DESCRIPTION

This best practice focuses on providing the optimal laser scanning data input for 3D model generation. Capturing a comprehensive and high-quality set of scans the geometric and textural accuracy of the resulting model, which is crucial for forensic and expert assessment of cultural goods. Following this practice significantly enhances the reliability and usability of model input in ENIGMA for provenance by CH experts.

IDEAL SCENARIO

A LEA officer scans an object using a handheld laser scanner around the object with high overlap between scans. The capture includes a full 360-degree rotation, multiple heights, and close-up views of intricate details. The final merged scan creates a high resolution and accuracy 3D model of the cultural good ensuring all surface areas are successfully rendered.

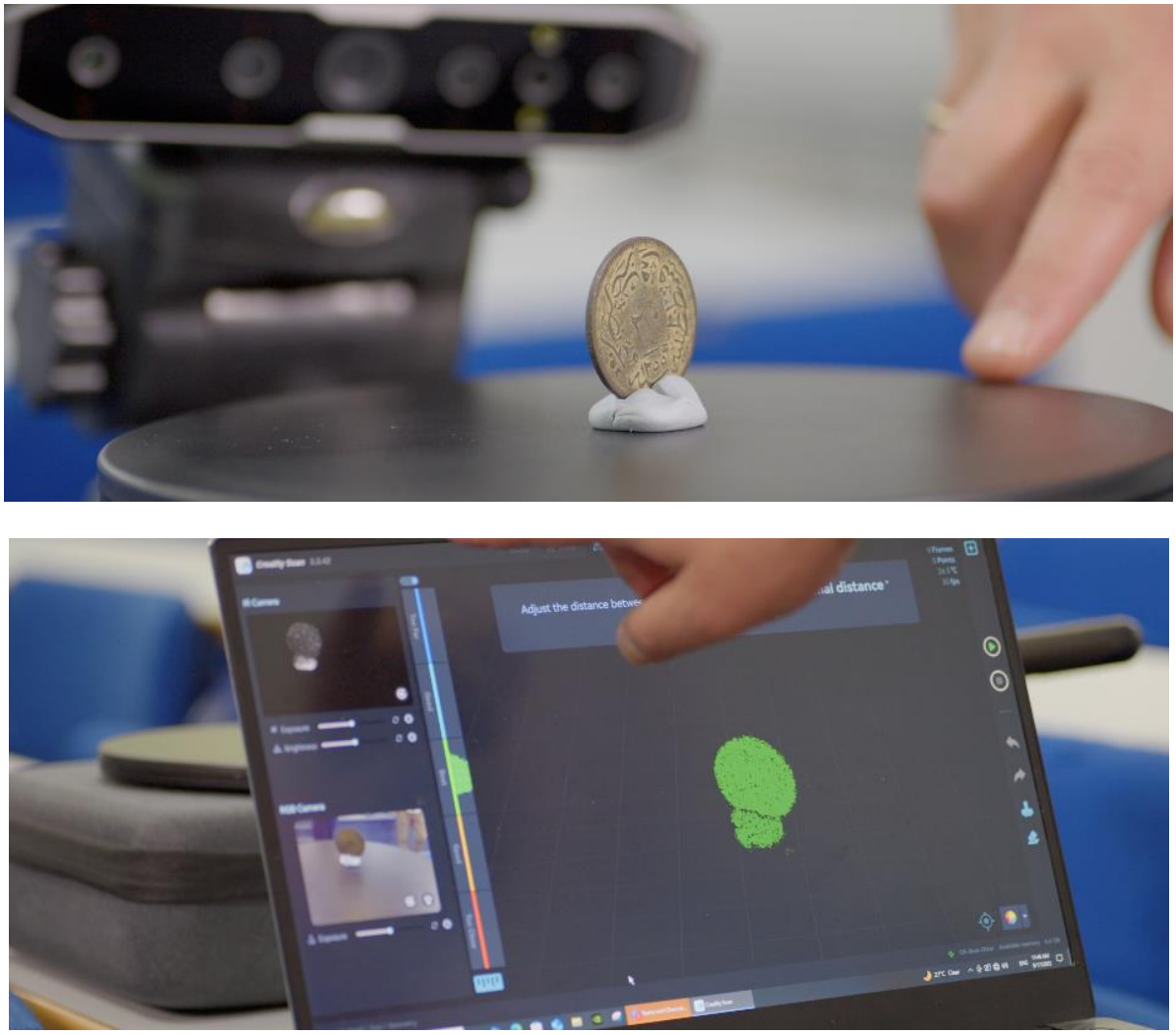

***Figure**: Scanning a coin using a handheld laser scanner*

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TIPS

Do

- Scan from multiple angles and viewpoints to ensure full coverage
- Ensure a high degree of overlap (at least 60% is common) to help the software align the scans.
- Use a tripod and a turntable to ensure consistency.

Don't

- Don't change the lighting drastically
- Don't rotate the turntable or change the position of the scanner in a fast or abrupt way.

FURTHER RESOURCES

- Ioannides, M., P. Patias (eds), 2023, 3D Research Challenges in Cultural Heritage III: Complexity and Quality in Digitisation, Springer LNCS 13125, Lecture Notes In Computer Science, ISSN 0302-9743, https://doi.org/10.1007/978-3-031-35593-6

- Georgiadis, Ch. P. Patias, G. Stylianou., (2009), Capturing the past and present: Tools and methodologies for 3D modeling of small objects , Proceedings of the CIPA XXII Symposium, Kyoto, Japan, CIPA Archives for Documentation of Cultural Heritage, Vol. XXII-2009, ISSN 2076-7730

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