

## Workshop 2 - June 2022 - Sharing STS data

This workshop will prompt your thinking about data possibilities for your research – what you can borrow, need to collect, and can share with others. "Data" is material you could draw on to build an argument/narrative about your topic: participant-observation at x place; interviews with y and z; policy docs about t; archival materials available at c; etc. We will work towards identifying datasets you can build that would power your own research but also that you can give back to an STS research commons to nourish collaborative labor. This exercise also prompts thinking about the multifaceted politics of such a data sharing exercise.

As you work on this sketch, begin to imagine what STS can become as data sharing becomes more common and supported. Consider, for example, the initiative *Engaging Science, Technology and Society* (ESTS) journal is taking to encourage authors to link out from their journal articles to publicly accessible source and supplemental data [links forthcoming].

**Homework Assignment #1:** Complete the following table, describing the kinds of data you anticipate producing and how you will preserve and access them.

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Indexing Data Types				
Method, activities	Data type [pdfs? mp4s?, jpegs? tabular?]	Preservation [Where will this data live?]	Access & security concerns [Who should and shouldn't see?]	Discoverability [How should and could this data be made discoverable?]
Archival research, historical analysis	Archival materials available at NOAA central library and digital atlas, the UK National Oceanography Centre's Technology Archive, the Marine Biological Library/Woods Hole Oceanographic Institution (MLBWHOI) Library and Archives, etc.	Data lives at physical archives, though much relevant content (pdfs, video and sound recordings, jpegs/images) are also available through digital archive access.	Most is public access/minimal security concern.	My own analyses and interpretations of the relevant historical documents and other archival data would itself become available through university library archives upon submission and publication.

<p>Qualitative research: interviews with key interlocutors</p>	<p>Interviews with oceanographers, naval and other scientists (esp. those who routinely interpret, manipulate and make decisions based upon echo sounding techniques and other forms of acoustic ocean data); interviews with marine technologists and engineers, startups and corporate professionals and climatologists who use sonic (and other forms of) ocean data to plan policy, project global/regional futures, and design new technologies and infrastructures (such as the MERIDIAN consortium, the scientists involved in the International Quiet Ocean Experiment (IQOE) and the Ocean Sounds Atlas, etc.</p>	<p>Interview transcripts and recordings can be kept in a secure box folder with informed consent documentation and copies of emails and other communications with interlocutors provided all appropriate permissions are obtained.</p>	<p>Likely to vary widely by subject (as military and other state agency based interlocutors may have different regulations and expectations regarding access, confidentiality and security than educators, private sector technologists, scientists working on projects explicitly seeking to make data more transparent and accessible for cross-regional and global collaboration, or climate scientists working in other contexts (who likewise will differ in the sensitivity of the information which they are likely to possess or be able or willing to share).</p>	<p>Confidentiality needs and permissions are likely to vary; while interviews NOAA and naval scientists might require secure storage of unedited transcripts and recordings based on subject and IRB/institutional permissions, other kinds of interviews and subjects (such as collaborative and/or participatory interviews with educators working on ocean sciences and with acoustic ocean data might be more readily available for contribution to relevant existing digital and traditional archives or even direct publication/public sharing (via website/YouTube/educational platforms, etc.), if produced explicitly for a public audience (i.e. in a collaborative and participatory manner with the subject).</p>
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<p>Qualitative research: participant observation and immersive experience</p>	<p>Fieldnotes, video documentation of visits to underwater museums and infrastructure sites; notes and recordings of visits to underwater laboratories/habitats, hotels; notes from fieldwork with marine scientists collecting and interpreting sonic data and/or those working on imaging/information access and global collaboration projects such as the Ocean Sound Atlas (OSA) scientists and engineers.</p>	<p>Fieldnotes (likely written by hand in secure paper journals), video documentation and sound recordings (likely kept in secure box storage for more sensitive or private/confidential recordings) or archived in digital or other appropriate and ideally accessible archives or even published in appropriate online fora for recordings produced in a transparent participatory manner for the purposes of public benefit in addition to the research at hand.</p>	<p>Fieldnotes must be assessed individually to determine which portions may be made publicly available and which kept private in secure journals or elsewhere for confidentiality and protection of subjects if sensitive information is observed or recorded, however, other data collected in this project, such as video recorded content obtained with express permission to share publicly (such as a recorded visit to a former underwater laboratory turned into a hotel or a museum) may be possible to share with a wider audience.</p>	<p>Participatory elements (such as video recordings of select field visits and some sites, participatory interviews or content generated with public service/nonprofit partners, ocean sound recordings, etc.) may be able to be shared on online or traditional archives, field site webpages and archives, educational platforms or social media sites such as YouTube where other researchers and the broader public may find the materials, either as part of their interaction with my research, application or consideration for their own work, or general interest and public benefit.</p>
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**Homework Assignment #2: Data Availability Statement**

*Choose one of the data you identified above and draft a hypothetical data availability statement using the instructions (taken from ESTS site) [here](#).*

While historians such as Sabine Höhler and Helen Rozwadowski have traced rich and extensive histories of human interaction with and measurements of the earth's oceans and seas, they are among a broad and interdisciplinary community of scholars interested in ocean histories, sciences, and technologies who have pointed out that much of what we know today about oceanic places and spaces is derived from the collection, manipulation and representation of acoustic ocean data. Among the other data resources mentioned above (and below) which inform my own research into the construction of ocean spaces using sound technologies and the interpretive and material significance of human and technological incursions into ocean spaces as a form of knowing and constituting the natural and the technical (a relationship which Stefan Helmreich has rightfully characterized as cyborgian in nature, drawing upon feminist STS scholar Donna Haraway), the fieldnotes, video documentation, interviews and recordings generated in connection with this research seek to contribute both to the scholarly understanding of the research questions with which the project is concerned and to the general public domain as well as relevant accessible, open source digital archive platforms which make non-sensitive source materials for this study available to other researchers, scholars and the public.

Such sources include participatorily created video and sound recordings of select interviews with marine scientists who collect, interpret, manipulate and share acoustic data, curators of marine archives and museums, and footage of visits to underwater museums and infrastructure sites, laboratories/habitats, hotels and other sites, and may be relevant for future research concerned with the construction of environmental problems, approaches to remediation of anthropogenic sound (and other forms of oceanic) pollution, and the making of space and place underwater. Sensitive data which is protected due to security, privacy, or confidentiality concerns (such as unedited transcripts of interviews with naval scientists or representatives of other state agencies or private companies unable to speak on the record about sensitive matters) have not been included.

### Homework Assignment #3: Curating Borrowed Data

#### Curating Borrowed Data

In this sketch, identify and describe already-existing data collections that you can draw into your research. Search for topical archives | collections (like this [Labor History Archives](#)) and in more general archives (like the [US Library of Congress' Digital Collections](#), the [Online Archive of California](#) and the University of California's [Calisphere](#). Also search less centrally curated collections like the [Omeka Showcase](#) and [Sites of Conscience](#).

#### **BORROWED DATA 1: The Ocean Archive Online**

*Ocean Archive* – <https://ocean-archive.org/archive>

An open source decentralized online archive of transdisciplinary materials, objects and artifacts including images, sounds, documents, and other collections relevant to ocean studies, which is meant to foster collaborative and multidisciplinary (among other forms of scholarly) work centered on ocean histories, science, technology, and medicine. The diversity of its source materials and disciplinary perspectives, structure of its organization, citation practices, searchability and hyperlinked content, and the open source/decentralized emphasis of this platform make it a particularly useful, accessible, and exciting source of data, as well as a great place to link in with transnational and inter/trans/multidisciplinary streams of research relevant to my interests. Its broader website also includes maps, storytelling and community functions, links

to current and recent conferences and conference materials, and other utilities which are also of value to researchers interested in the oceans and seas.

**BORROWED DATA 2: MERIDIAN IQOE Project Archives**

*The Marine Environmental Research Infrastructure for Data Integration and Application Network (MERIDIAN) Consortium's International Quiet Ocean Experiment (IQOE) archives* – <https://iqoe.org>.

This international project's associated literature library, acoustic data portal, archive of marine animal sounds and information about acoustic observing systems represent useful resources for drawing into my research information (and metadata) about environmental applications and interpretations of ocean sound data, as well as insights into how such data is used by scholars, scientists and policymakers to construct understandings of climate futures and outcomes, applied conceptualizations of the relations among the natural, technological, and sociocultural (or envirotechnical nature of oceanic space and placemaking), the construction and interpretation of anthropogenic noise pollution upon oceanic environs, and anthropogenic impacts upon oceans and seas (as well as their residual impacts upon human and other forms of life), more broadly.

**BORROWED DATA 3: National Centers for Environmental Information & NOAA Central Library** – <https://oceanexplorer.noaa.gov/data/access/access.html>

The United States National Oceanic and Atmospheric Administration Central Library and Centers for Environmental Information maintain both physical and digital archives rich in a broad array of oceanic and atmospheric data from their searchable digital atlas to their extensive collections of documents, images, footage, recordings and other archival data of historical and contemporary relevance to global and national marine sciences and technology, environmental and climate science, among others, making this resource a centrally valuable one for those interested in the construction of oceanic environments, the envirotechnical processes of conceptualizing place, making knowledge, and projecting futures with, for and about the oceans and seas. (Note: same applies to equally relevant MBL/WHOI data library and archives.)