



## **Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

*Joshua Watts, Digital Data Curator, Center for Digital Antiquity*

### **Introduction**

Archaeological repositories, government agencies, universities, and private cultural resource management (CRM) consulting companies, have witnessed (and to varying degrees participated in) a shift in the management of data and documents from paper to digital. The shift to the use of digital files for documents, data sets, and images began to gain momentum in the 1980's. Through the 1990's and 2000's the management of current and legacy digital information generated from archaeological research has been an increasingly difficult task for many institutions. These digital resources, including images, digital documents, maps, and data sets, are stored on various media such as CD-ROMs, local hard drives, and networked servers. While some repositories managed the transition quite gracefully, many others have had a very hard time keeping up with the amounts of data and documents generated by the relatively new industry of contract archaeology and CRM. Generally, though, solutions to problems faced during this transition were either improvised (with unique solutions at different institutions) or kicked down the road hoping for better funding support and guidelines.

At the start of the current decade, the 2010's, there is momentum building toward a better-coordinated approach to the management of digital data. More and more institutions are acknowledging that digital data and documents are fundamentally different from objects (artifacts or paper records) and require new ways of archiving the information. While some repositories are working with other kinds of institutions, such as libraries, to guide their efforts, many do not know where to turn for guidance or support. This is particularly true of the United States, while some European countries

## **↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

---

have addressed the problem more directly (e.g., in the United Kingdom, Archaeology Data Service and the National Monuments Record, maintained by English Heritage).

This report describes the results of a survey of archaeological repositories around the United States to better understand how institutions of varying sizes and missions are handling the increasing flow of digital data and documents. Our goal was to gain an understanding of how the repositories plan and conduct their operations to preserve and provide access to digital archaeological information now and into the indefinite future. Responses to the survey were collected in the summer and fall of 2010, between June and November.

The survey was conducted in two phases: the first relied on the Survey Monkey service (<http://www.surveymonkey.com>) to distribute an online questionnaire and collect responses. The second phase used telephone interviews to collect responses. The questions were the same for both phases, covering three categories:

- the administration of digital data and documents,
- the curation and preservation of those resources, and
- how digital resources can be accessed.

The complete list of survey questions can be found in Appendix I.

### **Project Background and History**

The Digital Antiquity survey was developed and carried out by staff of the Center for Digital Antiquity, which is currently part of the School of Human Evolution and Social Change, Arizona State University. Digital Antiquity ([www.digitalantiquity.org](http://www.digitalantiquity.org)) is a collaborative organization devoted to enhancing preservation of and access to irreplaceable archaeological records and data. Digital Antiquity supports archaeological research, resource management, education, and public outreach by providing new and innovative ways of finding, managing, preserving, and using archaeological information. Archaeologists, computer scientists, and information management experts have created Digital Antiquity with two basic goals. One is to improve substantially the ease of accessing and using archaeological information. The other, equally important, goal is to provide for the long-term preservation of the irreplaceable records of archaeological investigations (McManamon et al. 2010; McManamon and Kintigh 2010; Kintigh and Altschul 2010).

## **↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

---

As a part of fulfilling its goals, Digital Antiquity oversees the use, development, and maintenance of the Digital Archaeological Record (tDAR; [www.tdar.org](http://www.tdar.org)), a digital repository for archaeological data, including documents, data sets, images, and other kinds of digital files.

The objective of the Digital Antiquity survey of archaeological repositories reported here was to better understand how other archaeological institutions manage digital archaeological resources and to collect information that may guide development and administration of tDAR so that it will be a more-useful tool for curatorial institutions, government agencies, private CRM companies, and researchers.

This project builds upon earlier surveys, such as the one by Childs and Kagan (2008), which was conducted to better understand fee structures at archaeological repositories in the United States. Our initial list of repositories and contacts was drawn from the Childs and Kagan report. To this list, we added additional institutions and updated a number of contacts that had changed since the earlier report was published. Appendix 2 lists the repositories we contacted and those from which responses were received.

Interestingly, one of the questions that the Childs and Kagan 2007/08 survey asked had to do with fee structures for records associated with archaeological collections. They found that only a few of the institutions were charging fees specifically related to non-paper media (e.g., digital data and photos). Some of the questions in the Digital Antiquity survey were tailored to collect more information on how the costs of managing digital resources are met (or not) using fees.

### **Survey Participants**

In our survey, we used two means of contacting repositories. The first and most common means of contact was via email using the Survey Monkey service. Later, we also contacted a smaller set of repositories via phone, using the same survey questionnaire to structure the phone interviews.

Counting both types of contacts, we collected responses from individuals at 70 institutions. Generally, we made an effort to contact persons familiar with the institution's policies regarding the management of digital resources, most often these were specialist data-management curators. In many cases, our initial contact person deferred our survey to another on staff who was better informed on the policies related

## **↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

---

to digital resources. Of those 70 responses, some did not complete the survey, but only answered some of the questions. Typically we had about 60-65 answers for each of the questions in the survey.

Of the contacted institutions, we received two responses from organizations that answered that they did not curate, preserve, or provide researchers access to digital documents, datasets, photographs, maps, etcetera. These responses registered in our system as completed surveys – but this group bypassed most of the questions assembled for the survey. Also, one survey was submitted with none of the questions answered, which while counted by Survey Monkey, adds to the total shown for “skipped question.”

208 institutions were initially contacted using the Survey Monkey automated mailer, but our response rate to those robot-generated messages was low. Responders who took the time to go to the survey generally provided good data, but only 56 responses (26.9 percent of those contacted initially) were finished that way. From our perspective, this was a relatively low-effort way of collecting a number of responses, however, it was easy for individuals contacted to ignore the message, or simply opt out. A couple of reminder emails were sent to those who did not respond initially, but the marginal increase in responses each time was low. Also, the automated approach was not able to account for cases where we had inaccurate email addresses or where persons unfamiliar with digital resources policies were contacted.

A subset of 45 institutions that had not responded to the initial request for information and the additional email requests were selected for more concerted follow-up. Typically those institutions were selected from under-represented geographic regions or from institutions we were particularly interested in learning about. This more focused approach yielded an additional 14 responses, but also identified a handful of cases where the contact had moved on to another job. The phone interviews improved the response rate over the automated Survey Monkey approach.

The contacted institutions vary widely in their missions. These ranged from large organizations that serve as the primary archaeological repository for an entire state to much smaller organizations with a relatively narrow focus on a few sites or projects. Often smaller institutions seemed to have minimal trouble managing their more-modest collections. For one thing, they do not have to grapple with accessioning large amounts of new digital data deposited at their repositories on a regular basis. Alternately, many of those same smaller institutions have fewer resources to devote to maintaining the

## **↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

---

digital resources that they do have, relative to larger, and often better-funded, repositories.

Institutions in 37 states, plus the District of Columbia, responded to the survey. The responses come from all over the continental U.S. and also Alaska and Hawaii. Some states were better represented than others; for example, California offered five responses, while for many states in the Midwest and South we were only able to collect a single response. Generally, the West Coast, East Coast and Southwest are best represented in the sample.

### **Survey Results – Administration of Archaeological Digital Resources**

About one third of the questions in our survey were oriented toward management policies related to digital archaeological data. These also gauged the extent that institutions give priority to issues related to digital resources. The following paragraphs summarize the responses to the survey questions. The first question asked (Question 1) was simply to confirm that the organization does curate digital data and documents. If the responder answered no to the first question, they skipped immediately to the end of the survey.

Question 2 - Guidelines or policies (Table 1): We asked if institutions provided guidelines or policies pertaining to digital resources to those who submit archaeological collections to repositories. Answers were structured as a list of possible responses, and the survey/interview subjects were encouraged to "check all that apply." The most commonly checked answer, accounting for nearly half of the responses (46.2 percent), indicated that the institutions do not provide guidelines. Other common responses indicated that guidelines were available by email and on the organization's website. Relatively few responses indicated that policies or guidelines were available in print. Just over one-quarter of the responses checked the "other" option, often specifying that their institution does not currently offer guidelines, but that they are in the process of developing those guidelines and making them available. Overall, the responses suggest that repository managers recognize the need to care for digital records, but are uncertain of what standards and procedures to apply. Thus, the provision of guidelines to archaeologists submitting digital records to the repositories lags.

➤ **Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

**Table 1. Does your organization provide guidelines/policies for the submission of digital data, how are those guidelines made available? [check all that apply]**

Answer Options	Response Percent	Response Count
We do not provide guidelines	46.2%	30
Website	20.0%	13
Email	24.6%	16
Print	13.8%	9
Other (please specify)	26.2%	17
<b>Answered question</b>		<b>65</b>
<b>Skipped question</b>		<b>5</b>

Question 3 - Fees for digital curation (Table 2): We asked if institutions charged fees for the curation of digital resources, responses were "check all that apply." Just over half of the responses (50.8 percent) indicated that any fee for the curation of digital data or documents was part of the overall curation fee for the archaeological collection. Alternately, nearly half of the responses indicated that the institutions do not charge fees for the submission of digital resources. Fees related to specifics of the submitted resources, such as the volume of data or the digital media, were very rare. A number of responses checked the "other" box and specified that their institution was considering implementing fees for curating digital resources, but have not yet done so. As with the responses to Question 2, these responses suggest that repository managers recognize that their institutions have some level of cost associated with the care of digital records, but are uncertain of what these specific costs are and/or how to charge users for them. As the costs associated with providing access to and preservation of digital data are better understood, it is likely that specific charges for digital data curation can be identified and utilized, either by existing repositories, or specialized digital data repositories.

**Table 2. Does your organization charge fees to cover the costs of digital data curation, which term(s) below most accurately describes the fee structure? [check all that apply]**

Answer Options	Response Percent	Response Count
We do not charge a fee for the submission of digital data	46.0%	29
Fee is part of overall collection curation fee	50.8%	32
One-time fee for the submission of digital data	3.2%	2
Fees based on the amount of data (e.g., per megabyte)	1.6%	1
Fees based on the media (e.g., per compact disc)	0.0%	0
Other (please specify)	11.1%	7
<b>Answered question</b>		<b>63</b>
<b>Skipped question</b>		<b>7</b>

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

Question 4 - Importance of curation and access to digital media (Table 3): We asked responders to rate (on a scale of 1 to 5) the importance of collection/curation and access to digital media for their organization. Most of those responding to the survey indicated that these concerns were a high priority for their institution: 30 of 62 who answered the question answered with a "5", indicating that care for digital resources is a very important part of their mission. The distribution of answers gradually fell off, with 14 answering "4", ten answering "3", seven answering "2", and only one response for the "1" category (lowest importance). These responses confirm that the management of digital resources is seen to be an important facet of the work done at most curatorial facilities.

**Table 3. How important is the collection/curation and access to digital data to your organization?**

Answer Options	Not important (1)	(2)	(3)	(4)	Highly important (5)	Rating Average	Response Count
Scale 1-5:	1	7	10	14	30	4.05	62
<b>Answered question</b>							<b>62</b>
<b>Skipped question</b>							<b>8</b>

Question 5 - Keeping up with technology (Table 4): We asked responders to rate (on a scale of 1 to 5) how well their organizations were keeping up with changing technology for effectively managing digital data. Of 62 responses to this question, the mode was "3", with 24 responses, squarely in the middle of the scale range. The second- and third-highest counts were in the "4" and "2" ranks, with 14 and 11 responses respectively. Eight responders marked a "1", indicating that their institution was not keeping up. Only four responses were "5", suggesting no problems keeping up with changing digital data management technology. Less than a quarter of the repositories that we surveyed think that they have the ability to keep pace with the technical developments in providing for access to and preservation of digital archaeological data that comes into their care as part of the curation requirement for archaeological collections.

➤ **Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

**Table 4. How well do you feel your organization is keeping up with changing computer and data management technology?**

Answer Options	Not keeping up (1)	(2)	(3)	(4)	No problem (5)	Rating Average	Response Count
Scale 1-5:	12.9 % (8)	17.7% (11)	40.3% (25)	22.5% (14)	6.5% (4)	2.92	62
<b>Answered question</b>							<b>62</b>
<b>Skipped question</b>							<b>8</b>

Question 6 - Sense of other facilities' management of digital resources (Table 5): We asked responders to rate (on a scale of 1 to 5) how well they thought other curatorial facilities were managing their digital resources. Responses to the phone interview part of the survey were revealing. Many answers suggested that the interviewees felt that other repositories largely fall at either end of the spectrum - either they were handling these issues well, or they were failing, but not much gray area in between. Although the most common answer to this question was intermediate "3" (23 of 56 responses to the question), these responses often were compromises chosen because our question could not capture the actual pattern many subjects wished to report, which was clarified by many of the phone interview responses to the survey. Note that the fall off of responses either side of the mode was very-roughly bell shaped, with a slight skew towards the side suggesting that respondents felt that other facilities are not taking these issues seriously enough. Four responses were "1" (other facilities not taking digital resource issues seriously), 14 were "2", 24 were "3", eight were "4", and seven were "5" (other facilities seem highly concerned with these issues).

**Table 5. How seriously do you feel other curatorial facilities are taking the problem?**

Answer Options	Not seriously (1)	(2)	(3)	(4)	Highly concerned (5)	Rating Average	Response Count
Scale 1-5:	7.1% (4)	25.0% (14)	41.1% (23)	14.3% (8)	12.5% (7)	3.00	56
<b>Answered question</b>							<b>56</b>
<b>Skipped question</b>							<b>14</b>

Question 7 - Difficulty of managing digital records for long term preservation and access (Table 6): We asked responders to rate (on a scale of 1 to 5) the extent that they consider digital data difficult to archive in a manner that provides easy access and long-term preservation. The distribution of answers was a low bell-shaped curve, with a skew toward the upper end of the scale. This suggests that at most institutions the

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

management of digital resources is a moderate-to-seriously difficult problem. Only six responses of 61 answers to the question were a "1" on the scale, asserting no problems. Another ten responses were a "2" on the scale, 19 were "3" (the mode). However, a total of 26 reported problems at the high end of the scale suggesting that digital records were a very difficult problem for their organization. In keeping with the responses to the other questions in this section of our survey, many of the repositories report that providing access to and preservation of digital data for which they are responsible is a difficult and serious problem.

**Table 6. To what extent do you consider the digital data your organization receives difficult to archive in a manner that provides easy access to it and long-term preservation?**

Answer Options	No problem, we have it under control (1)	(2)	(3)	(4)	The mountain of data is a major, difficult problem (5)	Rating Average	Response Count	
Scale 1-5:	9.8% (6)	16.4% (10)	31.1% (19)	26.2% (16)	16.4% (10)	3.23	61	
<i>Answered question</i>								<b>61</b>
<i>Skipped question</i>								<b>9</b>

**Survey Results – Preservation**

Another one-third of the questions in our survey were oriented toward understanding specifics related to the curation and preservation of digital resources. The questions were tailored to shed light on the kinds of archaeological digital data curated by these facilities and how they ensure that these data are preserved and available for use by others. Most of these questions were structured as "check all that apply" types, where responders were asked to mark all answers relevant to their organization.

Question 8 - Kinds of digital data (Table 7): We asked what kinds of digital data were collected or curated by each institution. For this question we supplied a lengthy list of common potential answers, and encouraged additional entry of any options we did not include. The most frequently listed responses were: images, reports, databases and spreadsheets, and catalogs or inventories of submitted collections (all with over 80

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

percent of the 62 responses). Other common answers included other documents, images of maps, GIS-based maps, field notes and records, and letters or other administrative documents (with between 40 and 60 percent of the responses). Relatively uncommon were institutions that listed CAD files, remote sensing data, and 3-D scans (under 30 percent of the responses). One limitation of these responses, however, is that they do not indicate the relative frequencies of the different kinds of digital data held by repositories. Based on comments made by respondents, reports and images are the most frequently held data types, however, obviously there is a wider array of kinds of digital data held in repositories. This list was fairly comprehensive, as relatively few responses used the "other" category. Among those that did use the "other" category, a few institutions listed that they curate digital media such as audio or video related to archaeological research (e.g., radio or television interviews about specific projects or fieldwork).

**Table 7. What kinds of digital data does your organization collect or curate? [check all that apply]**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Reports	90.3%	56
Other documents (articles, books, other publications)	59.7%	37
Field notes and records	54.8%	34
Letters or other administrative documentation	46.8%	29
Catalogs/inventories of submitted collections	80.6%	50
Databases and/or spreadsheets	85.5%	53
Images (photographs)	93.5%	58
Images (maps or photogrammetry)	56.5%	35
GPS, GIS or other digital maps	54.8%	34
CAD files	27.4%	17
Remote sensing data (LIDAR files, satellite imagery, resistivity, GPR)	25.8%	16
3D scans (of artifacts or other objects)	16.1%	10
Other (please specify)	14.5%	9
<b>Answered question</b>		<b>62</b>
<b>Skipped question</b>		<b>8</b>

Question 9 - Data storage (Table 8): We asked what the organization does with the digital data it curates. We supplied a list of common answers. The most frequent responses were that digital resources were stored on the institution's networked servers (74.2 percent of 62 answers), and stored on removable media such as CD-ROMs alongside artifacts or paper records (66.1 percent). Other common answers included data backed up on the institution's server at a second location, stored on hard drive at a local computer, and stored on removable media such as CD-ROMs at a second location

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

(between 20 and 50 percent). Relatively uncommon responses were that the data was backed up on another organization's server, and stored on another organization's server (under ten percent). A small number of responders checked the "other" category (8.1 percent), citing for example that their digital storage media was stored in a fireproof vault on-site or backed up on tape at another location. As is the case with the Question 8 responses, a limitation of the responses to Question 9 is that they do not indicate the relative frequencies of the use of different data storage methods used by the repositories. For example, when repositories reported that digital data were loaded on to the repository server, is that all digital data, or only select files or projects? Are digital files from past projects stored on media such as CDs and only new project data uploaded to servers? With the baseline data reported in this survey, it may be possible to collect more focused frequency data in subsequent survey efforts.

**Table 8. What does your organization do with digital data? [check all that apply]**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
Stored on removable media (disk, CD-ROM) alongside artifacts or paper records	66.1%	41
Stored on hard drive on local computer	41.9%	26
Stored on removable media (disk, CD-ROM) at another location	24.2%	15
Stored on institution's server	74.2%	46
Stored on another organization's server	4.8%	3
Backed up on institution's server at another location	50.0%	31
Backed up on another organization's server at another location	8.1%	5
Other (please specify)	8.1%	5
<b>Answered question</b>		<b>62</b>
<b>Skipped question</b>		<b>8</b>

Question 10 - File type preferences (Table 9): We asked if organizations require, or have a preference for specific digital file types. This was a simple yes or no question; we did not ask what those preferences were (if they had preferences). The responses were split nearly evenly: 48.4 percent of the 62 answers responded "Yes", while 51.6 percent answered "No" preference for specific file types. This survey question suggests that about half of the institutions would accept pretty much any digital data in whatever format for curation. This result is consistent with the responses that relate to our question about repositories providing guidance or required procedures related to digital data they accept (see discussion below).

➤ **Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

**Table 9. Does your organization require, or have a preference for specific digital file types and formats (e.g., .pdf/a versus .pdf; Excel or Access database files versus other file types)?**

Answer Options	Response Percent	Response Count
Yes	48.4%	30
No	51.6%	32
<b>Answered question</b>		<b>62</b>
<b>Skipped question</b>		<b>8</b>

Question 11 - Long term preservation plan (Table 10): We asked responders to rate (on a scale of 1 to 5) their organization's long-term preservation plan, and the extent to which that plan has been implemented. The question specifically referenced whether they had formalized a best-practices policy to ensure that data would be accurately preserved into the indefinite future. Responses to this question were heavily skewed toward the low end of the scale, meaning that many institutions have either no plan or an underdeveloped plan for preserving their digital data. Of the 62 responses, eight answered "1" (with the heading "Plan? What plan?"), 24 answered "2", 20 answered "3", five answered "4", and five answered "5" (with the heading "We have a plan and have implemented it."). The responses to this question highlight an unfortunate contradiction: that most institutions consider the curation and preservation of digital archaeological resources an important part of their mission (Question 4), but that a relatively small subset have developed and implemented plans for managing those resources.

**Table 10. Does your organization have a long-term preservation plan? This might include best practices to ensure that the data are accurately preserved and remain accessible through contemporary software into the indefinite future.**

Answer Options	Plan? What plan? (1)	(2)	(3)	(4)	We have a plan and have implemented it (5)	Rating Average	Response Count
Scale 1-5:	12.9% (8)	38.7% (24)	32.3% (20)	8.1% (5)	8.1% (5)	2.60	62
<b>Answered question</b>							<b>62</b>
<b>Skipped question</b>							<b>8</b>

**Survey Results – Access**

The last one-third of the questions in our survey aimed to understand how these institutions provide access to the digital resources that they curate. The questions were oriented to the kinds of data available, how that data is made available, and who can gain access to the digital resources. Most of these questions were structured as "check all that apply" types, where responders were asked to mark all answers relevant to their organization.

Question 12 - Access for outside researchers (Table 11): We asked if the organization provides access to digital resources, and how that access provided. The most frequent response (85.5 percent of 62 answers) was that CRM firms, researchers, or other potential users place a request, and the institution personnel provide the data in a digital format. Another fairly common response was that researchers place a request, and the institution personnel provide the data on printed paper. Relatively rare responses included having the data available via the organization's website, or via self service at a computer located on-site. Only three of the organizations responded that they do not provide access to digital data. Also, five of the responses checked the "other" category, often suggesting that data would be made available via a website sometime in the future (e.g., within a year). One implication of the responses is that repository staff must allocate substantial amounts of time in reviewing and fulfilling requests for digital data.

**Table 11. Does your organization provide outside researchers access to digital data, how is that access generally provided? [check all that apply]**

Answer Options	Response Percent	Response Count
We do not provide access to digital data	4.8%	3
Via your organization's web site	21.0%	13
Self service via a computer at your organization's facility	21.0%	13
Researchers place a request, your personnel provide the data in a digital format	85.5%	53
Researchers place a request, your personnel provide the data on paper	43.5%	27
Other (please specify)	8.1%	5
<b>Answered question</b>		<b>62</b>
<b>Skipped question</b>		<b>8</b>

Question 13 - Fees for accessing data (Table 12): We asked if the organizations charged fees for accessing digital data, and if so, how were those fees structured. By far, the

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

most common response (85.2 percent of 61 answers) was that the institutions do not charge fees for accessing digital resources. All other options had very few responses: Monthly or annual fees, fees based on each time accessed, fees per hour, and fees per the amount of data all were represented by less than ten percent of the responses. Five responders checked the "other" category (8.2 percent), suggesting that other variables could affect whether or not fees were assessed - e.g., inquiries from for-profit organizations were assessed fees, otherwise not.

In light of the responses to Question 12 that suggest that repository staff are responsible for reviewing and fulfilling requests for data, the responses to Question 13 suggest that the number of requests to most repositories is not substantial. If repository staff were expending most of their time responding to requests, it is likely that repositories would have established fees for this service. For example, the AZSITE system in Arizona, an online system providing controlled access to state site files, is used regularly by CRM firms undertaking investigation in the state. There is a charge for using the AZSITE system. Repository staff are responsible for keeping information on sites up-to-date, but they do not have to respond to each individual request for site information, the on-line system handles these requests.

**Table 12. If your organization charges fees for accessing digital data that it curates, which term(s) below most accurately describes the fee structure? [check all that apply]**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
We do not charge a fee for accessing digital data	85.2%	52
One time access fee	0.0%	0
Monthly/annual fee	3.3%	2
Fees based on each time accessed	1.6%	1
Fees per hour	6.6%	4
Fees per the amount of data	4.9%	3
Other (please specify)	8.2%	5
<b>Answered question</b>		<b>61</b>
<b>Skipped question</b>		<b>9</b>

Question 14 - Who can access (Table 13): We asked about the requirements that must be met by potential users of digital resources before they can access the data or have it provided to them by repository staff. The two most common requirements were a professional affiliation or degree (68.9 percent of 61 responses), or a student with university affiliation (63.9 percent). Other moderately common responses included a reference or recommendation from a reputable professional, and agreeing to the terms of a user's agreement (between 20 and 40 percent). Five responses specifically

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

referenced the Register of Professional Archaeologists (RPA). Only seven responses responded that the institution has no requirements for accessing data. This question generated a relatively large number of "other" responses. Specifically, 25 (41.0 percent) responders selected "other" - usually alongside the common answers above. Many of those simply pointed out that access is determined on a case-by-case basis. Others pointed to a specific process for granting access, such as approval by a government agency or Native American tribal representative for access to specific information legally controlled by these entities.

**Table 13. What requirements must users meet to access the digital data that your organization curates? [check all that apply]**

<b>Answer Options</b>	<b>Response Percent</b>	<b>Response Count</b>
None	11.5%	7
Agree to the terms of a user's agreement	24.6%	15
Professional affiliation or degree	68.9%	42
Register of Professional Archaeologists (RPA) accreditation	8.2%	5
Reference or recommendation from reputable professional	36.1%	22
Student (with university affiliation)	63.9%	39
Other (please specify)	41.0%	25
<b>Answered question</b>		<b>61</b>
<b>Skipped question</b>		<b>9</b>

Question 15 - Special training (Table 14): We asked if potential users of digital resources were required to have special training, and if so, how was that training organized. Overwhelmingly, the responses indicated that no training was required to access the data (86.7 percent of 60 responses). A small subset of the organizations provides individual training to users. Only two responses indicated that training for accessing data was available as a tutorial, via the web or elsewhere. Only one response selected "other", suggesting that the degree of training needed depends on the kinds of data that the user wishes to access.

➤ **Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

**Table 14. If your organization requires special training to access digital data, what kinds of training do you offer? [check all that apply]**

Answer Options	Response Percent	Response Count
We do not require any training	86.7%	52
Tutorial, via the web or elsewhere	3.3%	2
Workshop or class	0.0%	0
Individual training	13.3%	8
Other (please specify)	1.7%	1
<b>Answered question</b>		<b>60</b>
<b>Skipped question</b>		<b>10</b>

Question 16 - Accessible data (Table 15): We asked what kinds of data were available to outside researchers. We suspected that while repositories curate a wide variety of digital resources, they probably do not or cannot provide access to all those materials. In general, though, our results suggest that many institutions provide access to most types of digital resources they curate. Specifically, accessible resources include documents (88.3 percent of 60 responses), images, databases or spreadsheets, and report abstracts or site descriptions. Almost half of the responses also indicated that the organization provides access to site files, with site location and descriptive specifics. Five responses marked the "other" category, with most of those indicating that they provide access to GIS data.

**Table 15. If your organization provides access to digital data, what kinds of data can be accessed? [check all that apply]**

Answer Options	Response Percent	Response Count
Report abstracts/site descriptions (non-confidential information)	68.3%	41
Site files (e.g., site locations, site reporting forms)	45.0%	27
Documents (e.g., reports, notes)	88.3%	53
Databases/spreadsheets (e.g., artifact data)	81.7%	49
Images	86.7%	52
Other (please specify)	8.3%	5
<b>Answered question</b>		<b>60</b>
<b>Skipped question</b>		<b>10</b>

**Key Insights from the Survey**

We learned much from each of the questions and the individual survey responses. Additional insights from the project can be found by looking at various combinations of

## ↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey

---

answers. Some interesting patterns related to the survey were not linked to the actual questions, but instead related to which institutions responded to our solicitations.

Our reading of the survey responses is that most of the curatorial facilities who responded will accept just about anything offered to them in digital format related to an archaeological collection. This is regardless of their capacity to store the media long-term or whether they will be able to preserve the actual data as technological standards (e.g., related to basic computer platforms, software programs, and hardware) change. While access varies somewhat depending on the kind of facility, for the most part whatever digital resources were curated with the facility are available at the request of researchers who can meet the criteria established by the repository.

Overall, policies are underdeveloped in all categories. Decisions often are made on a case-by-case basis for curation, preservation, and access for researchers. Fees for either curation or access to data are relatively rare, which probably reflects that organizations have not adequately considered the costs of managing digital resources in the long term. The fact that so many repositories described procedures for providing digital or paper copies of digital records upon request suggests that they are not focusing much effort on this activity. Such labor-intensive procedures would quickly overwhelm repository staff if user demand was substantial. So while these issues are important to many archaeological curatorial facilities, many or most of them have not developed procedures or policies that will help these services pay for themselves.

When comparing answers on two questions (a cross tab of the data), some interesting results were observed. These results confirmed some of our qualitative ideas about the survey data. Three sets of comparisons are focused on here. The first looks at an organization's priorities (or intentions) and how that related to their answers on several other survey questions. A second set of comparisons examines organizations' perceived progress on these issues and how that correlated with their other answers. A third set compares the capacity of the organization for keeping up with technological change against their other answers.

Generally, if a response suggested that digital resources were a high priority for the organization (Question 4), there was a slightly higher probability that the organization was better prepared to handle the management of those resources (See Tables 16-20). Granted, nearly half of the responses to our question ranked the importance of curating and providing access to digital resources at level five – the highest possible rank, suggesting that issues related to digital data were highly important to the repositories.

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

Many of those responses correlated with more-developed policies regarding the digital resources, such as fee schedules (Question 3, Table 16) and relatively less trouble managing the technical issues of long-term data management (Question 5, Table 17). Unsurprisingly, those who consider caring for digital data as a relatively low priority (1-2 on the scale) were much less likely to have developed (or implemented) a plan for managing digital resources (Question 11, Table 18). Between the high and low responses, there are interesting and more-subtle patterns. For example, the middle responses tend to correlate with greater difficulty keeping up with changing technology (Table 17). In other words, if the care of digital data is a medium priority, those organizations often had fewer formal policies – and the lack of policies often correlates with fewer resources for keeping up with changing technology. Those same organizations also tend to have “worse” methods for the storage of digital media, e.g., a preference for storing data on removable media like CD-ROM over the use of an institutional server (Question 9, Table 19). Those organizations in the middle also were more inclined to answer that amount of data they curate is a major, difficult problem for them (Question 7, Table 20).

**Table 16. Does your organization charge fees to cover the costs of digital data curation, which term(s) below most accurately describes the fee structure? [check all that apply]**

Answer Options	How important is the collection/curation and access to digital data to your organization? -- Scale 1-5:					Response Percent	Response Count	
	Not important (1)	(2)	(3)	(4)	Highly important (5)			
We do not charge a fee for the submission of digital data	1	5	3	6	13	45.2%	28	
Fee is part of overall collection curation fee	0	2	8	6	16	51.6%	32	
One-time fee for the submission of digital data	0	0	0	1	1	3.2%	2	
Fees based on the amount of data (e.g., per megabyte)	0	0	0	0	1	1.6%	1	
Fees based on the media (e.g., per compact disc)	0	0	0	0	0	0.0%	0	
Other (please specify)	0	1	0	3	3	11.3%	7	
<b>Answered question</b>								<b>62</b>
<b>Skipped question</b>								<b>0</b>

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

**Table 17. How well do you feel your organization is keeping up with changing computer and data management technology?**

Answer Options	How important is the collection/curation and access to digital data to your organization? -- Scale 1-5:					Rating Average	Response Count	
	Not important (1)	(2)	(3)	(4)	Highly important (5)			
Scale 1-5:								
Not keeping up (1)	1	4	1	1	1			
(2)	0	0	3	4	4			
(3)	0	3	6	5	11			
(4)	0	0	0	3	11			
No problem (5)	0	0	0	1	3			
<b>Averages</b>	1.00	1.86	2.50	2.93	3.37	2.92	62	
<b>Answered question</b>								<b>62</b>
<b>Skipped question</b>								<b>0</b>

**Table 18. Does your organization have a long-term preservation plan? This might include best-practices to ensure that the data are accurately preserved and remain accessible through contemporary software into the indefinite future.**

Answer Options	How important is the collection/curation and access to digital data to your organization? -- Scale 1-5:					Rating Average	Response Count	
	Not important (1)	(2)	(3)	(4)	Highly important (5)			
Scale 1-5:								
Plan? What plan? (1)	0	1	1	4	2			
(2)	0	5	6	4	9			
(3)	1	1	3	3	12			
(4)	0	0	0	1	4			
We have a plan and have implemented it (5)	0	0	0	2	3			
<b>Averages</b>	3.00	2.00	2.20	2.50	2.90	2.60	62	
<b>Answered question</b>								<b>62</b>
<b>Skipped question</b>								<b>0</b>

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

**Table 19. What does your organization do with digital data? [check all that apply]**

Answer Options	How important is the collection/curation and access to digital data to your organization? -- Scale 1-5:					Response Percent	Response Count	
	Not important (1)	(2)	(3)	(4)	Highly important (5)			
Stored on removable media (disk, CD-ROM) alongside artifacts or paper records	0	6	8	10	17	66.1%	41	
Stored on hard drive on local computer	1	3	3	8	11	41.9%	26	
Stored on removable media (disk, CD-ROM) at another location	0	1	3	2	9	24.2%	15	
Stored on institution's server	1	4	5	10	26	74.2%	46	
Stored on another organization's server	0	0	0	0	3	4.8%	3	
Backed up on institution's server at another location	1	3	4	9	14	50.0%	31	
Backed up on another organization's server at another location	0	0	1	0	4	8.1%	5	
Other (please specify)	0	0	0	0	5	8.1%	5	
<b>Answered question</b>								<b>62</b>
<b>Skipped question</b>								<b>0</b>

**Table 20. To what extent do you consider the digital data your organization receives difficult to archive in a manner that provides easy access to it and long-term preservation?**

Answer Options	How important is the collection/curation and access to digital data to your organization? -- Scale 1-5:					Rating Average	Response Count	
	Not important (1)	(2)	(3)	(4)	Highly important (5)			
Scale 1-5:								
No problem, we have it under control (1)	1	0	0	1	4			
(2)	0	2	1	2	5			
(3)	0	3	5	3	8			
(4)	0	1	2	5	8			
The mountain of data is a major, difficult problem (5)	0	1	2	2	5			
<b>Averages</b>	1.00	3.14	3.50	3.38	3.17	3.23	61	
<b>Answered question</b>								<b>61</b>
<b>Skipped question</b>								<b>1</b>

➤ **Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

It was useful to compare the results on the question rating the development and implementation of the organizations' plans for management of digital resources (Question 11) against their answers to several other questions (see Tables 21-23). Specifically, if a response indicated a score of five on the first question (i.e., that their repository has a plan, and they have implemented it), then the probability that they would have established a fee structure for curating digital data was much higher than was seen from those who did not have plans (Question 3, Table 21). In other words, organizations with a plan for managing digital resources more likely have also developed a way to help pay for that effort. Likewise, those organizations with an implemented plan – or at least answering higher on the preparedness scale – were also more likely to have formal guidelines and provide access to them (Question 2, Table 22). The organizations with plans were more likely to restrict their preference to specific digital file types – meaning that they were less likely to take in any random digital file types, which might create maintenance problems in the future (Question 10, Table 23). Instead, their preference for a smaller number of specific digital file types should improve their capacity to maintain the data.

**Table 21. Does your organization charge fees to cover the costs of digital data curation, which term(s) below most accurately describes the fee structure? [check all that apply]**

Answer Options	Does your organization have a long-term preservation plan? This might include best practices to ensure that the data are accurately preserved and remain accessible through contemporary software into the indefinite future. -- Scale 1-5:					Response Percent	Response Count
	Plan? What plan? (1)	(2)	(3)	(4)	We have a plan and have implemented it (5)		
We do not charge a fee for the submission of digital data	5	12	8	3	0	45.2%	28
Fee is part of overall collection curation fee	3	12	10	3	4	51.6%	32
One-time fee for the submission of digital data	1	1	0	0	0	3.2%	2
Fees based on the amount of data (e.g., per megabyte)	0	1	0	0	0	1.6%	1
Fees based on the media (e.g., per compact disc)	0	0	0	0	0	0.0%	0
Other (please specify)	1	2	3	0	1	11.3%	7
<b>Answered question</b>							<b>62</b>
<b>Skipped question</b>							<b>0</b>

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

---

**Table 22. Does your organization provide guidelines/policies for the submission of digital data, how are those guidelines made available? [check all that apply]**

Does your organization have a long-term preservation plan? This might include best practices to ensure that the data are accurately preserved and remain accessible through contemporary software into the indefinite future. - - Scale 1-5:							
Answer Options	Plan? What plan? (1)	(2)	(3)	(4)	We have a plan and have implemented it (5)	Response Percent	Response Count
We do not provide guidelines	5	12	8	2	1	45.2%	28
Website	1	5	3	2	2	21.0%	13
Email	0	7	5	1	3	25.8%	16
Print	1	3	2	0	2	12.9%	8
Other (please specify)	3	4	7	0	3	27.4%	17
<b>Answered question</b>							<b>62</b>
<b>Skipped question</b>							<b>0</b>

**Table 23. Does your organization require, or have a preference for specific digital file types and formats (e.g., PDF/A versus PDF; Excel or Access database files versus other file types)?**

Does your organization have a long-term preservation plan? This might include best practices to ensure that the data are accurately preserved and remain accessible through contemporary software into the indefinite future. -- Scale 1-5:							
Answer Options	Plan? What plan? (1)	(2)	(3)	(4)	We have a plan and have implemented it (5)	Response Percent	Response Count
Yes	1	8	12	4	5	48.4%	30
No	7	16	8	1	0	51.6%	32
<b>Answered question</b>							<b>62</b>
<b>Skipped question</b>							<b>0</b>

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

Lastly, some interesting patterns were seen in a cross-tab comparing results on the question of how well an organization felt it was keeping up with changing technology (Question 5) against several other survey questions (see Tables 24-26). Perhaps unsurprisingly, the organizations whose responses reflected relatively little trouble keeping up with changing technology also tended to have more-developed administrative policies regarding digital resources. For example, those organizations who answered “no problem” keeping up with changing technology were also much more likely to respond affirmatively regarding charging fees for data curation (Question 3, Table 24). There is also a very strong trend relating scores on keeping up with changing technology to scores on the extent to which the organization considers the amount of data received difficult to archive. For example, organizations that reported little trouble keeping up with technology also responded that they had little trouble archiving the data they receive (Question 7, Table 25). A slightly weaker trend also showed a positive relationship between keeping up with changing technology and whether the organization has a plan (implemented or in progress) for long term preservation of digital resources (Question 11, Table 26).

**Table 24. Does your organization charge fees to cover the costs of digital data curation, which term(s) below most accurately describes the fee structure? [check all that apply]**

Answer Options	How well do you feel your organization is keeping up with changing computer and data management technology? -- Scale 1-5:					Response Percent	Response Count	
	Not keeping up (1)	(2)	(3)	(4)	No problem (5)			
We do not charge a fee for the submission of digital data	6	6	10	5	1	45.2%	28	
Fee is part of overall collection curation fee	2	5	14	9	2	51.6%	32	
One-time fee for the submission of digital data	1	0	1	0	0	3.2%	2	
Fees based on the amount of data (e.g., per megabyte)	1	0	0	0	0	1.6%	1	
Fees based on the media (e.g., per compact disc)	0	0	0	0	0	0.0%	0	
Other (please specify)	0	0	4	2	1	11.3%	7	
<b>Answered question</b>								<b>62</b>
<b>Skipped question</b>								<b>0</b>

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

**Table 25. To what extent do you consider the digital data your organization receives difficult to archive in a manner that provides easy access to it and long-term preservation?**

How well do you feel your organization is keeping up with changing computer and data management technology? -- Scale 1-5:								
Answer Options	Not keeping up (1)	(2)	(3)	(4)	No problem (5)	Rating Average	Response Count	
Scale 1-5:								
No problem, we have it under control (1)	1	1	0	2	2			
(2)	0	1	3	5	1			
(3)	2	6	10	0	1			
(4)	3	1	8	4	0			
The mountain of data is a major, difficult problem (5)	2	2	4	2	0			
	3.63	3.18	3.52	2.92	1.75	3.23	61	
<b>Answered question</b>							<b>61</b>	
<b>Skipped question</b>							<b>1</b>	

**Table 26. Does your organization have a long-term preservation plan? This might include best practices to ensure that the data are accurately preserved and remain accessible through contemporary software into the indefinite future.**

How well do you feel your organization is keeping up with changing computer and data management technology? -- Scale 1-5:								
Answer Options	Not keeping up (1)	(2)	(3)	(4)	No problem (5)	Rating Average	Response Count	
Scale 1-5:								
Plan? What plan? (1)	2	2	4	0	0			
(2)	4	6	9	3	2			
(3)	2	3	8	5	2			
(4)	0	0	1	4	0			
We have a plan and have implemented it (5)	0	0	3	2	0			
<b>Averages</b>	2.00	2.09	2.60	3.36	2.50	2.60	62	
<b>Answered question</b>							<b>62</b>	
<b>Skipped question</b>							<b>0</b>	

Alongside the more quantitative analysis of the survey responses, the telephone interviews allowed us to make a small number of qualitative observations on subjects that were not well documented in the survey. For example, several of the phone interviews were surprisingly polarized – we heard either from institutions whose staff

## **↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010 National Repositories Survey**

---

representatives believed that they were relatively far along in their thinking about management of digital resources or from those concerned that their institutions were failing to adequately consider and address these issues. For the most part, however, we actually received Survey Monkey submissions from organizations in the gray area between those poles. The polarized pattern was only apparent during the telephone interviews, not in written comments to the online survey questions.

At first glance, responses to the questions in this survey, particularly the third section related to accessing digital resources, suggest that there is almost no problem currently with gaining access to digital archaeological documents, data sets, or other kinds of files held in repositories. However, anecdotal evidence indicates that this is not the case. Discussions with both repository staff members during phone interviews and also with users of digital records suggest that although access may be possible and digital records potentially available, in practice these data often cannot be obtained. An important category of information that we did not ask about in our survey is the frequency with which digital resources are accessed. For example, if requests for data require that a repository staff member verify the credentials of a requestor, locate, copy (either onto paper or on digital media), and deliver the data, it is likely that response to data requests are neither inexpensive nor quick.

There is evidence that some kinds of archaeological information, for example basic site records including descriptions and locations of sites, are becoming more easy to access – at least from repositories that have these records available digitally. Such access, however, is limited to individuals who have been screened and deemed to be appropriate users who will not use the information in ways that damage or destroy archaeological resources. This access is fine, as far as it goes. However, is it far from an adequate sharing of the richness of archaeological information that has been collected over the past four or more decades. The current accessibility also limits severely the individuals who can access even the modest percentage of data in site records to those with professional credentials.

### **Conclusion**

We appreciate very much the time that dozens of individuals at the repositories spent contributing to this project, either by completing the online survey initially or in follow-up interviews. Obviously any results from the survey are only possible due to their participation. We hope that the results can serve as a foundation for an increased understanding about how digital archaeological data currently are treated by

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

---

repositories. Follow-up investigations addressing some of the remaining questions on this topic, including more-specific inquiries about digital data technologies and policies, will build upon the basic information presented in this report.

**Acknowledgements**

Our sincere thanks to the individuals and organizations who took the time to respond to our survey questionnaire and share their information, opinions, and perspectives. A list of the organizations whose staff provided responses is in Sections I and II of Appendix 2. We thank in particular, S. Terry Childs, who provided advice and substantial additional background information on the topic of archaeological repositories and her earlier surveys investigations of them.

## Works Cited

Childs, S. Terry, and Seth Kagan

2008 A Decade of Study into Repository Fees for Archaeological Collections. *Studies in Archaeology and Ethnography*. Number 6. Archaeology Program, National Park Service, Washington D.C.

Kintigh, Keith W., and Jeffrey H. Altchul

2010 Sustaining the Digital Archaeological Record. *Heritage Management*. 3(2):264-274.

McManamon Francis P., and Kintigh W. Kintigh

2010 Digital Antiquity: Transforming Archaeological Data into Knowledge. *SAA Archaeological Record*. March 2010, p.37-40.

Francis P. McManamon, Keith W. Kintigh, Adam Brin.

2010 Digital Antiquity and the Digital Archaeological Record (tDAR): Broadening Access and Ensuring Long-Term Preservation for Digital Archaeological Data. *Newsletter of the Center for the Study of Architecture*. Vol. XXIII, No. 2.

## APPENDIX 1.

List of survey questions:

1. Does your organization collect or curate digital archaeological data (e.g., reports, other documents, notes, spreadsheets, data sets, images, GPS or GIS files, and other kinds of digital data)?
  - a. Yes/No
2. Does your organization provide guidelines/policies for the submission of digital data, how are those guidelines made available? [check all that apply]
  - a. We do not provide guidelines
  - b. Website [please provide a URL on the previous page]
  - c. Email [we may follow up by email for a copy]
  - d. Print
  - e. Other (please specify)
3. Does your organization charge fees to cover the costs of digital data curation, which term(s) below most accurately describes the fee structure? [check all that apply]
  - a. We do not charge a fee for the submission of digital data
  - b. Fee is part of overall collection curation fee
  - c. One-time fee for the submission of digital data
  - d. Fees based on the amount of data (e.g., per megabyte)
  - e. Fees based on the media (e.g., per compact disc)
  - f. Other (please specify)
4. How important is the collection/curation and access to digital data to your organization?
  - a. Scale 1 (not important) to 5 (highly important)
5. How well do you feel your organization is keeping up with changing computer and data management technology?
  - a. Scale 1 (not keeping up) to 5 (no problem)
6. How seriously do you feel other curatorial facilities are taking the problem?
  - a. Scale 1 (not seriously) to 5 (highly concerned)
7. To what extent do you consider the digital data your organization receives difficult to archive in a manner that provides easy access to it and long-term preservation?
  - a. Scale 1 (no problem) to 5 (major problem)
8. What kinds of digital data does your organization collect or curate? [check all that apply]
  - a. Reports
  - b. Other documents (articles, books, other publications)
  - c. Field notes and records
  - d. Letters or other administrative documentation
  - e. Catalogs/inventories of submitted collections
  - f. Databases and/or spreadsheets

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

---

- g. Images (photographs)
  - h. Images (maps or photogrammetry)
  - i. GPS, GIS or other digital maps
  - j. CAD files
  - k. Remote sensing data (LIDAR files, satellite imagery, resistivity, GPR)
  - l. 3D scans (of artifacts or other objects)
  - m. Other (please specify)
9. What does your organization do with digital data? [check all that apply]
- a. Stored on removable media (disk, cd-rom) alongside artifacts or paper records
  - b. Stored on hard drive on local computer
  - c. Stored on removable media (disk, cd-rom) at another location
  - d. Stored on institution's server
  - e. Stored on another organization's server
  - f. Backed up on institution's server at another location
  - g. Backed up on another organization's server at another location
  - h. Other (please specify)
10. Does your organization require, or have a preference for specific digital file types and formats (e.g., .pdf/a versus .pdf; Excel or Access database files versus other file types)?
- a. Yes/No
11. Does your organization have a long-term preservation plan? This might include best-practices to ensure that the data are accurately preserved and remain accessible through contemporary software into the indefinite future.
- a. Scale 1(plan, what plan?) to 5 (plan implemented)
12. Does your organization provide outside researchers access to digital data, how is that access generally provided? [check all that apply]
- a. We do not provide access to digital data
  - b. Via your organization's web site
  - c. Self service via a computer at your organization's facility
  - d. Researchers place a request, your personnel provide the data in a digital format
  - e. Researchers place a request, your personnel provide the data on paper
  - f. Other (please specify)
13. If your organization charges fees for accessing digital data that it curates, which term(s) below most accurately describes the fee structure? [check all that apply]
- a. We do not charge a fee for accessing digital data
  - b. One time access fee
  - c. Monthly/annual fee
  - d. Fees based on each time accessed
  - e. Fees per hour
  - f. Fees per the amount of data

**➤ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

---

- g. Other (please specify)
14. What requirements must users meet to access the digital data that your organization curates? [check all that apply]
- a. None
  - b. Agree to the terms of a user's agreement
  - c. Professional affiliation or degree
  - d. Register of Professional Archaeologists (RPA) accreditation
  - e. Reference or recommendation from reputable professional
  - f. Student (with university affiliation)
  - g. Other (please specify)
15. If your organization requires special training to access digital data, what kinds of training do you offer? [check all that apply]
- a. We do not require any training
  - b. Tutorial, via the web or elsewhere
  - c. Workshop or class
  - d. Individual training
  - e. Other (please specify)
16. If your organization provides access to digital data, what kinds of data can be accessed? [check all that apply]
- a. Report abstracts/site descriptions (non-confidential information)
  - b. Site files (e.g., site locations, site reporting forms)
  - c. Documents (e.g., reports, notes)
  - d. Databases/spreadsheets (e.g., artifact data)
  - e. Images
  - f. Other (please specify)

## APPENDIX 2.

- I. Organizations that responded to the survey:
  1. Alexandria Archaeology Museum
  2. Anthropology Museum at UC Davis
  3. Antonio J. Waring, Jr. Archaeological Laboratory, University of West Georgia
  4. Archaeological Research Center, University of Kansas
  5. Archaeological Research Institute, Arizona State University
  6. Archaeology / University of Louisville
  7. Archaeology Institute - University of West Florida
  8. Archaeology Lab, University of Hawaii at Manoa
  9. Arkansas Archeological Survey
  10. Billings Curation Center (BLM)
  11. Bois Forte Heritage Museum
  12. Burke Museum of Natural History and Culture
  13. C.H. Nash Museum at Chucalissa
  14. Carnegie Museum of Natural History
  15. Center for Archaeological Investigations, Southern Illinois University
  16. Cleveland Museum of Natural History, Dept. of Archaeology
  17. Crow Canyon Archaeological Center
  18. CT State Museum of Natural History and CT Archaeology Center
  19. DC Historic Preservation Office/ DC Office of Planning
  20. Denver Museum of Nature & Science
  21. Department of the Interior
  22. Desert Research Institute
  23. Edge of the Cedars State Park Museum
  24. Fowler Museum at UCLA
  25. Iowa Office of the State Archaeologist
  26. Louisiana Division of Archaeology
  27. Maryland Archaeological Conservation Laboratory
  28. Maturango Museum of the Upper Mojave Desert
  29. Maxwell Museum of Anthropology, UNM
  30. Minnesota Historical Society
  31. Montana SHPO
  32. Murray State University
  33. Museum of Anthropology at Washington State University
  34. Museum of Anthropology Wake Forest University
  35. Museum of Anthropology, University of Missouri
  36. Museum of Indian Arts & Culture/Laboratory of Anthropology

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

---

37. Museum of Natural and Cultural History
38. Museum of Northern Arizona
39. Museum of Peoples and Cultures, Brigham Young University
40. Museum of Western Colorado
41. New York State Museum
42. New York State Museum (separate response)
43. Office of Archaeological Research, University of Alabama Museums
44. Public Archaeology Facility, Binghamton University
45. Public Archaeology Lab, Inc
46. Pueblo Grande Museum
47. Research Laboratories of Archaeology, UNC-Chapel Hill
48. Robert S. Peabody Museum of Archaeology at Phillips Academy
49. Salmon Ruins Museum
50. Sam Noble Oklahoma Museum of Natural History
51. San Bernardino County Museum
52. San Diego Archaeological Center
53. Texas Archeological Research Laboratory, the Univ. of Texas
54. Thomas J. Dodd Research Center, University of Connecticut
55. Univ. of Georgia Laboratory of Archaeology
56. University of Denver Museum of Anthropology
57. University of Pennsylvania Museum of Archaeology and Anthropology
58. University of South Alabama
59. University of Texas at San Antonio
60. University of Wyoming Archaeological Repository
61. US Army, Fort Lee
62. Utah Museum of Natural History
63. Virginia Department of Historic Resources
64. Virginia Museum of Natural History
65. Wanapum Heritage Center
66. William & Mary Center for Archaeological Research
67. Wisconsin Historical Society
- II. Organizations that respond to the survey, but no digital resources reported:
  68. University of Nebraska State Museum (no digital resources)
  69. University of Delaware, Center for Archaeological Research (no digital resources)
  70. University of Alaska Museum, Archaeology Department (incomplete survey)
- III. Organizations contacted but did not respond to the survey:
  71. Adan E. Treganza Anthropology Museum, San Francisco State University
  72. Alabama Department of Archives and History

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

---

73. Alfred W. Bowers Laboratory of Anthropology, University of Idaho, Northern Repository
74. American Museum of Natural History
75. American River College
76. Amerind Foundation, Inc.
77. Anasazi Heritage Museum
78. Anchorage Museum of History and Art at the Ramuson Center
79. Arkansas State University Museum
80. Autry National Center
81. Baranov Museum, Kodiak Historical Society
82. Bishop Museum
83. Bryn Mawr College
84. Buffalo Bill Historical Center
85. California State Archaeological Collections Research Facility
86. California State University, Bakersfield
87. California State University, Chico, Archaeology Laboratory
88. California State University, Dominguez Hills
89. California State University, Fullerton
90. California State University, Sacramento
91. Central California Information Center
92. Central Coastal Information Center
93. Cincinnati Museum Center
94. Cobb Institute of Archaeology, Mississippi State University
95. College of Eastern Utah Prehistoric Museum
96. Colorado Historical Society, Colorado History Museum
97. Colorado Springs Pioneers Museum
98. Colorado State University, Laboratory of Public Archaeology
99. Colville Confederated Tribes
100. Crow Canyon Archaeological Center
101. Dayton Museum of Natural History
102. Delaware Division of Historical and Cultural Affairs
103. Eastern Information Center
104. Eastern New Mexico University, Department of Anthropology and Applied Archaeology
105. Eastern Washington University, Archaeological and Historical Services
106. Emory University
107. Fort Hays State University
108. Fresno City College, Department of Anthropology
109. George Washington University, Archaeology Laboratory

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

---

110. Gila River CRMP
111. Golden Gate Baptist Theological Seminary Marian Eakins Archaeological Collection
112. Haffenreffer Museum at Brown University
113. Harry Reid Center, University of Nevada, Las Vegas
114. Houston Museum of Natural Science
115. Idaho Museum of Natural History, Idaho State University, Eastern Repository
116. Illinois State Museum
117. Imperial Valley College Desert Museum
118. Indiana University of Pennsylvania
119. Indiana University-Purdue University Fort Wayne Archaeology Survey
120. Kansas State Historical Society, Cultural Resources Division, Archaeology
121. Kent State University
122. Lost City Museum, Nevada Department of Cultural Affairs
123. Mashantucket Pequot Museum and Research Center
124. Mesa Southwest Museum, Arizona Museum of Natural History
125. Michigan Historical Center
126. Mid-America All Indian Center
127. Mississippi Department of Archives and History
128. Montana Historical Society
129. Museum of Man
130. Museum of the Aleutians in Unalaska
131. Museum of the Cherokee Indian
132. Museum of the Great Plains
133. Museum of the Rockies, Montana State University
134. Natural History Museum of Los Angeles County
135. New Hampshire Archaeological Society
136. New Hampshire Division of Historical Resources Department of Cultural Resources
137. New Hampshire Historical Society
138. New Jersey Bureau of Archaeology and Ethnology, New Jersey State Museum
139. New Mexico State University
140. New York University
141. North Carolina Office of State Archaeology
142. North Central Information Center
143. North Dakota State University
144. Northeast Information Center
145. Northern Illinois University
146. Northern Kentucky University, Museum of Anthropology

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

---

147. Northern Louisiana State, Archaeology Conservation Laboratory
148. Northwest Information Center
149. Office of Historic Preservation
150. Oregon State University
151. Peabody Museum of Archaeology and Ethnography, Harvard University
152. Peabody Museum of Natural History, Yale University
153. Phoebe A. Hearst Museum of Anthropology, University of California, Berkeley
154. Rhode Island Department of Transportation
155. Rhode Island State Historic Preservation Office
156. Rio Grande County Museum
157. Rochester Museum and Science Center
158. San Bernardino Archaeological Information Center
159. San Diego State University
160. Sanford Museum and Planetarium
161. Santa Barbara Museum of Natural History
162. Schingoethe Center for Native American Cultures, Aurora University
163. Sherman Indian Museum
164. Smithsonian Museum of Natural History
165. Sonoma State University, Archaeological Collections Facility
166. South Central Coastal Information Center
167. South Coastal Information Center
168. South Dakota State Historical Society Archaeological Research Center
169. South Oregon University
170. Southeast Information Center
171. Southern Methodist University
172. Southern San Joaquin Valley Information Center
173. Southern Utah University, Archaeology Repository
174. State Historical Society of North Dakota
175. State Museum of Pennsylvania
176. State University of New York, Brockport
177. State University of New York, Buffalo
178. Stead Storage Facility, University of Nevada, Department of Anthropology
179. The Field Museum
180. University of Arizona, Arizona State Museum
181. University of California, Riverside, Archaeological Curation Unit
182. University of Delaware, Center for Archaeological Research
183. University of Florida, Museum of Natural History
184. University of Iowa, Office of the State Archaeologist
185. University of Maine at Orono

**↑ Policies, Preservation, and Access to Digital Resources: The Digital Antiquity 2010  
National Repositories Survey**

---

186. University of Massachusetts Museum of Natural History
187. University of Michigan
188. University of Montana, Missoula
189. University of North Dakota
190. University of South Carolina Institute of Archaeology and Anthropology
191. University of Southern Mississippi, Anthropology Laboratory
192. University of Tennessee, Anthropology Collections Facility
193. University of Vermont, Consulting Archaeology Program
194. University of Wisconsin, Milwaukee, Archaeological Research Laboratory
195. Utah Fieldhouse of Natural History and State Park
196. Vermont Archaeology Heritage Center
197. Virginia Commonwealth University
198. W.H. Over Museum, University of South Dakota
199. Washington and Lee University, Archaeology Program
200. Weber State University
201. West Virginia Division of Culture and History
202. Western Michigan University
203. Western State College, Anthropology Department
204. Western Wyoming Community College
205. Wichita State University
206. William S. Webb Museum of Anthropology, University of Kentucky
207. Wyoming State Museum
208. Yakima Valley Museum