



### D15 A Case of Double Jeopardy: How 3D Laser Scanning Clarified the Truth

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After attending this presentation, attendees will learn how 3D laser imaging can play a major role in determining characteristics and measurements of physical objects found in digital media and can “make the difference” in providing conclusive proof that in the past has been left to the subjectivity of art, rather than science.

This presentation will impact the forensic science community by bringing to their attention that having a client found “not guilty” alone may not influence the parole board’s “a preponderance of the evidence” standard. Also, this case identifies an innovation in forensic image and video analysis in the area of object and facial comparison.

This is a criminal case involving first degree murder and arson, where the defendant was acquitted in 2007.<sup>1</sup> He was on parole for unrelated property crimes at the time of his arrest and acquittal for first degree murder and arson and therefore remanded to jail for revocation of his parole. The parole board has a different standard when determining the involvement of a parolee in a criminal act while on parole. If the parole board believes that a preponderance of the evidence suggests that the parolee committed the act in which they were charged, then the parole board can revoke the parolee’s parole. This is exactly what happened in this case. Although he was completely exonerated for the murder/arson offenses, the parole board believed he was guilty, and therefore was returned to prison to serve out the rest of his unrelated 15-year sentence.

A parole revocation hearing was set and the defense attorneys contended that this was analogous to “double jeopardy,” because the defendant was being retried to determine his innocence again. A forensic consultant was hired by the firm to evaluate all forensic evidence presented in the original criminal trial.

The prosecution’s case relied heavily on surveillance video footage taken in the lobby of the high rise building in question. This presentation focuses on the surveillance video that shows a black man wearing a coat similar to the defendant, leaving the first-floor lobby stairwell during the time of the fire and murder. The crime scene was on the 10<sup>th</sup> floor. The investigators and prosecution contend even today that the subject in the surveillance video was the defendant leaving the scene of the crime.

The forensic consultant analyzed the video, consulted with facial recognition experts, and changed the contrast of the video in an attempt to clear up the image. He could only conclude that the person in question did not look like the defendant; he appeared to have a beard and mustache, unlike the defendant; and his build appeared to be shorter and stockier. This, together with other inconsistencies in the investigation, convinced the parole board at a parole revocation hearing and the defendant was freed from incarceration in 2008.

That should have been the end of the story, but the forensic consultant needed to know—“Was that the defendant in the stairwell or not?” The police investigator and prosecutor who tried this case are still adamant that it was. So he turned to the services of TransCon Imaging Solutions, who use 3D laser scanning to reconstruct vehicle accident scenes. In March of 2012, they used their 3D laser scanning equipment to scan the entire lobby of the building in question, including the stairwell. Using their markers and measuring parameters, and superimposing the crime scene surveillance photos taken from the video footage over their scans, there is now conclusive evidence that the subject leaving the stairwell is 5-foot, 5-inches tall, and the defendant is 6-foot, 3-inches tall.

#### Reference:

<sup>1</sup>. State of Maryland v. Zukael T. Stephens - 2007

**Double Jeopardy, Laser Scanning, Video Analysis**