Collaboration and Development for Digital Access to the 
Native American Languages Collection

White Paper

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Summary

The Native American Languages collection (NAL) at the Sam Noble Oklahoma Museum of Natural History at the University of Oklahoma has now completed a one-year NEH Foundations grant for a collaborative project to plan the development of an online platform for the collection. The materials in NAL are an irreplaceable resource on the history and traditions of Native America, which are of enduring value to the communities they come from and the world at large. Thanks to this funding opportunity we were able to have meaningful discussions with our community partners, language archiving and IT professionals, and other NAL stakeholders. We have generated a plan for the new NAL website that is informed by collaborative principles and supported by our partners. The planned website will provide unprecedented access to the collection by allowing users to view and download materials directly, rather than the current system which requires people to visit the collection in person. This type of access is increasingly the expectation for archives and fulfills our mission to make those materials that are meant to be shared as available as possible to Native peoples, researchers, and the greater public.

Background

NAL was founded as a collection within the Sam Noble Museum in 2002. Unlike most other language archives, the majority of the materials donated to the collection come from our local tribal partners, individual families, and contemporary grant-funded projects, ensuring that the collection speaks to the contemporary reality of Indigenous languages in North America. NAL works to be a true community partner, providing tools and training so that Native people can document their own languages, as well as providing a space for Native languages to be used and spoken through outreach programs such as the Breath of Life: Silent No More workshop, the Native Youth Documentary workshop, and the annual Oklahoma Native American Youth Language Fair. Some of the services NAL staff provide to community members free of charge include digitization of family collections, professional audio recording services for non-commercial work, research assistance, and loans of professional audio and video equipment for fieldwork on Native languages.

The collection currently contains approximately 6,500 items representing more than 1,100 languages. While most of the collection is digital (~10TB at present), we also curate about 160 linear feet of analog materials (manuscripts, ephemera, maps, games, and various types of legacy AV media). NAL accepts any materials in or about Indigenous languages from anywhere in the world. This includes primary materials such as field notes, audio/video recordings and correspondence, as well as secondary materials such as datasets, pedagogical materials, descriptive materials, translations, transcriptions, and other media productions.

Currently, NAL collection materials are accessible only to those who make an appointment and visit the museum in person. This means that many people, particularly community elders and speakers of the languages we are committed to preserving, cannot easily interact with our materials because they are unable to make the trip to the museum. This limits the audience and utility of the collection. Visitors have reported frustration that the materials are not available online, and that the minimal metadata catalogue available on the museum website is insufficient to identify beforehand which materials will be useful. In addition, linguists and researchers have expressed surprise when they discover that the collection exists, since it lacks the digital profile available for
other major language archives. This significantly limits the discoverability of the collections and our availability to researchers.

To address this, NAL undertook the present project to make all our metadata and all our unrestricted collections materials available for download online. In addition to simply making the collections materials available, we want to create a welcoming platform which facilitates use and interaction with the materials particularly by Native community members. To this end, we solicited the feedback of our community partners and depositors on what they would like to see in a NAL site. We also collaborated with IT and archiving professionals to help us leverage the latest tools in user-centered database and website design.

**Activities**

The main focus of this Foundations grant was on bringing all our stakeholders to the table to discuss the relevant aspects of website design in a way that generated new ideas and also left us with a set of concrete suggestions for features to develop for the website. Accomplishing these goals involved three stages: planning activities leading up to the workshops, running the workshops and recording feedback, and realizing recommendations from that feedback in wireframe mock-ups of the site. Each is described in sequence below.

**Preliminary work**

To assist us in planning the workshops and managing the project, we assembled an advisory board of Native museum and education professionals, NAL depositors who are particularly knowledgeable about our systems, Native language instructors, and heads of tribal language programs (see Appendix A for a list of advisory board members). In September 2020 the advisory board met to discuss the project, develop the structure and approach for the workshops, and identify aspects of the website design on which we particularly wanted feedback. These aspects of development were then sorted by NAL staff into three categories: features we definitely want to create for the new site (e.g. to be in line with best practices), features to ask about during the workshops (because they require discussion), and features that can be asked about as part of a follow-up survey. NAL staff then used these lists to create the agenda for the workshops and write the post-workshop survey (see Appendices D and E).

Following the advisory board workshop, NAL staff contacted all of our depositors, local tribal representatives, selected archive, library and museum professionals, and other relevant local contacts to invite them to the workshops. While we had originally planned to hold two in-person workshops at the Sam Noble Museum, due to COVID-19 we shifted to holding a series of shorter meetings via Zoom with smaller groups of participants. Those who were interested in participating were asked to send us their availability so that we could schedule them for a meeting, with the aim of placing people in a workshop with at least one other person that they knew, to help make them comfortable and facilitate discussion. We also sent each depositor a summary of the collection materials they had donated to us, so that they could review and approve the materials for online dissemination.

Additionally, it was necessary to prepare NAL systems for online dissemination. While we received an IMLS grant in 2020 to upgrade our digital infrastructure (servers, LTO tape backups), we had not yet migrated from our old FileMaker Pro database to a contemporary and portable metadata management database. Since none of the out-of-the-box CMSs for collections management would suit our needs, in 2020 we contracted with Kavon Hooshiar, a PhD candidate in Linguistics and a software developer to create a new set of tools specifically for language
archiving. His system has many benefits over other available systems, including automated version control, a complex infrastructure for handling the intricacies of massively multilingual data, the ability to interface with transcription/translation/data organizing web apps, and the ability to share not only the files and the metadata but the actual database itself, which means tribes (or anyone with a computer and enough storage space) could use our same infrastructure to create their own repositories. As part of this grant, we began beta testing his system and migrating our collections. Screenshots of the current version of the system is provided in Appendix C.

**Workshops**

We scheduled a series of six workshops with NAL stakeholders, five of which targeted depositors and users, and one specifically for archivists and IT professionals that dealt with more technical aspects of website and database development. The depositor/public workshops were about 2 hours each, conducted via Zoom. Major topics for discussion and feedback were:

1. **How do people navigate and what would they like to search and browse for?** Being able to easily and intuitively find what you want is the core of accessibility and therefore the core of our website infrastructure.
2. **Was there interest in allowing users to contribute both relevant information (metadata) and comments on the site?** If so, how?
3. **Thoughts on how to arrange for continued updating of collections (co-curation) and getting depositor and/or tribal vetting for any user-contributed information.**

For a full list of the questions posed during and after the workshops, see Appendix D.

The goal of the IT/archivist workshop was to discuss the planned development for NAL in terms of digital infrastructure and the features suggested at the depositor/public workshops, and then get feedback from others who have done similar development. We also wanted to take the opportunity to discuss some of the major developments facing the field. As such, the major themes of the IT/archivist workshop included:

1. **Discussion of what people like and dislike about their own data management systems and websites;**
2. **Discussion of how they integrate (or how they might like to integrate) user-generated content into language archives;**
3. **Discussion of long-term sustainability, particularly with increasingly decentralized collection control structures;**
4. **Discussion of how to allocate limited resources to preservation vs. ingesting new materials vs. website-side tools vs. other outreach.**

Feedback from all the workshops was compiled in the form of notes from the discussions, polls, and follow-up surveys, summarized in Appendix E.

The workshops were ultimately attended by 50 individuals representing 18 Oklahoma tribes, 19 (other) institutions, 27 languages, and 38 NAL collections. See Appendix A for a list of workshop participants.

**Wireframing**

After the conclusion of all the workshops, NAL staff compiled a ‘punch list’ of all the features from the workshops that we’d like the website to have, as well as a list of ideas for future development, which was circulated to our advisory board and all the workshop participants for comment (see Appendix F). NAL staff then worked with the OU IT Digital Innovations Group (a partner in the Foundations grant and participants at the workshops) to integrate these features into a detailed set of mock-ups for the proposed website (“wireframes”, provided in Appendix B). While these are not a complete set of website pages, nor are they final versions of what the website
will look like, they represent the core functionalities we expect the website to have. They are also crucial in terms of being able to show people more concretely how their suggestions might manifest and how navigation might work on the new site.

Once the wireframes were completed, they were sent to our participants, advisory board members and community collaborators for feedback. These are the foundation upon which we will begin development in the implementation phase. The responses so far have been overwhelmingly positive; for example, people think the plans look very professional, they like the format, and they like that there are so many different ways to search/navigate. We look forward to continuing these conversations and soliciting feedback as we progress into the development stage.

Outcomes

The tangible products of this Foundations grant were:

1. The wireframe mock-ups for the new NAL website, generated by our OU IT partners;
2. Initial development of a new archive-side collections management tool for NAL items and metadata, created by Kavon Hooshiar at UH Mānoa; and
3. Take-aways from the discussions in the workshops and the feedback provided in the polls and surveys, in the form of actionable design features for NAL systems development.

As discussed above, the wireframes were circulated as documents by email to all of our participants, board members, depositors and other stakeholders (including those who could not attend a workshop) so that they could see how we implemented their suggestions and provide feedback on the design. There will be many more opportunities for iterative feedback as we move into the implementation phase of the project.

With respect to the development of the new archive-side collections management system, we have migrated about half of our records to the system and done a significant amount of work beta testing all of the various functionalities and de-bugging where necessary. Thanks to this grant, we have reached the point in development where we could use this system exclusively and retire the FileMaker Pro database. This initial launch has laid the foundation for more development that will be necessary going forward, both in terms of creating bridges to the new website as well as developing new functions that are increasingly expected of language archives (e.g., an online deposit system for contributing new materials to the archive).

The main outcome of the planning grant was the conversation about key issues related to online access that was facilitated as part of the workshops, and the relationship-building that came with that (see Impacts). Although many important issues were addressed, we would like to share the key feedback about the major issues here.

One of the crucial issues we were struggling with as we looked at different archives, CMSs, and contemporary websites involved avenues for two-way information exchange. We knew that, in addition to serving NAL collections, we wanted to do more to engage the community and encourage knowledgeable individuals to share more information about individual recordings, etc. There are a variety of models for this, including e.g. the Mukurtu community records and Endangered Language Project (ELP) comment feeds. However, at the time of writing, no major language archives have a formalized mechanism for non-depositors to contribute information. The question is, given that we do not have the staff capacity (or potentially the cultural knowledge necessary) to keep up with vetting public comments, what would people like to see us do to solicit information from users, and how much control would they like to have in this process?

The discussion from each group of workshop participants revealed that like us, people were enthusiastic about the possibility of knowledgeable individuals in communities being able to
contribute more information to the record for an item. However, many participants were against the idea of allowing free and largely unvetted public commenting. The general feeling was that contributions from people outside the community likely would not be particularly valuable, and that even within a community people were worried about providing an outlet for strife and disparaging comments. Several participants were administrators for their community Facebook pages and emphasized the need for knowledgeable and consistent moderation. The idea of community vetting (like ELP does) where another user can flag a comment as offensive and it is immediately removed was not considered sufficient to prevent harm. Although the poll results came out with a narrow preference for allowing public commenting (via a box at the bottom of each item page), this was contingent on NAL staff being able to provide sufficient vetting, which we do not have sufficient resources for.

![Poll Results](image)

**Allow public commenting? How?**

- Yes, box at bottom
- Yes, Twitter-style feed
- Yes, separate download file
- Yes, other
- No public commenting

However, that does not preclude having a mechanism for soliciting contributions from knowledgeable users wanting to add information to the item record (metadata, rather than free commenting). While we initially imagined a separate community metadata record (like Mukurtu), people expressed a preference for seeing all of the information on the same page, with information provided by someone other than NAL staff or the depositor attributed to that individual. While NAL has used its networks to informally vet external additions/changes to our metadata in the past, with this online platform we hope to 1) more actively solicit information, and 2) provide more opportunity for depositors/tribes/original rights holders to be directly involved in vetting suggestions. Since many of our workshop participants were also depositors and have collections with us, we wanted to identify who wanted people to be able to add information about their materials, and who they thought should be in charge of vetting that information. The majority of depositors (19 ‘yes’ vs 10 ‘no’) were interested in accepting contributed information, but who they wanted to be in charge of vetting varied significantly based on the context. Some wanted to do it themselves, others identified a tribal agency that should be in charge of that, while others advocated for a multi-tier approach (starting with archive staff and moving up to tribal leadership, based on the type of suggestion being made). Because a suggested contribution could be anything from a spelling correction to identification of speakers to translation of a text, depositors discussed what kind of additions would be acceptable. While they generally were receptive to small additions, changes, and things considered ‘improvement’, when it came to translations and transcriptions, most people felt that major additions should be submitted as another collection, not added to their own.

The second major topic under discussion at the workshop was about discoverability and searching. In order to provide adequate access to materials, they have to be easily locatable. This
means having a good understanding of how people want to navigate the resources, both when they are looking for something specific and when they just want to browse our resources. While we have a fairly good understanding of the general ways people seek information from the ~200 requests for materials we fill each year (almost exclusively by language, occasionally by individual’s name, tribe, material type, or genre), we were interested in getting more detailed information about how people might search for something specific, and topics they might browse by. With respect to detailed search, people were generally interested in all the suggested possibilities, with searching by genre being the most popular after search by language (not included in the following list).

Some of the most helpful feedback involved people’s ideas for ways to browse. While we expected people to be interested in language workbooks, different types of texts (e.g. stories vs. conversation vs. wordlists) and Native music, based on the types of requests we get, the suggestions from the workshops for browse pages were much more varied and specific. Suggestions included browsing people with information pages about each person, movies and other media in Native languages, types of songs, dividing pedagogy into more specific categories, a map search (similar to the American Philosophical Society Indigenous Subject Guide), dividing stories into traditional vs. personal/contemporary stories, and more. Several people also brought up the need for alternate names to be recognized, and others suggested NLP (Natural Language Processing) solutions for some of that. Another great suggestion was to have both a ‘new additions’ section to update returning visitors and a ‘similar search’ function, where an algorithm could recommend a search based on what others have searched for. We intend to develop as many of these assembled ‘browse’ pages and functions as we can; for the wireframes, we have mocked up the people pages/browse, the language/language classification browse, the map browse, and the pedagogical materials browse.

While the core infrastructure of the planned website is mostly about finding and downloading language materials, we wanted to ask about other features that people might be interested in, possibly for future development. For example, we had 19 of our depositors say that they were interested in working with us to label their collections with Traditional Knowledge Labels and/or Biocultural Notices (https://localcontexts.org/), and 28 said they would be interested in seeing NAL develop web-based viewers for translations and transcripts of NAL audio recordings in conjunction with local language programs (see e.g. http://northernpomolanguagetools.com/texts/story.php?story=3). We are excited to include these features in our development plans, and to continue working with our depositors, language teachers, and language learners to find innovative ways to make use of NAL materials.
After the conclusion of each workshop, participants were sent a follow-up survey. While the survey asked about some things related to the workshop content, it also requested general feedback about what people were particularly interested in, what they might be worried about, and what they think of the trajectory of the project. The following is a selection of anonymized comments about how people responded to the workshops; see Appendix E for a summary of the survey responses.

- This was a good much needed workshop and I’m glad community members were asked for their input.
- I enjoyed it and I look forward to seeing the new website and seeing the results of the community engagement process.
- In future workshops it would be interesting to have some participants who have developed working online dictionaries or language lessons take part to discuss how they prepared the material they put online.
- The only other comment would be that I enjoyed the session and hope that there will be future ones so ideas can be exchanged.
- Building a website that is easy to navigate was the most important topic for me. The more friendly the website is for casual user the more traffic you will see using the material. The [XXX] Language Department will be glad to promote the Sam Noble Native American collection.
- I hope to see those tribal members who live away from the community have better access to online materials. We have a lot of materials available here on the tribal campus, but those who live outside the community don’t have access to this yet.
- It will be good to have the information available to the public, especially community members, as long as there is a protocol for protecting or restricting access to culturally or personally sensitive materials. I expect that as community members engage with the materials, they may be able to enrich the collection in various ways by providing additional metadata or sharing materials that they’ve developed using resources in the collection.
- The ease of browsing and/or downloading the materials is most useful. Many who will be delving into the archives won’t be computer savvy.
- I think having a clear and easy way to search NAL collections is very important. I also really like the idea of NAL being a kind of clearinghouse for sharing pedagogical materials, curricula, etc. One thing I heard when talking to the Iowa Tribe of KS and NE and the Otoe- Missouria Tribe a few years ago is that there’s a desire to collaborate more and share materials, but there’s just not the infrastructure for making it happen. If people shared their materials with NAL, though, then maybe NAL could become the go-to place to see what other communities with similar or related languages are doing. I suspect language teachers could also benefit from seeing what communities with completely unrelated languages [are doing].

Impacts

There has been significant local impact from the workshops hosted between NAL and our communities of Native people, tribes, and individuals working with Native people on language and culture revitalization. Although NAL has had individual relationships with all of our workshop participants and advisory board members, this is the first time (to our knowledge) that there has been an effort to bring all these people together in conversation. The feedback from our discussions indicates that people enjoyed being included in this process and are encouraged to see OU making
an effort to involve Native people in the stewardship of their intellectual property and cultural heritage. The relationship between tribes and the state of Oklahoma has always been fraught, but particularly now with the renegotiation of the gaming compacts and the Supreme Court ruling in McGirt v. Oklahoma. We see it very much as part of our mission to do what we can to improve relations between tribes and our institution and create long-term reciprocal partnerships that are based on earned trust.

Internally, this project has been the impetus for a complete re-design of all of NAL’s digital infrastructure. We have been able to move from storing materials on individual hard drives to a large, centralized RAID system with LTO tape backups stored offsite. As discussed above, we are in the process of migrating to a new archive-side collections management system, and we are making preparations with respect to our documentation, permissions, and metadata for online dissemination of our holdings. We are also designing new workflows for file management, checksum processes, and for quality control on student contributions to the archive. Once the website is complete, we will add workflows for processing suggestions and contributions in collaboration with depositors and tribal partners, for sending our metadata to aggregators like the Online Language Archives Community (OLAC), and for ingesting new materials (progressive archiving).

An additional benefit of our new archive-side collections management system is that entire sections of the repository, including the infrastructure, can be cloned. We envision this being very helpful e.g. for tribal museums and libraries who want to start their own repositories but do not have the local infrastructure to support the cataloging, etc. that requires. Setting up a clone of our system would be a very simple way to jumpstart that kind of local initiative. We also anticipate that the new archive-side system will contribute to the practice of language documentation. While archiving language data is now accepted as a necessary step in the research process, it is incredibly time-consuming. The goal of every language archive should be to decrease the effort required for depositors to provide good information to the archive; we aim for our new system to do that better than any previously developed system.

We are proud to be starting a new initiative with input particularly from Native community partners that will shape the results and products of this project in a meaningful way. Our goal is to make a platform that serves all our audiences and feels intuitive and comfortable (rather than complicated and institutional), which we could not have done without having these conversations with our local partners and contributors. Many language archives (and most libraries, museums, and other repositories) use some sort of generalized CMS and may not have the freedom to use something more suited to their individual needs. Because of our institutional situation as a semi-autonomous and unique collection within the Sam Noble Museum, we are able to explore custom solutions that push the boundaries of digital humanities development and incorporate some new tools that can make our collections more accessible to communities of language learners/activists/teachers, in addition to scholars and academics. The development that results from this project (both for the website and the archive-side metadata management system) will be open source and freely accessible, and we hope that other collections will adopt this infrastructure themselves.

A critical outcome of this development is improved access to Native American language materials for those who can’t make a trip to Norman to visit the collection in person. This includes not only people from around the world, but also speakers who are represented in the collection but do not have the resources/ability to travel. Online access for the collection will remove these barriers to access, as well as remove some of the implied gate-keeping that comes with being part of a Western educational institution. We are hopeful that providing easy access to the collections
will generate more use of these materials, particularly in language classrooms and by individuals who may not have access to in-person language classes.

Next steps

We are committed to continuing our work to make NAL collection materials available online. The goals set for the planning grant have been met and we are ready to move into the next phase of the project. Thanks in part to this NEH Foundations grant, we have a newly re-engaged group of local Native and non-Native ally stakeholders who expect to see the goals and products laid out in our workshops come to fruition. To this end, we have applied for an NEH Implementation grant, with the goal to begin work creating the platform in summer 2022. If not funded, we will continue to seek funding elsewhere. These new developments are critical not only to maintaining the good relationships we have with our local community partners and depositors, but also to complying with best practices and staying current in our field.

In the Implementation phase, of the project, we will:
1. Build the proposed website, in collaboration with OU IT and a Native web designer;
2. Engage Mr. Hooshiar to continue development of the archive-side software;
3. Hire archival assistants to help us refine our metadata to allow all the types of searching/browsing identified in the workshops;
4. Do iterative revisions to both systems based on continued feedback from our advisory board and our community, professional, and academic partners;
5. Hold workshops to show members of our local communities how to use the new systems;
6. Present our work at international and regional conferences.

While we await the outcome of our pending Implementation grant, NAL staff, students, and volunteers will spend this year completing several critical activities necessary for the collections to go online:
1. We will finish migrating the remaining collections from our old FileMaker Pro database to our new archive-side collections management system.
2. We will continue to contact depositors who didn’t attend the workshops to verify access protocols for their collections.
3. We will continue to provide feedback to Mr. Hooshiar on the current functioning and other desired features of the archive-side web app. While he is primarily occupied with successfully defending his dissertation this year, he is still acting as our systems administrator and supporting his software for us.
4. We will continue compiling feedback, if any is submitted to us, on the wireframes for the planned website that we circulated to our stakeholders (Appendix B).

With the completion of the NAL website coupled with the archive-side web app, all of NAL’s unrestricted collection materials will be made publicly available for browsing and download, free of charge, on the proposed website. For the first time, materials will be readily available to Native community members, researchers, and the broader public to enrich our collective knowledge of the Indigenous languages of the Americas. The completion of the web interface will start a new chapter in the lifetime of our collection materials, one which we are committed to maintaining in perpetuity as technology changes. The digital tools we are developing will also be open source and available for download from GitHub by the conclusion of the implementation phase of the project. Importantly, the completion of this project will also strengthen our relationships with Native communities by eliminating unnecessary logistical
problems in providing access to their materials. We hope that both our products and our process can serve as a model for others interested in collaboratively developing institutional infrastructure, particularly as it relates to Native American intellectual property and cultural heritage.
Appendix A: List of Participants

NAL Staff

Raina Heaton (PI). Assistant Curator, Native American Languages Collection, Sam Noble Oklahoma Museum of Natural History; Assistant Professor, Native American Studies, University of Oklahoma.


William Madison. NAL Collections Manager, January 2021-Present.

Advisory Board

heather ahtone (Chickasaw, Choctaw). Senior Curator at the First Americans Museum in Oklahoma City.

Christine Armer (Cherokee). Cherokee language instructor in the Native American Studies department at OU and a native speaker of Cherokee. She is also a NAL depositor and executor of the Christine Armer Collection.

Brian Carpenter. Curator of Native American materials at the American Philosophical Society.

Amanda Cobb-Greetham (Chickasaw). Professor of Native American Studies, and the director of the Native Nations Center at OU. She is also a former curator for the Chickasaw Cultural Center, and the founder of the Institute of American Indian Research at the University of New Mexico.

Gary McAdams (Wichita). Director of the Wichita Language and Culture Program.

Amanda Minks. Associate Professor of Anthropology and Ethnomusicology in the Honors College at OU, involved in several digital humanities initiatives.

Taylor Moore (Pawnee). Director of the Jiwere language program and head of the Otoe-Missouria language department. He is also a Pawnee language instructor.

Quinton Roman Nose (Cheyenne). Executive Director of the Tribal Education Departments National Assembly (TEDNA). He is also on the advisory board for the Oklahoma Native American Youth Language Fair.

Alaina Tahlate (Caddo, Delaware, Kickapoo). NAL intern, volunteer, and depositor, intimately familiar with our deposit and curation systems. She is also the executor of her own NAL collection (the Tahlate collection), as well as her grandparents’ collection (the Phil and Vynola Newkumet Collection). She is also a Caddo language instructor.

Robin Williams (Wichita). Wichita Tribal History Center Director, Wichita Tribal Historic Preservation Officer, Wichita Language App Project Manager.
**IT Partners**

**Jeffrey Henderson** (Choctaw). Director of the Digital Innovations Group at the University of Oklahoma. His team includes 5-6 additional people, including developers, systems administrators, graphic designers, and a project manager.

**Kavon Hooshiar**. Software developer, linguist (Ph.D. expected Fall 2021, University of Hawai‘i at Mānoa). He is the developer for our current internal archive management system and is the systems administrator for NAL’s servers.

**Workshop Participants**

**Jonathan Amith**. Depositor, Sierra Puebla Nahuatl Collection, and Totonac of Northern Puebla and Veracruz Collection. Linguist, Gettysburg College.

**Patricia Anderson**. Senior Software Engineer, Slalom. Linguist for the Tunica Language Project.

**Christine Armer** (Cherokee). Depositor, Christine Armer Collection. Cherokee language instructor, University of Oklahoma.

**Daryl Baldwin** (Miami). Depositor, Myaamia Language Project Collection. Director of the Myaamia Center, Miami University.

**Everett Bandy** (Quapaw). Depositor, Brandon Everett Bandy Collection. Quapaw Nation Historic Preservation Program Director and Preservation Officer.

**Paul Barton** (Seneca). Director/THPO of the Culture Department for the Eastern Shawnee Tribe. Representative of the Morris Opler Collection and the Shawnee Language Collection.

**Anna Belew**. Outreach Coordinator for the Endangered Languages Project, and adjunct assistant professor at the University of Hawai‘i at Mānoa.

**Marcellino Berardo**. Depositor, Marcellino Berardo Collection. Associate Language Specialist, University of Kansas.

**Michael Berger**. Depositor, NICC Omaha Collection. Grant writer, Nebraska Indian Community College.

**Vann Bighorse** (Osage). Director of the Osage Nation Language Department. Representative of the Carolyn Quintero Collection.

**Mosiah Bluecloud** (Kickapoo, Shawnee). Linguistics Ph.D. student, University of Arizona.

**Kathryn Briner** (Comanche). Director of the Comanche Nation Language Department. Representative of the Geneva Navarro Collection.

Tara Carlisle. Digital Scholarship Specialist, University of Oklahoma Libraries.

Shobhana Chelliah. Director of the Computational Resource for South Asian Languages (CoRSAL), and Distinguished Research Professor at the University of North Texas.

Willem DeReuse. Depositor, Willem DeReuse Collection. Linguist, University of North Texas.

Joseph Erb (Cherokee). Depositor, Joseph Erb Collection and representative of the Durbin Feeling Collection. Artist and Assistant Professor, University of Missouri.


Melanie Frye (Mvskoke Creek). Depositor, Seminole Nation Language Collection. Creek language instructor, University of Oklahoma.

Davetta Geimausaddle (Kiowa). Depositor, Davetta Geimausaddle Collection. Academic Councilor, University of Oklahoma.

Binah Gordon. Depositor, NICC Omaha Collection. Language Curriculum Specialist, Nebraska Indian Community College.

Marcia Haag. Depositor, Marcia Haag Collection. Linguist, University of Oklahoma.

Laura Harjo (Mvskoke Creek). Associate Professor of Native American Studies, University of Oklahoma.

Dolores Harragarra (Kiowa). Depositor, Dolores Harragarra Collection.

Kenny Harragarra (Kiowa). Representative of the Dolores Harragarra Collection (and IT support for Dolores).

Jeffrey Henderson (Choctaw). Director of the Digital Innovations Group at the University of Oklahoma.

Joshua Hinson (Chickasaw). Depositor, Josh Hinson Collection. Director of the Chickasaw Nation Language Revitalization Program.

Kavon Hooshiar. NAL archival software developer, Ph.D. candidate at the University of Hawai‘i at Mānoa.


Mary Linn. Curator of Cultural and Linguistic Revitalization at the Smithsonian Center for Folklife and Cultural Heritage and the founding curator of NAL. Representative of the Josephine Wildcat Bigler Collection.
Jack Martin. Depositor, Jack Martin Collection, and representative of the Margaret McKane Mauldin Collection. Linguist, College of William and Mary.

Gary McAdams (Wichita). Representative of the Wichita Oral History Project Collection and the Wichita Language Project Collection. Director of the Wichita Language and Culture Program.

Amanda Minks. Associate Professor of Anthropology and Ethnomusicology in the Honors College at OU.

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Amanda Minks. Associate Professor of Anthropology and Ethnomusicology in the Honors College at OU.

Taylor Moore (Pawnee). Depositor, Jiwere-Nut’achi Language Program Collection. Director of the Jiwere language program and head of the Otoe-Missouria language department.


David Nagle. Depositor, David Nagle Collection. German instructor, Northeastern State University.

Zachary O’Hagan. Postdoctoral scholar in the Survey of California and Other Indian Languages, University of California Berkeley.


Warren Queton (Kiowa, Cherokee). Director of the Kiowa Higher Education Grant Program, representative of the Mi-Gah-Day Standing High Collection.

Jim Rementer (Delaware). Depositor, Jim Rementer Collection. Director of the Lenape Language Project.

John Roastingear (Cherokee). Depositor, John Roastingear Collection.

Anita Roastingear (Navajo). Associate Professor of English, Navajo Technical University, and representative of the John Roastingear Collection.

Quinton Roman Nose (Cheyenne). Executive Director of the Tribal Education Departments National Assembly (TEDNA), representative of the Joyce Twins Collection and the Levi Spotted Corn Collection.

Saul Schwartz. Depositor, Chiwere Language Project Collection, and representative of the Chiwere Language Collection. Linguist, University of Florida.

Susan Smythe-Kung. Manager of the Archive of the Indigenous Languages of Latin America (AILLA) at the University of Texas at Austin.

Alaina Tahlate (Caddo, Delaware, Kickapoo). Depositor, Tahlate collection, and representative of the Phil and Vynola Newkumet Collection. Caddo language instructor.
Robin Williams (Wichita). Wichita Tribal History Center Director.


Curtis Zuniga (Delaware). Delaware Tribe of Indians Cultural Resources Director.
Appendix B: Website Wireframes

The pages in these wireframes are as follows:

1. Homepage
2. Sample NAL collection information page
3. Advanced search (main keyword search is on the homepage)
4. Sample search results
5. Browse by language/family/subgroup
6. Browse by type of pedagogical resource
7. Browse by location (map)
8. Browse by contributor
9. Sample contributor info page
10. Sample text-based item page
11. Sample audio item page
12. Sample video item page
Welcome!
To search the archive, type a keyword (e.g., "Seminole" or "hymn") in the box to the left, or click "advanced search" for more options. You can also browse the collection by language, collection, people, resource type, or location (map).

Collections
The archive is home to materials donated by more than 130 people and entities. Click here to browse our collections.

Languages
The archive currently includes materials in and about over 1,300 languages. Click here to browse the materials in the collection by language, language family, or subgroup.

Become a Contributor
Have materials in Native languages? We are currently accepting donations of manuscripts, recordings, and other resources to the collections. Click here to find out how to deposit with us.

What's New
We recently added a collection of materials for learning Seminole, donated by Melanie Frye and the Seminole Nation Language department. The collection includes over 400 documents, worksheets, audio, video, and other curricular material in Seminole for students and teachers of kindergarten through sixth grade. Click here to explore the collection!

The Native American Languages collection is always adding new materials. Check back for more updates!

Partnerships
Come partner with us! The Native American Languages department is committed to the development of new modes of collaboration, engagement, and partnership for the care and stewardship of past and future heritage collections, and we are actively seeking collaborations with Native groups and institutions to co-curate new deposits, participate in grant-funded projects, and improve the information associated with the materials in the collection.

Click here to find out more about opportunities for collaboration.
About The Native American Languages Collection

Founded in 2002, the Native American Languages collection at the Sam Noble Museum provides invaluable resources to researchers, educators and students. The collection includes audio and video recordings, manuscripts, books, journals, ephemera and teaching curricula, including lesson plans, from more than 300 Native North American languages. This collection is intended to be a resource center where scholars and community members develop mutually beneficial relationships by preserving language resources, conducting research, providing services to Native American communities and educating the community about the importance of Native American languages and cultures.

For an overview of the collection, the activities of the department, and our facilities, check out this presentation.

Materials have been donated to the collection from a variety of individuals and groups, including tribal members and families, linguists and anthropologists, community language projects, teachers and students and other archives. Through outreach programs like the Breath of Life workshop and the annual Oklahoma Native American Youth Language Fair, the collection also fosters public education opportunities so that visitors can develop an awareness, appreciation and understanding of Native American languages.

The collection and activities sponsored by the department are aimed to preserve valuable linguistic resources, support language retention and revitalization, celebrate linguistic diversity and further the intellectual heritage of these languages. We abide by and endorse the Protocols for Native American Archival Materials which promote culturally responsive care in the preservation and use of American Indian archival materials held by non-tribal organizations.

Our Four Fundamental Goals

To build a collection concentrating on oral and written Native languages of Oklahoma. We are here to serve anyone interested in Native languages. We safely house original and copies of the native language recordings and manuscripts. We have the funding, staff and expertise to record, migrate, archive, conserve and make accessible the materials. None of the language materials housed in SNOMNH may be used for profit. We are a locally-based archive, so people who speak or are learning the languages represented in the museum can easily access the materials. With a Native Advisory Board, we try to develop policies and services that directly benefit the creators and inheritors of the Native languages of Oklahoma.

To carry out research, especially the documentation of indigenous languages that are facing the rapid loss of speakers, and formulate, implement and evaluate strategies for reversing the language shift. To help with this, we partner with the Department of Anthropology at OU in creating a new M.A. program in applied linguistics, specializing in documentation, maintenance, and revitalization of Native languages.

To provide services to Native communities and language programs. We offer services for dubbing and copying old recording. We also will travel to help communities document their elders or special events. In addition, we have a recording studio at the museum that may be used to document stories and songs or to make teaching materials for language classes. We help with issues of archiving and migrating materials and understanding language policies. We partner with tribes and communities for grant writing and execution. Finally, we are involved in training in linguistics and Native language teaching and acquisition for teachers of Native languages.

To educate the broader Oklahoma and world community on the history of Native languages and continued importance of language diversity in Oklahoma and the United States.

Please feel free to contact us at 405-325-7588 for general information and programming, 405-325-3332 for accessing the collections, or email us at language.sannoblemuseum@ou.edu.
Advanced Keyword Search

Use the "Search Archive" input box to do a keyword search. The fields below are used to narrow down your search. You can click the information "i" icon next to each heading to learn more about the search option(s).

**Keyword Search:**

*Search Archive*

**Filter by:**

**CONTENT TYPE:**
- [x] Text
- [ ] Images
- [ ] Audio
- [x] Videos
- [ ] Collections

**GENRE:**
- [x] Article
- [ ] Book
- [ ] Ceremony
- [ ] Ceremonial
- [ ] Chant

**TRIBE:**
*Begin Typing to Select*

**LANGUAGE:**
*Begin Typing to Select*

**DIALECT:**
*Begin Typing to Select*

**DATE RANGE:**
- Start Date: 
- End Date: 

**Location:**

**Region:**
*Select One*

**Country:**
*Select One*

**State:**
*Select One*

**County:**
*Select One*

**Township:**
*Select One*

**Contributor:**

**First Name**

**Last Name**

**TRIBAL AFFILIATION:**
*Begin Typing to Select*

**NATIVE LANGUAGE:**
*Begin Typing to Select*

**Search**

**Clear Search**
Search Results

Result(s): 25

Recording of Elder's Prayer by Hannah Corsello
This is a recording of the Elder's Prayer by Chickasaw speaker Hannah Corsello.
TYPE: AUDIO | LANGUAGE: CHICKASAW, ENGLISH | GENRE: PRAYER | ACCESS LEVEL: UNRESTRICTED

The big white dog and the sacred pole
This is a telling of "The Big White Dog and the Sacred Pole" typed in Chickasaw.
TYPE: MANUSCRIPT | LANGUAGE: CHICKASAW | GENRE: MYTH | ACCESS LEVEL: UNRESTRICTED

A Tie Snake – Chikashsha Sinti Takchi
This document includes the story of Chikashsha Sinti Takchi (A Tie Snake) typed in Chickasaw.
TYPE: MANUSCRIPT | LANGUAGE: CHICKASAW | GENRE: MYTH, PROVERB | ACCESS LEVEL: UNRESTRICTED

Shokhata
This is a single-page document containing a story outline typed in Chickasaw that lists Hannah Corsello as the speaker.
TYPE: MANUSCRIPT | LANGUAGE: CHICKASAW | GENRE: NARRATIVE, PROCEDURE | ACCESS LEVEL: UNRESTRICTED

The Possum – Shuka Chukhheheli
This is a story in Chickasaw titled "Shuka Chukhheheli," or "The Possum," Hannah Corsello is listed as the speaker.
TYPE: MANUSCRIPT | LANGUAGE: CHICKASAW | GENRE: MYTH, NARRATIVE | ACCESS LEVEL: UNRESTRICTED

Pages:  Previous  1  2  3  Next

Those who searched for Hannah Corsello also searched for Jerry Imotichey
Browse Languages

Use the input box to search or alternatively you can browse languages by name.

Browse by Name: 1

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | All

**Results:** 7  (Click column headings to sort.)

<table>
<thead>
<tr>
<th>Language Name</th>
<th>Family</th>
<th>Primary Subgroup</th>
<th>Secondary Subgroup</th>
<th>Alternate Name(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Omaha-Ponca</td>
<td>Siouan-Catawban</td>
<td>Siouan</td>
<td>Dhegha</td>
<td>Mehepi, Ppanka, Umerhan, Ponka</td>
</tr>
<tr>
<td>Oneida</td>
<td>Iroquoian</td>
<td>Northern</td>
<td>Mohawk-Oneida</td>
<td></td>
</tr>
<tr>
<td>Onondaga</td>
<td>Iroquoian</td>
<td>Northern</td>
<td>Onandaga</td>
<td></td>
</tr>
<tr>
<td>Ontong Java</td>
<td>Austro-Asiatic</td>
<td>Oceanic</td>
<td>Polynesian</td>
<td>Leuangia, Lord Howe, Luangia, Luania</td>
</tr>
<tr>
<td>Osage</td>
<td>Siouan-Catawban</td>
<td>Siouan</td>
<td>Dhegha</td>
<td>Wazhazhe</td>
</tr>
<tr>
<td>Otomi</td>
<td>Otomangan</td>
<td>Western</td>
<td>Otto-Pameen</td>
<td></td>
</tr>
<tr>
<td>Ottawa</td>
<td>Algic</td>
<td>Algonquian</td>
<td>Central</td>
<td>Odawa, Ojibwe, Ojibwe</td>
</tr>
</tbody>
</table>
Pedagogy Resources

For Teachers

WE RESPECT
OUR OPEN SPACES
CULTURAL CURRICULUM

For Learners

Beginning Cherokee
WHAT SCIENTIFIC
GWY JADL

For Families

BRINGING OUR LANGUAGES
HOME
LANGUAGE REVITALIZATION
FOR FAMILIES

For Language Policy Makers

Can Schools Save Indigenous Languages?
Policy and Practice on Four Continents
Edited by Nancy H. Hornberger
Map Search

Click on a pin to view search results for that specific location. You can also do a manual search using the dropdowns below.

* Note: Not every resource will show up in the location search as they do not all have location information associated with them.

Alternative Manual Search: 

REGION: Select One
COUNTRY: Select One
STATE: Select One
COUNTY: Select One
TOWNSHIP: Select One

Search
Find a Contributor

If you do not know a name you can leave it blank and use the "Tribal Affiliation" and/or "Native Language" input boxes to search. Alternatively you can browse collaborators by last name below.

<table>
<thead>
<tr>
<th>First Name</th>
<th>Last Name</th>
</tr>
</thead>
</table>

**TRIBAL AFFILIATION:** Begin Typing to Select

**NATIVE LANGUAGE:** Begin Typing to Select

---

**Browse by Last Name:**

A | B | C | D | E | F | G | H | I | J | K | L | M | N | O | P | Q | R | S | T | U | V | W | X | Y | Z | All

**Search Results:** 25 (Click column headings to sort.)

<table>
<thead>
<tr>
<th>NAME</th>
<th>TRIBAL AFFILIATION</th>
<th>NATIVE LANGUAGE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barbara Step</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
<tr>
<td>Benn Taylor</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
<tr>
<td>Robby Blossom</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
<tr>
<td>Christine Armer</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
<tr>
<td>Corena Roostingear</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
<tr>
<td>Corina Step</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
<tr>
<td>Fannie Mae Glass</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
<tr>
<td>Felix Bird</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
<tr>
<td>Florence McPherson</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
<tr>
<td>Garfield H. Long Sr.</td>
<td>Cherokee Nation</td>
<td>Cherokee</td>
</tr>
</tbody>
</table>

**Pages:** Previous | 1 | 2 | 3 | Next
Rance Weryackwe

Tribal Affiliation: Comanche Nation
Native/First Language: English
Other Languages:
Dialect(s):
Place of Origin:

About:
Rance Weryackwe is a tribal member of the Comanche Nation. Having started at Haskell Indian Nations University, Mr. Weryackwe received his bachelor's degree and master's degree in Native American Studies (NAS) at the University of Oklahoma and worked as a teaching assistant and an instructor for NAS's Introduction to Native American Studies. He is actively involved in ceremonial, social, cultural, and political matters that affect Comanche tribal members and tribal members from other communities throughout Oklahoma and Indian Country. His thesis research focused on recovering Indigenous aspects of OU through a place-based study, examining the Native history of the land as well the effects of race relations on Indians' higher educational experiences in this space. Since then, Mr. Weryackwe has worked both as an adjunct instructor for the University of Oklahoma English Department and as a Media Production Assistant for the soon-to-be-opened First Americans Museum in downtown Oklahoma City. Mr. Weryackwe also worked a featured background actor playing a Comanche on the AMC television series The

Contribution Results: 1

<table>
<thead>
<tr>
<th>ID</th>
<th>GENRE</th>
<th>TITLE</th>
<th>ROLE</th>
</tr>
</thead>
<tbody>
<tr>
<td>YLF-00155</td>
<td>Audio</td>
<td><a href="#">OU Language Fair Intertribal Hymn Singing 2019</a></td>
<td>Performer</td>
</tr>
</tbody>
</table>
Creek and English translations of a letter and envelope addressed to Mrs. Lue D. Harjoe, Sasakwa, Indian Territory, August 10th, 1906

Catalog Number: RSC-0002.001
Language(s): Creek, English
Type: Manuscript
Genre: Correspondence, Grammar
Contributor(s): Margaret McKane Mauldin, Translator, Transcriber
Access Level: Unrestricted

Description:
Translated in July 2008, Margaret McKane Mauldin provides the translation from Creek to English for this three-page correspondence letter. The letter is addressed to Mrs. Lue D. Harjoe located in Sasakwa, Indian Territory and dated August 10, 1906. In the translation, Mauldin notes that the topics discussed in the letter include allotment, the effects that followed, and the hardship the letter writer faced.

Additional Information:

Download(s)

Transcript_Translation Letter 2
Access Level: Unrestricted
Language(s): Creek, English
Contributor(s): Margaret McKane Mauldin, Translator, Transcriber
File Type: .pdf (document)
File Size: 5mb

Related Item(s)
Rose Chalepah Chaletsin: Kiowa Apache stories and songs

Catalog Number: JJ0-00007
Type: Audio
Language(s): Plains Apache, English
Genre: Narrative
Creation Date: 1961
Contributor(s): Rose Chalepah Chaletsin, Speaker
Julia Jorda, Recorder
Access Level: Unrestricted

Description:
This is a recording of an interview/conversation between Judy Jordan and Rose Chalepah. Rose tells a couple stories in English (including a Coyote story) and sings several songs. The songs she names include a Scalp Dance song, a Round Dance song, and the Old Man's song. She also explains the meaning of the words to one of the songs. There is an unnamed man asking Rose questions on the second recording as well.

Additional Information:
Availability status: Available
Accession date: 05/21/2009
Condition: Excellent
Collection name: JJ0 (Julia Jordan Collection)
Collector name: Julia Jordan
Collecting notes: The accessioned item is a reproduction of the original 1/4" audio reel-to-reel recording. The original recording is part of a lot accession that was originally collected by Julia Jordan sometime between 1961 and 2008, and loaned to NAL on January 23, 2008 for the purpose of digitization. This reproduction copy was deposited into the NAL collection on October 9, 2009. See incoming Lender Loan Number NAL.IN.2008.1.
Depositor name: Terri Jordan
Deposit date: 05/21/2009

Location:
Global region: North America
Country or territory: United States
State or province: Oklahoma
County or parish: Cleveland County
Municipality or township: Norman
Recording context: This is a personal interview/conversation involving two and sometimes three participants.
Public Event?: No
Original format medium: reel-to-reel, audio CD

Download(s)
Choctaw hymns, as sung by Rondell Kemp

Catalog Number: BNS-00005
Type: Audio/Video
Language(s): Choctaw, English
Genre: Song, Narrative
Creation Date: 04/04/2006
Contributor(s): Rondell Kemp, Performer, Speaker
Access Level: Unrestricted

Description:
This is video footage of Rondell Kemp singing Choctaw hymns on April 4th, 2006. Kemp sings the following Choctaw hymns: 1, 35 (twice), 46, 47, 49, 59, 112, 116, 138, Sweet By and By, and 17. Kemp also describes the meaning of his traditional Choctaw attire that he is wearing.

Additional Information:

Download(s)

1. Choctaw Hymns as sung by Rondell Kemp

Access Level: Unrestricted
Language(s): Choctaw, English
Contributor(s): Rondell Kemp, Performer, Speaker
File Type: .mov (video)
File Size: 524.27MB
Duration: 00:41:47

Contents:
Introduction and first hymn
Choctaw Hymn #9
Choctaw Hymn #17
Choctaw Hymn #35
Choctaw Hymn #46
Choctaw Hymn #47
Choctaw Hymn #49
Choctaw Hymn #59
Choctaw Hymn #112
Choctaw Hymn #116
Choctaw Hymn #138
Sweet By and By
Appendix C: Archive-side collection management system screenshots

The following screenshots include:

1. Homepage
2. Item database
3. Sample item page
4. People database
5. Sample person page
6. Language database
7. Metadata import function
Welcome to the Native American Languages Collection database.
Creation date: 1965-1967
Languages: Cherokee, English
Parent collection: Oklahoma Indian Nations Collection
Project: Cherokee Nation
Item number: NAL-00007
Catalog number: CARR-00007
Item access level: Open Access

Description and content: This notebook originally spiral-bound, features Sunday school records for the years 1966-67 from Bellflower Indian Baptist Church. The notebook contains handwritten entries documenting the church and its activities during that time. The notebook is part of the collection of the Oklahoma Indian Nations, specifically the Cherokee Nation.

Languages: The notebook contains entries in both English and Cherokee, reflecting the dual language use of the community. The entries are written in a hand-written format, providing a glimpse into the daily life and activities of the church.

 COPYRIGHTS-free use for research, educational and non-commercial purposes only. Other uses require permission from the copyright holder.
Import items via excel

Use this page to add items to the database via excel spreadsheet upload.

File should be a .xls(.xlsx) with one row of headers.
Download the template .xlsx file to see expected columns.
Download the date formatting .xlsx file for info on date formats supported during import.
Appendix D: Workshop Discussion Questions

Depositor/Public Workshop Discussion Questions:

1. Take a minute to review these other language archive websites:
   - The California Language Archive (https://cla.berkeley.edu/)
   - Alaska Native Language Archive (https://www.uaf.edu/anla/)
   - Computational Resource of South Asian Languages (https://corsal.unt.edu/)

   Were some easier/harder to use? Why?

   What aspects of the sites do you like? Don’t like?

2. How would you envision your community searching your materials? Browsing?

   What things have you searched/could envision yourself searching by/for? How specific might you get?

3. Would it be helpful to have pre-assembled lists of resources on a particular topic?
   If so, what topics?

   Some examples:
   - Materials by language or tribe
   - Language workbooks, teaching materials
   - Grammars and/or dictionaries
   - Songs/music
   - Materials by language family
   - Language planning and policy resources

4. Think about your community and the people you know. How able would people be to access the collection online?

   Is there a local place where we could place materials to improve access?

5. Is there anything else you can think of that you’d like to see developed?

   Any other questions about the project or the process?
IT/Archivist Workshop Discussion Questions:

1. In your experience, what has worked well and less well about your digital platforms/development?

   If you like, you can reference the following:
   • Depositing systems
   • Workflow
   • Managing user contributions
   • Permissions
   • Tech support
   • Features people don’t use
   • Features you wish you had
   • Maintaining/managing long-term partnerships
   • Going beyond preservation and access

2. Please share your thoughts on best practices, and how our field is progressing increasingly towards online access. Do we need any additional protocols?

   It may be helpful to respond with respect to the following:
   • The back and forth between providing access and protecting IP in increasingly global digital ecosystems
   • Integration (or not) with different kinds of user generated / interactive content
   • Creating integrated tools for language documentation/preservation/revitalization

3. Let’s talk about long-term sustainability. We are thinking about potential issues related to some of the following:
   • External vetting requires always having contact with those individuals/entities
   • Resource allocation to activities beyond direct preservation/access
   • Technical support resources

4. Do you have any thoughts for us on potential pitfalls of website development?

   Any thoughts on our future directions as presented?

5. Do you have any other advice you’d like to share with us as we go forward?
Appendix E: Survey and Poll responses, summarized

1. Are you excited about the prospect of being able to access the language materials in NAL online? What do you see as the benefit to your community?
   - Useful to tribal members who have computer access, particularly those who don’t live near tribal resources or have access to native speakers; there’s a lot of online interest in Native languages for many spiritual, political and personal reasons and forms of healing.
   - Useful to students doing research or looking for resources.
   - For the academic community, being able to access NAL collections online will be a huge help, both for research and community engagement. NAL has multiple, very significant collections, so being able to access them all in one place and search across them will be a huge help in terms of finding relevant data to assist with developing pedagogical materials and research articles.
   - Useful to curriculum developers and teachers of Native languages.
   - There will be more opportunity to consult with language professionals who run the collections.
   - People often feel more comfortable exploring an online resource than coming to visit an unfamiliar institution in person.
   - This will increase the discoverability of these resources, particularly tribes trying to figure out what’s out there belonging to their community.
   - This can also be a way for the community members to see what the NAL can do for their community when it comes to recording and preservation.
   - Having easier access to the language might also help to promote people in wanting to learn it.
   - Continued development will yield other opportunities not yet explored here.
   - Online presence will help people know the collection exists.
   - People will be comfortable knowing these materials are in a safe place.

2. What apprehensions do you have (if any)?
   - 12 No apprehensions
   - Apprehension about materials important to tribes being made public online, that people could potentially exploit these resources, or commercialize them, despite the access protocols and usage agreements.
   - Cultural appropriation, both by non-Natives and those claiming federal recognition based on stolen Indigenous IP
   - To be done well, the museum should work closely with tribal organizations
   - Non-tribal members worry about running the risk of making some things public that shouldn’t be, even with the best of intentions
   - Fear that the effort will fall short in ease of use or accessibility.
   - That this type of project requires long-term commitment from many entities in both time and energy that doesn’t always materialize.
   - That some materials are from second language speakers and contain errors, but that people accessing the resources may take them as correct.

3. When using a language archive, describe how you typically search for materials. What kinds of things are you usually looking for, and how specific do you get with the search criteria?
   - Several people only search by language name.
- Search for ‘texts’
- Search by people’s names or family names
- Search for related languages
- Search by dialect or band/clan
- Search by location/map
- Filter by gender, or other speaker characteristics
- Filter by date range
- Get notified, or have a dedicated place to look for, new materials when they become available
- Something like Amazon’s “people who searched for X also searched for Y” function to facilitate discovery

4. Take a look at the following list of features. Please mark ALL those you’d like to see developed for NAL (this would be in addition to a general keyword search and a language name search, and features addressed elsewhere on this questionnaire).

5. Would you like to see pages for people represented in the collection, with a short bio, picture, and list of items they are affiliated with?

6. Would you like to see pages with pre-assembled sets of resources (so far a page with resources grouped by language, a page with all the grammars and dictionaries, and a
7. What do you think about allowing visitors to the site to comment on materials in the collection?

- While this sounds good in theory, it has to be controlled/vetted/moderated.
- Moderation systems are hard to keep up. Depends on the volume and types of comments. If you have limited resources it can get out of hand.
- Maintaining external moderation would require long-term sustained commitment from communities.
- You have to be really careful, historically generates a lot of spam.
- Comments for the purpose of meeting user’s needs would be useful (like what they might want to know about materials), but if it’s open to any comments it could be problematic.
- A well-placed "Ask the curator" function could accomplish a lot of the benefit of this.
- Instead you could periodically have sessions for commenting that are temporary and moderated.
- Maybe if the collection had another interface like a social media account it could be better to have that there.
- What would value-added examples of commenting even look like?
- This might be a nice feature but should have a low priority vs. search and general usability of site.
- Possibly have just a twitter feed on the general site instead of a comment box for each item.

8. Check out the following websites for other language archives:

- The California Language Archive (https://cla.berkeley.edu/)
- Alaska Native Language Archive (https://www.uaf.edu/anla/)
- Computational Resource of South Asian Languages (https://corsal.unt.edu/)

Is there anything that you’ve particularly liked about the websites for other language archives? Disliked?

- It is important that the site be visually appealing. Most language archive sites are sterile and generic.
- Open-ended search boxes are great if you know what you are looking for, but not helpful if you don’t. Add information about the various ways to search next to the search box. Perhaps give suggestions of examples of what to search for.
- Many people liked an obvious, simple search box on the home page.
- The keyword search needs to be supplemented by a detailed/advanced search.
- NAL was also easy to deposit with in the past.
- The Smithsonian is also easy to access.
- Several people liked the CLA’s map search.
- People like to browse, and don’t like to answer a lot of questions to see what is there. Having a video to watch about how to navigate (CORSAL) was helpful.
- More Native designs, possibly also writing on the homepage. In general seeing less English.

8. In addition to small, easily-downloadable files, would you be interested in having very large, archival-quality files directly available for download? (The other option is that large, high-quality files could be requested and sent separately).

9. Would you like to see NAL put TK labels (https://localcontexts.org/tk-labels/) on some or all of the collections?

If you are a depositor, would you be interested in collaborating with us to add TK labels to the materials in your collection?

11. As mentioned in the background document, we are developing a way for knowledgeable users to submit metadata to items in the collection. That information will need to be vetted before it goes into the official record. The question is, would you be interested in approving/rejecting any suggested additions/changes to the information for your collection that come from users of the website?

If you answered NO, who do you think should vet those?

- Tribal entity
- NAL staff
- Someone I appoint
- Someone from the tribe
- Other

12. In addition to allowing users to add catalog information about each item, would you be interested in seeing us develop a place where people can add general comments/discussion?
If so, how do you think that should look?

13. Thinking about your community, could they benefit from having a local copy of NAL resources? Where do you think we could potentially put a computer with collection materials?
   - We are very spread out [so there isn’t a central location]. Putting it online is the best we can do.
   - We already have our own portal/archive for the resources in question.
   - We have a community library where people who don’t have personal computers can access the internet, so they could just access it from there.
   - I know we have a library down here. It would be on us to make sure the community knows how to browse NAL
   - By and large our language learners are tech savvy so they don't need any special provision, the website is sufficient.
   - We are building a community repository, so we could use your archive-side infrastructure potentially.
   - Our local servers aren’t particularly secure, so better to use yours.

14. What topics/features discussed during the workshop are the most important to you/do you think will be most useful?
   - 6 people said that the ease of browsing and/or downloading the materials is most important; many users will not be tech savvy or familiar with archives.
   - Less focus on preservation and access and more focus on discovery and delivery.
   - Learned about some technical aspects of language and archiving, like unique codes of resources, databases.
   - We are imagining a site that is more vibrant, that is focused on reaching out to learners of the languages.
   - NAL could become the go-to place to see what other communities with similar or related languages are doing and get inspired.
   - Access control and defining user permissions is very important, and discussing it with people so that they understand.
   - Adding more information about what is in each file would be helpful to the user.
   - Advanced search features/search tools for collections.
   - Benefit to participants and NAL in bringing together a group of like-minded people from different tribes and backgrounds.
   - Enjoyed learning about what the Sam Noble can do and the direction it wants to go, and that this involves depositors and tribes in the planning and discussions.
   - I’m glad depositors have input.
- This is a good way to create a relationship with Indigenous peoples, and to let people know what services NAL provides. This is a start to get away from the notion that museums are a gatekeeper to Indigenous culture and knowledge.
- A place for depositors to arrange and tag their items is important.
- Complete and updated metadata tags is a current priority.
- Maintaining the integrity of the collection as the underlying technology changes every 5 years or so.
- Comparing different archives was helpful.

15. Is there anything you can think of that you would like to see developed that’s not on this list or mentioned earlier in this questionnaire?
- 16 No’s.
- Development of policies e.g. related to health where a sick or ill person may listen to the sacred songs for healing needs.
- Consider facilitating some of these projects in other ways. For example, time-aligned texts could be submitted in collaboration with a publication series, possibly through the museum or the Native Nations Center. The text series could also address other relevant topics of interest to tribes, e.g. why Oklahoma languages are so important, updates on particular revitalization efforts, challenges that need to be overcome & some solutions, reports on what communities have already done and where they want to go, issues in educational linguistics, language rights, survey design, inter alia.
- It would be great if the NAL collections continue to go in a more dynamic and interactive direction. Ideally, the collections should play a role in the language revitalization efforts of every community that is interested in working with the NAL collections at OU. It’s up to the NAL collections to articulate ways it can partner with communities beyond archiving.
- Consider how NAL development might support born-digital materials created in the context of a tribe specific revitalization efforts or archival needs.
- NAL collections can continue to provide workshops and engage in outreach efforts to address issues in documentation, description, and pedagogy, sharing not only collections materials but also linguistic/language knowledge relevant to language policy and pedagogy.
- Consider doing an electronic and a print guide to NAL holdings and services.
- Tribes should look at doing partnership agreements with NAL so that they can clearly articulate proprietary/copyright concerns but also leave an opening for future development and use as a public site for our materials.
- Consider doing a call for movies and videos; several tribes are doing dubbing in Native languages.
- In future workshops it would be interesting to have some participants who have developed working online dictionaries or language lessons take part to discuss how they prepared the material they put online.

16. Any other comments or things you’d like us to know?
- 17 thankful, grateful for doing this work and including us, and are excited for the next steps.
- Look into ElasticSearch as a search database.
- Create mechanisms to generate forms/lists online of material that meets a given criteria. A simple [ ] next to an item might be used to export the content to an XML document and convert to PDF.
- Facilitate line-by-line playback of selected material.
- Work with an ASR specialist for multilingual phone recognition.
- Create workshops that assist with tribal policies on digital resources.
- This project is going in the right direction by including tribes and listening to their suggestions.
- The workshops brought up some interesting issues around sharing, where some tribes do not want the language displayed outside tribal contexts, as well as comments on problems with the way social media is being used by some tribal members, pitting some families against others within the tribe.
Appendix F: Circulated Feature Summary

Features established pre-workshop:

- User accounts (though we want this to be easy to set up; they are there for accountability, not to deter access)
- A way for knowledgeable people to contribute metadata to existing items
- An online deposit system (not just one-time interaction where they can change/update themselves)
- A way to give whole chunks of the database to tribes who want it
- Item previews/in-browser viewing
- Keeping/rewriting the current NAL ‘About’ pages with depositing instructions, info on recording services, access levels, etc.; add a page about grants and partnerships
- Links to other language resources (Glottolog, Endangered Languages Project, Indigenous Language Institute, etc.)

Preferences from in-workshop questions:

On searching:
- Clean, straightforward keyword search on the home page, with an obvious link to more advanced search options
  - NAL will contact tribes to make sure all known names are searchable
  - Give some text beneath the box with searching info/suggestions
- YES to info pages for individuals/speakers with links to their contributions
- For more detailed searching, ability to filter/search by:
  - Language
  - Tribe
  - Genre
  - File type
  - Location
  - Collection
  - Dialect
  - Dates
  - Contributor info (e.g., gender)
- For browsing, have separate pages for:
  - A map search
  - Collections (finding aids)
  - Languages organized by family/subgroup
  - Pedagogy (with sections for teachers, for students, for home, for program administrators)
  - Texts (by type: traditional stories, interviews, literature, etc.)
  - Music (by type/genre)
  - Contributors (alphabetical)
  - Movies (a lot of these are under copyright; we’ll see if we have enough at Level 1 to merit a page)
- Auto-generated list of suggested items/other searches based on your search (“Other people who searched for/looked at X also searched for/looked at Y”)
On commenting:
- Yes someone needs to vet the suggestions that come in pertaining to individual items
  - 19 depositors agreed to vet incoming suggestions that pertain to their collections
  - 10 depositors wanted to work out something else (either another individual, NAL staff or a tribal group/representative should vet these)
    * The actual mechanism for this will have to be established for each collection individually as comments come in and we have a better idea of what we get
    * People contributing in this way will have their information attributed to them in the metadata
    * Anyone contributing more than metadata will be asked to create their own deposit
- On the ability to freely comment on an item: 14 yes, 10 no. Since most people (including some yes’s) expressed misgivings about having this function if the comments can’t be vetted (at present NAL does not have the resources to this), it seems best not to develop this function at this time.

On future development projects:
- YES we will develop a place to put Traditional Knowledge Labels
  - 19 depositors expressed interest in participating in a future grant to label their materials in this way
- YES to making transcript/translation viewers and pedagogical tools
  * we don’t know what this will look like yet, but we encourage language departments to think about ways that they use/could use texts (written or recordings) in their classrooms, and how NAL could facilitate that

Miscellaneous:
- YES to providing access via the website to both the smaller, easily downloadable version and the larger archival quality version of a file
- On putting copies of NAL materials locally, no strong ‘yes’ from anyone (yet). It sounds like either there isn’t really a good central space because everyone’s so spread out or if NAL can provide good access via the website most people have internet of some kind.
  * NAL will follow up with tribes individually about this if they didn’t have a representative at the workshops.

Other suggestions to implement now:
- The interface should feel welcoming rather than institutional and sterile (we will be commissioning local Native artists to help with this)
- Have a way to bulk download all collection metadata and metadata from any search
- Separate the item metadata in two sections: ‘key’ metadata and then an option to expand the full record
- Make a ‘new additions’ section/showcase
- Add an “ask the curator” box/link
- Change out ‘collaborator’ label for more neutral ‘contributor’ (or other term – taking suggestions!)
**Other suggestions that will have to wait for future grants/projects:**

- Send out a call for transcribed and translated texts when we get online transcript things going (like the Pomo example) where we solicit stories in a certain format to make putting them online easier
- Work with computational specialists to make the audio more useful/accessible, and also make *the texts themselves* searchable via the search function, not just the metadata
- Hold another Breath of Life (we definitely hope to do this once the new system is up!)
- Start a publication series designed to help community language activists articulate their work to Tribal governments, grant funding agencies, school boards, state government officials, etc. (the OU Native Nations Center may be starting something like this!)
- The collections should play a role in the language revitalization efforts of every community that is interested in working with the NAL collections at OU. (Yes! We think about this a lot. Once the materials are more accessible I think we will discover many more opportunities for collaboration)
- Create workshops that assist with tribal policies on digital resources