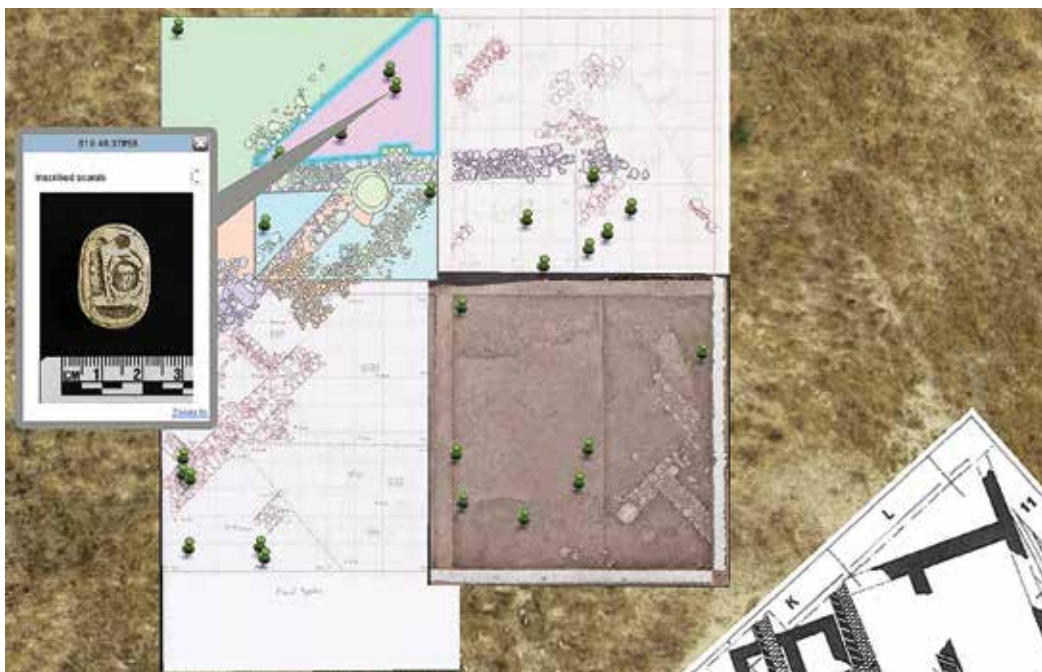


OCHRE DATA SERVICE

Miller Prosser and Sandra Schloen

Reversal of Fortune

The smashed pots and debris on the earthen floor being uncovered at Tell Keisan bear witness to a reversal of fortune for the inhabitants of this ancient city. The research database specialists of the OCHRE Data Service, Miller Prosser and Sandra Schloen, were on hand to assist in the data capture of present day investigations intended to reveal events that unfolded in the past. Field supervisors, carrying \$149 red-hot colored Lenovo computers running full Windows 10, recorded details of the excavation using a new-and-improved version of the Online Cultural and Historical Research Environment — OCHRE. Only in this case without Internet access on the tell in rural northern Israel, the team was not “online.” Running OCHRE in offline mode, the excavators recorded new excavation features, logged pails of pottery, detailed small finds, and composed their notes in extensive daily journal entries. After each morning’s work, back at the ranch — or rather back at the kibbutz guesthouse — the data was uploaded into the OCHRE master database running on a University of Chicago server, hosted by the Digital Library Development Center based at Regenstein Library. By the time the Keisan excavation staff rose from afternoon naps, the data was in a safe and secure context, available for that evening’s work session. Each day’s data was integrated with the full range of data being amassed by the project, joining with the content contributed by the registrar, photographer, surveyor, and pottery and bone specialists as they too worked to record and process the daily finds.



This first season at Tell Keisan, summer 2016, was also the pilot season for the new Geospatially Enabled OCHRE, or GEOchre, a version that features an interactive map-based interface, enabling users to bypass traditional lists and tables, fields and forms, and work directly with views that show the data in place on a map. OCHRE presents a geospatially aware backdrop onto which small finds can be located, elevations recorded, raster images overlaid with partial transparency, and shapefiles superimposed, visually confirming the dig's progress in real time. After years of struggling to use computers in the field to best advantage, it seems that finally the technology has caught up to our expectations and ambition for it!

Throughout 2015, the OCHRE Data Service has been stretched by new challenges, partly in response to a reversal of fortune that has positively impacted our ability to take on new projects and new student assistants as we work to seek better ways to apply modern technology to further the cause of humanities-based research. Our aspirations to apply more scientific approaches to studies in the humanities were recognized by the National Science Foundation. An ambitious grant proposal by the OCHRE Data Service faculty supporter, David Schloen, was awarded \$1.5 million by the NSF. Aptly named CRESCAT — A Computational Research Ecosystem for Scientific Collaboration on Ancient Topics — this project features several distinct case studies that illustrate the use of a comprehensive and collaborative approach to data management as offered by OCHRE. Collaborating with Alain Bresson of the Classics department in a study of Greek coin hoards from the ancient Mediterranean region, and with Kathleen Morrison of the Anthropology department in a study of medieval South Indian temple inscriptions, OCHRE is providing network analysis and statistics-based features to explore questions of distribution, interaction, and relationships within very different sets of data.

We are also happy to be collaborating with Kathleen Slane of the University of Missouri, who was fortunate to receive significant support to work on the publication of tons (literally!) of Roman pottery from years of excavations at the site of Corinth. This project, affiliated with the American School of Classical Studies in Athens, will test the OCHRE data model's ability to capture the variety and complexity of this detailed analysis, and will serve as a pilot for OCHRE's new web-based publication strategy.

We have also been supporting a new OCHRE project dubbed MANTIS — Modeling the Antiquities Trade in Iraq and Syria. Fiona Rose-Greenland, based at the Neubauer Collegium for Culture and Society, leads a multidisciplinary team of archaeologists from the Oriental Institute and economists from the University of Chicago's Economics department, tasked with analyzing the unfortunate problem of the illegal trade of antiquities. Combining traditional archaeological records of artifacts from several key sites with economic data pertaining to the sale of such artifacts in the modern market, this project seeks to gain a better understanding of the financial incentives for looting and dealing in antiquities. OCHRE's highly flexible and uniquely generic data model readily supports the capture and analysis of this unusual combination of data.

This brief report highlights only a few of the many interesting and complex projects whose data we are managing and whose research we are supporting. We are particularly happy for the good fortune of working with wonderful students who share our office, brighten our days, stimulate our thinking, and unfailingly work hard to help us accomplish the goals of the OCHRE Data Service.

For more details on our projects and our approach to research data management, please visit <http://ochre.uchicago.edu>.