

Research Project on Climate Change and Archives
Phase 3 Report: Collections
for Mellon Foundation, Public Knowledge program

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Table of Contents

Executive Summary	3
Introduction	5
Defining Environmental Collections	5
Major Environmental Collections Issues	7
Defining and Locating Environmental Collections.....	7
Environmental Collections and the Humanities.....	7
Identification of Environmental Collections.....	9
Accidental/Unexpected Environmental Collections.....	15
Use of Environmental Collections.....	16
Users of Environmental Collections.....	16
Discovery Challenges.....	17
Usage Rates of Environmental Collections.....	19
Environmental Justice/Environmental Movement Documentation.....	19
Ephemerality of Organizations.....	19
Archivist Outreach Efforts.....	20
Donor Relationship Challenges.....	22
Connection with Phase 1 and Phase 2 Research	23
Resources and Workload Issues.....	23
Lack of Data.....	24
Appendix 1: Methodology and Data Sources	25
Appendix 2: References	26
Appendix 3: List of Subject Matter Experts	29

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Executive Summary

Archivists have long argued that our collections should represent the communities, concerns, and realities of the world. This public report is adapted from the comprehensive Phase 3 (Collections) report prepared for the Public Knowledge program of The Andrew W. Mellon Foundation as part of a larger eighteen-month research project on archives and climate change. Sections of this report have been edited from the original for length and to preserve confidentiality of insights from individual subject matter experts. Additional reports from Phase 1 (People) and Phase 2 (Infrastructure) will also be released. The three phases of research culminated in a final report that is available to the public.¹

Between April 2024 and July 2024, I conducted research related to environmental collection appraisal and acquisition practices, how users interact with these collections, and climate change/environmental justice documentation efforts.

Major questions that guided this phase of research included:

- How are archival acquisition and appraisal practices shifting in response to climate change?
- What user needs exist (including research, teaching, advocacy, and activism) related to climate change and environmental history?
- Where are there previous and ongoing climate change and environmental justice documentation efforts? What is well-documented, and where are there gaps?

Through review of peer-reviewed literature, white papers, finding aids from across American archives, and interviews with subject matter experts, I found that environmental collections are strong in some narrowly defined aspects, but there remains much work to be done to preserve and access these materials, especially from recent environmental and climate justice movements. The key findings of this report include:

- **Environmental collections do not neatly fit into disciplinary boundaries.** The relatively recent disciplinary demarcation between the sciences, and the arts and humanities, breaks down quickly when examining environmental documentation. Records from humanistic endeavors have also informed scientific breakthroughs and understanding, especially within the context of climate change.
- **Identification of environmental collections is closely linked to questions of provenance and function.** Since there are environmental aspects to every part of our individual lives and larger institutions, then it follows that virtually every record creator—from an individual diarist to the world’s largest governments—creates records that potentially contain environmental information.
- **There are many “accidental” or unexpected environmental collections.** A frequently recurring theme across the literature and interviews with archivists and archives users is that most archives already have collections with unrecognized environmental information. Real and perceived documentation gaps arise when archivists who appraise records fail to recognize their environmental aspects.

¹Tansey, “Research Project on Climate Change and Archives.”

Reappraisal can help surface previously unrecognized environmental information from collections already preserved by archives.

- **Environmental collections have a wide variety of users and constituencies.** While historical research for academic and popular audiences remains an important aspect of archival use, environmental collections are also used by activists to study previous organizing strategies, by journalists to find additional sources to interview, by energy companies to assess previous mining and extractive activities, by safety regulators to determine areas of risk, by policy makers for disaster rebuilding efforts, and by the courts to adjudicate water and land rights. If there is an environmental concern somewhere, there is arguably a way in which archival collections can support work on that concern.
- **There are significant discovery challenges with environmental collections.** Environmental collections share many of the same challenges of discoverability as other archival collections, but there are also characteristics of environmental collections that complicate their discovery. Surfacing this information is possible, but it takes resources to engage in reappraisal, update legacy descriptions, and make these efforts known to potential users who may have previously concluded that an archive did not have relevant collections.
- **There is mixed information about usage rates of environmental collections.** Some archivists report that their environmental collections are among those most in demand, while others report a puzzling lack of interest in these collections.
- **The ephemerality of environmental justice organizations impacts their documentation.** Environmental justice organizations are often formed in response to a particular issue. Historically formed by local residents who find themselves as accidental activists, their organizational recordkeeping tends to take place outside of formal major organizational systems.
- **Archivist outreach efforts are essential to preserving environmental collections.** Archivist outreach takes many forms—to existing collection donors, potential collection donors, past archives users, and potential archives users. Outreach activities help archivists develop relationships, identify potential archives, learn more about local organizations, and build public awareness of the importance of archives. This work is labor intensive and can be difficult to consistently perform amidst resource constraints.
- **There are unique challenges associated with potential donors of environmental justice collections.** Two major issues seem to be sticking points in navigating challenges with donors of environmental collections: distrust of institutions, and provenance of records. Mainstream archives are often located in large institutions (like universities and governments) that are frequently at odds with the perspective and mission of environmental justice groups. Many archives will not take materials acquired through unclear circumstances by activists due to the potential legal and ethical risks of acquiring archives in which there is not clear ownership or title.

Introduction

Archivists have long argued that our collections should represent the communities, concerns, and realities of the world. Environmental exploitation has shaped our world for centuries, and anthropogenic fossil-fuel driven climate change is accelerating this process. Given this global reality, archives should reflect the environmental concerns of past and present. However, it is not always clear to what extent archives' collections mirror our environmental realities.

This research project for the Public Knowledge program of the Andrew W. Mellon Foundation looks at three major areas of concern for climate change adaptation and archives: people, infrastructure, and collections. This is the third report that covers collections. As climate change increasingly impacts every sector, the identification, preservation, and awareness of environmental collections is uneven across American archives. Environmental collections enjoy a wide range of users, and these users work with environmental collections in different ways. One of the most important social justice movements within recent decades—the environmental justice movement—appears to be under-documented within archives.

Between April 2024 and July 2024, I conducted research related to how archival acquisition and appraisal practices are shifting in response to climate change, how users interact with these collections and their needs (including research, teaching, advocacy, and activism) related to climate change and the environment, and climate change/environmental justice documentation efforts. Through review of peer-reviewed literature, white papers, finding aids from across American archives, and interviews with subject matter experts, I found that environmental collections are strong in some narrowly defined aspects, but there remains much work to be done to preserve and access these materials, especially from recent environmental and climate justice movements.

Defining Environmental Collections

For the purposes of this research, environmental records are defined as those created by human-initiated recordkeeping (as opposed to the proxy records found within the natural world, such as ice cores or tree rings) that document aspects of the environment relevant to human interests, or of the relationship between humans and the environment. Environmental collections refer to groupings of environmental records that are treated as discrete units, regardless of size or placement (e.g., a large international environmental nonprofit's records at a major research library, or the papers of an environmental activist held at a small public library's local history collection).

While there is not a widely accepted definition of environmental records within the American archives context, librarian Sarah Lamdan highlights the example of the European Union (EU)'s attempt to define environmental information.² In 1998, the EU developed a comprehensive definition of “environmental information” that informs the United Nations Aarhus Convention on Access to Information, Public Participation in Decision-making and Access to Justice in

² Lamdan, *Environmental information*, 4–5.

Environmental Matters.³ Although the United States is not a party to the Aarhus Convention, the definition of environmental information is useful for considering the possible sources of, or potential gaps, related to environmental collections:⁴

1. "Environmental information" shall mean any information in written, visual, aural, electronic or any other material form on:

(a) the state of the elements of the environment, such as air and atmosphere, water, soil, land, landscape and natural sites including wetlands, coastal and marine areas, biological diversity and its components, including genetically modified organisms, and the interaction among these elements;

(b) factors, such as substances, energy, noise, radiation or waste, including radioactive waste, emissions, discharges and other releases into the environment, affecting or likely to affect the elements of the environment referred to in (a);

(c) measures (including administrative measures), such as policies, legislation, plans, programmes, environmental agreements, and activities affecting or likely to affect the elements and factors referred to in (a) and (b) as well as measures or activities designed to protect those elements;

(d) reports on the implementation of environmental legislation;

(e) cost-benefit and other economic analyses and assumptions used within the framework of the measures and activities referred to in (c); and

(f) the state of human health and safety, including the contamination of the food chain, where relevant, conditions of human life, cultural sites and built structures inasmuch as they are or may be affected by the state of the elements of the environment referred to in (a) or, through those elements, by any of the matters referred to in (b) and (c).⁵

Understanding the scope of environmental information allows us to consider all of the various examples of environmental collections. Environmental collections come from a wide range of sources, they are not always immediately understood as environmental collections, and there are widespread and unique challenges associated with their stewardship.

³ European Commission, "The Aarhus Convention and the EU."

⁴ United Nations, "Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matters."

⁵ Directive 2003/4/EC of the European Parliament and of the Council of 28 January 2003 on public access to environmental information and repealing Council Directive 90/313/EEC.

Major Environmental Collections Issues

Defining and Locating Environmental Collections

Environmental Collections and the Humanities

Environmental collections are important to the humanities. Humans are not separate from the natural world or their local environments. These collections provide the context for greater understanding of human cultures, societies, and events. Across disciplines, researchers have found the influence of landscapes, climate, weather, and natural resources on art, literature, performance, language, community rituals, and other aspects of human life.

Environmental humanities has emerged as a broad and loosely organized academic field, building upon prior work by environmental writers, artists, and philosophers, as well as subfields such as human geography and cultural anthropology. New journals and professional associations dedicated to the environmental humanities have been founded in the last two decades. Environmental humanities practitioners often move between disciplines and methodologies. The editors of *Environmental Humanities* introduced the first issue of the journal with the following statement: “Drawing on humanities and social science disciplines that have brought qualitative analysis to bear on environmental issues, the environmental humanities engages with fundamental questions of meaning, value, responsibility and purpose in a time of rapid, and escalating, change.”⁶

The relatively recent disciplinary demarcation between the sciences, and the arts and humanities, breaks down quickly when considering environmental collections. Environmental-related documentation and recordkeeping has always been inherently interdisciplinary, in part because environmental work is so tied to observation (a skill prized across disciplines), and in part because interaction with the environment requires no intermediating setting like a laboratory, studio, or library: one can simply interact with the non-human environment by walking out the door or looking out the window.

Photography has arguably been the most potent form of recordkeeping related to understanding the environment as a widely available tool for creating a visual record of landscape and natural resource changes over time. In fact, the process of photographing the same location repeatedly over time is known as repeat photography, a methodology with a long history in assessing forest cover, glacier size, and land use.⁷ In her work on the archives of repeat photography projects, Canadian archivist Jill Delaney notes that both scientists and artists enthusiastically embraced photography early on, making it difficult to assess early environmental photographs as either a purely scientific or artistic enterprise.⁸

⁶ Rose et al., “Thinking Through the Environment, Unsettling the Humanities.”

⁷ Karpilo, “Repeat Photography”; Northern Rocky Mountain Science Center, “Repeat Photography Project.”

⁸ Delaney, “An Inconvenient Truth?,” 79–80.

Some archivists have suggested that because of the profession's role in preserving what is left for the future, the archives profession shares much in common with the tradition of environmental conservation.⁹ The American natural resource conservation movement originated within the Progressive Era and was popularized by Theodore Roosevelt. The Progressive Era emphasized efficiency, professional expertise, and the extensive recordkeeping activities associated with the growth of regulatory bureaucracies. These attitudes still shape environmental policy today.¹⁰

Within the American context, there is a strong relationship between the role of recordkeeping and environmental education, policy, and advocacy. Meteorological reports accessible through publications, rural mail, and telegraph lines beginning in the mid-19th century were critical to American farmers. As photography was increasingly used by government projects like the Farm Security Administration, public interest groups like the Sierra Club, and artists like Ansel Adams, these photos also served to inform American public consciousness about the ramifications of resource exhaustion and pollution. More recently, regulators and activist groups have used large environmental monitoring datasets for a comprehensive picture of environmental injustice in low-income and communities of color.

Records from humanistic endeavors have also served to inform scientific breakthroughs and understanding, especially within the context of climate change. Climatologists (scientists who study climate change) study not just the current period of anthropogenic climate change associated with the burning of fossil fuels, but also prior periods of climatic change along different temporal or geographic scales. Since consistent scientific records documenting climatological conditions are relatively recent, climatologists use a variety of sources in their efforts to reconstruct the record of previous climates. This research has been essential to establishing a baseline of pre-Industrial Revolution climate history, and subsequently demonstrating how much anthropogenic climate change is a phenomena exceeding previous global climatological changes.

British meteorologist H.H. Lamb, who pioneered many historical methods using archives within climatology during the mid-20th century, divided sources for climate reconstruction into three categories: meteorological records (i.e. those created with instrumentation), weather diaries and other written records that mention weather, and physical or biological data (e.g., tree rings, lake bed sediment, ice cores) that serves as “proxy data.”¹¹ In recent years, there are increasing examples of incorporating indigenous forms of knowledge in reconstruction of past climate histories and calls for integrating it more closely within climate policy.¹²

One of the most well-known examples of written records for reconstructing climate has been the use of ship logs from the European periods of exploration, colonialism, and market expansion. Ship logs contained daily recorded observations of wind speed and direction, temperatures,

⁹ Clary, “The Archivist and the Human Environment.”

¹⁰ Andrews, *Managing the Environment, Managing Ourselves*, 136–37.

¹¹ Lamb, *Climate, History and the Modern World*, 80.

¹² Ford et al., “Including Indigenous Knowledge and Experience in IPCC Assessment Reports”; Cruikshank, “Glaciers and Climate Change”; Riedlinger and Berkes, “Contributions of Traditional Knowledge to Understanding Climate Change in the Canadian Arctic.”

remarkable weather events, and location (though until the invention of the marine chronometer in the mid-18th century, information recorded about latitude was more accurate compared with longitude). These log books were critical to establishing ship navigational routes, and their consistent tabular format makes them attractive for data analysis.¹³

Although ship logs were primarily created within the context of commerce and empire, climate scientists have used these records to establish a much greater understanding of climatological patterns between the 1600s and 1800s. Mandated by law to maintain such records (often often used in maritime law disputes), British ships produced over 120,000 log books that are held in British archives.¹⁴ The Climatological Database for the World's Oceans (CLIWOC) uses data from over 287,000 Dutch, English, French, and Spanish ship logs. The database was originally developed with EU funding, and has since been acquired by the Library of Congress Geography and Maps Division¹⁵

Given the wide range of environmental records and documentation—from minute by minute records created by scientific instrumentation, to oral traditions that span centuries, one is confronted with the challenge of identifying and defining types of environmental records. Since records originally created for one purpose can so often be repurposed for understanding environmental and climate science, this makes the work of archivists in determining what records of the past to preserve for a future defined by climate change more difficult than it might appear on the surface.

Identification of Environmental Collections

Archival appraisal is the process by which archivists determine the enduring value of records, and whether those records should be preserved through archival stewardship, versus those that can eventually be destroyed or declined to be accessioned into a particular archival repository. Archivists navigate the appraisal process with the following criteria:

- Provenance (who created the records)
- Function (why were the records created and how were they used by the original creators)
- Legal or organizational mandates to preserve records (often expressed in institutional records retention schedules)

Archives that acquire archival materials from external sources (e.g., a special collections unit in a university library that collects materials from the local community) typically have a collection development policy. Appraisal of archival materials will also determine whether the materials are a good fit according to a collection development policy. To appraise records, archivists must physically interact with the records by examining representative samples, understanding the context in which the records were created, and having knowledge of the value of records.

¹³ Wilkinson, “The Non-Climatic Research Potential of Ships’ Logbooks and Journals,” 156.

¹⁴Wheeler, “Understanding Seventeenth-century Ships’ Logbooks”; Wheeler, “British Naval Logbooks from the Late Seventeenth Century”; Wilkinson, “The Non-Climatic Research Potential of Ships’ Logbooks and Journals.”

¹⁵ St. Onge, “New Interactive Map Visualizes Ship Logbooks from the 18th and 19th Centuries.”

American archivists, influenced by the work of early National Archives staff member T.R. Schellenberg, have traditionally evaluated records according to their *evidential value* and *informational value*. Schellenberg described evidential value as the way in which records document the organization that created the records, and how the records document the functions of that organization. Schellenberg defined informational value as “research value—the value that inheres in public records because of the information they contain that may be useful in research of various kinds.”¹⁶ An example of the difference between evidential value and information value can be illustrated by considering an environmental nonprofit focused on litigation to enforce pollution laws. The nonprofit’s legal briefings, case research, in-house and external counsel opinions contain *evidential value* of its organizational mission. Those same files would also have *informational value* to other users, and might be of interest to non-lawyers, such as a health policy expert writing about childhood asthma rates linked to pollution.

Archival appraisal has always been a contested and robust area of professional debate and practice. Archivists who have considered the appraisal challenges associated with environmental records have critiqued traditional appraisal practices. Candace Loewen argues that aspects of environmental and scientific records often do not have immediate and clearly defined evidential and informational values, and sometimes this value is not well understood until far in the future. Loewen argues that in the case of nuclear records, they contain not just evidential or informational value, but also “survival” or “futuristic” value that may need to be used by descendants of nuclear employees far into the future, given occupational health concerns.¹⁷ Juan Ilerbaig argues that scientific records often do not clearly fit into traditional appraisal criteria, and that scientific value constitutes a type of value in between evidential and informational values.

American archivists have discussed the challenges and importance of appraising and preserving environmental records since the 1950s,¹⁸ however the bulk of this literature began to appear in the 1990s. Some of this literature has examined the suitability of documentation strategies for preserving environmental collections. Documentation strategies rose in popularity during the 1970s and 1980s, and are typically cross-institutional projects intended to identify all known extant archival collections about a particular subject, and when possible, encourage the increased preservation, access, and awareness of these collections. Although documentation strategies have declined in popularity since the 1990s, prominent examples of documentation strategy still exist within the archives field. A notable example is Project STAND (Student Activism Now Documented), which maintains a comprehensive directory of student activism archives, and continues to work with both archivists, student activists, and other interested parties.¹⁹

¹⁶ Schellenberg, *Modern Archives*, 139–40.

¹⁷ Loewen, “From Human Neglect to Planetary Survival.”

¹⁸ Pinkett, “The Forest Service, Trail Blazer in Recordkeeping Methods.”

¹⁹ Project STAND, “About.”

In 1996, Stephen Sturgeon wrote about adapting documentation strategies for preserving environmental justice movement records in archives.²⁰ In 2001, the New York State Archives published *A Guide to Documenting Environmental Affairs in New York State* as part of its New York Heritage Documentation Project. The guide was written to raise awareness, identify priority areas for documentation, and provide guidance for individuals and organizations involved with environmental documentation (either as records creators or as records stewards/custodians).²¹ The guide suggested documentation priorities informed by criteria for statewide significance, themes, and specific events/issues.

By further examining two of the main criteria for archival appraisal: the source (i.e. provenance and creator) of records, and the function (i.e. purpose) of records, we can begin to understand the expansive world of environmental records, and the challenges associated with their identification and preservation. Since there are environmental aspects to every part of our individual lives and larger institutions, then it follows that virtually every record creator—from an individual diarist to the world’s largest governments—creates records that potentially contain environmental information. Environmental information that is most visible, easily accessible, and identified as environmental archives often originates from sources with a broad public mandate (whether by law or cultural norms) to collect, create, and/or disseminate environmental records. This group includes regulatory agencies like the Environmental Protection Agency (EPA), and organizations that conduct publicly-funded scientific research, like that funded by the National Science Foundation. On the other hand, there are significant groups of records that exist within the private sector, and determining if and how to preserve these records is a much different challenge than records from the public sector.

The challenge of preserving similar records from across public and private sources can be seen in the work of the Joint Committee on Archives of Science and Technology (JCAST), which was formed in the late 1970s following a National Science Foundation workshop.²² This project brought together historians of science and technology along with archivists to identify the likely sources of post-war science and technology archives, and the challenges of preserving them. Given the parallels to the distribution of environmental records, the JCAST findings have similar implications for the documentation of environmental issues.

JCAST’s major report, *Understanding progress as process: documentation of the history of post-war science and technology in the United States*, is significant for its consideration of the different sectoral challenges of documenting science and technology. The report identified several major institutional settings in which the documentation reflecting science and technology might originate: industry, federal government, academia, independent non-profit research institutes, scientific and technological societies, and discipline-based history centers. Given that the context of recordkeeping is different across all of these sectors, as a result all have different documentation challenges. For example, recordkeeping within industry-based science and technology research is focused on profit generation, not knowledge creation for its own

²⁰ Sturgeon, “A Different Shade of Green.”

²¹ New York State Archives, “A Guide to Documenting Environmental Affairs in New York State.”

²² Joint Committee on Archives of Science & Technology, Elliott, and Society of American Archivists, *Understanding Progress as Process*.

sake. Therefore, records are regarded as an internal company asset, since public dissemination would aid competitors. In contrast, science and technology research based in federal agencies is theoretically more likely to be preserved and made accessible to the public due to federal government public records mandates, but federal records retention schedules tended to emphasize the retention of policy-level records originating from officials higher on the organization chart, while the records of new scientific knowledge creation may not be as consistently scheduled for archival retention. These examples underline how documentation challenges cannot be solved with a uniform approach, since the source and function of the records must be taken into account.

The provenance of records and their proximity to eventual preservation and access for public use as an archival collection may be thought of on a spectrum. At one end of the spectrum are the records held within a private context that are unlikely to enter the public sphere beyond what is required by law (e.g., the records of major active corporations who are industrial polluters are not accessible to the public, except for disclosure of records required by environmental and financial regulators such as EPA pollution permits and Securities and Exchange Commission filings). At the other end of the spectrum are records created by the public sector that are inherently intended for the public and likely preserved through either a legal or professional mandate to preserve records. Climatic, weather, and meteorological records are relatively well-documented given the role of governments and scientific researchers who collect and share this information as part of their work.

In the middle of this spectrum are records that are held by the private sector but for which there is a theoretical possibility of them entering the public sphere, such as by transfer to a publicly accessible archive. This includes many examples of potential environmental collections, including the records of now-defunct corporations, activist organizations, and individuals connected to environmental issues. A focus on these potential collections informs much of the remainder of this research report.

Occasionally, collections from corporations do end up in publicly-accessible archives. Several universities in regions associated with the energy industry have corporate records from oil, gas, and coal companies, though notably most of these records are either from defunct companies or from individuals who were former employees of these companies. These records are a proverbial gold mine for environmental researchers, with interest extending beyond academic users. For example, a major collection of former mine maps at the University of Pittsburgh was used to avert the potential flooding of local homes.²³ The future of acquiring significant new corporate collections is uncertain, and unlikely to increase due to concerns over litigation and public access to business information.

Environmental movement records are a particularly important aspect of environmental archives that remain disparately documented, and likely have the largest potential for increased preservation by archives. Some aspects of environmental movements are well documented,

²³ Rougeux, "Processing the CONSOL Energy, Inc. Mine Maps and Records Collection at the University of Pittsburgh."



especially those related to mainstream legacy environmental organizations that have existed for several decades. The Bancroft Library at UC Berkeley contains the official records of the Sierra Club national office (many local chapter records are held at other repositories across the country), the New York Public Library holds the national records of the Audubon Society, and the Denver Public Library contains many of the records of the Nature Conservancy (though notably, the Nature Conservancy discarded many of its pre-1960s records and what survived was primarily acquired via past presidents).²⁴


Compared with legacy national environmental organizations, environmental justice movement organizations are often small, ephemeral, and more likely to depend on volunteers. This means that their records do not have an automatic mechanism for some degree of dissemination or preservation. While the American archival profession has prioritized the collection of social justice and materials from marginalized and oppressed groups, there has not been similar progress made in the preservation of records from environmental justice movement organizations.²⁵ Furthermore, after reviewing regional finding aid aggregators, it appears that with a few small exceptions of campus student protest collections, few movement organizations primarily focused on climate change have their records preserved in public archives.


There appear to be major geographic disparities in the identification and availability of environmental collections. Some of the most well-known environmental collection archives are in the western states, including the Denver Public Library's Conservation Collection, UC Berkeley's Bancroft Library, the UC Riverside Water Resources Collections & Archives, and the Colorado State University Water Resources Archive. When I conducted regional finding aid aggregator searches (see Appendix 1), it became obvious that even beyond these prominent environmental archives, finding aid aggregators based in the Western states more clearly identified environmental collections in their holding records than finding aid aggregators in states east of the Mississippi River. While this does not necessarily lead to the conclusion that Western archives have more environmental collections (in order to make this type of determination, every archive would need to have every finding aid available online with an appropriate level of description in an aggregator tool), it is noticeable in terms of the visibility of environmental collections within Western archives. For example, the ArchivesWest finding aid aggregator specifically highlights environmental and conservation related collections in its subject guide menu:

²⁴ Online Archive of California, "Sierra Club Records"; New York Public Library, "National Audubon Society Records"; Denver Public Library, "The Nature Conservancy Records."

²⁵ Stempler, "The Use and Availability of Environmental Activism Collections in Academic Archives"; Welch, "'Green' Archivism."

ARCHIVES WEST  ABOUT CONTACT HELP 





















All Archives West Repositories 

Search finding aids

Exact matches only

Heritage Resources, Western Washington University

Archives West provides access to descriptions of primary sources in the western United States, including correspondence, diaries or photographs. Digital reproductions of the materials are available in some cases.

By Repository	By Subject
<ul style="list-style-type: none">  Idaho  Montana  Oregon  Utah  Washington  Wyoming 	<ul style="list-style-type: none">  Agriculture and Natural Resources  Business, Industry, Labor, and Commerce  <u>Environment and Conservation</u> <ul style="list-style-type: none"> Environmental Activism Environmental Conditions Land Use National Parks Pollution  Places  Politics, Government, and Law  Social Life and Customs  Arts, Humanities, and Social Sciences  Education  Immigration and American Expansion  People, Ethnicity, and Culture  Science, Technology and Health  Material Type

One possible explanation for the visibility of environmental collections in Western archives is that it overlaps with the influence of Western historians on the development of environmental history. These historians shaped the early work of the field with a focus on water and mineral rights, land use, and territorial expansion. Likewise, the rise of federal environmental policy during the Progressive Era was profoundly influenced by Western environmental concerns, whether by legislation such as the Reclamation Act that used western land sale proceeds for major irrigation projects, or early examples of environmental activism such as the establishment of the Sierra Club in response to concerns around the management of Yosemite.²⁶

²⁶ Andrews, *Managing the Environment, Managing Ourselves*, chap. 8.

Accidental/Unexpected Environmental Collections

A frequently recurring theme across the literature and interviews with archivists and archives users is that most archives already have collections with unrecognized environmental information. Real and perceived documentation gaps arise when archivists who appraise records fail to recognize their environmental aspects.

As noted earlier, climatologists have long used written records to reconstruct past climates that were originally created for another purpose, such as ship logs. Because of the ubiquity of environmental concerns, both archivists and archives users often point out the unrealized potential of existing collections to support environmental information needs. It is likely that most archives have more environmental collections than they realize. An archivist I interviewed pointed out that embracing reappraisal to identify previously unrecognized sources of environmental information can also sidestep some of the perennial concerns within archives about the money, space, and staff resources needed for acquiring new collections. In this way, reappraisal becomes an important part of archives sustainability, by making the most of collections that already exist.

The importance of archivists remaining in dialogue with researchers who use archival resources cannot be overstated. Reflecting on prior conferences and workshops that brought together environmental historians, geographers, and archivists, Todd Welch wrote:

These opportunities allow archivists to listen to environmental users' concerns and ask questions related to their specific needs. Discussions concerning the valuable environmental information contained in different types of archival records, such as travel diaries, land deeds, timber cruises, and aerial photographs demonstrate the ubiquitous nature of environmental information. These activities confirm the importance of repositories recognizing, preparing, and promoting existing records for use by environmental researchers, rather than putting the primary emphasis on acquiring new materials.²⁷

More than twenty years after Welch's observations, Bernadette Myers and Melina Moe reinforced this idea in their case study on reappraising a collection for environmental information:

To encourage more environmentally oriented archival use, archivists might sponsor educational workshops, participate in environmental conferences, or send newsletters to potential users, as Welch has suggested. But they also might revisit and reframe collections that have been absorbed into a single discipline and then left neglected— as the Oldknow papers were. This strategy for greening the archive does not make huge demands on limited financial resources. It simply involves a willingness to look at any collection, not just the most obvious ones, to ask: what does this say about the environment? Perhaps most surprisingly, the impetus to relook at existing archives was the product of our own resource constraints—long backlogs and on-site work concerns due to COVID made acquiring new collections for this specific exhibition impractical. Meanwhile, the rapid pace of environmental change and our desire to

²⁷ Welch, "Green' Archivism," 78.

*enter into conversation with the important work of the environmental humanities compelled us to work with existing materials. With both these constraints and opportunities in mind, we encourage curators, librarians, and archivists to apply the productive urgency of the environmental humanities to future archival work.*²⁸

Use of Environmental Collections

Users of Environmental Collections

Like all archives, environmental collections are used in myriad ways by diverse users. While historical research for academic and popular audiences remains an important aspect of archival use, environmental collections are also used by activists to study previous organizing strategies, by journalists to find additional sources to interview, by energy companies to assess previous mining and extractive activities, by safety regulators to determine areas of risk, by policy makers for disaster rebuilding efforts, by the courts to adjudicate water and land rights, and by many others users for many other reasons.

There have been few in-depth studies examining the usage of environmental collections. Todd Welch conducted a survey of thirty archives in the American West to understand how users worked with environmental archives, and whether archivists at those institutions had updated their practices to promote environmental collections. Welch found that maps and photographs were among the most frequently used materials, and that 80% of institutions reported growth in research requests related to the environment. Interestingly, Welch found that the second highest reason for archives use after environmental history (87.5%) was environmental impact statements (78.1%).²⁹

The high usage of archival records for environmental impact statements shows the importance of environmental collections for supporting environmental policy. Environmental impact statements originated with the National Environmental Policy Act of 1969 (NEPA), which requires federal agencies to develop a disclosure document prior to federal actions that could impact the environment. Environmental policy historian Richard Andrews writes that environmental impact statements “required that the statement discuss not only the environmental impacts of a proposed action, but also alternatives to it that might lessen its adverse impacts.”³⁰ In the decades since, environmental impact statements have remained an important component of environmental policy and litigation, several states introduced their own impact statement requirements, and impact statements are often used by environmental advocacy groups to oppose or modify proposed projects.³¹

To understand what environmental activism archives were most frequently used by environmental historians, Amy Stempler conducted a citation analysis of thirty-six articles on environmental activism in North America published in *Environmental History*, which is the

²⁸ Myers and Moe, “Greening the Archive,” 16.

²⁹ Welch, “‘Green’ Archivism.”

³⁰ Andrews, *Managing the Environment, Managing Ourselves*, 287.

³¹ Middleton, “What Is an Environmental Impact Statement?”

major peer-reviewed journal on environmental history. Archives from forty-eight institutions appeared in the citations, and one-third of the institutions were archives at academic libraries.³²

It is unsurprising that there is relatively little systemic data on users of environmental collections, given that the archives field has relatively few user studies overall.³³ Even the couple studies described above did not directly engage users, but looked at the citations of their work or asked archivists about users, instead of directly engaging users themselves. While there is a clear need to conduct more user studies for environmental collections, archivists can work more closely with their existing users to identify local environmental collection needs.

Discovery Challenges

Archivists and archives users have long discussed how to make archives discoverable to potential users. OCLC conducted a major recent user study related to archival discovery challenges as part of the National Finding Aid Network project. This study examined users of archival finding aid aggregators, through an online survey and follow-up focus groups. One of the major findings was that non-academic users have high engagement with finding aid aggregators, but were frustrated by having to use multiple regional systems.³⁴

Environmental collections share many of the same challenges of discoverability as other archival collections, but there are also characteristics of environmental collections that complicate their discovery. As discussed in the prior section, many archival collections that were not acquired with a focus on their environmental characteristics often do have environmental information embedded within the records. Surfacing this information is possible, but it takes resources to engage in reappraisal, update legacy descriptions, and make these efforts known to potential users who may have previously concluded that an archive did not have relevant collections.³⁵

Other reasons cited by archivists and archives users is that most archivists do not have educational backgrounds in disciplines that focus on environmental concerns.³⁶ MLIS programs rarely include units on environmental information and literacy. The top undergraduate major reported by archivists to the A*CENSUS II survey was history (38% of respondents), followed by an unspecified “other” (30%), and literature (11.94%). As a result, there is little clarity on whether most archivists have the environmental literacy skills critical to identifying, appraising, describing, and promoting environmental collections.³⁷ Larger research institutions often have collections that are alienated from their original location of creation. Archivists working with those records may not be aware of the significance of local environmental issues within a collection held far outside its place of origin, and would need to work to develop this type of understanding.

³² Stempler, “The Use and Availability of Environmental Activism Collections in Academic Archives.”

³³ Rhee, “Reflections on Archival User Studies.”

³⁴ Weber et al., “Summary of Research,” 11.

³⁵ Longhurst, “‘Archival Power’ and the Future of Environmental Movement History,” 545.

³⁶ Joint Committee on Archives of Science & Technology, Elliott, and Society of American Archivists, *Understanding Progress as Process*; Loewen, “From Human Neglect to Planetary Survival.”

³⁷ Skinner and Hulbert, “A*CENSUS II, All Archivists Survey Report,” 124–25.

One of the major discovery tools for environmental collections is the database maintained by the Forest History Society (FHS). While the FHS has its own considerable collections related to American forestry, it also maintains a database of environmental collections that include “descriptions of nearly 8,000 archival collections from over 450 North American repositories.”³⁸ It is unclear whether the database uses a metadata standard for archives (like EAD), a typical requirement for participation in finding aid aggregation or other major cross-institutional archival metadata projects. There is not any other environmental-focused resource comparable to the Forest History Society database. Some professional associations of environmental and climate-related professionals, such as the Ecological Society of America, have guides to archives relevant to their membership.³⁹

Prior research has shown that there is not clear consensus on user interest in digitized collections. OCLC’s National Finding Aid Network research showed that most users preferred to have access to digital collections, but most were also willing to do in-person research.⁴⁰ Some participants expressed preferences for in-person research, believing they would have access to resources that others had not used.⁴¹ Interviews with subject matter experts also demonstrated mixed feelings on digitization. One individual I spoke with noted how important digitized materials were to work quickly and with limited resources in the context of their profession. In contrast, another individual stated that fully digitized collections typically do not serve their needs, and that they would prefer to see a full detailed finding aid instead of a digitized collection.

In some cases, digitization that was performed primarily for records management purposes turned out to be enormously beneficial in the aftermath of a disaster. Bryan Dickerson wrote a case study about rebuilding efforts in a New Jersey township following the aftermath of Hurricane Sandy, and how the archives’ prior digitization efforts helped in the rebuilding effort:

*Many homeowners lost most or all of their personal records during Hurricane Sandy, so the archives records have become invaluable as these homeowners navigate through the complex process of storm damage recovery. We are able to provide homeowners with various records related to their properties, most especially property permit histories, construction plans for original homes and subsequent additions/alterations, plot plans, surveys, Federal Emergency Management Administration (FEMA) elevation certificates, and permits and plans issued by the New Jersey Department of Environmental Protection (NJDEP). In addition to homeowners, these records are being used by the township’s construction and engineering officials, insurance adjusters and insurance carriers, disaster recovery grant programs, and FEMA.*⁴²

³⁸ Forest History Society, “Research Portal.”

³⁹ Ecological Society of America, “Archives Directory – Historical Records Committee.”

⁴⁰ Weber et al., “Summary of Research,” 10.

⁴¹ Weber et al., “User Interviews,” 20.

⁴² Dickerson, “Recovering from Hurricane Sandy,” 97.

Usage Rates of Environmental Collections

Perhaps the most perplexing area resulting from subject matter interviews are the use rates of environmental collections. Some subject matter experts I spoke with reported high demand for environmental collections, while others noted that they had seen less demand for such collections at their institutions. Usage rates bring up questions both about awareness of collections, but also about accessibility. Some subject matter experts I spoke with brought about issues around accessing archives and the barriers to doing so such as funding for travel to access physical materials.

What does appear to be consistent across the issue of usage rates/demand for environmental collections is the importance of strong archivist connections to potential donors and communities of users. Archivists mentioned that engaging in highly visible activities to build community relationships often has a snowball effect. As more people in the community understand not just the importance of environmental records, but *others' interest in them*, this creates a demand for archival records and develops relationships that open the doors to bringing in new collections and users. This is especially important when it comes to the issue of documenting environmental justice movements.

Environmental Justice/Environmental Movement Documentation

Ephemerality of Organizations

The environmental justice movement coalesced in the 1980s as communities of color mobilized against the placement of toxic waste sites in their neighborhoods, along with the publication of major reports that demonstrated the extent of environmental hazards near Black and Latino neighborhoods. This led to an increased recognition of environmental racism, meaning the ways in which Black and Latino communities are more likely to be exposed to toxins and pollution. Environmental justice is the recognition that due to systemic racism and economic inequality, communities of color and working class communities face disproportionate environmental harms. In 1991, the first major American environmental conference dedicated to the concerns of people of color took place in Washington DC.⁴³

Environmental justice organizations are often formed in response to a particular issue. For example, a toxic waste site may be proposed for a lower-income neighborhood, or residents of a predominantly Black or Latino community may notice increasing rates of childhood respiratory issues downwind of a factory or refinery. These organizations may dissolve due to the same organizational challenges that afflict other activist groups such as burnout, they may make the transition into a more long-term organization concerned with ongoing or new issues, they may merge into another organization, or they might disband depending on the final outcomes of an event-focused campaign.

As a result, local environmental justice organizations are highly ephemeral. Organizations may have a lifespan of just a few months or a few years. This ephemerality is not unique to

⁴³ Berndt, "30th Anniversary."

environmental justice organizations, and it is common for social justice movement organizations to pop up and fall away for reasons similar to those in the environmental justice movement. Despite the frequent ephemerality of local environmental justice groups, they play a vitally important role in organizing local residents and directing media and legacy environmental nonprofit attention towards local issues that may otherwise be overlooked.

It is not always clear what an obvious destination should be for the preservation of environmental justice collections. Many environmental justice organizations have relationships that range from friendly to hostile with large institutions. Some environmental justice organizations may distrust placing their archives with a university because its scientists are involved with extractive activities that the organization is protesting against, or it may be reluctant to share its records with an archive closely associated with a government entity since environmental justice organizations may often be plaintiffs in lawsuits involving government entities.

It is also unclear to what degree community archives (i.e., those that preserve archives of marginalized communities outside of mainstream archival institutions⁴⁴) might support the work of environmental justice organization materials. There is not a comprehensive public directory of community archives, and very few community archives participate in finding aid aggregators. Therefore, it is difficult to assess the role community archives currently play in stewarding the collections of environmental justice organizations and activists.

Historically formed by local residents who find themselves as accidental activists, the recordkeeping practices of environmental justice organizations often happen outside of a formal major organizational system. Within the context of legacy and/or professionalized environmental organizations, there are likely to be defined units with specific functions and staff who produce records within the course of their work. Environmental justice activists in grassroots organizations also produce records within the course of their work, but without the larger apparatus of a formal or professionalized organization, these records are at greater risk of being lost or displaced.

Across the literature and in interviews with subject matter experts, the proverbial “records in the basement of a community elder” issue came up several times. As movement organizations come and go, individuals often end up with records in their private possession. As a result, the records of many environmental justice organizations may be donated to an archive from an individual affiliated with a long defunct organization, as opposed to coming from an active organization.

Archivist Outreach Efforts

Archivist outreach efforts have always been critical to developing strong collections. Outreach takes many forms—to existing and potential collection donors, and past and potential archives users. Outreach activities help archivists develop relationships, identify potential archives, learn more about local organizations, and build public awareness of the importance of archives. Like most activities associated with archives, outreach is a labor-intensive activity, but many

⁴⁴ Jules, “Architecting Sustainable Futures,” 4.

examples surfaced from the literature and interviews with subject matter experts show how outreach efforts are essential to preserving environmental collections.

Subject matter experts I spoke with from environmental justice organizations with publicly accessible archives explained that it was archivist outreach within their community networks that led to their placement of records in archives. These individuals emphasized what a positive experience they'd had with archivists. They felt that preserving their organization's records was important, not just for the current issues they're involved with, but also in inspiring other activists and doing their part to counteract previously lost histories or historical narratives that erased or downplayed community struggles and resistance.

The subject matter experts I spoke with also reinforced the observations of many archivists—that activists are so busy making history that they often do not have the time or capacity to consider their own recordkeeping. This need is becoming especially critical given that so much recordkeeping is now done digitally instead of on paper. The individuals I spoke with indicated interest in donating future records, but they don't have much clarity on how transferring their born-digital archives would work, and would likely require additional hands-on support from archivists.

In 2003, Brian Keough and Amy Schindler published the results of a survey sent to 115 groups and individuals as part of a study of New York state environmental archives. The study was associated with the University of Albany's Archives of Public Affairs and Policy (APAP) environmental movement documentation project. This effort involved planning, analyzing APAP's own environmental collections, and establishing an advisory board of archivists, activists, and subject specialists. The advisory board was intended to develop relationships between archivists and potential donors, and to identify lesser-known groups and contacts. As a result of the survey, APAP staff conducted site visits to forty-two responding organizations and individuals to assess their records, and twenty-one collections were subsequently transferred to APAP.

The project's staff found that environmentalists care about preservation, but didn't know how to manage their own records. The study showed archivists what environmental movement activists consider to be useful records—criteria that are essential to informing archivist appraisal.⁴⁵ This study also found that while records could often be lost or destroyed, just as often someone in an organization, even from long defunct organizations, had held onto the records. This effort demonstrates that a focused outreach effort can turn up collections that might not have otherwise entered an archive.

The challenges of documenting environmental movement collections shares challenges with other social justice related documentation efforts. Amy McDonald's survey of the archival practices of nonprofit organizations representing marginalized populations echoes many of the findings of Keough and Schindler's study. McDonald found that the vast majority of organizations that maintain their own organizational records have not contacted an archive to

⁴⁵ Keough and Schindler, "Thinking Globally, Acting Locally."

establish a donor relationship, and the vast majority also report that an archivist has never contacted them to solicit a donation.⁴⁶

Welch's study of environmental collections at western archives in the 1990s showed at the time that less than a third of archives reported promoting environmental research through conferences, press releases, and public outreach, often citing "lack of funding and burdensome workloads."⁴⁷ Although this study was published in the 1990s, and certainly the awareness of environmental issues has increased in recent decades, the concurrent lack of funding and resources for archives likely has only become worse. This finding was echoed again in an article by historian James Longhurst on the potential opportunities and barriers of increasing access to 1960s-1980s environmental movement records. Longhurst found that in his conversations with archivists, many of them were reluctant to expand their collecting because of resource constraints and existing backlogs.⁴⁸

Donor Relationship Challenges

Two major issues seem to be sticking points in navigating challenges with donors of environmental collections: distrust of institutions, and provenance of records. Mainstream archives are often located in large institutions, especially universities and governments, that are frequently at odds with the perspective and mission of environmental justice groups. Environmental justice activists often find themselves in opposition to local, state, and/or federal government over issues of pollution control, toxic chemical exposure, and waste siting decisions. Some organizations may also be suspicious of universities that may have real or perceived close links to industry, especially universities in areas with significant fossil fuel extractive activity.

Archivists based in major research universities are also highly sensitive to the larger fundraising and donor context of the universities they work for. This is a challenge of particular concern to public university-based archives, given those universities' dependence on a mix of funding sources that includes public money and wealthy private donors. While none of the university archivists I spoke with shared experiences about political pressure or administrative discouragement to avoid collecting in certain areas, all raised the theoretical possibility of tension in this area.

Because most mainstream archives are open to the public, both activists and archivists occasionally mentioned issues around access. Educating environmental justice activists about archival practices is important for building trust and transparency, especially for potential donors of collections. Sometimes activists may acquire materials under unclear circumstances, and many archives will not take such materials due to both the potential legal and ethical risks of acquiring collections in which there is not clear ownership or title. Sometimes activists may avoid donating some or all of their collections because there is no way to restrict materials from certain groups of users in an archive mandated to serve the broad public. Activists are sensitive

⁴⁶ McDonald, "Out of the Hollinger Box and into the Streets: Activists, Archives, and Under-Documented Populations."

⁴⁷ Welch, "'Green' Archivism," 87.

⁴⁸ Longhurst, "'Archival Power' and the Future of Environmental Movement History."

to their records potentially being used by the opposition, whether those are government officials, rival activist organizations, or industry interests. Sometimes, however, making archives publicly available can be a powerful act for an activist organization in asserting its visibility and importance.

The outreach needs and relationship considerations between activists and archivists in the environmental justice context echo other studies of archivists' work with marginalized groups and movement-based organizations. Archivists who have worked with other communities of activists (particularly campus-based and student activist groups) have noted the challenges associated with preserving these archives. McDonald's study showed that nonprofit organizations frequently state a preference for working with archives and archivists that share their viewpoints, and around one in five organizations reported they "would not consider donating their records to any archival institution."⁴⁹ Many archivists are aware of these tensions, and have often stressed that it is important to them that the records are preserved through some means, even if not at their institution.

Connection with Phase 1 and Phase 2 Research

Resources and Workload Issues

A striking aspect from my interviews with activists and archivists is how both groups cited issues of time and how busy everyone is. This reality surfaced during my own efforts to interview subject matter experts for this phase of research. I experienced a far lower response rate to my invitations to subject matter experts compared with previous phases of research. Some of this might have been due to reaching further out into activist organizations compared with speaking to the archivist community, or the timing of my invitations during the early summer months. Despite following up with all contacts at least once, there were several environmental organizations that never replied to or acknowledged my inquiry. Perhaps those organizations were wary of my request, perhaps they've had conversation fatigue, or perhaps they simply have too much on their plate. As the activists who generously agreed to share their time with me noted, activists are often too busy to give time to anything except immediate concerns, and this is even more true for volunteer-run organizations.

This challenge is not unique to activists—it also exists for archivists. All the archivists I spoke with noted how outreach was something they greatly valued, but it was something they had to balance against the remainder of their workload. This has major overlaps with findings from the prior research phases. The Phase 1 (People) and Phase 2 (Infrastructure) reports of this research project surfaced that resources and funding are overriding issues related to workforce and infrastructure issues. In the Phase 1 report, I discussed how archivists are "constantly in triage mode," which clearly has implications for carving out the time necessary to reappraise

⁴⁹ McDonald, "Out of the Hollinger Box and into the Streets: Activists, Archives, and Under-Documented Populations," 62.

collections or develop relationships with the potential donor and user community.⁵⁰ In the Phase 2 report, I wrote,

*Organizations that are unable to maintain professional full-time permanent staff are also the same organizations that often have severe infrastructure issues. We also know the least about these organizations due to their distance from professional networks. Additionally, people are an essential component of maintaining and monitoring infrastructure issues.*⁵¹

Clearly, people are also an essential component of maintaining and monitoring community relationships and trust.

Lack of Data

Much like the major finding from Phase 2 concerning lack of infrastructure data, the archives profession lacks comprehensive data and information on the state of environmental collections across institutions. Very few studies have been conducted of archivists, donors, or archives users with a focus on environmental collections. Because the archives profession is decentralized and participation in major data aggregation efforts is voluntary, this makes it somewhat difficult to state with certainty where the biggest collection gaps exist.

However, in contrast to Phase 2, this information arguably *already* exists, it just needs additional support and resources to help bring it to light. Even archives that do not participate in online metadata description projects such as ArchiveGrid or a regional finding aid aggregator typically have at least some internal collection lists. One could make a plausible argument that greater profession-wide investment in projects to support and increase access to archival finding aids in general will likely result in making a greater number of already existing environmental collections visible to the public. While archival infrastructure information does not have a widely accepted metadata standard or clear business case for aggregating this data for the public, this is not the case for archival collections information. Archival metadata standards and guidelines like Encoded Archival Description and Describing Archives: A Content Standard have existed for more than 20 years. Archivists widely accept the need for increasing public access to collection information, even if they do not always have the internal resources to do this at scale on a local basis. Therefore, although there are some data gaps related to environmental collections, there is also a foundation to expand this far more readily than is the case for infrastructure information.

Surfacing this data would also help reveal documentation gaps and answer a major question that occurs somewhat frequently in the literature: whether archivists possess the subject matter expertise in order to identify, appraise, and promote environmental collections. This is a critical area that deserves further consideration.

⁵⁰ Tansey, "Phase 1 Report: People," 15.

⁵¹ Tansey, "Phase 2 Report: Infrastructure," 35.

Appendix 1: Methodology and Data Sources

The primary methodology for this phase was extensive review and analysis of published and informal research on environmental collections and archival practice. There has been comparatively little work from archivists about environmental collections, though many of the challenges identified in this research are well documented more generally across the profession (documentation of activist movements, discoverability of archival material, archivist outreach efforts to donors). Given that *users* of archival materials were a major focus of this research, I also looked at materials from environmental historians, associations of historians, and climatologists who use historical methods, and other adjacent disciplinary groups.

Similar to the process I used in Phase 1 and Phase 2 for identifying relevant materials, I began with identifying previous well-cited articles by archivists on the appraisal and collection of environmental material. This is a relatively niche set of literature. Unfortunately, none of the studies I examined had publicly available datasets associated with the published articles. This meant that unlike the previous Phase 1 and Phase 2 reports, there was no secondary data analysis for this Phase 3 report.

In order to get a sense of what kind of environmental collections are held in American archives, as well as to identify potential subject matter experts to speak with, I conducted a large and informal review of regional finding aid aggregators. Finding aid aggregators are websites that bring together descriptions of archival collections from many institutions.⁵²

I interviewed eight subject matter experts during this phase. The process for engaging subject matter experts in Phase 3 was very similar to the process used for Phase 1 and Phase 2. These individuals represented archivists involved with environmental collections, environmental and community activists, and researchers, writers, and educators.

Because the interviews were carried out primarily between June and July 2024, this made scheduling interviews difficult due to summer availability. Unfortunately, it was very difficult to find subject matter experts willing to speak with me for this phase of research. Several environmental justice organizations I emailed based on the finding aid aggregator results did not acknowledge or respond to my interview requests. As a result, those who I spoke with likely exhibited an additional self-selection bias in that they felt positively about working with archivists and also speaking freely about their experiences.

I held monthly meetings with Patricia Hswe, program director for Public Knowledge to discuss research progress, and contacted Julia Marden, Mohamed Haian Abdirahman, and Susanne Pichler for additional support as needed.

⁵² OhioLINK, “EAD FACTORY”; Weber et al., “Summary of Research.”

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Appendix 3: List of Subject Matter Experts

- Susana Almanza, Director of PODER (People Organized in Defense of Earth and Her Resources)
- Neela Banerjee, Chief Climate Editor, NPR, from 2015-2022 was Senior Correspondent at Inside Climate News
- Itza Carbajal, PhD candidate at the University of Washington Information School (she/her)
- Dr. Robert Gioielli, Associate Professor of Environmental Humanities, KTH Royal Institute of Technology, Stockholm
- Ben Goldman, University Archivist, Penn State University
- Steve Goldsmith, President of TRAA (Torrance Refinery Action Alliance)
- Lori Hostuttler, Director of the West Virginia and Regional History Center
- Christian Kelleher, University of Houston Libraries