

Università degli Studi di Padova

StAr-Doc - Standardisation and sustainability of material documentation in archaeology: virtual modelling and time consumption. The pilot study of some Late Roman classes from Egyptian excavations.

To this date, documentation of materials from archaeological sites varies greatly from project to project. There are several reasons for this: 1) lack of experts and/or funds, 2) difficulties in accessing data, 3) and the long time necessary to collect and document information. In addition, the recent application of Artificial Intelligence to archaeological documentation has highlighted the need for further standardisation in data collection and, consequently, in the results obtained. The StAr-Doc project, therefore, intends to address and solve these problems by applying technologies available on the market today in a systematic and standardised manner. In particular, the project aims to build a pipeline that provides experts in the study of archaeological materials with a functional method to scientifically document artefacts from archaeological contexts. The specific goals of the project are to construct 3D models using photographs obtained with low and mediumbudget devices. These models will enable the extrapolation of the physical characteristics of each object, including sections, dimensions, and, in the case of pots, diameter and correct orientation. The second specific objective will be the documentation of the pottery fabrics. In particular, the focus will be on pottery fabrics, which will be recorded with 2D images at varying degrees of magnification. Specifically, several classes of materials will be selected, such as Late Roman Amphora 1, Aswan Red Slip Ware, and African Red Slip Ware; their fabrics will be documented and processed with mathematical quantification programmes, a technique that enables to identify groups with similar physical and technical characteristics. The characteristics of these groups will then be compared with those of materials from production sites. The last specific objective will be to publish the collected material (2D images), the virtual models, and the fabric database on an open access virtual repository.

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