

Evaluating a Cooperative Approach to the Management of Digital Archaeological Data (ECAMDAR)

Project # 13-711

Background:

There is currently no system at the DoD Service or Command levels for preserving and disseminating digital data generated by archaeological work on military installations. Records of archaeological investigations increasingly are created and stored in digital form only. Archaeological curation repositories are not able to act as digital archives. Digital files are vulnerable to corruption, hardware failure, and format obsolescence if not properly maintained, preserved, and migrated. Without suitable management and preservation of digital data, the results of expensive archaeological work may be lost altogether, wasting money and leaving installations unable to factor significant archaeological resources into their activities, developments, and training plans.

Objective:

The purpose of the ECAMDAR project was to evaluate The Digital Archaeological Record (tDAR) as a potential repository for the DoD's digital archeological records. tDAR is an international digital archive for records related to archaeological investigations and other cultural resource management projects. tDAR's use, development, and maintenance are governed by the Center for Digital Antiquity (Digital Antiquity), a formally designated center that is part of Arizona State University. The project was designed to test tDAR's ability to manage DoD data in a manner that is secure, cost-effective, and of benefit to the military mission. The results were positive, so guidance for DoD-wide implementation was developed and included in the project report.

Summary of Approach:

The study used collections from the Maryland Archaeological Conservation Laboratory (MAC Lab) at Jefferson Patterson Park and Museum (JPPM), and the Regional Archaeological Curation Facility (RACF) at Fort Lee. Together, the MAC Lab and RACF curate collections from 25 DoD installations. Existing digital data from these installations was submitted to Digital Antiquity where curators checked files, migrated them to current digital format standards as needed, drafted metadata pages, redacted location data, and uploaded the files to tDAR. The results were then reviewed by installation cultural resource managers and revised as needed. Installations provided feedback by filling out a survey compiled by the MAC Lab and tDAR.

Benefit:

The ECAMDAR project finds that tDAR is a secure, costeffective repository for the DoD's digital archaeological data. tDAR preserves digital files in perpetuity for a onetime fee, and makes them accessible via the Internet. This fulfills the preservation and accessibility mandates in 36 CFR Part 79, Curation of Federally Owned and Administered Archaeological Collections. Depending on content and installation security preferences, files can be designated as "confidential," or they can be available to all registered users. tDAR allows DoD cultural resource managers immediate access to their archaeological data, increasing efficiency, especially during periods of staff vacancy and turnover. When the mission calls for development that may impact sites, contractors can access archaeological data as well. Most importantly, tDAR fulfills a need that is not currently being met, and it does so in a manner that will save the DoD money. Without preservation and management, digital files will be lost and the public interest in their creation, organization, and future use will be forfeited. Partnering with a specialized non-profit digital repository is the most cost effective method of preventing information loss.

Accomplishments:

Digital files (6,958 files/17.8GB) from 23 installations in Maryland and Virginia were added to tDAR where they are protected in perpetuity as irreplaceable records of archaeological sites and are accessible in accordance with 36 CFR Part 79 and DoD regulations. This has been done without compromising military security. The process demonstrated that tDAR could be adopted as a partner for the whole DoD because it is flexible enough to handle files from many different installations. An economic analysis found that tDAR is the best option available to provide this specialized service. Recommendations and guidelines are included in the ECAMDAR project report to facilitate implementation of tDAR usage across the DoD.

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