



The Problem

Cultural heritage is central to a people's identity. Nearly all countries mandate its protection, often through archaeological documentation and interpretation. The curation in perpetuity of irreplaceable archaeological artifacts, field notes, photographs, reports, and analytical data underlies the public's faith that their heritage is safeguarded for the future. Sadly, we are currently failing to fully meet this responsibility. In a digital age, we must not only care for physical objects, but also the digital data—reports, photographs, laser scans, satellite images, databases from laboratory analyses, and much more—that are a growing part of archaeological collections. Moreover, the data are only important if they are used to help us understand our common past. It is incumbent on the discipline to not simply store digital data, but to find ways of making these data accessible and useful to scholars and the public.

The Mission

Archaeoinformatics.org is an organization devoted to creating a cyberinfrastructure to:

- Preserve digital archaeological data in all their forms, along with the metadata that make them meaningful.
- Provide scholars and the public access to archaeological digital data.

Strategy

Archaeoinformatics.org is pursuing four initiatives to fulfill this mission:

- **Digital Heritage Gateway:** Archaeoinformatics.org will work with digital archaeological data repositories to define the core metadata that describe digital repositories' holdings in a form that is interoperable with the English Heritage Gateway (<http://www.heritagegateway.org.uk/Gateway/>) and other European initiatives —What is in a collection? When it was deposited? Who deposited it? We also will adopt and develop tools that allow repositories to serve these metadata so that it can be "harvested" and made available for researchers at common gateways.
- **Archaeological Digital Preservation Archive:** Currently, most repositories do not have the capacity—with respect to hardware, software, or trained staff—to maintain a digital archive. Some are working toward this goal, but many are not. For the latter, it is critical that a permanent, accessible repository for digital archaeological data be created. Arizona State University, an archaeoinformatics.org partner, has agreed to accept this role. Other partners will undertake case studies demonstrating the effectiveness of such archives for research.
- **Best Practices:** Effective archiving and preservation of digital data cannot be a new step added at the end of existing archaeological work-flows; instead, they require consideration from the first step of any activity. In collaboration with our British colleagues, archaeoinformatics.org will update current guides to best practices. A key objective is to increase the integration of digital data acquisition in archaeological "work-flows" to improve the quality and reduce the cost and complexity of archiving.
- **Non-standard Data:** A final aspect of the proposed effort is to expand, update, and develop data archiving protocols and best practices for "non-standard" data formats including geospatial and CAD files and data produced by geophysical, long-range (site and monument scale) and close-range (object scale) laser scanning, and other instruments.

Contact

For more information visit <http://archaeoinformatics.org> or contact Keith Kintigh at kintigh@asu.edu.