

## DESCRIPTION

Having reliable measurements for artefacts is essential for their identification and provenance. Measurements provide absolute dimensional data, and can be obtained by using rulers, or tape measures. This practice directly ensures the reliability and dimensional accuracy of the digital record, providing essential information for LEAs on how to measure cultural goods and send reliable data to cultural heritage experts.

## IDEAL SCENARIO

Ensure that the object is clean before measuring. Use orthographic projections (plan and elevations) to establish a unit of measurement (e.g., cm) and its physical quantity (e.g., length). Measure the furthest extents of the objects, which is your measurement. When photographing, use a high-precision, calibrated scale bar (e.g., IFRAO scale) to provide a visual record with scales.



*Figure: LEA measuring CG (courtesy of KMKG)*

## TIPS

### Do

- Include a scale bar for size reference.
- Assess the object before measuring.
- Place the scale on the same plane as the object to avoid perspectival distortion.

### Don't

- Don't move the scale bar during photography sessions.
- Don't use different units of measurement and stay consistent.
- Don't place the scale over the object and ensure you have an unobstructed image of the artefact.

## FURTHER RESOURCES

- Ioannides, M., Patias, P. (Eds.). (2023). *3D Research Challenges in Cultural Heritage III: Complexity and Quality in Digitisation* (Lecture Notes in Computer Science, Vol. 13125). Springer. <https://doi.org/10.1007/978-3-031-35593-6>
- Patias, P. (2013). *13.5 Overview of applications of close-range photogrammetry and vision techniques in architecture and archaeology*. In C. McGlone (Ed.), *Manual of Photogrammetry* (6th ed., pp. 1093-1107). American Society of Photogrammetry. ISBN 1-57083-099-1
- Georgiadis, C., Patias, P., Stylianou, G. (2009). *Capturing the past and present: Tools and methodologies for 3D modeling of small objects*. In *Proceedings of the 22nd CIPA Symposium* (Kyoto, Japan). CIPA Archives for Documentation of Cultural Heritage.