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Optical Mineralogy analysis (OM), also known as petrography is a method for provenancing archaeological materials such as pottery, plasters, architectural fragments and sediments. The Samples are cut to 30 micrometer ( $\mu\text{m}$ ) in a conventional thin section and analyzed using a petrographic microscope under polarizing light, then, a written report is traditionally produced.

Transforming OM results into Manageable Data produces an issue with the subjective nature of the written description that can lead to inconsistencies. The description transforms the information from the visual platform, as seen through the microscopic lens, to the printed word which, by its nature, is an interpretation.

To overcome the subjectivity of the description, a method of data presentation that produces multiple pictures of each thin section in different scales (X40; X100 and X200). The visual data of the thin section is combined with additional textual information regarding the archaeological record (context, dating, date, technology, etc.) and is presented as a data sheet on a Filemaker database. Creating a visual, searchable, comparable and accessible database provides a platform suitable both for the processing and publication of ceramic artifacts (Fig. 1). Sharing this knowledge within the archaeological community is critical. Today, such platforms are offered online, for example The Levantine Ceramics Project (LCP) directed by A. Berlin from Boston University. This is an open, interactive website that provides with a digital resource that for comparative information regarding Levantine ceramics including much photographed OM data.

## **Three-Dimensional Recording at Tel Beth-Shemesh**

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Archaeological excavations and their publication suffer from two inherent problems:

1. Though fieldwork is an ongoing destructive process, publications are mainly a 'frozen' moment in time – presenting the final phase of the excavation accompanied by its interpretation
2. While excavation is conducted in a three-dimensional environment its results are normally displayed by two-dimensional paper publications (books, journals, etc.)

Since the archaeological endeavor is an on-going environment with stages, phases and changes, it should be recorded as such, and should work under these parameters: 1. Accuracy; 2. Objectivity; 3. Accessibility; 4. Visibility.

In an attempt to comply with these guidelines, an elaborated system of recording was developed in the excavations at Tel Beth-Shemesh.

This includes:

1. Immediate 3D recording of all objects, finds, and field registration on-time in the field when finds are still in-situ. To this end a laser-based optical instrument (“total station”) is used in all areas of excavations.
2. Immediate, daily, top plans are recorded based on accurate 3D laser-reading and elevated photography.
3. Daily 3D modeling. This end is reached at Tel Beth-Shemesh excavations by employing UAV (Unmanned Aerial Vehicle, or Drone). This device, is employed almost on a daily basis. The results are:
  - a. Daily aerial photographs of the entire area, which enable tracing both the process of excavations and physical and stratigraphical relationship between architectural elements that might be removed in the process.
  - b. Photogramatic dynamic model of the excavated area. If used with the right platform, the dynamic model enables the excavators to view the results of their excavations from all desired angles.

Using accurate data recording as detailed above, accompanied with three-dimensional imaging software, seem to be the current best available solution to address the inherited problems of archaeological recording. This procedure help to create a better, objective display of the findings and minimize the destructive nature of the archaeological process.

## Museums in Israel – The National Museum Portal: Copyright of digital reproductions

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CC-What?

Copyright and usage rights of digital reproductions of museum items

Israel's National Museum Portal displays digital reproductions of exhibits from the collections of the museums in Israel. As such, it has dealt from its very beginning with the challenge of protecting the copyright of those images. We were not the first to face that challenge. The issue of copyright of museum exhibits has always been connected with the issue of copyright of their reproductions. Both