The pattern of the transfer corresponds to under-card edge blood accumulation on the card (at lower pair of white arrows). The bloodstains at the red arrows are associated with the main transfer but had just a small amount of blood transfer.

An image taken at 0924 (9:24 AM) (Fig. 12B) shows that the card had been flattened and moved more onto the instrument panel. The position of the card at 1147 (11:47 AM) shows that it had moved again (Fig. 12C) although this time it likely shifted without human assistance.

As of this writing, the origin of the card is unknown and who "Shelley" is (Fig. 13A). The bloodstain on the card (Fig. 13B) is a transfer, which likely occurred immediately after the shooting. The person who placed the card was contaminated with the victim's blood. Enough blood was associated with the transfer and was wet for there to be secondary transfer (Fig. 13B, at upper pair of white arrows). The poor focus of image Fig. 12A and the card's relative brightness makes the stain, likely present at this time, undetectable. The secondary bloodstain transfer to the instrument panel surface occurred when the card was in its second position (Fig. 12B).

Despite the card offering critical information that likely would lead to those responsible for this homicide, it was not collected as evidence and could have remained with the truck when it was returned to the victim's family.

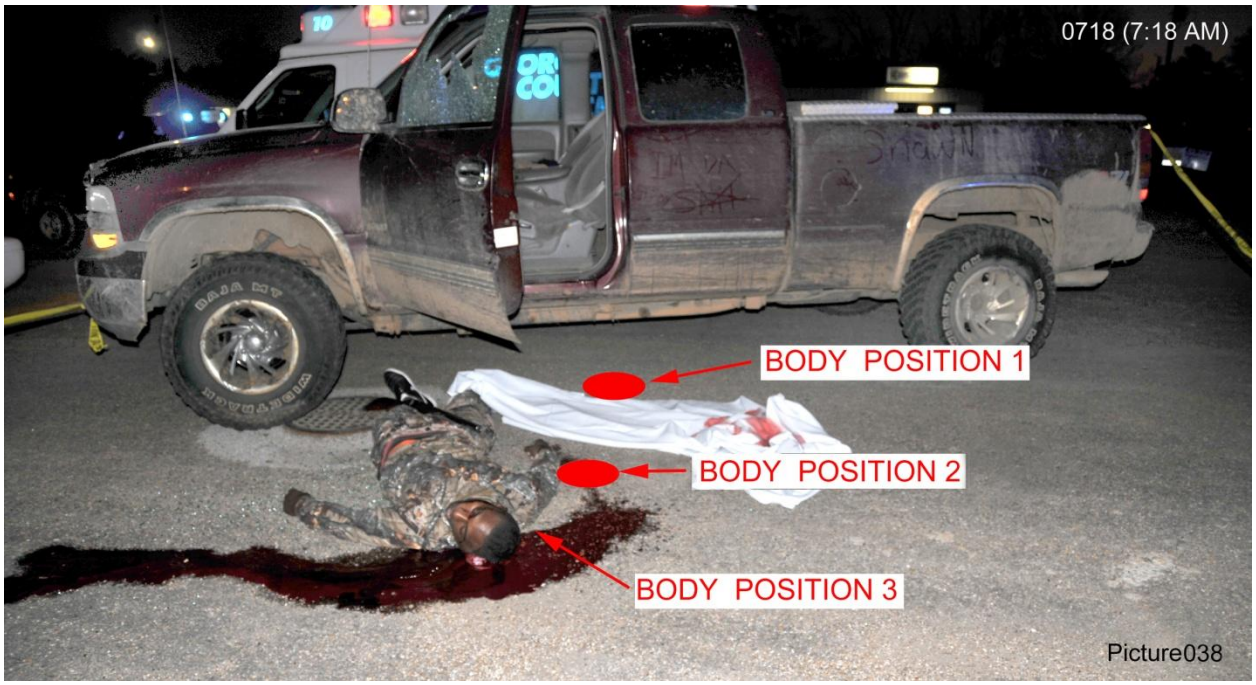

Fig. 14. Estimated locations of the staged body positions (center torso positions at red dots); the sheet used to cover the body is to the right of the body. Image likely taken at 6:18 AM (0618).

4.0 Reconstruction

The victim drove into the driveway of a small business park, followed by the police officer. Upon stopping, the victim got out of his truck, leaving his vehicle's door open. Two or more assailants attacked him. The struggle with his attackers either started away from the truck or he

could have been pulled from his truck. There appeared to have been no physical contact with the dirty truck (Fig. 14) during the attack. At this point, another assailant proceeded to the front left of the truck so that the truck's door was between him and the victim struggling with his assailants. He thrust the muzzle of a 12 gauge shotgun through the window projecting tempered glass shards to the rear of the truck (Fig. 4). An assailant discharged a stun gun to the victim's right lateral lumbar region of his abdomen (Fig. 11) while he was apparently punching at his assailants, abrading his right-hand knuckle (Fig. 10C) although he could have received the abraded knuckles during a football game two days before. It appears that the physically associated victim/assailants were not within the projection area of the glass when the breakage occurred because only one glass shard was detected on the victim's clothing (Fig. 6A, arrow). There were no voids in the pattern of the shards on the pavement. If the victim had broken the truck window during his alleged suicide, most of the glass shards would have been on the exterior side of the open truck door, which is not the case (Fig. 4).

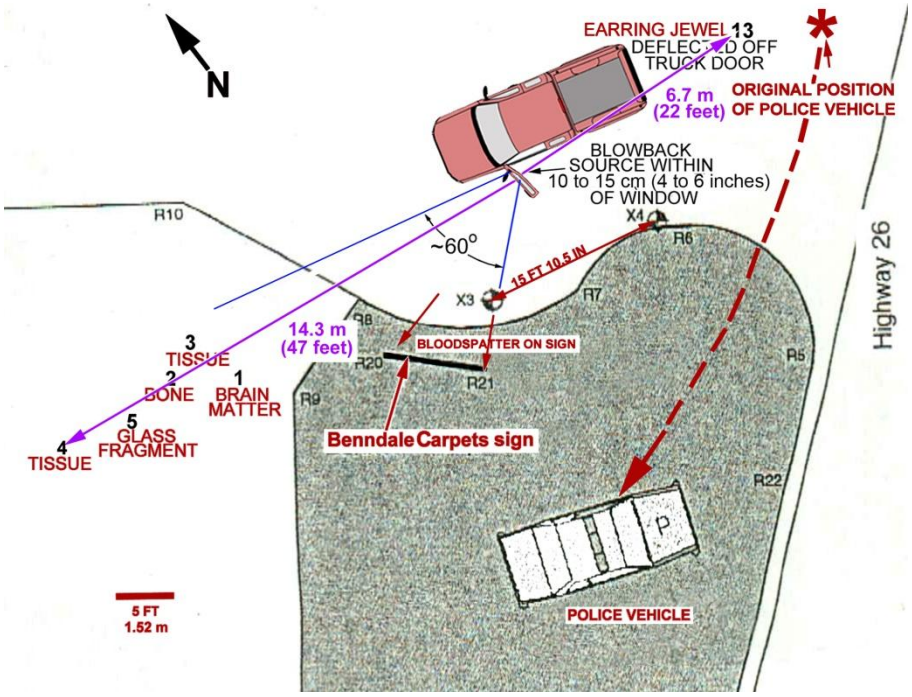

Fig. 15. Trajectory of the spattered tissue from blowback for the contact or near contact discharge of the 12 gauge shotgun to the victim's left head. Based on evidence items 1 through 5, which are pieces of tissue and a piece of glass and the bloodspatter on the Benndale Carpets sign is approximately 60 degrees from the truck's driver side door.

The assailants maneuvered the victim so that his head was within an estimated 10 to 15 cm (4 to 6 inches) of the open interior truck door. The assailant's 12 gauge shotgun, while the barrel was positioned through the broken window, was discharged with the muzzle in near contact to the left side of the victim's head. The discharge of the shotgun produced a blast, which dislodged the victim's earring from his pinna with sufficient force to not only separate the earring's jewel from its base but embed the earring base in the vinyl of the truck door's windowsill (Fig. 3E). The earring jewel bounced off the door windowsill to the location at the rear of the truck (Fig. 15, item 13).

Within milliseconds of the shotgun's discharge into the victim's head, blowback occurred. Blowback of the gunshot gases with blood, bone and other tissues occurs with a contact or near contact gunshot discharge to a victim's head [25].

The 12 gauge shotgun discharge produced a massive blowback through the entrance/exit wound (Fig. 1A) where it sent tissue as much as 14.3 m (47 feet) from it (Fig. 15, item 4). The west border of the triangular area of tissue projection was marked by evidence item 3 (Fig. 15) and to the east border of the back spatter area (marked by the Benndale Carpets sign, Fig. 15) is about 60 degrees. When projecting back on the triangular area to the truck window, the blowback was consistent with a 10 to 15 cm (4 to 6 inches) source from the interior of the truck door window (Fig. 15). Tissues were projected through the iris-like window remnant and onto the remaining tempered glass fracture mosaic window (Fig. 3C). The shooter and his shotgun were also hit with blood and tissue blowback.

Following the discharge of the shotgun into the victim's head, he nearly vertically collapsed into position 1 (Fig. 14) with his head down, bloodstreams flowed onto his face (Figs. 9A and 9B) and his forehead momentarily on the pavement (Fig. 9A – dirt on his forehead). Transfer/wiped bloodstains were associated and under these bloodstreams (Figs. 9A and 9B), which indicates that the body was handled by at least one blood-contaminated assailant immediately after the shotgun discharge.

The wiped bloodstain at the right side of the victim's face (Fig. 9A, at white arrows) indicates that an assailant who handled the body was contaminated with the victim's blood. The Y-shaped stain (Fig. 9B) reflects the blood flow that resulted in at least three positions of the head. The blood transfer from assailant to victim (Fig. 9B at white arrows) occurred during the early staging of the victim's body before the creation of the Y-shaped blood flow.

The moving of the body from position 1 to position 2 (Fig. 14) left a trail of blood (Fig. 7, at 1), which came from both the entrance wound and blood flow from the victim's mouth (Fig. 9A). At bloodstain 2 (Fig. 7) is a large stain that has spines and satellite spatter. This was created when the victim's head was elevated above the pavement and his head turned left spilling blood from the vessel-like wound (Fig. 1A) before placing the body down where additional bleeding from the wound added to the blood pool, which flowed west (Fig. 8). The body was moved again to its final position (Fig. 14, BODY POSITION 3) where the blood pool 2 was joined by the blood pool 3 (Fig. 8). The demarcation of the two blood pools is estimated in Fig. 8B. The victim's heart was beating for some time after he was shot.

Officer Kevin McDonald (Mississippi Department Wildlife & Fisheries) was at the shooting scene within minutes of the radio call by Officer Sullivan at 0530. Officer MacDonald noted, "There was also a shotgun on the scene laying [sic] not approximately two to three feet from the subject on the ground" [28].

The staging was completed by placing the victim's shotgun on the body (Figs. 6 and 7A), which occurred after game warden McDonald left the scene. The victim's shotgun was not used in this homicide because 1) no spattered blood/tissue was detected on the shotgun or within its bore at the muzzle and 2) the victim's head position was within a 10 to 15 cm (4 to 6 inches) of the truck

door window when shot. Even if this distance was as much as 30 cm (12 inches), it would still not allow for the positioning of the shotgun in the suicidal or accidental (e.g., Fig. 16A) discharge of the shotgun, given the shot trajectory in the victim's head.

The 12 gauge casing shell could have been transferred from assailant's shotgun to the victim's shotgun. This homicide reconstruction predicts that the casing in the victim's shotgun was fired by another shotgun (unless a casing was left in the shotgun from a previous discharge by the victim). Examination of the firing pin and breach-face marks on the 12 gauge shotgun casing recovered from the victim's shotgun and comparison to test-fired casings from that shotgun might show that the casing remaining in the shotgun was not fired by that shotgun. The firearm

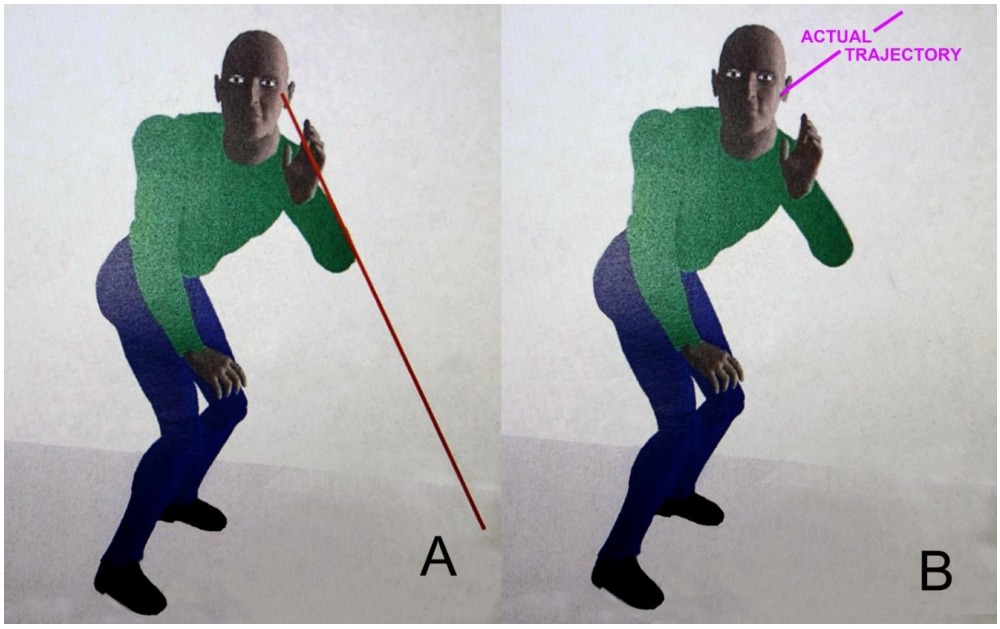

Fig. 16. (A) Graphic of the Billey Joe Johnson "accidental" death scenario presented to the George County Grand Jury, which showed an incorrect shot trajectory (red line). (B) The corrected graphic of the trajectory of the shot from the shogun discharge; the shot was from left to right and upward from the mouth or in terms of shotgun discharge origin, the trajectory of the near contact discharge was downward from the left ear to the mouth. Because the shot was penetrating, there was massive blowback.

examiner's report did not have a toolmark examination of the 12 gauge shotgun casing found in the victim's shotgun.

The act of an assailant at the scene was the placing of a 7.6 x 20.3 cm (3 x 5 inch) card to the left of the truck's steering wheel column (Fig. 12A). The card was initially partially folded when placed on the truck's dash (Fig. 12A, arrow). During the processing of the scene by the police and criminalists, by 0924 (9:24 AM), the card had been flattened and moved from its unstable position (Fig. 12A) to be directly on the instrument panel (Fig. 12B). Before 1147 (11:47 AM), the card had shifted counter clockwise (Fig. 12C).

The transfer bloodstain on the card was from a blood-contaminated assailant. The flattening of the card and repositioning it one, perhaps two, times during the processing of the scene indicates a processor or official who had access to the scene was "fixing" it.

5. Conclusions

The scene and autopsy images [12,13] show that the victim's death was a homicide. The body was moved twice after the shotgun discharge to stage a suicide or accident. A person who handled the victim or was the shooter placed the love note with blood transfer on the truck dash. Multiple assailants were involved: one person firing the shotgun (not the victim's shotgun), two or more persons holding the victim, applying the stun gun, and positioning him to be shot near the interior part of the open truck door.

Ten autopsy images are missing (Table 1) from those transmitted to the authors for evaluation.

The victim was not the shooter by a shotgun that was not his.

6. Mistaken expert opinion

The Mississippi Medical Examiner, Lewis, settled on "accidental" as the manner of death. "I think most convincing evidence of that the gun fired when it was dropped" [7]. This determination was based on a Mississippi crime lab's firearm expert who dropped the 12 gauge shotgun on its muzzle, which caused it to discharge [29]. Medical Examiner Lewis' report [2] missed both the victim's abraded right knuckle and stun gun wounds on his right lateral lumbar abdomen.

The George County Grand Jury allegedly interviewed 30 witnesses and reviewed 65 exhibits [3]. Only one of these exhibits was available for this study, which was a summary graphic presented to the jury showing an incorrect trajectory of the alleged accidental discharge of the shotgun (Fig. 16A). The correct angle is shown in Fig. 16B.

Forensic pathologist Melineck noted that it was "highly probable that this self-inflicted wound given the scene and the circumstances of the case" [8]. It appears likely that Melineck did not closely examine the scene images, otherwise she could not have come to this conclusion.

When forensic pathologist Weedn was asked if Billey Joe Johnson killed himself, he replied, that it was "highly probable-whether intentionally or accidentally." But when asked if "someone else may have shot him," Dr. Weedn noted, "this really requires looking at all the case information, which I do not have the time to do" [9]. It appears that at least three forensic pathologists who offered opinions as to the manner of death came to opinions without examining the scene or scene images.

Letson and Jones of Reveal–The Center for Investigative Reporting provided the discovery for this article. The opinion of homicide was transmitted to Reveal by author **** and was also expressed in a recorded interview at his laboratory. Letson and Jones obviously did not consider the conclusive evidence of homicide in their podcasts [10]. Attempts were made to determine why. There has been no response despite a recent request for comment after sending this report to these individuals.

References

[1] J. Sullivan, BJJ witness review and log: interview transcript police officer witness – 14/08/2008 trt:11:09. 2008. (www.meixatech.com/johnson-officer.pdf). accessed Nov 15 2022

[2] A. Lewis, Autopsy Report: Johnson, Billey Joe, Jr. 2008 (www.meixatech.com/LEWIS-AUTOPSY1.pdf) accessed Nov 15 2022

[3] George County Grand Jury, Death investigation of Billey Joe Johnson, Jr., accidental death by shotgun. 2009. (www.meixatech.com/johnson-gjreport.pdf). accessed Nov 15 2022

[4] R.J.Moossy, Letter to Billey Joe Johnson Sr. Civil Rights Division, United States Department of Justice Mississippi 2011. (www.meixatech.com/johnson-doj.pdf). accessed Nov 15 2022

[5] US Department of Justice, Civil Rights Division Notice to Close File, Investigation of the death of Billey Joe Johnson 2009. (www.meixatech.com/johnson-doj.pdf). accessed Nov 15 2022

[6] Reveal: The Center for Investigative Reporting P.O.BOx 8307, Emeryville, CA 94662. (https://revealnews.org) accessed Nov 15 2022

[7] A. Lewis, Interview Transcript - The autopsy of Billey Joe Johnson Jr. 2018. (www.meixatech.com/LEWIS-AUTOPSY2.pdf). accessed Nov 15 2022

[8] J. Melineck, Interview transcript on the manner of death of Billey Joe Johnson 2018 (www.meixatech.com/johnson-melinek.pdf). accessed Nov 15 2022

[9] V. Weedn, Interview transcript on the manner of death of Billey Joe Johnson 2018. (www.meixatech.com/johnson-weedn.pdf). accessed Nov 15 2022

[10] J.,Jones, A, Letson, Mississippi-goddam 2021. (https://revealnews.org/mississippi-goddam/) accessed Nov 15 2022

[11] B.R.Burnett, Analysis of modified photographs submitted to Federal Court and the United States Congress. J Forensic Res 2016, **7**(5):1 - 8.

[12] Mississippi Department of Justice Crime Lab, Billey Johnson - Shooting scene images 12-8-2008. (www.meixatech.com/johnson-sceneimages.pdf). accessed Nov 15 2022

[13] Mississippi Department of Justice Crime Lab, Billey Johnson- Autopsy images 2008. (www.meixatech.com/johnson-autopsyimages.pdf). accessed Nov 15 2022

[14] V.J.Geberth, The seven major mistakes in suicide investigation. 2013 (www.practicalhomicide.com/Research/7mistakes.htm). accessed Nov 15 2022.

[15] V.J.M.DiMaio, Gunshot wounds: practicle aspects of firearms, ballistics, and forensic techniques 3ed. Boca Raton: CRC Press; 2016.

[16] G.Rotter, V. Agostini, M. Borrini, F. Camana, D. Capatti, A. Ferrara, Terms and definitions in bloodstain pattern analysis (OSAC/ASB).

[17] L.B. Shields, D.M. Hunsaker, J. Hunsaker III, Trends of suicide in the United States during the 20th century. *In* Tsoko M editor, Forensic Pathology Review 2004. Humana Press, Totowa.

[18] M.G.Haag, L.C.Haag. Shooting incident reconstruction: Practical aspects of firearms, ballistics, and forensic techniques 2ed. Boston: Elsevier; 2011.

[19] C.Hawks, Shotgun recoil tables 2020 (www.chuckhawks.com/shotgun_recoil_table.htm) accessed. Nov 15 2022

[20] https:/www.wlox.com/2021/12/09/13-years-later-father-pleading-answers-sons-death-geaorge-county/

[21] M.Carra, The JonBenet stun gun theory is disputed. 2016. (https:// www.bustle.com/articles/179198-things-about-the-jonbenet-ramsey-mystery-you-need-to-know) accessed. Nov 15 2022

[22] D.Kohn, Searching: The stun gun theory. 2002. (https://www.cbsnews.com/news/searching-the-stun-gun-theory/). accessed Nov 15 2022

[23] Anon, The Taser (httpe:/e.wikipedia.org/wiki/Taser). accessed Nov 15 2022

[24] J. Walker, R.W.Salo, J.M. Pastore, E. Mokelke, Systems and methods for electrical stimulation of blood vessels. 2008. United States Patent 8442639B2.

[25] L.C. Garavaglia, B. Talkington, Weapon location following suicidal gunshot wounds. 1999. Am J Forensic Med Pathol 20(1):1–5 DOI: 10.1097/00000433-199903000-0001.

[26] Randall, Evolution of the police TASER. (thinblueflorida.com/?p=2703). accessed Dec 5 2022.

[27] Anon, The original Air Taser (https:// lessleathalarms.worldpress.com/2013/01/19/th-original-air-taser/). accessed Dec 6 2022

[28] Reveal: The Center for Investigative Reporting, Mississippi Goddam Podcast 6, 2021 (https://revealnews.org/podcast/mississippi-goddam-chapter-6-mississippi-justice/). accessed Nov 15 2022

[29] C.Fullilove, Dropped shotgun experiment. 2009. (www.meixatech.com/johnson-shotgun.pdf). accessed Nov 15 2022