

# From Community to Archive and Back: Language Archives and Digital Return

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## Abstract

Over the past three decades the field of linguistics has refocused attention on endangered languages, and enormous strides have been made to document these languages and develop archive infrastructure for language data. Although the potential for language archives to support language renewal efforts has often been tacitly assumed, much greater attention has been given to the preservation of data than to access and utilization. Documentation activities are imagined as a race against time to get language data into a lasting form before the last speakers pass away. Here I describe three examples of efforts which are working to engage with language communities and increase the accessibility and usability of language resources. Though not necessarily representative, these efforts suggest ways in which linguists, archivists, and communities can collaborate to support digital return.

## A Language Archive Encounter

Let me begin with a story. A story about my first real encounter with digital language archives. About the first time I realized the enormous potential for archives to impact language revitalization. It was the autumn of 2002—almost exactly 15 years ago—and I was visiting the Alaska Native Heritage Center, an educational and cultural center based in Anchorage, Alaska. Digital language archiving was a relatively new concept. The Open Language Archives Community (OLAC) had been founded one year earlier, with the goal of developing best practices for digital archiving of language resources (Bird & Simons, 2003). A large US National Science Foundation project known as E-MELD (Electronic Metastructure for Endangered Languages Data) had just been launched, with the goal of developing infrastructure for sharing digital language data between archives (Aristar-Dry, 2002). This was a time of digital upheaval. A time of great change not only in the field of linguistics but also more broadly. It wasn’t just digital archiving that was new; digital *anything* was still relatively new.

I walked out the Heritage Center with the director, Jon Ross, who offered me a ride back to town. As the engine turned over I heard Native language come to life through the audio system. A man speaking Dena’ina. Not just any man, but the unmistakable voice of Shem Pete, a renowned orator from the Susitna region of Alaska. He was telling a story which I would later come to know quite well; a story foretelling changes that were coming to the land. But at that moment I was less concerned with the content of the story than with the fact that I was sitting in a truck listening to an archival recording of a Dena’ina elder who had passed away in 1989.

“Where did you get that? How are you listening to it?” Jon replied that the recording had come from the university in Fairbanks. The same university where I

had been working for almost three years. Gesturing toward a small white object wedged into the seat between us, Jon told me that he had digitized the recording and put it on his iPod. I had seen pictures of the iPod, but this was my first encounter in person. Like digital language archives, iPods were still new, having first appeared less than a year earlier. I thought of the iPod as a digital music player. But Jon saw something different. Jon saw a portable digital language archive. Jon re-imagined and re-purposed the iPod as a tool for language revitalization.

Jon was a young Dena’ina man. Like many of his generation he had grown up largely speaking English, and as an adult he was eager to reclaim his Indigenous language. Shem Pete was not giving a language lesson; he was telling a story. But listening to Shem Pete and other Dena’ina speakers gave Jon exposure the language, with all of its nuances and dynamics. And perhaps equally as important, listening to these archival recordings provided a connection to Dena’ina culture. Here in Jon’s truck, in Alaska’s largest city—a city which had succeeded in almost entirely removing traces of Indigenous culture—the voices of Dena’ina Elders were alive.

For me this was one of those clichéd “light bulb” moments. Suddenly I realized the power of digital archives. Suddenly I realized that *access* was more than just a theoretical concept. I don’t remember how long that ride in Jon’s truck lasted, or even where we ended up. But by the time I got back to Fairbanks the seeds of a new project had been sown. The Dena’ina Archiving, Training, and Access (DATA) Project was created as a way to pull together all existing Dena’ina language archival resources and make them accessible via a web-based interface (Holton, Berez, & Williams, 2007). Thanks to Jon’s ingenuity and perseverance, he was able to listen to a 30-year old recording on a digital music player. We wanted to tear down the

barriers and make these recordings readily available to everyone.

Two years later I was back at the Heritage Center, at a gathering of Dena'ina people discussing access rights for the emerging Dena'ina Qenaga digital archive. Andrew Balluta, an elder from Nondalton, spoke up:

“You know, all these recordings … if we don’t get it out and learn about it, where are we going to learn from? These are old recordings. We want to get it out and teach our younger children what the elder people are talking about. I think that’s a very good idea for getting it free so we can listen to them.”

In most cases language recordings are deliberate acts. Speakers don’t expect their recordings to end up forgotten in a dusty room in a university. Their purpose is more deliberate. They make recordings in hopes that their words, their language will carry on. They make recordings in the hope that young people will “be aware of the old people and retain their language work” (Kari & Boraas, 1991, p. 7). They make recordings in the hope that one day a young Dena'ina man will take a new technology and use it to bring Shem Pete's voice alive in his truck.

## Digital language archiving

Full disclosure: I am not a trained archivist. Like many linguists struggling with the analog-to-digital transition at the turn of the 21st century, I stumbled into archiving almost reluctantly, becoming what Christen (2011) has dubbed an “accidental archivist.” At the time of my encounter with Shem Pete on the iPod I had already spent three years grappling with legacy archival materials at the Alaska Native Language Archive (ANLA) in Fairbanks, Alaska. The Archive held some 5000 recordings of Alaska Native languages, mostly on cassette and open reel tape. No catalogue or metadata existed for these recordings. Indeed, many were cryptically labelled with titles such as “Tape 2 of 8.” No indication was given as to whether a transcript of the recording existed. There were no connections between the recordings and the somewhat better organized manuscript collection.

And yet, the value of these recordings was immediately clear. Among the labelled recordings could be found names including Shem Pete, Jimmie Killigvuk, Annie Nelson, and other famous Alaska Native speakers. Names of people who had long since passed away. Speakers of languages and dialects nearly forgotten.

The obvious solution was digitization. The same solution that Jon Ross had discovered in order to get Shem Pete on his iPod. The same solution that linguists were beginning to use in their documentation work making new born-digital recordings. Yet the traditional archiving world remained decidedly

analogue, lacking technical standards best practices for handling digital objects. So linguists forged ahead on their own, developing their own digital best practices (Wasson, Holton, & Roth, 2016a, p. 646). The fields of linguistics and archiving appeared to diverge, as linguists established their own take on archiving, dubbed *digital language archiving*.

This disciplinary divergence led to many missed opportunities. Facing increasing language endangerment, cyclical technological obsolescence, and lack of established standards, the new field of digital language archiving naturally prioritized preservation over access. Some see this focus on preservation in a more nefarious light. The documentary linguistics paradigm relies crucially on the re-use of archival linguistic data by other linguists (Himmelmann, 1998, p. 163), a paradigm which Nathan describes as a “one-way channel between documenters (providers) and linguistics (users)” (2014, p. 189). Henke & Berez-Kroeker see this as the “model for archiving from the beginning of modern linguistic work” (2016, p. 412). Whether intentional or not, the field of digital language archiving has focused rather less on access than has the wider field of archiving.

When linguists started to think about digital archiving they ignored archivists because archivists weren’t yet thinking digitally. But archivists were definitely thinking about access, and linguistics could have gained some insight into the access issue had they listened more to archivists. A textbook on archiving published around the time that linguists were first struggling with the concept of digital archives describes the archival mission as a cyclical one, “a continuous process of identification, preservation, and access, in which no one part of the mission is more important than the other two” (Hunter, 2003, p. 6).

It is notable that outside the field of language archiving, archivists not only view access as a critical part of their mission, they also see the archiving process as cyclical, involving continual reassessment. This means reaching out to user communities and also reappraising collections based on user feedback. Participatory archive frameworks have emerged as a way to better engage with user communities, acknowledging that “usability does not denote use alone, but also denotes a deeper level of involvement in the sense of actual participation in the archive and in the archival process” (Huvila, 2008, p. 25). Access is not just about accessibility; access is about control. Access is about “decolonizing language” to support new research paradigms (Leonard, 2017). Access is about communities in control of their cultural and linguistic heritage.

After years of parallel evolution the access trajectory of digital language archiving is beginning to converge with that of archiving more broadly. As a result new

models of access are emerging which allow greater user engagement in the archiving process.

## New Models of Access

The new models of language archiving place a greater emphasis on usability of resources rather than merely focusing on preservation of language resources. In particular, these models recognize that making resources usable (and useful) requires giving user communities an active role in the archiving process—not simply as consumers of information but as curators of archive content. Huvila (2008, p. 25) calls this collaborative approach “radical user orientation,” involving a “deeper level of involvement in the sense of actual participation in the archive and in the archival process.”

In the remainder of this section I discuss three projects which exemplify this new approach to access. Each of the three projects is very different in scope and goals, but each addresses the fundamental issue of making endangered language resource more accessible to user communities.

## Breath of Life

Most of the materials held by language archives were created *by* and *for* linguists. Just as a physicist might describe the results of her research using the technical language of quantum mechanics, most linguistic research is steeped in the technical language of linguistics, making use of technical symbols (so-called phonetic alphabets) to represent sounds and specialized terminology to describe grammatical functions. Moreover, many of these materials were collected in earlier historical periods where different research practices and conventions applied. For the uninitiated user, providing access to such materials means more than simply (physical or digital) access to the resources themselves. Without a key to interpret them, the resources themselves are relatively useless. In the words of Gwich'in language activist Ed Alexander, “you need a key to be able to understand what you’re looking at. Not only is it in another language but there’s another language of linguistics on top of it” (quoted in Wasson, Holton, & Roth, 2016b, p. 661).

The *Breath of Life/Silent No More California Language Revitalization Workshop* was created in order to provide these tools and thus provide greater access to linguistic documentation, especially that archived at the University of California Berkeley. Breath of Life is not an archive, but it fulfils one of the fundamental characteristics of participatory archiving outlined by Huvila (2008), namely the contextualization of the archival process.

The first Breath of Life workshop was held in 1996 and focused on connecting California Native people whose languages had no remaining fluent speakers with archival materials which could support efforts to

reawaken those languages (Gehr, 2013, p. 42). Prior to European colonization some 80 or more distinct languages were spoken in California; today fewer than half of these are still spoken. Beginning in the 20th century efforts to document California languages were undertaken by faculty and students at Berkeley, and these records formed the basis for what would become the archives of the Survey of California of Indian Languages (now the California Language Archive). For many California languages, now sleeping, these archival records provide a critical link for Native California people striving to reawaken their heritage languages.

The Breath of Life workshop takes a collaborative approach, pairing community-based researchers with linguistic partners in teams who then work together to develop goals for language projects, seek relevant archival resources, and then interpret those resources to create new language materials (Hinton, 2001). For more details on how the Breath of Life workshops are structured see Gehr (2013), Fitzgerald & Linn (2013), and Leonard (2017).

The California Breath of Life workshop has been held biannually since 1996, and the model has since been replicated in several locations, including the Sam Noble Oklahoma Museum of Natural History (Fitzgerald & Linn, 2013) the National Anthropological Archives (Leonard, 2017). A notable aspect of the expansion of Breath of Life over the past two decades is the move to include not only sleeping languages but also critically endangered languages with living fluent speakers. For these languages archival resources are not the sole source for language information, since the remaining speakers can still serve as primary sources. However, archival resources can greatly augment the language revival process. Speakers can participate in the workshop alongside community researchers, gaining the skills to make use of archival resources and at the same time using their own language knowledge to help interpret those resources.

While the Breath of Life model emerged out of the need to access large archives housed at academic institutions, the model applies equally well to community-based archives. In 2013 the Ahtna Heritage Foundation hosted the Ahtna Breath of Life Language Restoration Workshop at the C'ek'aedi Hwnax Ahtna Language Archive in Copper Center, Alaska. Although C'ek'aedi Hwnax is controlled and administered by the Ahtna community, much of its contents consists of linguist and anthropological research which remains impenetrable to community members (Berez, Finnesand, & Linnell, 2012). In this case ownership of materials does not equate to access, since community members were largely unable to make use of the materials housed in their own archive.

The Ahtna Breath of Life workshop brought together community researchers, linguistic partners, and several Elder Native speakers for a week-long workshop focused on using linguistic reference materials. In addition to including Native speakers, the 2013 Ahtna Breath of Life workshop differed from the original Breath of Life model in one additional respect. Though participants made use of archival materials, much of the workshop was devoted to the use of published reference materials, including a dictionary and grammar. Like most technical dictionaries of Dene languages, the Ahtna dictionary (Kari, 1990) can be extremely difficult to access, even for expert linguists (cf. Sikorski, 2002). Entries are organized by abstract stem, so looking up a word requires the user to first identify the underlying abstract stem that occurs at the end of the word. Thus, the Ahtna word *nankngal'iil*, meaning literally 'I'll see you again' and commonly used as a word of parting, is found under the stem *O-n-l-'aen*, which itself is found under the abstract root *'ean*<sup>1</sup>. Users must first recognize that the root is based on *'il* (including the apostrophe as the initial character) and then that *'il* is actually a variant of *'aen*. Finally, users must distinguish between several different *'aen*, recognizing that the relevant entry is the one distinguished by the superscript number one.

Although the Ahtna Breath of Life workshop included discussion of various linguistic topics, its purpose was not to teach linguistics. Rather, the purpose was to provide participants with the tools necessary to access reference and archival materials.

The Ahtna dictionary "contains a great deal of what you need to start studying the language. However, it is not organized like a textbook, because it isn't one" (Tuttle, 2008, p. ix). Bridging the gap from reference and archival materials to pedagogical materials requires .

Learning how to use the dictionary is key to make use of published reference materials. And since most of the linguistic archival materials for Ahtna are written in the same technical style, learning how to use the dictionary provides an entry into an entire world of archival materials.

The shift away from the original focus on sleeping languages is evidence that the real power of the Breath of Life model is the ability to connect language communities to archives. In this sense Breath of Life represents a new model of archive access, a model which recognizes that access means more than simply holding a document or downloading a sound file. True access requires providing the tools necessary to interpret and make use of archival resources, providing the key to unlock the archival door. The Breath of Life model facilitates a participatory approach in which community users are not mere consumers but true participants in the archive process.

## Endangered Languages Project

The Endangered Languages Project (ELP) is a collaborative effort to provide digital infrastructure for sharing information about endangered languages. Developed through a partnership between First Peoples' Cultural Council, the University of Hawai'i at Mānoa, the LinguistLIST, and Google.org and launched in 2012, ELP leverages web technologies to allow users to share, create, and interact with language documentation. The project is overseen by an international Governance Council.<sup>1</sup> As of October 2017 ELP users could access information about 3408 distinct language varieties at the [endangeredlanguages.com](http://www.endangeredlanguages.com) site, representing approximately half of the world's languages.

The core of the site is the Catalogue of Endangered Languages (ELCat). The Catalogue provides information about language status and vitality, including numbers of speakers and rates intergenerational transmission, sourced from published reports and expert consultants. Although some have argued that the emphasis on speaker numbers and statistics has contributed to the commodification of endangered languages (cf. Dobrin, Austin, & Nathan, 2007), ELCat serves an important role in broadening awareness of the plight of those languages, as well as a practical role in identifying trends in language vitality (Campbell & Belew, to appear). Users may interact with ELCat to a limited degree by submitting corrections and updates as well as suggest the addition of new languages. However, ELCat content is mediated by a team of regional experts known as the ELCat Advisory Board.

The most innovative aspect of the ELP site is the ability for users to upload and curate content relevant to each of the 3408 languages currently catalogued on the site. Users add content by logging in with a Google account and providing links to resources housed in their GoogleDocs, YouTube, and other cloud-based file storage accounts. Since ELP does not actually store content, it is not a digital archive. Instead, ELP serves as a web portal which provides links into content stored remotely. Uniquely, ELP can be considered a *collaborative* web portal, through which users co-construct content. Users can also interact with content added by other users, by providing comments, ratings, or even flagging inappropriate materials. Working together in this way, a distributed grass-roots community of ELP users can create a web portal for an endangered language.

As of October 2017, 6659 resources had been contributed to the site, representing 921 languages, or just under one third of the total number of languages represented on the site. The median number of

<sup>1</sup>Current members of the ELCat Governance Council are listed at <http://www.endangeredlanguages.com/about/>

resources per language is 3 (not including those languages with no resources attached), which though not particularly large by absolute standards, represents a significant contribution to knowledge given that all of the resources have been contributed by volunteers. Moreover, ELP itself is still relatively new; if users do find the resources to be useful then it is likely that this number will increase over time (Heaton & Simpson, to appear).

ELP users can assign contributed resources to eight (possibly overlapping) categories: “language research and linguistics,” (2760 resources at time of writing), “language revitalization” (530 resources), “language materials” (3249 resources), “language education” (642 resources), “language advocacy and awareness” (698 resources), “language, culture and art” (2528 resources), “language and technology” (1269 resources), and “media” (2505 resources). Much of the content is created by users specifically for ELP. Examples include a series of word-of-the-day videos for the Navajo language.<sup>2</sup> These were created, edited, and produced in order to be linked to the ELP site. Other content has been repurposed for inclusion in the ELP site. An example is video on the language of weaving in the Xaad Kil (Haida) language.<sup>3</sup> This video was originally produced by the Indigenous Language Institute and then submitted for inclusion on the ELP site. In this way the ELP site functions as a portal, gathering together both original content and existing content, allowing users to readily locate content relevant to a particular language.

In sum, while ELP is not an archive, it clearly makes use of some of the key principles of participatory archiving. While the ELP may not fully adopt the radical user orientation advocated by Huivila (2008), the ELP model does engage users not just as contributors but also as curators of content. In their discussion of participatory archiving, Shilton & Srinivasan stress the importance of allowing for the “articulation of community identity” (2007, p. 90). Rather than relying on an outsider’s expertise to create representative content, ELP provides a vehicle for language communities to forge their own online identities. ELP also allows for diverse voices within a community, since users can engage with the site at an individual level.

### Mukurtu Content Management System

Mukurtu is a content management system (CMS) designed to allow communities to manage and provide access to digital cultural resources. Mukurtu differs from other CMS in its implementation of cultural-based access and use controls, known in

Mukurtu as *cultural protocols*. Like the Endangered Languages Project, Mukurtu allows communities to create virtual web portal, compiling content from a number of different sources. Mukurtu takes this approach a step further, putting users and communities in full control of the way digital heritage resources are catalogued and presented. Mukurtu users can not only add and curate content, they can carefully control the relevant cataloguing metadata and the way that content is accessed.<sup>4</sup>

Mukurtu facilitates digital repatriation by allowing users to attach additional culturally-relative metadata to items housed in existing repositories. These *Community Records* provide a way for communities to tell their own stories about digital heritage items (Christen, Merrill, & Wynne, 2017). Since these records originate from the communities for whom the objects are most relevant, they are often much richer than the descriptive metadata provided by the non-Indigenous memory institutions. For example, the Plateau Peoples’ Web Portal, a Mukurtu CMS site, contains a digital heritage item titled “Chemawa School Bakery, circa 1909” which originates from the Washington State University Libraries.<sup>5</sup> The description of the item in the basic record consists of a single sentence:

“A photograph (lantern slide) showing the interior of the Bakery at Chemawa with workers. Circa 1909.”

Much richer description is found in the three Community Records attached to the item. An Umatilla Community Record includes a short recording of Percy Bingham, a tribal member who attended Chemawa Indian School, describing the food served at the school. The record also includes a brief biography of Mr. Bingham. A second Umatilla record includes a recording of Cecille Beachum, another tribal member who attended Chemawa. These cultural narratives transform the digital heritage item from a photograph of a bakery without context to a place which played a vivid—if sometimes horrific—role in the history of the Plateau tribes.

A third record contributed by the Yakima community provides Traditional Knowledge compiled by Yakima Nation librarian Vivian Adams, describing the impact of missionaries and boarding schools on the Yakima and other Indian communities. As with all Mukurtu content, communities can choose whether or not make Cultural Narratives publicly accessible. The Chemawa Bakery item has three publicly accessible Cultural Narratives attached to it, but there may well be

<sup>2</sup><http://www.endangeredlanguages.com/lang/6085/samples/4221>

<sup>3</sup><http://www.endangeredlanguages.com/lang/2050/samples/7131>

<sup>4</sup> For details on implementation of Mukurtu CMS see Tsutsui Billins (this volume).

<sup>5</sup><https://plateauportal.libraries.wsu.edu/digital-heritage/chemawa-school-bakery-circa-1909>

additional Community Records which are accessible only to members of restricted communities.

The power of Mukurtu lies in its flexibility and ability to adapt to the needs of diverse user communities. Mukurtu provides a set of tools for organizing digital heritage items, but communities can choose how to describe and catalogue those items and how to share them. Cultural protocols can evolve over time, enabling reciprocity in the curation process—what Christen (2011) justifiably dubs “respectful repatriation.” Moreover, the Mukurtu project itself continues to evolve, responding to the needs of its growing user community (Shepard, 2014a).

### Beyond Language

So far our discussion has focused on language. After all this is a conference about language, so the choice is only natural. But this is also a conference about communities, and I’m not convinced that communities always see such a clear division between linguistic and non-linguistic issues. This is certainly the case at the Alaska Native Language Archive. Community members come to ANLA in search of cultural information which is not specifically linguistic. Examples include genealogy, photographs, history, and geography. Sometimes users just want to see the information recorded by one of their ancestors. The original collection policy for the Alaska Native Language Archive was restricted to information written “in or about” Alaska Native languages and related languages. So while the Archive contains a shampoo bottle labeled in Inupiaq, a photograph of an Inupiaq speaker, or an Inupiaq traditional story written in English would not fall within the collection scope.

In actual practice language archives *do* contain quite a bit of non-linguistic cultural information embedded within their collections (Holton, 2012). This is because linguists themselves have difficulty adhering to strict disciplinary boundaries. Language documentation doesn’t end just because a speaker wants to talk about genealogy or about the history of the village. This is even more the case since the resurgence of holistic approaches to documentation, which seek to record the “linguistic practices of a give speech community” (Himmelmann, 1998, p. 166).

Nevertheless, disciplinary silos remain a barrier to accessing cultural resources. At ANLA I spent a lot of time walking between departments, escorting visitors from one archival location to another. From ANLA we might walk to the building next door to visit the Alaska and Polar Regions photo archive. From there across the building to the Oral History department to locate recordings of community Elders. And from there one floor up to the Alaska Film Archive to look for videos. From there we might cross the quad to another building to visit the Alaska Native Knowledge Network to look for an alphabet poster. To an archivist

the separation of Native language, photographs, oral history, film, and posters may or may not seem well-motivated. But few community members could understand why the university kept the information about their people separated into so many different locations.

This disciplinary separation becomes problematic as communities are taking an increasingly holistic approach to language and culture revitalization. More and more communities are seeking not only to reawaken their language but also to revive traditional cultural practices. In many cases these traditional practices are even more threatened than the languages in which they are embedded (Hill, 2001).

Here I briefly review two efforts to renew traditional culture practices in communities in the United States and Indonesia. These examples suggest that holistic approaches to repatriation—Involving both language and culture—may be more effective in reinforcing community identity.

### Myaamia Corn Traditions

Gonella, Baldwin & Greenberg (2016) report on the renewal of corn (maize) traditions among the Myaamia Tribe. Drawing on linguistic information as well as both contemporary interviews and archival recordings dating to 1968, the authors were able to reconstruct the traditional seasonal cycle related to corn, from planning to planting to first and second harvests. The authors report that some community members are beginning to revive these traditional techniques. As with language renewal, revival of the corn cycle serves to reinforce community identity. Revival of the corn cycle may also have more immediate tangible effects, contributing to water and soil conservation.

### Tado Rice

Pfeiffer *et al.* (2006) report on a community-based collaborative project to document and conserve traditional varieties (landraces or heirloom varieties) of dryland rice among the Tado of Flores, Eastern Indonesia. The authors began by interviewing local farmers to gather information about rice varieties and the usage. They then conducted field trials to compare yields of different varieties. This research identified several locally extinct varieties which could be potential for renewal efforts. For example, *mavo belang*, which has not been grown locally for two generations, is reported to be resistant to floral pests so might be a useful reintroduction to what Pfeiffer *et al.* refer to as the farmers’ “agricultural survival kit.” The genetic diversity inherent in the multiple traditional varieties can serve as a bulwark against diseases associated with modern monoculture. Moreover, as with the Myaamia corn cycle renewal of Tado traditional rice varieties also serves to reinforce and sustain Tado culture.

## Communities in Control

Memory institutions have a long history of top-down approaches to curation, in which an elite cadre of professionals controls the curation process. As satirized in The Pinky Show (2008), “museums are like factories where certain values are manufactured and then distributed to society.” There are some signs that archives—including language archives—have moved away from this top-down, unidirectional approach. Participatory archiving instead adopts a cyclical model which engages the community in the archiving process.

Digital return of language and culture resources is fundamentally about access, but access itself means much more than simply having physical access to the (digital) resources. Meaningful access requires that resources be properly contextualized and that communities have control over the archiving process. The importance of context is made clear by Gwich'in language activist Ed Alexander in the following statement:

“The digital archive itself is meaningless - it could be stored in the root of a tree in the forest for all I care. *Without the access it creates, it is useless.* Our digital archives are only useful if they enable us to have analog meetings and connections between actual people conversing and sharing.” (quoted in Shepard, 2014b, pp. 215, emphasis added)

It's not enough to simply provide a download link or send a bunch of files on a flash drive. Meaningful digital return must put communities in control of their digital heritage.

Language resources begin with communities. Speakers share these resources with every expectation that they will be returned in a form that will be useful to the community. I opened this paper by relating an encounter with an archival recording of Dena'ina speaker Shem Pete, so it is fitting to close with a word from Shem Pete. More than 40 years ago in his *Susitna Prophecy* Shem Pete eloquently predicted that his recordings would eventually have a significant impact (Kari & Berez, 2005).

*Recorder shqenaga nt'i tulil ch'q'u qadak'dihness.*  
‘My language will be on a recorder and you will hear it.’

*Shi k'a chida'eshjuq da shqenaga nihdi qadak'dihness.*  
‘When I too have died, you will hear my language.’

*Ch'u henda beghuda iti'ihjesh, shhenaga gini.*  
‘And possibly for this reason you will save yourself, by my words here.’

*Dach'ghuda shughu q'udi gu qech' qeshnash t'i.*  
‘That is the reason I am talking of this now.’

As language archives increasingly adopt participatory models, communities have increasing control over their digital cultural heritage, yielding hope that Shem Pete's prophecy will be fulfilled. Let us to save ourselves.

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## References

- Aristar-Dry, H. (2002). E-MELD: Overview and update. Paper presented at the *International Workshop on Resources and Tools in Field Linguistic*, Las Palmas, Spain.
- Berez, A.L., Finnesand, T., & Linnell, K. (2012). C'ek'aedi Hwnax, the Ahtna Regional Linguistic and Ethnographic Archive. *Language Documentation and Conservation*, 6, 237-252.
- Bird, S., & Simons, G. (2003). Seven dimensions of portability for language documentation and description. *Language*, 79(3), 557-582.
- Campbell, L., & Belew, A. (Eds.). (to appear). *Cataloguing the World's Endangered Languages*. London: Routledge.
- Christen, K. (2011). Opening archives: Respectful repatriation. *American Archivist*, 74, 185-210.
- Christen, K., Merrill, A., & Wynne, M. (2017). A community of relations: Mukurtu hubs and spokes. *D-Lib Magazine*, 23(5/6). <https://doi.org/10.1045/may2017-christen>
- Dobrin, L.M., Austin, P., & Nathan, D. (2007). Dying to be counted: the commodification of endangered languages in documentary linguistics. In P. Austin, O. Bond, & D. Nathan (Eds.), *Language Documentation & Linguistic Theory 6* (pp. 59-68). London: SOAS.
- Fitzgerald, C.M., & Linn, M.S. (2013). Training communities, training graduate students: The 2012 Oklahoma Breath of Life Workshop. *Language Documentation & Conservation*, 7, 185-206.
- Gehr, S. (2013). *Breath of life: Revitalizing California's Native languages through archives*. (MLIS Thesis), San Jose State University, San Jose, California.
- Gonella, M.P., Baldwin, D.W., & Greenberg, A.M. (2016). Community-Led Ethnobotanical