Excavations at Tel Kabri, Israel: A Case Study in Data Management for Archaeological Research

Elizabeth Christian
Simmons College, Graduate School of Library & Information Science

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EXCAVATIONS AT TEL KABRI, ISRAEL
A CASE STUDY IN DATA MANAGEMENT FOR ARCHAEOLOGICAL RESEARCH
Elizabeth Christian, Simmons College, School of Library & Information Science
chrise@simmons.edu

• OBJECTIVE
This case study aims to identify data management needs in archaeological research by examining one project’s current practices.

• CONTEXT
Tel Kabri was a Middle Bronze Age palace near the Mediterranean coast. Excavations started in the 1980s, and apply a range of technologies and methods to gain a holistic understanding of daily life and trade at Kabri.

• MODULES FOR RESEARCH DATA
Types, Formats, and Storage of Data
• Data stored in paper notebooks, databases, and spreadsheets
• Extremely large quantities of raw and processed data
Data Storage, Backup, and Security
• Strict long-term data storage requirements from Israel Antiquities Authority, which pose access issues
Data Sharing & Reuse Policies
• Use of cloud-based applications for data sharing
Repositories, Archiving, and Preservation
• Need to digitize data from 30+ years and standardize formats
• Material will be permanently held by foreign government agency

• METHODS
An interview instrument, based on the Digital Curation Centre’s Checklist for a Data Management Plan 4.0, was developed and used in an interview with lead staff to focus on understanding the project’s data workflow throughout the data lifecycle.

• ARCHAEOLOGICAL RESEARCH PRODUCTS
Documents
• Field reports
• Articles and presentations
• Lab notes
Data Sets
• Artifact catalogs
• Locus sheets
• C-14 dating results
• Chemical analysis results
Images
• Photographs & orthophotographs
• Technical drawings
• Artifact illustrations
Virtual Archaeology
• Remote sensing data (e.g., LiDAR)
• 3D scans and models
• GIS datasets
Cultural Material
• Pottery sherds
• Mosaics
• Reconstructed vessels

• RECOMMENDED DATA MANAGEMENT PLAN
Types, Formats, and Stages of Data
• Data will be imported to software that can manage multiple file types, assign metadata, and provide versioning control
Data Storage, Backup, and Security
• All data will be duplicated and stored in a U.S.-based repository or cloud-based storage service
Data Sharing & Reuse Policies
• Re-use is subject to approval of the PIs and may be requested by contacting the PIs or the Israel Antiquities Authority
Repositories, Archiving & Preservation
• Data in paper notebooks will be digitized
• Data will be stored in open-source formats where possible
• Israel Antiquities Authority will be responsible for storing, archiving, and preserving all materials

• CONCLUSIONS
Archaeology as a discipline is centered on the importance of context and data preservation. Partnering with archaeologists may allow LIS professionals to pursue a model for global data services that addresses the complexities of collecting data in foreign countries, incorporating legacy data, and preserving multiple data types.

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