



InterPARES 2 Project

International Research on Permanent Authentic Records in Electronic Systems

Characterization of Case Study Validated

Case Study 14: Archaeological Records in a Geographical Information System: Research in the American Southwest

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Relevance of the Case Study to InterPARES 2

The purpose of this case study is to “investigate the nature of records from archaeological activities and what archaeologists think about the records that they create.”¹ In particular, it seeks to explore these issues for GIS records, which are interactive, digital records that are becoming increasingly common within the archaeological field. The relevance of the case study is therefore to enable InterPARES to meet its goals in relation to the study of scientific activities that are conducted using experiential, interactive and dynamic computer technology.

Information about the Creator

The creator is the Center for Desert Archaeology (CDA), a private, not-for-profit organization located within Tucson, Arizona, USA. The CDA, which was incorporated in 1989, grew out of the Arizona Division of the Institute for American Research, a not-for-profit organization founded in 1982. The CDA receives private funding in addition to significant state and federal funding.

The mandate of the CDA is to promote “the stewardship of archaeological and historic resources in the American Southwest and Mexican Northwest through active research, preservation, and public education.”² “To this end, the CDA has initiated and sponsored numerous research and community preservation projects, as well as educational workshops and exhibits. In addition, the CDA has an active publications program to disseminate information to a wider audience.”³ The CDA achieves its mission through its functions, which include administration, publication (of the American Southwest journal), research, preservation (of key prehistoric sites) and public education.

The CDA is a relatively small organization. It is governed by a four member Board of

¹ Case Study 14 Proposal, pg. 1.

² Case Study 14 Final Report, p. 7.

³ Ibid.

Directors and also has a six member Advisory Board. In terms of employees, there are seven preservation archaeologists who are responsible for the day to day operations of the center, and three Preservation Fellows, who conduct research. In addition to the archaeologists, the Center also employs one Programs Manager, an Office Assistant, and a Content Editor for *American Southwest*.

The legal requirements and constraints upon archaeology conducted within the United States and Arizona appear to be significant. Some of the laws affecting archaeological practices would include, although not be limited to, the *National Historic Preservation Act of 1966*, the *Archaeological Resources Protection Act of 1979*, the *Native American Graves Protection and Repatriation Act of 1990*, the *Environmental Policy Act of 1966*, the *Wilderness Act of 1964*, as well as the *Arizona Antiquities Act of 1973*, and the *Arizona Historic Preservation Act of 1982*.

Information about the Administration / Management Function

No formal records management or archives program exists at the CDA. Procedures are described as “ad hoc.” Many of the records are kept, however, and the Center is actively migrating electronic records to new versions of software and hardware to avoid obsolescence. The CDA fonds is organized around special project and grants (series). Most records remain active or semi-active. The impacts of legislation or external standards upon administrative activities or records are not detailed in the final report, although the impacts of such forces upon general archaeological activities are discussed.

Information about the Digital Entity Being Studied

The digital entity examined in the case study is a GIS database, “Coalescent Communities,” that has been created to provide answers to archaeological research questions relating to the aggregation and migration of prehistoric peoples in the American Southwest. It consists of pre-recorded archaeological site data in various formats that originate from multiple documents, repositories and researchers. Much of the data within the GIS was provided initially by the AZSITE, a similar state-owned database of archaeological data for the region. It is evident that there have been many potential influences upon the creation and maintenance of the GIS database. One influence on its creation appears to have been the AZSITE database, as problems or issues in the creation of the AZSITE are said to have influenced the design of the GIS system. It is also evident that a significant body of legislation exists that would have an impact upon archaeological activities. Ethics would also have an impact in that it becomes important to practice sensitive archaeology and to protect archaeological site information.

The database and related GIS are created and maintained by a preservation archaeologist at the Center. This archaeologist is responsible for producing all of the outputs from the GIS, which include maps for publications, printouts of maps and tabular data for other researchers and analysis relevant to different research projects.

The GIS database is created within Microsoft Access and tables or other aggregations of data are sometimes exported into Microsoft Excel. Other equipment used includes: plotter printers, used to print large scale color maps from the GIS, and a digitizer tablet that allows for paper-based maps to be digitized. The digital entities include files of distinct format, with differences in content and structure. These include image files, word processing files, flat files

in Microsoft Excel and files created in the GIS application software.

In terms of its place within the larger CDA funds, the Coalescent Communities Project is a series in which there are aggregations of files related to specific analyzes on projects. There are no preservation strategies currently being employed at the Centre. Periodically, data are burned to CD-ROM from the database; however, this is done for backup purposes only, not preservation.