Reviving anthropology's past

Digital archival access and ethical collaboration with Indigenous communities

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This article documents our efforts to address emergent trends in archival data reuse and anthropology through applied work to re-envision the Council for the Preservation of Anthropological Records (CoPAR). We begin by (1) situating discourses and work in anthropological data, archives and their reuse and (2) describing the evolving context for data curation across disciplines that might inform anthropology. Then we (3) describe recent efforts to engage Wikipedia and Wikidata collaboration, as well as design approaches to tackle new approaches for connecting researchers to anthropological data held in archives, including considerations for (4) ongoing ethical and logistical challenges we are actively contending with, before concluding by (5) discussing our future directions. We envision CoPAR as a resource for anthropological archives and an organization that fosters meaningful collaboration between archivists, anthropologists and Indigenous communities and facilitates accessibility to records and information within the digital sphere.

Archival data in anthropology

Published anthropological literature only scratches the surface of the mass of evidence and data collected by anthropologists. The increasing awareness of the importance and value of primary sources and access to them is coming at a time of change in how data and scientific research are shared and disseminated. A decades-long movement has generated sweeping change in the available infrastructures, guidance and professional roles supporting scientific data sharing. These include an increase in research data repositories, best practices, guidance for scientists and data curators, credentialling systems and professional support and services in research centres and academic libraries (Cragin et al. 2007).

Expanded interest in data reuse in anthropology has led to various curricula[1] aimed at supporting anthropologists in managing, curating and sharing their data (Emmelhainz et al. 2020) and comes at a time of increased emphasis on open access and research data management practices from funding agencies (Holdren 2013; 2014; Nelson 2022; Turner et al. 2018).

New tools and emergent guidance on best practices for data sharing and reuse offer critical support to anthropological researchers and data curators. Notably, the FAIR (findability, accessibility, interoperability and reuse) principles offer foundational guidance for scientific data stewardship (Wilkinson et al. 2016).

Scholarship in Indigenous data sovereignty has advanced a parallel set of principles, CARE (collective benefit, authority to control, responsibility and ethics), focused on ethical aspects of the accessibility and reuse of cultural data (RDA IG 2019; see also Carroll et al. 2020; Walter et al. 2020). These principles respond to historical trends wherein statistical data about Indigenous peoples and Nations generated by government agencies, such as the US Census, were framed and used in harmful ways (Kukutai et al. 2020).

The FAIR and CARE principles apply to anthropological records recovery and reuse but remain outside the realm of practice for many anthropological researchers. The CARE guidelines in particular echo much earlier guidance from the archival community in the *Protocols for Native American archival materials* (First Archivists Circle 2007), which acknowledge legacies of unethical knowledge extraction and prioritize community collaboration and reciprocity in setting best practices for access and use. FAIR and CARE have the potential to conflict, harkening back to a question asked by Kimberly Christen (2012) reflecting on her work with Warumungu communities on Mukurtu CMS: 'Does information really want to be free?' In approaching our work, the COPAR team considers FAIR and CARE in tandem, prioritizing the CARE guidelines when conflicts arise.

Digital archives in anthropology are advancing data reuse approaches in the field, albeit focusing on born-digital data. Earlier calls to address the curation crisis and digital archiving approaches (Cliggett 2013) have been effective at growing the interest in building digital archives and repositories to archive and store valuable data, now often digital, in anthropology's four fields. Many relate to archaeological archives (e.g. the Digital Archaeological Record [tDAR], the Alexandria Archive Institute, AnthroDataDPA) and biological anthropology data (e.g. the Forensic Anthropology Database for Assessing Methods Accuracy [FADAMA], GenBank, the Subadult Virtual Anthropology Database [SVAD], the Open Humans Network and the Platform for Engaging Everyone Responsibly).

In the cultural sphere, the linguistic community has made the most headway in creating interlinked data repositories and resources, some of which draw on unpublished primary (usually audiovisual) sources (Berez-Kroeker et al. 2022; Henke & Berez-Kroeker 2016). These include the Archive of Indigenous Languages of Latin America, which holds primarily audiovisual recordings and transcripts; the Open Language Archives Community, which connects a mix of primary and secondary source materials via its network; the Endangered Languages Archive, a digital repository for multimedia language collections; the Pacific and Regional Archive for Digital Sources in Endangered Cultures (PARADISEC); and the Digital Endangered Languages and Musics Archives Network (DELAMAN), which acts as an 'umbrella body' for many of these archives mentioned above, seeking to connect them informationally and via professional networks (Conathan 2011).

The American Anthropological Association has created the Open Anthropology Research Repository (OARR), which allows anthropologists to upload research files for storage and reuse. However, the OARR is currently designed for research products (e.g. pre-prints, syllabi, conference papers) rather than 'raw' data sets. Anthropologists are also drawing on existing qualitative data repositories (designed outside of the anthropological context) to undertake similar work. For instance, anthropological projects use the Inter-university Consortium for Political and Social Research (ICPSR) at the University of Michigan, which is the world's largest social science research data archive.

In another example, a database on Yanomamö information will amass genealogical and demographic data on thousands of individuals over a 35-year timescale, allowing current and future researchers to perform statistical analysis, test new theories and produce discoveries (Chagnon and Hames NSF Award #1461532). Adjacent historical projects from digital humanities approaches, such as the Land Grab Universities project (*High Country News* 2020), showcase how such datasets can be visualized and recontextualized to conduct new historical research. Such approaches to digital data storage

1. E.g., Managing Qualitative Social Science Data: An Interactive Online Course from SSRC and QDR.
2. https://copar.umd.edu/guide-to-anthropological-fieldnotes-and-manuscripts-in-archival-repositories/.
3. https://copar.umd.edu/directory-of-ethnographic-archives/.
4. Diana Marsh, PI, and Katrina Fenlon, Co-PI, NSF CA-SR award #2314762.

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can therefore support novel lines of enquiry for future researchers who can access this data or explore computational analysis.

Despite these efforts, there remain many problematic gaps and obstacles. Efforts to build digital archives and repositories of anthropological records remain fragmented and siloed. Perhaps more critical for anthropology is the lack of attention to physical records in institutional archives among these efforts, despite their predominance as the discipline's research record. Many physical records still only exist on paper or in other analogue formats such as photographs, audio cassette tapes, wax cylinders or film (Ruwell 1995; Zeitlyn 2012). These materials comprise the bulk of anthropology's archival record and are subject to deterioration over time. More importantly, while most such collections might have a catalogue record or other digital descriptive representation, most have no digital surrogates.

In addition, not all digital repositories include primary data, but rather digital secondary references (e.g. Human Relations Area Files, or HRAF). Most focus on collections actively in the making today rather than those collections from the discipline's history currently housed in bricks-and-mortar institutional archives. This considerably limits access to vital anthropological records and increases the likelihood that the data held therein will not be preserved for the future.

Evolving context in data curation

'Data rescue' (sometimes 'data recovery') focuses on preserving and reusing data at imminent risk of being lost, including historical or otherwise defunct research data. There is mounting evidence that historical data have significant value across numerous disciplines in supporting ongoing and active research. Indeed, there have been numerous independent efforts across scientific disciplines to revive historical data for reuse, with perhaps the most visible being large-scale crowdsourcing initiatives for climate data (Brunet & Jones 2011; Shiue et al. 2021a; 2021b; Sorensen et al. 2022; Wippich 2012). Despite their high potential value, historical data in all contexts face compounding challenges to preservation and reuse, including being far removed from their original contexts or confronting technological deterioration and obsolescence (Mayernik et al. 2020).

Prior work from major professional organizations, including the Research Data Alliance Data Rescue Interest Group and the CODATA Data-at-Risk Task Group (Choudhury 2017; Mayernik et al. 2017), illuminates the need for cross-sector collaboration to build networks of support for preserving historical, scientific data and supporting its reuse across disciplines. Yet much of the on-the-ground work of data recovery in the sciences remains disconnected from parallel work in other scientific disciplines (Shiue et al. 2021a; 2021b; Sorensen et al. 2022). Given the unique value proposition and particular preservation challenges of anthropological data as irreplaceable sources of cultural knowledge, anthropology has an opportunity for leadership in cultivating historical data for contemporary reuse in research and public communities.

At the leading edge of this movement are *linked open data*: a growing constellation of standards and tools for representing cultural data derived from primary sources in such a way that they can meaningfully and actionably connect to data and knowledge across the broader web (van Hooland & Verborgh 2014). At a base level, this includes representing cultural institutions' collections and metadata as open data aggregations, accessible at scale to users and programmatic tools by application programming interfaces (API), as in the example of the Smithsonian Open Access initiative (Smithsonian Institution 2020).

But this also extends to efforts to connect cultural collections to the distributed linked data cloud through platforms such as DBPedia and Wikidata, the database behind Wikipedia (e.g. Association of Research Libraries 2019; Szekely et al. 2014). In archives, Wikidata has helped to surface archival descriptions, connect archives to Wikipedia articles and other external secondary sources and explore relationships among distributed archives through Wikidata SPARQL queries that search connections across diverse data sources. Archives and archival content management systems like ArchivesSpace increasingly incorporate Wikidata into their metadata fields.

The open access movements in science and cultural heritage, and the growing adoption of linked data, have made massive strides towards opening data and knowledge to broader use and reuse among researchers and public communities. Yet these movements have not permeated regular practice among researchers and cultural institutions (Tenopir et al. 2011). For example, one study found that even dedicated data repositories struggle to comply with the FAIR guiding principles for making data openly reusable (Dunning et al. 2017). Another study found persistent barriers to widespread participation in the cultural linked data ecosystem, particularly among smaller cultural institutions (Davis & Heravi 2021). Anthropological researchers, in particular, have made minimal use of linked open data, and prior forays have mainly been exploratory (e.g. Geser 2016; Kansa 2015). Moreover, many linked data tools and systems draw on and prioritize Western-centric principles: colleagues working with Wikimedia Australia, for instance, have noted the significant limitations of Wiki platforms for Indigenous representation and sovereignty (Thorpe et al. 2023).

What is CoPAR?

The Council for the Preservation of Anthropological Records (CoPAR) is an organization that was founded in the early 1990s to promote the archiving and discovery of anthropological materials around the world. CoPAR was initially 'designed to function as an informal clearinghouse and disciplinary catalyst, rather than as a disciplinary centre or a manuscript repository' (Parezo 1999: 277). The group built an online directory, the Guide to Anthropological Fieldnotes and Manuscripts in Archival Repositories,[2] for locating anthropological records organized by the anthropologist who created the records. They also organized this information within another format to facilitate searches by archival repository, called the Directory of Anthropological Archives Ordered by Institution.[3]

Since then, this site has remained the leading resource for information on where to find anthropology archives. Today, this information is increasingly important to scholars and Indigenous community members seeking to locate and research their cultural heritage materials, which were collected in predominantly colonial contexts and are now held in primarily white institutions (PWI) across the globe. These two directories are, therefore, crucial resources CoPAR provides to current users.

Although valuable resources, these two directories are framed within the original goals of CoPAR: 'to identify and locate primary anthropological data, texts on which conclusions and interpretations are based, and supporting materials; to encourage preservation; and, to foster the use of documentary records with anthropological value' (Parezo 1999: 277). The original efforts that founded CoPAR were an innovative example of early collaboration across anthropology and archival practice.

CoPAR's early goals included providing technical assistance to archival repositories, sharing information on the location of anthropological records, ensuring access to

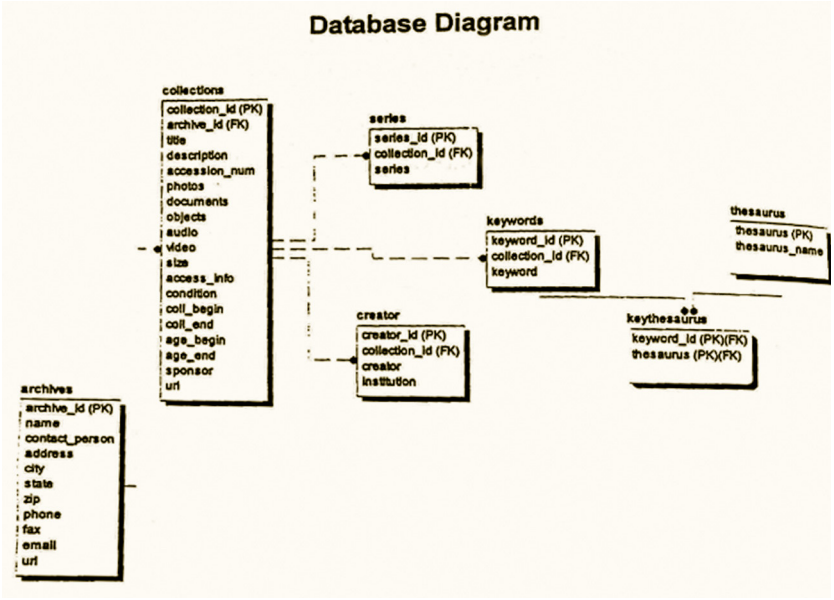

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Fig. 1. *CoPAR Pilot Database Structure (National Anthropological Archives CoPAR Records, Box 2, Folder 'Forms').*
Fig. 2. *UMD CoPAR team (left to right): Amanda Sorensen, Samantha Lee, Dharini Chandrashekar, Amanpreet Kaur and Diana Marsh.*
Fig. 3. *Search interface mock-ups.*

these records and supporting collaboration between institutional archivists and those in Native communities. The early framing generally focused on the legacies of early anthropologists rather than what anthropological archival records could support within contexts external from anthropological and historical research, such as within Indigenous communities.

In 2016, Ricardo Punzalan and Diana Marsh organized a Wenner-Gren workshop to revitalize CoPAR as 'a network that supports producers, users, and stewards of the record of human diversity in the digital age' (Marsh & Punzalan 2020: 179). That effort led to the establishment of a new Working Group and Advisory Board, a new website and updated web versions of CoPAR's core resources (Marsh & Punzalan 2020). However, the website and its resources remain outdated and stagnant digital versions of previously printed registries; they are not searchable and do not connect researchers to individual collections but point to institutions they might contact.

We are working to revitalize CoPAR as an organization and refocus its core missions to better support the goals of the originating communities whose information and knowledge were collected by anthropologists within the CoPAR database. Our goals primarily centre on facilitating digital and physical access and returning archival materials to their originating communities. We aim to support originating community data sovereignty so communities can decide how to use their archival materials, how to curate, arrange and archive them (and the knowledge contained within them), and what access protocols are appropriate.

Integrating CoPAR with communities and data

As informed by this broader context in data curation and anthropological archival records management, our team is working to bring the CoPAR dataset within its web directories into the linked data world. This past year we have undertaken two key projects that contribute to this goal by submitting a design challenge to the 2023 InfoChallenge and a Wikipedia edit-a-thon with Wikimedia DC.

2023 InfoChallenge

Currently, the CoPAR website does not facilitate easy access to information, and we hope to redesign the site to remedy these issues. Our goals for the website prompted us to submit a design challenge for the 2023 InfoChallenge, which is hosted by the College of Information Studies (iSchool) at the University of Maryland (UMD) each year. This event welcomes students from across UMD and other local universities to tackle projects in data analytics, security and design. We submitted a design challenge that asked students to:

- pitch ideas and design concepts for how to best organize CoPAR web content in a way that is more user-friendly and accessible
- ask how the website can be more visually appealing and compelling using new thinking in web design
- strategize the information architecture of the site
- consider the information that users may want to know, but that is not already provided on the website currently.

For example:

- Is an anthropologist listed in the directory a socio-cultural anthropologist or an archaeologist? Where did they primarily conduct research, or what are they best known for? What Native/Indigenous communities did they work with?
- Should the website provide any maps or other visuals to display information better?

Multiple teams undertook our challenge, and one team from the UMD iSchool's Human-Computer Interaction Master's program, including Dharini Chandrashekar and Amanpreet Kaur, won the InfoChallenge grand prize for their mock-ups on the redesign of the CoPAR website. We were particularly excited about the search interfaces that use interactive maps and various means of searching to locate the repositories, authors, locations and contributors of archival records. Our next steps for the summer include developing a new CoPAR website that sets up the technical infrastructure based on their design mock-ups.

Wikipedia edit-a-thon

Another project we tackled this year was an edit-a-thon in partnership with Wikimedia DC, which took place at the end of March. We worked with Ariel Cetrone (Wikimedia DC), who created a spreadsheet for the event. This Excel file extracts all anthropologists' names in the CoPAR directory with links to Wikipedia, totalling 641

Fig. 4. *Edit-a-thon facts and figures.*

records. Our goal for the edit-a-thon was to create connections within the Wikipedia articles of anthropologists to the Indigenous nations and communities from whom they took the information. We aim to use this linked data to build out these connections within other platforms, including the CoPAR website, to facilitate greater access and searching capabilities.

The 27 virtual and in-person attendees created nine articles, edited 36, completed 145 edits, added 7,270 words and 76 references and viewed 23,800 articles (Fig. 4). In the future, we plan to continue holding Wikipedia edit-a-thons with our partners at Wikimedia DC, as this first event only began to scratch the surface of Ariel's spreadsheet. Despite the incredible work from the edit-a-thon attendees, the CoPAR dataset has proved time-consuming, as it contains many relationships that we are attempting to draw out to facilitate many different types of searching within the new CoPAR website.

Remaining logistical and ethical challenges

Over the past academic year, we have encountered a few technical and logistical challenges, which we are still exploring. For example, the CoPAR anthropologist dataset is complex, and in its current form, many of the linked relationships we need to facilitate more complex search functions must be built out. This entails technical skills working to build and copious amounts of time and labour. The CoPAR working group and advisory board include the expertise of archivists and anthropologists, and collaboration between these two groups has been, at times, tense due to varying levels of archival knowledge and institutional power dynamics (Marsh et al. 2021).

The field has grappled with numerous ethical dilemmas rooted in its colonial and prejudiced past. A significant portion of – especially pre-Second World War – anthropologists in the CoPAR directory held supremacist beliefs, often resulting in the mistreatment of Indigenous communities they studied. The edit-a-thon revealed that an anthropologist from the CoPAR Directory denied the Holocaust, while another, possibly one of several, supported eugenics. The challenge lies in determining how to engage with their Wikipedia pages ethically. Editing these pages amplifies their viewpoints and provides easier access to their records, some of which might contain Indigenous knowledge. Given the complex history of anthropology, it is crucial to approach this matter with sensitivity, seeking guidance from Indigenous communities to chart an ethical course.

We are exploring additional challenges concerning researchers' perceptions of their records as sensitive, requiring anonymity to protect those with whom they conducted research. These research perceptions, viewing fieldnotes as needing processing and redaction to ensure confidentiality for research participants, are often codified within Institutional Review Board approvals and can clash with what research participants and their communities want, including transparency, credit, accuracy and researcher accountability. We are mindful of these tensions as we move forward with this work.

Reparative linked data: Future and scale

We recently began a project entitled 'Building a Sustainable Future for Anthropology's Archives: Researching Primary Source Data Lifecycles, Infrastructures, and Reuse',[4] which aims to explore how anthropology can sustainably adapt emergent linked data infrastructures and platforms in support of broad access to culture research data held in primarily analogue records. The current CoPAR dataset consisting of anthropologists and their records is complex, as there are many relationships we want to highlight through this and other extant data connecting anthropology and its archives.

We intend to research workflows and linked data extraction possibilities across platforms like Social Networks and Archival Context (SNAC) and Wikidata to do batch editing and linking among relevant platforms. As is possible with Wikidata, SNAC's technical teams have recently developed a plugin for OpenRefine to refine, reconcile and transform large datasets, including by extracting existing web-based linked data. We aim to leverage the power of this kind of metadata transformation and aggregation in various platforms while incorporating Indigenous stewardship principles and community-based knowledge – what we call *reparative linked data*.

For example, we anticipate collaborating with the National Native Boarding School Healing Coalition's National Indian Boarding School Digital Archive (NIBSDA) and other Indigenous entities to prioritize community-driven knowledge and metadata within broader information networks. Drawing from the Wiki and 2021 SNAC Indigenous edit-a-thons, there is potential to harness this community-focused data to connect anthropological records with respective communities. This also involves reaching out to repositories to strengthen ties and enhance Native and Indigenous participation on pertinent platforms. Combined with enhancements to the CoPAR website, such endeavours aim to foster more deep-rooted partnerships among anthropologists, archivists and Indigenous community stakeholders. ●

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