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Certificate of Re-Examination

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Reference: Inge Lotz Homicide/ Footwear Impression Evidence

Evidence Submitted:

Compact disc bearing images of impressions from crime scene

Results:

Photograph 02, indicated as taken by Inspector Desmond Share on March 17, 2005 of the victim's bathroom floor, depicts two separate and distinct impressions in a reddish-brown substance. These impressions are adjacent to a beige bathmat and a white towel, and are separated by a single grout line in the tile floor. Each of the two impressions is approximately 3cm in length and of differing physical shapes.

The lower of the impressions depicted in the photographic images, possess two distinct curved edges, each of these is likely synonymous with the shape of the contact object that produced the marks. The uppermost of the two impressions is more consistent with the smearing of spatter consisting of the reddish-brown substance rather than a contact transfer of a design element of footwear or similar object.



It should be noted that the white towel in **Photograph 02**, also bears a considerable amount of the aforementioned reddish-brown discoloration, however it does not appear to be saturated to the extent as to produce the questioned marks.

Photographs 05 and **06**, indicated as taken by Superintendent Koekemoer on April 28, 2005, each depict the original or same impressions photographed on March 17, 2005. **Photograph 05**, like **Photograph 02**, was taken without the use of a photographic scale or ruler for reproduction purposes; however, photograph 06 does include a proper photographic scale. These two images (**05 and 06**) also indicate the removal of the aforementioned floor mat and towel. Visible in these two images are a third impression or mark, previously obscured by the white towel. This impression or mark is further addressed in an additional paragraph.

The lower of the two previously described impressions, which had clear and distinct curved edges in **Photograph 02**, now has, in **Photographs 05** and **06**, a distinct appendage, approximately 3mm square on the lower right side. The upper side of this lower impression has been obliterated with moisture and the reddish-brown color is now visible on the grout joint between the tiles.



It can not be determined whether these alterations were by intent or by accident, it can however be concluded that these two areas of the mark are not part of the original impression and therefore, can not be considered either class characteristics or individual characteristics for comparison purposes.



The previously mentioned third impression or mark obscured by the white towel is a thin, curved, reddish-brown, vertical line approximately 3cm in length. The lower portion of this impression has likewise been obscured by moisture. It should be noted that this impression is in direct correlation with the stitching of the outside border of the towel and is likely the result of contact with this corresponding area of the towel.

Photograph 07, indicated as taken by Superintendent Koekemoer on April 28, 2005, and **Photograph 09**, indicated as taken by Superintendent Kock on June 10, 2005, both depict the aforementioned three impressions after the floor was processed with Amido Black or a like biological stain. This process does little to enhance the impressions from their previous state of comparability. It does however, accentuate the altered areas of the lower impression previously described in this report. (see Photographs 7 and 9 below)

It is important to note that there is no noticeable parallax or distortion in any of the examination photographs that could account for dissimilarities in the comparison process.



Photograph 10, indicated as taken by Superintendent Bartholomew on August 16, 2005, depicts the heel portion of a right Hi-Tec brand athletic shoe. This image appears slightly out of focus, but otherwise correctly displays a majority of the heel outsole.



Additional photographic images were submitted either in the aforementioned compact disc or by email, and include photographs indicating the location of the victim's body in the living room, as well as images of the outsides and uppers of a pair of Hi-Tec athletic shoe. The right shoe is the same shoe depicted in **Photograph 10**.

Additional Observations and Conclusions

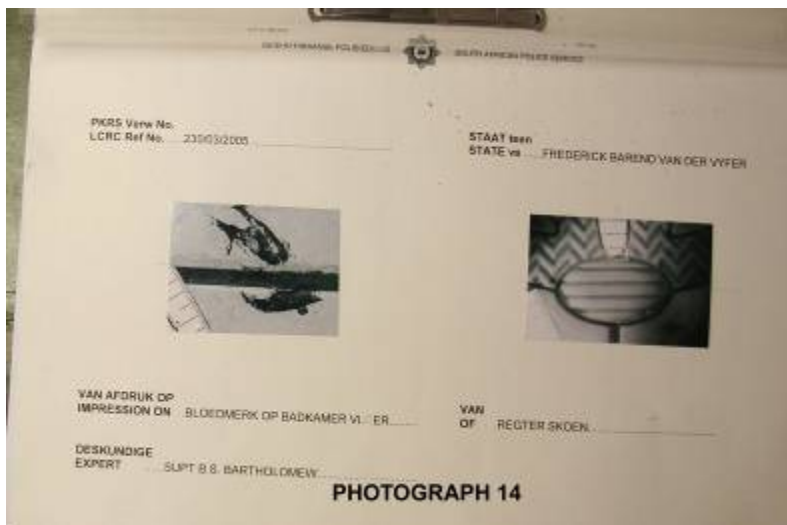
Inasmuch as there are no sequential impressions leading from the area nearest the victim's body to the bathroom where the questioned impressions were located, it is highly unlikely that said impressions were blood tracked from the location of the victim to the bathroom, unless the perpetrator were aware of the presence of blood on his or her shoe. If this were the case, the impressions in question would likely have been removed by the perpetrator before leaving the scene.

Typically when blood or other thick liquids are tracked through a scene, upon initial contact with the floor, the majority of the liquid is relegated to the recesses of the shoe outsole; therefore, the succession of impressions to follow would reflect a mere outline of the design element and not true likeness of the element as is suggested in this case.

Although the submitted photographic images depict only one image of the victim's location, there does not appear to be a source of blood on the floor for initial contact with a suspect shoe other than the area directly below the victim's head. That area should reflect a like impression to that on the bathroom floor if it were in fact the source of the impression.

It should also be noted that there is nothing in the photographic evidence of the impressions that would indicate the marks were produced exclusively by footwear. The reddish-brown stains or blood could have been transferred by any number of physical items and may have been produced by the murder weapon itself.

Typically, comparison examinations of this type are conducted by first reproducing the mark in question on a similar substrate. The impressions in this case are two dimensional in nature. They are not impressed into the substrate as would be a mark in soil. Therefore, for accurate comparisons, a two dimensional standard of the suspect shoes should have been prepared using ink or another approved method. This would render a known standard suitable for comparison purposes, rather than a mirror image of a three dimensional object. This would eliminate a false association as in this case.



Photograph 14, referred to as the Barthomew Court Chart, exhibits only similar shaped class characteristics; however, these are very much in disagreement. All conclusions involving impression evidence are based on the presence of class characteristics (outsole design, size and wear) and the presence of individual characteristics (cuts, scratches, holes and

embedded foreign objects) being in agreement. In using these two types of characteristics, three separate and distinct conclusions can be reached. 1. Positive

conclusions (Identifications or Individualizations) require the presence of both class characteristics and individual characteristics. These characteristics must be in direct correlation (total agreement) in both the questioned and known impressions. 2. An Inconclusive Conclusion can result from corresponding class characteristics in total agreement, but without the presence of individual characteristics. This should never be considered an identification, only a possible association. 3. Exclusions result when neither class characteristics nor individual characteristics are in agreement.

The purported Bartholomew affidavit {A131} translation indicates “In respect to type, size, place, position and relation of the unique characteristics to each other, the class of (the) impressions are comparable with the right shoe.....). This is an incorrect statement, as none of these class characteristics (type, size, place, position and relation of uniqueness) are in agreement. There is no uniqueness of comparable value in this impressions examination and to assert so would be a false conclusion.

Final Conclusion

Based on the aforementioned observations and conclusions, it has been determined that the questioned impressions appearing in **Photographs 02, 05, 06, 07** and **09** were not made by the aforementioned Hi-Tec athletic shoes. Further, any association between these impressions and the suspect Hi-Tec shoes, by anyone purporting to be qualified in this forensic discipline, should be considered an erroneous conclusion by the court.

The remaining images included in the submitted compact disc were not used for analysis or in reaching the stated conclusions, due to the indistinct nature of the images.

I attest that the afore stated results are a true and accurate compilation of my findings in the captioned case and that these results are based on my independent analysis of the aforementioned photographic images. These results are in no way based on conclusions reached previously by other examiners, whether contradictory or affirming my results.

Michael R. Grimm, Forensic Consultant