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CONCLUSIONS

1. An ecologically valid process was developed for creating realistic knife marks
2. Micro-CT was found to be a superior technology for tool mark analysis
3. Knife Type can be determined from cut mark micro-morphology with a 90% accuracy
4. Knife impact trajectory is strongly correlated with cut mark trajectory
5. High Resolution 3D models for visualisation and 3D printing can be developed

REFERENCES

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9. Derrick Watson for his very useful advice on the statistical aspects of the work

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• WMG, University of Warwick for the printing of the samples and his general assistance to help
• The samples were imaged using medical grade CT to capture the anatomical positions of the individual ribs

FURTHER WORK

• Whether the analysis of marks left in a controlled stabbing of a ‘standard’ material could be used to statistically determine knife type used on an unknown stabbing
• The procedures and effects of using 3D printed models in court could be investigated
• The analysis of over 600 more high-speed videos considering impact velocity prediction
• 174 cut marks were collected but only around 80 were analysed in this study
• SEM images of more samples to answer questions raised in the literature

*Note that 3D anaglyph glasses (hanging next to poster) are needed to view some of the 3D images. These images are labelled with this symbol □