Possible implementation of CARE into Society for American Archaeology (SAA) guidance regarding archaeological data management plans (italics ours). Adapted from SAA guidance regarding National Science Foundation data management plans (<https://www.nsf.gov/sbe/bcs/arch/SAA_Data_Management_Plan_Guidance.pdf>). Gupta et al. 2023

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| **Element** | **Examples and Explanation** | **NSF****terminology** |
| What digital data and physical collections/records will be produced? | The main kinds and formats of data should be defined. If possible, the relative scale of thesecollections or *digital* datasets should be indicated *(e.g. images, drawings, maps, 3D models, samples etc.)* | Expected data |
| What arrangements are being made to ensure the curation, physical security and long-term integrity of physical objects and/or records arising from a project? | The DMP should briefly describe the permanence and collections care provided by the curatorial facility, *or Indigenous and descendant community repository* as well as the researcher access that it provides to the physical collection *and digital datasets*. Museums or other repositories should meet applicable standards *and ethical data practice* for permanence and collections care, *including taking actionable steps to maintain connection between digital sources and the community that data relate to or represent*; which standards are applicable depends on location. Within the US these standards may include the 36CFR79 federal regulations or AAM Accreditation Commission guidelines for collections stewardship; in other areas repositories should meet applicable standards or legal requirements. In some instances the curatorial facility may be determined by law, permit or similar agreement; if the applicant is allowed no control over the choice of curation facility or conditions of curation this should be clearly stated in the DMP. | Data storage and preservation of access |
| What arrangements are being made to ensure the long-term integrity and accessibility of digital records? | Preservation of digital records has both technical and semantic components. Adequate technical preservation of digital data is not satisfied by passive storage of original media, but requires an active strategy of data refresh, migration and replication or backup in another location. Normally this requires a specialized digital archive, either maintained by a university or similar institution *and/or community or Indigenous Nation-based repository*, or a freestanding archive capable of ensuring long-term preservation. The DMP should describe the technical preservation capabilities of the archive or repository and its commitment to long-term preservation. Preservation of the research value (or usability) of many types of digital records (e.g., databases, spreadsheets, GIS) requires that the digital objects be accompanied by sufficient semantic documentation (metadata) for a researcher not familiar with the project to make appropriate research use of the data. *Semantic documentation should include provenance (e.g. Indigenous community’s collective rights, interests, authority and decision-making), protocols (e.g. guidance on appropriate access, use and care of data, and potential harm associated with data based on Indigenous worldview), and permissions (e.g. clarity on community expectations and intentions about data use and engagement).* The DMP should describe the steps to be taken to adequately document the different types of digital records to be created. Access includes both the ability of a researcher to discover that a relevant digital record exists and the ability to obtain a copy of the record. Ordinarily, online discovery and access to digital records should be provided. The DMP should briefly describe the discovery tools and the nature of the access provided, *and consent needed for use and re-use*. | Data storage and preservation of access |
| What standards or methods are being employed to assure that the relationship between physical objects and physical or digital records is maintained? | What standards are being applied, such as format or metadata content, to ensure that the data are findable and reusable and that the relationships between different data are preserved? *What metadata content are being applied to signal the connection to the community which the data relate to and represent in alignment with CARE principles?* Metadata standards in museum and digital data contexts often reference the CIDOC CRM (Conceptual Reference Model, ISO 21127:2006) and Dublin Core (DC; or its specialized variants, such as Darwin Core for biological data, ISO 15836:2006). Interim and final reports should be included in the plan, unless dissemination is restricted by law or permit. | Data format and dissemination |

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| Have issues of rights or ownership been addressed? | The DMP should identify who holds rights to the data being generated; appropriate permissions and releases should be described if needed. *Researchers should state clearly under what conditions and permissions are data being collected and compiled. Who makes decisions about which data?* How researchers address the issue of physical and intellectual property rights may differ greatly based on a project’s location and stakeholders involved, and may include tribes or local governments, landowners, agencies or ministries, etc.  | Data format and dissemination |
| What measures are being taken to assure these collections (physical and digital) are or become accessible to other researchers, and what restrictions are contemplated for such access? | Temporary restrictions to allow a scholar to complete analysis and publication are generally appropriate, but should be for a defined and reasonable period (e.g., “data will be available to other researchers after publication or five years, whichever is first.” *The scholar should identify what steps are taken to guide the conditions of use and circulation to maximize benefits to the community while minimizing harms.* Specific kinds of restrictions may be appropriate based on issues of rights, ownership, or sensitivity of cultural information. Any specific restrictions regarding the re-use or distribution of data should be noted.  | Data storage and preservation of access |
| Are all data being incorporated into the archive, and if not, what are the selection criteria? | In cases where only a subset of material is being preserved (e.g., collecting a sample of brick from a historic site, for example, or in the preservation of environmental, characterization or dating samples), the selection criteria or significance should be explained as part of the project’s research design or data management plan. *What protocols are in place to minimize misuse of the compiled data or database?* *Where is information available about the digital database?* If data are collected that must remain confidential, e.g. site locations, the measures to be taken to protect the confidentiality of physical or digital records should be described.  | Expected data, Period of data retention |
| How are these arrangements represented in the research plan, proposed methods and budget for the project? | *Which methods are appropriate for processing and transformation? What are benefits to the community to which the data relate to or represent?* Do the elements of the DMP appear as integral parts of the proposal? Is there evidence that the repositories involved have agreed to accept the collections or data? Does the project budget include necessary costs for data management and curation, or does the budget explanation make clear why additional funds are not needed for this purpose?  | n/a |
| ADDITIONAL RESOURCES<http://www.tdar.org/> <http://opencontext.org/> <https://dmp.cdlib.org/> <http://guides.archaeologydataservice.ac.uk/><http://www.dcc.ac.uk/sites/default/files/documents/data-forum/documents/docs/DCC_Checklist_DMP_v3.pdf> <http://www.dcc.ac.uk/resources/data-management-plans><http://oad.simmons.edu/oadwiki/Data_repositories> <http://www.admin.ox.ac.uk/rdm/dmp/checklist/> <http://www.admin.ox.ac.uk/rdm/dmp/plans/> <http://www.opendoar.org/find.php> <http://roar.eprints.org/><http://www.dataone.org/search/node/preservation%20type%3Abest_practice>[http://aam-us.org/resources/ethics-standards-and-best-practices/characteristics-of-excellence-for-u-s-museums/collections-](http://aam-us.org/resources/ethics-standards-and-best-practices/characteristics-of-excellence-for-u-s-museums/collections-stewardship) [stewardship](http://aam-us.org/resources/ethics-standards-and-best-practices/characteristics-of-excellence-for-u-s-museums/collections-stewardship)<http://www.amazon.com/National-Standards-Best-Practices-Museums/dp/1933253118> <http://www.nps.gov/archeology/collections/index.htm> <http://www.nps.gov/archeology/collections/index.htm> |  |