

A Model for Transferring Legacy Datasets to Living Documents



A Case Study Using a GIS Geodatabase for Archiving

Anasazi Origins Project (AOP)

- In the late nineteen-sixties and early seventies, Cynthia Irwin-Williams investigated the antecedents of the Ancestral Puebloans, the Oshara Tradition.
- The Arroyo Cuervo region of northwestern New Mexico
- Fundamental to the understanding of the Archaic period in the northern Southwest
- Never archived, preserved, published the data or analysis of the findings from the AOP
- This neglect, caused the AOP to fall into a state of disrepair called a legacy dataset

Inherent Problem in Archaeology

- Continuous digging with little serious evaluation of the condition of the archaeological record or for that matter, the publication of findings
- Field work has come to be known as the “sexy” part of archaeology amongst its practitioners
- Lack of ethical practice due to circumstances of the discipline
- Financial and sometimes due to the lack of interest in the archaeological community

Legacy Dataset

1. Old
2. Not in Use
3. State of Disrepair
4. Obsolete

Living Documents Approach

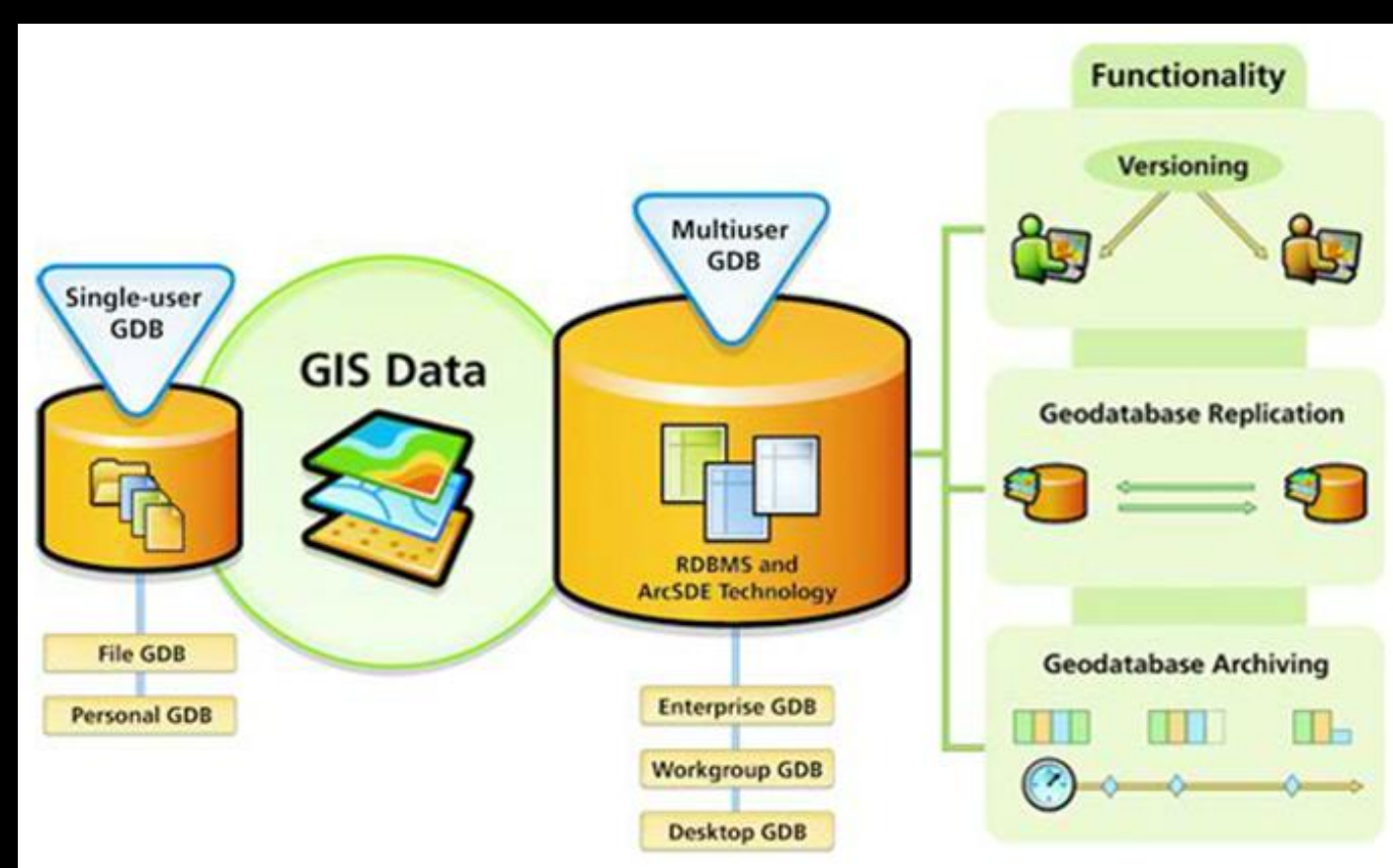
Criteria:

1. The dataset is accessible for multiple parties
2. The dataset can be integrated with datasets from other disciplines
3. The dataset should be capable of being easily updated with additional data.
4. The dataset will have accompanying documentation which can include articles that explain or give additional meaning to the dataset.

*** Geodatabases created by GIS are among the best tools in creating living documents for archaeology

Geodatabase

- Object-based vector data model
- Combination of geo (spatial data) database (data repository)
- Central electronic data repository for spatial data storage and management



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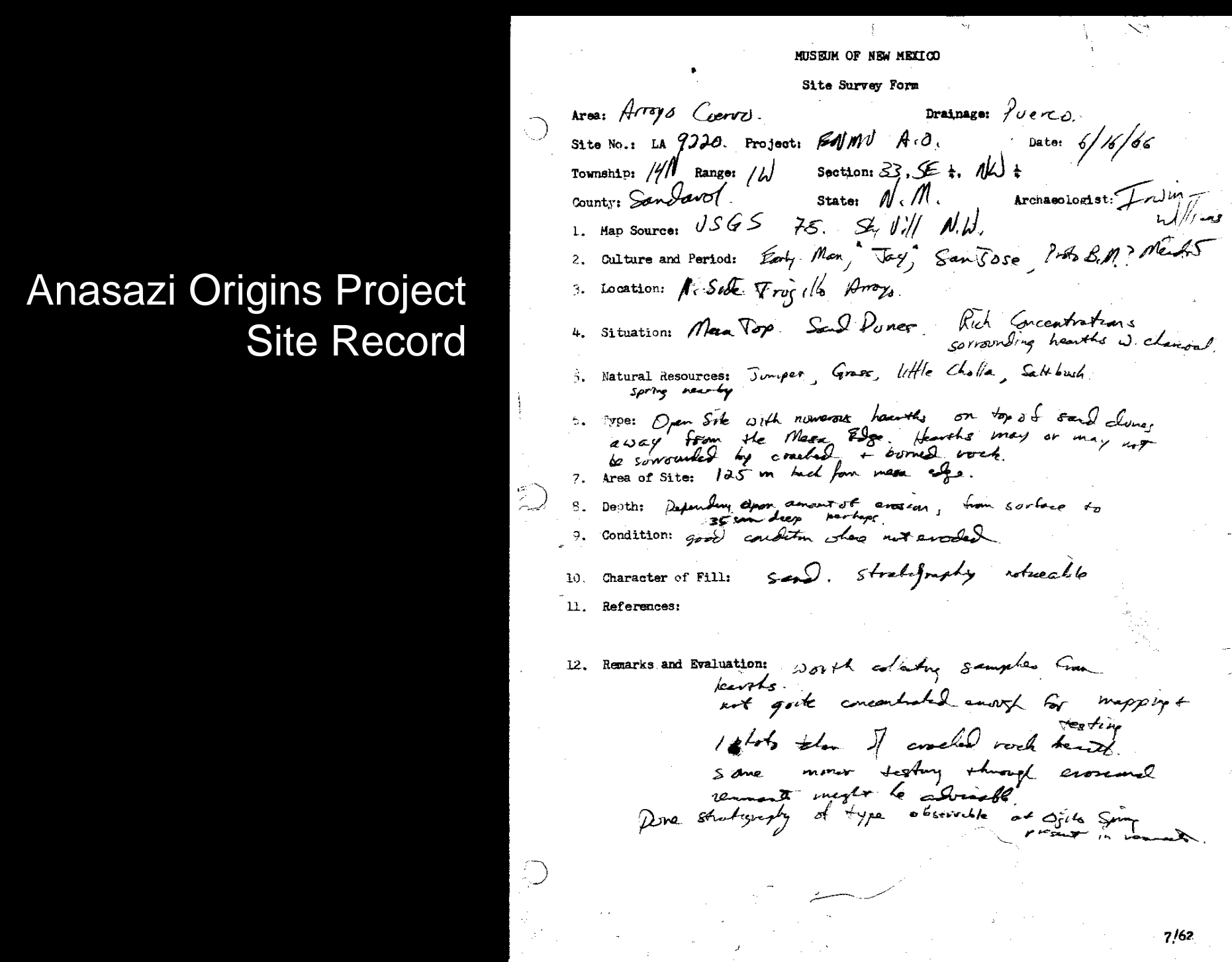
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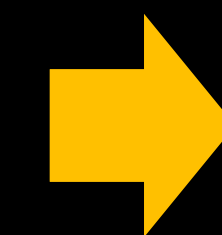
Abstract

Archaeology is faced with the inherent problem of managing legacy datasets. Often these datasets are in a state of disrepair, thus rendering them almost useless and difficult to properly archive or to integrate into the current archaeological dialogue. Unfortunately, this is a common issue and there is not much literature on the subject. To address this dilemma, an examination of the condition of the paper documents of a legacy dataset is needed. In this research, I will review the preservation methods of paper documents as a first step to archiving. In addition, a geographic information system (GIS) geodatabase will be used to convert a legacy dataset to an electronic database for archival purposes. The advantages of an electronic database in archiving archaeological research is the ability to easily exchange, store, update, reorganize and adapt data for various types of analyses. Geodatabases add a visual geographic context that is intuitive. This model is a living documents approach that offers transparency and accessibility to multiple disciplines. Furthermore, I will present a case study of a model that will give a conceptual framework to transfer legacy datasets to living documents for duplication or adaptation to other similar legacy datasets.

Paper Documents to Electronic Databases

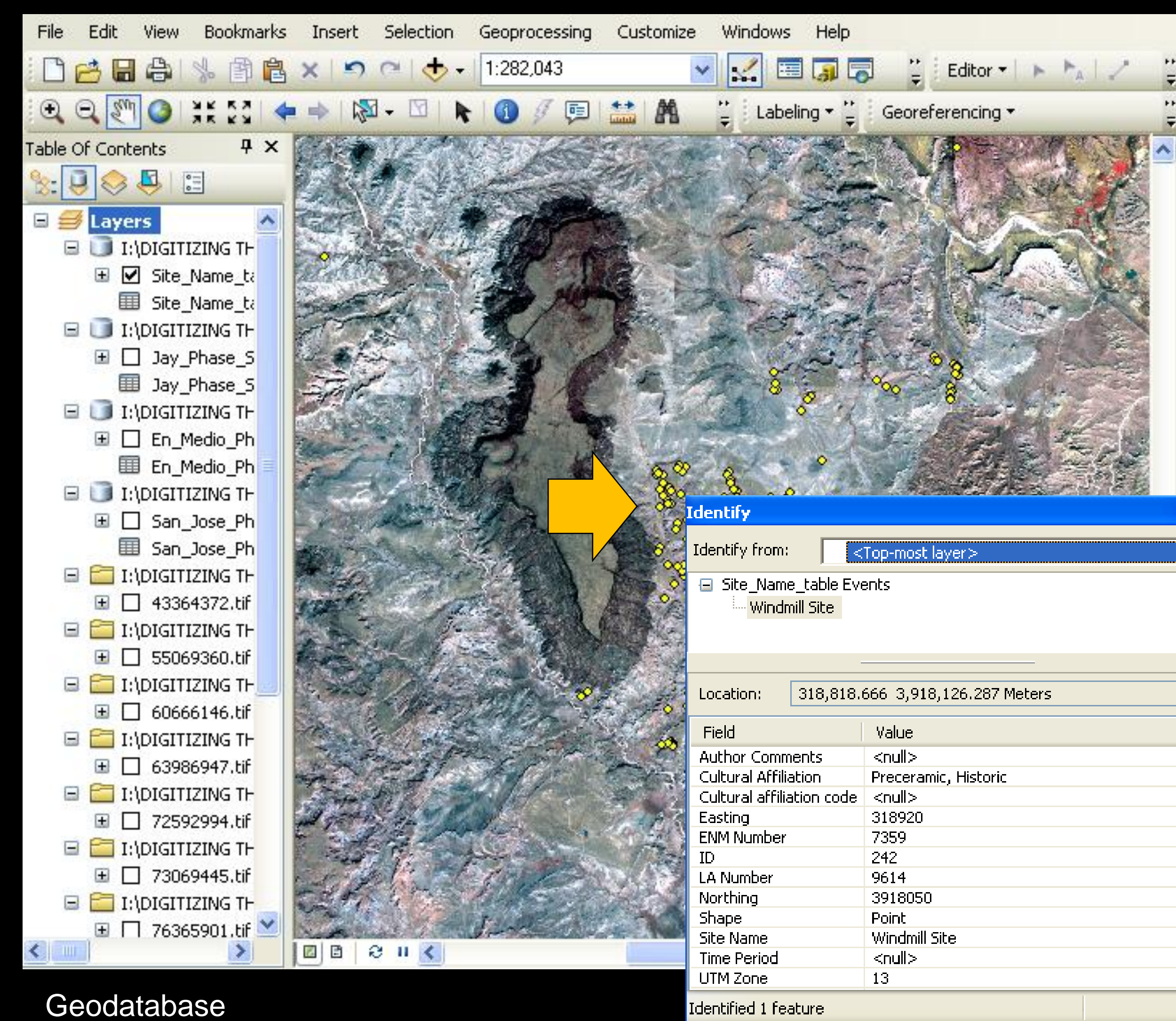
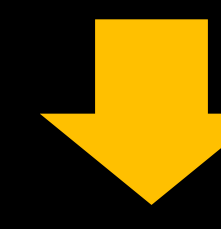


Anasazi Origins Project Site Record

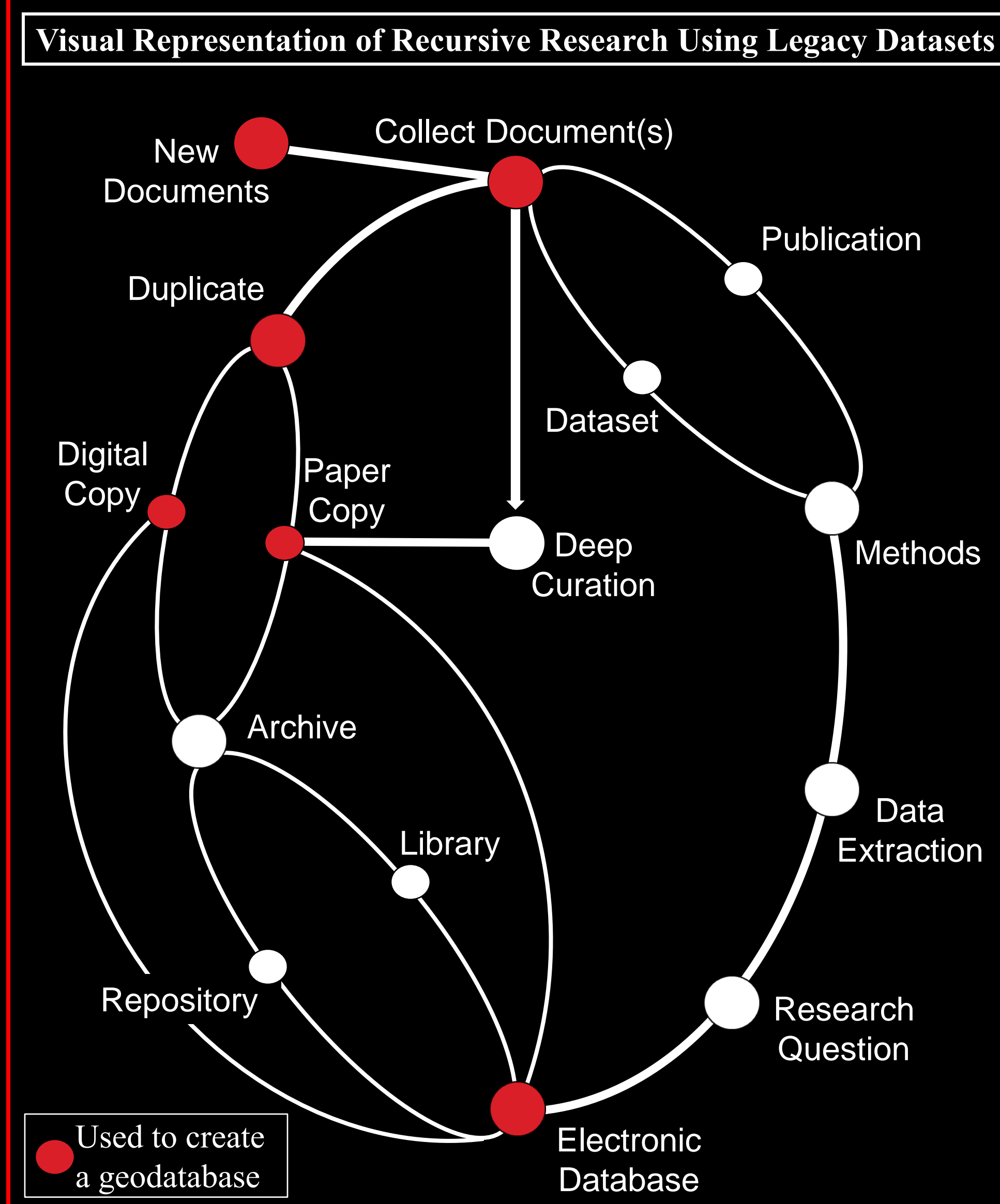


ID	ENM Number	LA Number	Site Name	UTM Zone	Northing	Easting
394	9245	59156	Collier Dune			
395	9246					
396	9261		Sandoval Springs			
397	9360		En Medio Shelter			
398	9654					
399	9761					
400	9762					
401	1050			13	392400	324710
402	120					
403	10238					
404	7357	9651				
405	9466					
406	59160, 10005		Wastover Shelter			
407	9300		Armiijo Shelter			
408	9254, 59157		Dunas Altas / Dunesberry Site / Armiijo Dunes			
409	9301		Shelton Shelter			
410	9800, 59158		Sky Village			
411	10200, 59161		Mosca Dunes / Mosca Area Survey			
412	4013		Moquino Site			
413	9651, 59159		Mud Lump			
414	9652		Ojito Springs			
415	9652		Raton Springs			
416	9540		Ojito Shelter			
417	9348		Ojito Dune, South			
418	9500		La Bajada			

Access Database



Geodatabase



Methodology

1. Paper Documents:

- Two copies on acid free paper of the AOP site records
- Original AOP site records and one copy on acid free paper stored in ENMU deep curation facility
- One copy of the AOP site records on acid free paper copy available for researchers

2. Database entry:

- AOP Site Records data entered into an Access database
- Used Laboratory of Anthropology site record format

3. Geodatabase:

- ArcGIS
- Convert AOP Access database into a GIS geodatabase

Results

• A fluid electronic database:

- Replication is easier and faster, without duplication of effort
- Alternative storage
- Capability to analyze data

• Data and documents are preserved

• Data can be reintroduced into the current archaeological dialogue

Summary

• A Model:

- To preserve, archive and update legacy datasets to a fluid and transparent platform using a living documents approach
- GIS Geodatabase as a tool to apply a living documents approach
- Application of this model within recursive research

Future Research

• Expand the AOP database

• Submit AOP Site Records to:

- Archaeological Records Management Section
- New Mexico Cultural Resource Information System (NMCRIS)
- Digital Antiquity
- The Digital Archaeological Record (tDAR)

• Apply this model to other Legacy Datasets

• Experiment with multiple viable tools for preservation, archiving and living documents approach:

- Google Earth, tDAR and NMCRIS
- Develop a model for preserving and archiving other types of legacy datasets

• Create a contextual document:

- Architecture of electronic databases for replication
- How documents are preserved

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