

OCHRE DATA SERVICE

Sandra R. Schloen

This report comes from the windy, rooftop patio of a rented apartment on the hillside of Fevzipaşa, southern Turkey, where shoes stacked outside the front door enumerate the local children gathered with the landlady for their Ramadan lesson around the Koran. This small, rural community hosts Professor David Schloen and the Neubauer Expedition to Zincirli, which has conscripted the help of the OCHRE Data Service's research database specialists Sandra Schloen and Miller Prosser to support the use of high-tech gadgetry throughout the summer's field season. Data captured in the field by dig supervisors using 7-inch Samsung tablets is downloaded via Bluetooth to the master computer at the end of each day at the Internet-equipped municipal building housing the dig office. Long before anyone is awake in Chicago the next morning, the data is uploaded directly into the OCHRE database maintained by the University of Chicago's Digital Library Development Center (DLDC). Photos taken by the dig supervisors using their tablet cameras complement the official photographs taken by traditional methods. A time-lapse sequence of aerial photographs, snapped by a tablet-enabled Nikon Coolpix strapped to the belly of a Phantom quadcopter being piloted systematically around the site, rounds out the daily photographic record (fig. 1). All data is collected and integrated within the database environment known as OCHRE: the Online Cultural and Historical Research Environment.

The Zincirli expedition is but one of several projects at the Oriental Institute and elsewhere that use OCHRE as the platform of choice for integrating, analyzing, and preserving scholarly research data and for which the OCHRE Data Service (ODS) provides technical consulting and support. In fact, OCHRE is the technological linchpin of a recent five-year, \$2 million initiative that has brought together an international, multi-institutional team based at the University of Toronto (Prof. Timothy Harrison) to focus on “Computational Research on the Ancient Near East” (CRANE). On behalf of the CRANE project, the OCHRE Data Service specialists coordinate the large-scale data management and cross-project integration of diverse archaeological and scientific data sets from the participating institutions. Planned collaboration with computer scientists studying data visualization at the University of Toronto, and with (University of Chicago-affiliated) simulation expert Dr. John Christiansen at Argonne National Laboratories, promises an appropriately high-tech conclusion to the successful high-tech beginnings in Turkey’s Orontes valley.

Closer to home, support of two long-term projects — the extensive collection of data from the Persepolis Fortification Archive (PFA) Project and the online edition of the Chicago Hittite Dictionary (*eCHD*) — has been an ongoing priority. As the number of texts being studied by the PFA Project and represented in OCHRE reaches the 8,000 mark, and with ten-fold PTM (Polynomial Texture Map) images and high-quality (BetterLight) scans thereof needing to be managed, the Ochre Data Service is busy supporting this team of scholars and students, under the direction of photographer and database specialist Miller Prosser. Other projects took advantage of these imaging services on an ad hoc basis. All images are managed by the



Figure 1. View of the Neubauer Expedition to Zincirli project team, as seen from the Phantom quadcopter

OCHRE DATA SERVICE

OCHRE database system, which integrates the images with other project data, makes them available for downloading as needed, delivers them via a public interface, and archives them for long-term preservation.

The OCHRE Data Service has also committed to assisting the Hittite Dictionary team, long plagued (for valid, historical reasons) by the dependency on non-Unicode-based fonts, by providing some tools to convert thousands of dictionary article documents into documents ready for the modern age of computing. These documents will be transformed into database content, which will allow the Š volume to be added to the L, M, N, and P volumes already available online via OCHRE, thereby enhancing the scope of the searchable, interactive edition of the electronic Chicago Hittite Dictionary.

Two new philology projects at the Oriental Institute were also pilot-tested in anticipation of large-scale development: an interactive, online edition of the Chicago Demotic Dictionary (eCDD), in consultation with Janet H. Johnson and Brian Muhs; and the Ras Shamra Text Inventory (RSTI) project featuring description, analysis, and the photographic record of Ugaritic texts, in consultation with Dennis Pardee.

The OCHRE Data Service was represented at a variety of conferences and special events throughout this past year, including:

- Demotic Roundtable Discussion, University of Chicago, August 29, 2012.
- Paper given jointly by David Schloen and Miller Prosser, “Using Computers to Help Scholars Have Good Arguments,” at Humanities Day, University of Chicago, October 20, 2012.
- Exhibitor’s booth featuring demonstrations of the Oriental Institute’s OCHRE projects at the American Schools of Oriental Research’s (ASOR) annual meeting, held in Chicago, November 14–17, 2012; plus a six-paper program session entitled “Innovations in Integrative Research Using the Online Cultural and Historical Research Environment (OCHRE).”
- Paper given by Miller Prosser, “The OCHRE Database: A Warehouse for Big Data Generated by Archaeological and Philological Projects at the Oriental Institute,” Colloquium on Digital Humanities and Computer Science, University of Chicago, November 18, 2012.
- Paper given jointly by David Schloen and Sandra Schloen, “Organizing and Integrating Archaeological Data,” annual meeting of the Society for American Archaeology (SAA), Honolulu, April 6, 2013.

For more information about the services of the OCHRE Data Service, and for links to the supported projects, visit <http://ochre.uchicago.edu>.