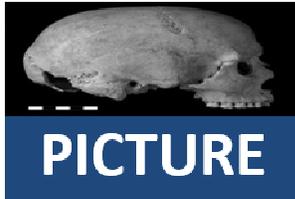# Three dimensional (3D) imaging human remains in the forensic context

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Figure 1: Laser scan of a human cranium.

Taking human remains into the courtroom can have detrimental effects on the case in question. First of all, the emotional stress that these pieces of evidence places on the

unprepared jury, judge and individual members of the courtroom can be huge and as a result, more weight may be given to the evidence. Furthermore, bones are ephemeral and will degrade with increased handling resulting in the loss of the evidence in question.

In recent years there has been a huge paradigm shift towards three dimensional (3D) quantitative methods. 3D active surface scanning apparatus record the exterior surfaces of an object using a form of light and are now commonly being used also in forensic anthropology, heritage documentation and archaeology. In addition to the amazing visual images, using non-contact 3D surface scanning techniques to digitise skeletal remains ensures the integrity of the evidence.

Within the courtroom these visualisations can be displayed. While discussing the sequence of events (such as the dismemberment of a body) the 3D images can be rotated to fit with the expert witnesses' speech. The 3D images are much more engaging than traditional visual methods that are commonly used within the courtroom. Not only does this ensure the jury is not falling to sleep, but it also enables them to remember more key facts surrounding the case in question.

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