

[187] SYMPOSIUM • EXCAVATION AND WEB APPLICATIONS: REAL TIME LINK BETWEEN RECORDING AND PUBLICATION: DIGITAL ARCHAEOLOGY AT ANCIENT URKESH (PART 2 OF 2)

A distinctive recording/publication system has been developed for the Urkesh excavation, a large urban site in Northeastern Syria. Based on rigorous theoretical principles, it provides a seamless integration of all levels of analysis. The result is a real-time link between the very first observation of stratigraphic/typological attributes and the final online publication, as a browser edition. Each daily input acquires an immediate published status, against which the ongoing strategy of excavation can accurately measure itself. The various papers illustrate the theory, give hands-on demonstrations of codes and programs, explain the structure of the resulting browser edition.

Walker, James L. (Cotsen Institute of Archaeology) [187] *The View from an Excavation Unit* Itineraries of a feature and of an object are followed from the initial observation through its representations - numerical, descriptive, analogical and synthetic. The record is built up within a given excavation unit from multiple observations, each retaining its individual documentary identity, and yet blending into a coherent whole. We seek to achieve the two complementary goals of a rigorous preservation of every single observation and construction of a meaningful and intuitive framework within which the observations cohere. It shows how the accretion of details shapes the ongoing strategy while at the same time building up the "final" publication.

Buccellati, Federico A. (University of Tuebingen)

[187] *Stratigraphy and the Dynamic Build-Up of the Record*

A hands-on presentation of the operations for producing the publication of the Global Record. Beginning with direct field and lab observations it ends with a highly hyperlinked publication. The result is a tool used in the field to shape the day-to-day strategy. Employing specific test cases from the excavations of Urkesh, some select types of input are chosen to illustrate how specific stratigraphic observations are coded. How they are run is illustrated through programs that integrate the most atomistic details into broader syntheses – including indices and frequencies. The final product also can be integrated into 3-D and GIS representations.

Buccellati, Giorgio (Cotsen Institute of Archaeology UCLA)

[187] *Theoretical Principles and Website Applications*

The success of a properly digital archaeological analysis depends on the rigor and coherence of the pertinent theoretical presuppositions. They constitute a closed "grammatical" system whereby each element is endowed, implicitly, with multiple tags. The application of programs makes explicit the full web of paradigmatic connections that these tags imply, and it automatically creates a fully hyperlinked browser edition. Each time a program is run, it updates the very same presentation that constitutes the core of the final publication. The minutest detail is thus immediately accessible and is at the same time embedded in a variety of synthetic tabulations.

Xu, Fanxi (Occidental College and Cotsen Institute of Archaeology, UCLA) [187] *The Impact beyond the Regional Sphere: Urkesh in China*

The dynamics of an online publication like the Urkesh Global Record is eminently suited to comparative studies. The differentiated categorization applied to the data, the overarching distributional patterns, the narrative synthesis that builds on immediate access to the details – all of this can be checked from substantive and methodological perspectives within archaeological domains wholly foreign to ancient Mesopotamia. The paper will illustrate how that is applicable in the case of Chinese archaeology. It will also present the project's efforts at "localizing" the major aspects of the Urkesh website for a Chinese audience, with translations and suggestion for further comparative applications.

Omar, Jamal (King Saud University) [187] *The Wider Reach: Documentation and Presentation* The framework of the UGR is so structured as to allow a multi-dimensional access to its layers of information. Therefore a scholar can consult single facts or follow a fully developed argument, while simultaneously a younger student or lay person may be enticed to discover unexpected complexities as they are led, at their own pace, from broader introductory statements to ever deeper and more substantive data explorations. The Global Record becomes thus a portal for general audiences whereby they may gain progressively more differentiated access to the scholarly documentation.

Kelly-Buccellati, Marilyn (Cotsen Institute of Archaeology) [187] *Integration of Typological Analysis* The structure of the Urkesh Global Record allows for an indefinite expansion of attribute categories, especially in the typological realm. The amount of descriptive detail is unlimited, and yet the resulting picture is always transparent and coherent. The data are instantly integrated within the system by means of an intra-site network. The result is that the archaeologist can analyze the data and modify or nuance the excavation strategy daily resulting in an approach that supports the archaeologist's intuition with clearly quantified information. The paper illustrates these goals and results with reference to the rich inventory of ceramics and glyptics from ancient Urkesh.