

C'ek'aedi Hwnax, the Ahtna Regional Linguistic and Ethnographic Archive

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We discuss the development of the *C'ek'aedi Hwnax* Ahtna Regional Linguistic and Ethnographic Archive, located in the Copper River valley of south central Alaska. *C'ek'aedi Hwnax* is the first OLAC-compliant, Indigenously-administered digital language archive in North America. Against the backdrop of the history of language archiving at the Alaska Native Language Center in Fairbanks, we present the Ahtna community's voiced desire for local control over decades' worth of irreplaceable linguistic and cultural recordings, along with the steps we took to build the archive. These include the aggregation of recordings from various locations, the process by which they were digitized, and the increase of access to their contents. The Ahtna archive follows guidelines for best practices already undertaken by established university-based archives around the world. At the same time, the archive represents a new model of *distributed linguistic archiving* in Alaska via a Memorandum of Agreement with the University of Alaska Fairbanks, which provides permanent off-site backup of the Ahtna collection on its servers and allows *C'ek'aedi Hwnax* full administrative control over access to the collection at the university. In this model, the responsibility for administration of language materials traditionally held in a central location is apportioned to different parties according to their needs and resources.

1. INTRODUCTION.¹ Just northwest of the Ahtna village of Copper Center, Alaska, sits the first Indigenously-administered, OLAC-compliant digital language archive in North America.² The archive, known as The *C'ek'aedi Hwnax* Ahtna Regional Linguistic and Ethnographic Archive (henceforth C'H) is housed at the Ahtna Cultural Center, a museum

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² OLAC is the Open Language Archive Community, "an international partnership of institutions and individuals who are creating a worldwide virtual library of language resources by: (i) developing consensus on best current practice for the digital archiving of language resources, and (ii) developing a network of interoperating repositories and services for housing and accessing such resources" (OLAC 2011). See also <http://www.language-archives.org> and Simons & Bird 2003.

and visitor center built in 2009 through a congressional appropriation that sits on the visitor center campus of the Wrangell-St. Elias National Park, the largest national park in the United States and one that occupies the traditional territory of the Ahtna Athabascan people.³

Established in 2009, C'H has digitized and currently hosts some 500-plus rare audio and video recordings of Ahtna language and culture spanning five decades, which for the first time are united in one location and easily accessible to the Ahtna people. C'H represents an evolution of linguistic archiving in Alaska, which for the last 40 years has chiefly been within the purview of the Alaska Native Language Center (ANLC) at the University of Alaska Fairbanks (UAF). For the first time, an organization representing an Alaska Native community is partnered with a university-based archive to create a collection that conforms to international standards for data preservation and discovery, while maintaining exclusive local control of access to the contents. In this paper we describe the C'H Archive and the circumstances that led to its development.

The Ahtna people are one of 11 Athabascan heritage-speaking groups in Alaska, and (as is true for the others) the language is severely endangered. There are estimated to be 30-50 fluent Ahtna-speaking Elders, all of whom are bilingual in Ahtna and English. The geographic territory traditionally occupied by the Ahtna covers nearly 45,000 square miles of boreal forest and permafrost in south central Alaska, encompassing parts of three mountain ranges (the Alaska Range, the Chugach Mountains, and the Wrangell Mountains) and three major river drainages (the Copper, Matanuska, and Upper Susitna Rivers). Most of the area is unpopulated wilderness, with the majority of the region's nearly 4,000 residents living in small towns and Native villages along several two-lane highways which connect to Anchorage to the southwest, Fairbanks to the northwest, and Valdez to the south (see Figure 1).

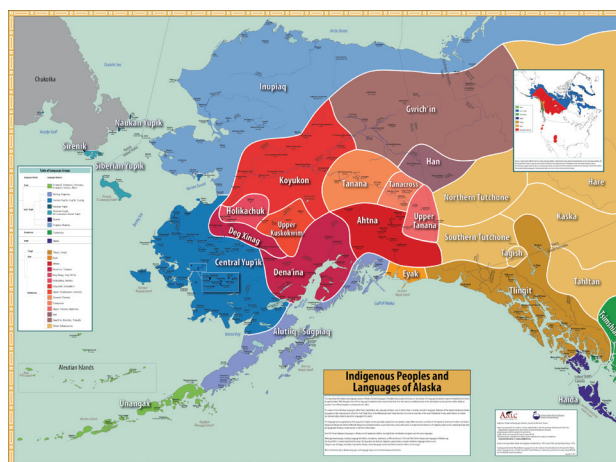


FIGURE 1: Indigenous Peoples and Languages of Alaska; Ahtna is shown in dark red (Alaska Native Language Center 2011)

³ *C'ek'aedi Hwnax* is Ahtna for (roughly) 'legacy house', and is pronounced [c'ek'æti nax]. The name was selected in 2010 by Elders Markle Pete, Virginia Pete, Jeannie Maxim, and Ina Lincoln, and was confirmed by a group of Elders including Chief Ben Neely and Secondchief Fred Ewan. The name refers to the Ahtna Cultural Center building as well as the digital archive hosted within it.

The Ahtna region today consists of eight modern villages (Mentasta, Chistochina, Gakona, Gulkana, Tazlina, Copper Center, Chitina, and Cantwell) united under the umbrella of Ahtna, Incorporated, one of the 13 Alaska Native Regional Corporations established by the US Congress under the 1971 Alaska Native Claims Settlement Act. In 1986 Ahtna, Inc. formed the Ahtna Heritage Foundation (AHF), a nonprofit 501(c)(3) corporation tasked with “[strengthening] our people by preserving and promoting the Ahtna culture and supporting education” (Ahtna Heritage Foundation 2011). AHF strives to fulfill this mission by providing programs that perpetuate Ahtna language and culture, including sponsoring educational scholarships, a children’s dance troupe, and an infant language-learning program.

After many years of the Ahtna people expressing, in various regional meetings, their desire for access to records of their own linguistic and cultural heritage, the AHF stepped forward in 2009 to build an archive and to become the parent organization to C’H. The concerns voiced during meetings of local tribal councils, nonprofit organizations, and educational boards grew out of the community’s collective memory of decades’ worth of cassette recordings made over the years at potlatches, by academic researchers, and by numerous government and military interviewers. There was clearly an awareness in the Ahtna community that tapes were “out there somewhere,” and many people were concerned for the physical safety of the tapes as well as for securing access to their precious contents for the Ahtna people at large (Liana Charley John, p.c.).

In the following section we outline the history of language archiving in Alaska, which illustrates the need for an Ahtna-administered archive, described in Section 3. In Section 4 we present the steps we took to make C’H a reality, and Section 5 briefly discusses the future of archiving in Alaska.

2. THE HISTORY OF ARCHIVING AT THE UNIVERSITY OF ALASKA FAIRBANKS. The Alaska Native Language Archive (ANLA) at the University of Alaska Fairbanks is the preeminent archive for documentation of the Native languages of Alaska. Originally part of the ANLC, the ANLA was established as a separate administrative entity in 2009. The ANLA is home to more than 15,000 items, including audio recordings dating back to the 1940s. The scope of its digital and physical holdings is impressive, as the ANLA—and the ANLC before it—has aimed since its inception to collect as many items as possible either in or about Alaska Native languages:

The Alaska Native Language Archive houses documentation of the various Native languages of Alaska and helps to preserve and cultivate this unique heritage for future generations. As the premier repository worldwide for information relating to the Native languages of Alaska, the Archive serves researchers, teachers and students, as well as members of the broader community. The collection includes both published and unpublished materials in or on all of the Alaska Native languages and related languages. The collection has enduring cultural, historic, and intellectual value, particularly for Alaska Native language speakers and their descendants (ANLA Mission Statement, ANLA 2012).

As the Mission Statement above indicates, the ANLA recognizes that its holdings are a trove of irreplaceable Alaska Native knowledge, and thus its explicit mission is preservation of the collection for the direct benefit of the cultural, historical, and linguistic objectives of Alaska Native people. To this end, the ANLA has always been open to the public, and today it frequently welcomes guests seeking recordings and printed matter in their heritage languages.

Although the desire of an Indigenous language archive to connect in culturally appropriate ways with members of the speech communities it represents may not seem surprising today—indeed, it is considered by many to be an ethical obligation (Conathan 2011, Nathan 2011)—it is important to remember that the ANLC archive was not originally designed for that purpose. The ANLC was established and funded by the Alaska State Legislature on June 9, 1972, in Senate Bills 422 and 423, with the following five objectives: (1) to study languages native to Alaska; (2) to develop literacy materials; (3) to assist in the translation of important documents; (4) to provide for the development and dissemination of Alaska Native literature; and (5) to train Alaska Native language speakers to work as teachers and aides in bilingual classrooms (Krauss 1974).

Nothing in the original bills mandates amassing the collection of recordings, field notebooks, literature, pedagogical materials, and published and unpublished scholarly writing that eventually became the ANLA, but the creation of a comprehensive research library was nonetheless deemed essential to meeting the objectives of the ANLC. Importantly, the focus of the collection originally reflected the philological basis of early Americanist linguistics (see Mithun 1999), and not that of language documentation and preservation in the contemporary sense. The priority was in compiling written, edited texts and descriptive materials, rather than audio, video, and transcripts of spontaneous language in use. The Himmelmannian emphasis on primary recordings made in naturalistic contexts that guides so much of documentary linguistic practice today was not yet *au courant*, and although in many cases items in the archive have become rare records of Alaska Native languages, preserving them for long-term use by a broad audience was not a central goal.⁴

Although the physical holdings of the ANLC were always carefully organized on their shelves, it was not until the early 1980s that the collection was even partly cataloged. From 1978 to 1982 the US National Endowment for the Humanities funded ANLC Director Michael Krauss to produce a catalog of bibliographic information of first the Indian language holdings (Haida, Tlingit, Tsimshian, Eyak, and Athabascan; Krauss & McGary 1980) and then the Eskimo-Aleut language holdings (Krauss & McGary 1983); the latter was never completed. Fifteen years passed until the next catalog update was funded in 1998. Since then the ANLC, and later the ANLA, has actively pursued funding to keep its collection compliant with current data and metadata standards.⁵ In 2001 the ANLC became one of the first members of the newly formed OLAC, which meant that the archive was now making its catalog publicly available and participating in an ongoing international discussion about

⁴ e.g., Himmelmann (1998)

⁵ For a history of the funding milestones that led to metadata collection and digitization of materials in the ANLA, see <http://www.uaf.edu/anla/about/funding/>.

best practices for language data preservation.⁶

In 2003 the US National Science Foundation funded a project that perhaps best marks a clear change in the direction of the ANLC archive, from a paper-and-analog tape library to a modern language archive using digital technologies to make materials more widely available. The Dena'ina Archiving, Training, and Access project, a collaborative effort by the LINGUIST List at Eastern Michigan University and the ANLC, digitized the paper and audio Dena'ina language materials at the ANLC, collected OLAC-compliant metadata, and made the records searchable on a dedicated website paired with an online portal to “value-added” information about Dena'ina language and community (Berez & Holton 2006a, b; Holton, Berez & Williams 2006, 2009).⁷ The intended audience for the website and metadata were the Dena'ina people themselves, who participated in discussions about online access and website content during three summer Dena'ina Language Institutes in Soldotna, Alaska, from 2003 to 2005. Two main concerns dominated these conversations: the difficulty in physically reaching the Fairbanks campus, hundreds of miles by road from the Dena'ina region (and some Dena'ina villages are not accessible via Alaska's limited road system); and a poignant awareness of the loss of Elder speakers who could pass on the language. Dena'ina Elder and Nondalton resident Andrew Balluta summed up his support for the ANLC's efforts to make language materials available online in 2004:

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 the younger children what the elder people are talking about. I think it's a very good idea for getting it free so we can listen to them (Andrew Balluta, in Holton & Berez 2006).

In the end, it was agreed upon by the Dena'ina participants in these discussions that access to archive materials cataloged online could be granted via email request and by clicking through a Conditions of Use agreement.

While the archive has been increasing its outreach to Alaskan communities, at the same time there has been an observable shift in the way Alaska Native people are stepping forward to use the archive. Since the beginning, Native speaker involvement in the activities of the ANLC was substantial, but the focus of interest was different from what it is today. In the 1970s and '80s, several notable fluent speakers followed Krauss in his research orientation. Koyukon speaker Eliza Jones of Koyukuk worked at the ANLC from 1973 to 1990 and coauthored the *Koyukon Athabascan Dictionary* (Jetté & Jones 2000); in 1990 Jones received an honorary doctorate from the University of Alaska. Similarly, Gwich'in speaker Katherine Peter was a major figure at the ANLC, developing language learning materials, teaching Gwich'in classes, working to re-transcribe the 19th-century

⁶ Much of the discussion in the early 2000s about the development of standards for long-term care of digital language data took place as part of the Electronic Metastructure for Endangered Languages Data (E-MELD) project; see <http://emeld.org/>, <http://emeld.org/school/index.html>, Boynton et al. (2006, 2010).

⁷ <http://qenaga.org>

journals of Reverend Robert McDonald, and publishing many Gwich'in language texts (e.g., Peter 1992, 2001).

Today most users of the archive are not first-language speakers of Alaska Native languages; rather, they are interested collectors and language learners visiting to find and bring home copies of recordings and writings which had often been contributed by family members generations earlier (ANLA Director Gary Holton, p.c.). Visitors to the archive today tend to be interested in holdings that are rich in a different way from the philologically-oriented items Krauss worked so hard to collect. Raw audio of one's endangered heritage language, whether or not it is understood, has substantial value. Although members of speaker communities are increasingly visiting the archive in person to fetch copies of primary materials, getting to Fairbanks remains a hardship for most residents of Alaska due to weather, expense, and limited transportation. The directorship of the ANLA understands this and is currently digitizing its entire collection to make online access more feasible.

3. THE NEED FOR AN AHTNA-ADMINISTERED ARCHIVE. Despite the growing availability of ANLA materials online, there was still a desire within the Ahtna community to exercise more local control of Ahtna recordings. The ANLA collection of Ahtna language materials is impressive: it includes more than 100 (now digitized) cassettes, mostly interviews and stories recorded by linguist James Kari during the years he lived in the Copper valley in the 1980s. But the sum of Ahtna recordings that are considered to be of cultural importance by C'H extends far beyond the linguistic collection held in Fairbanks. Attendants at village council meetings over the years compiled, from memory, a list of other audio collections they knew to be in existence from various local and government-sponsored projects; these would later become the foci of acquisition for C'H. They included the following:

- a collection of 150 tapes of interviews, meetings, cultural events belonging to Ahtna Heritage Foundation itself;
- a collection of curriculum modules on plant use, food preparation, etc., from the 1960s to '80s, belonging to the Copper River Native Association (a sister nonprofit organization);
- a collection of interview tapes documenting the historic and cemetery site claims of Ahtna, Inc., under section 14(h)(1) of the Alaska Native Claims Settlement Act, managed at the Bureau of Indian Affairs;
- a collection of interviews on land use conducted as part of a US Air Force plan to build an over-the-horizon-backscatter radar site near the village of Gakona (the project was never completed, though the site is now home to the High Frequency Active Auroral Research Program); and
- a collection of ethnographic recordings from the early 1960s made by anthropologist Frederica de Laguna, now held at the American Philosophical Society in Philadelphia.

At the time of the inception of C'H, however, the locations of some of these collections—and whether their current owners would be amenable to sharing them with the Ahtna community—were unclear. Furthermore, in addition to the above “official” collections, the

number of privately owned tapes across the Copper valley was unknown, although it was assumed to be large.⁸ Thus there was awareness of the existence and potential scope of a corpus of Ahtna recordings, and it was established that the AHF should make acquisition of these recordings one of its primary responsibilities, with the following three goals in mind:

Goal 1: Increased local awareness of and access to the recordings. It was felt that the contents of tapes of various provenance (personal, outside research, in-group research) were to some degree primarily the collective property of the Ahtna people, and that an effort should be made to locate tapes and repatriate them to the Ahtna region, discover the contents of the tapes, and make them easily accessible within the community. In many cases, even for collections already in AHF's possession, the number of tapes and their contents was simply unknown, and even the most detailed metadata rarely went beyond providing the date of recording and speaker or interviewee name. For most recordings, content remained a mystery.

Goal 2: Protection of fragile cassettes and their contents. There was also an awareness that cassette tapes are physically vulnerable, especially in the extreme Alaskan climate (for example, one personal collection had been stored in a deteriorating bake house, susceptible to leaks and freezing temperatures). Concern for the fragility of the tapes was twofold: first, the knowledge they documented was irreplaceable. Conversion to digital media and proper long-term care of the digital files was therefore considered a top priority. Second, as the personal property of ancestors, the tapes themselves were valued as heirlooms, and there was a desire to protect the cassettes from further deterioration as well as from the forest fires to which the region is prone.

Goal 3: Respect for traditional Ahtna modes of transmission of knowledge. At the time, this third goal mainly included questions of who had the right to access the information. As described below, concern over access soon grew into a need to continually involve Ahtna Elders in ongoing decisions about the archive.

Part and parcel of these three goals was the desire to “do it right” by following guidelines for best practices in archiving already undertaken by established university-based archives around the world. At the same time, the unique circumstances of the corpus, combined with the desires of the Ahtna people, mandated a new model of *distributed linguistic archiving* (Simons & Bird 2003, Barwick 2004, Barwick & Thieberger 2006), in which responsibility for administration of language materials traditionally held in a central location could be apportioned to different parties according to their needs and resources. By partnering with linguists already working in the field of linguistic archiving, the Ahtna

⁸ And large it was. To offer just one example, an Ahtna man came forward with a personal collection of about 400 cassette tapes of potlatch recordings that his grandmother had amassed over 30 years. These tapes contain Ahtna songs and a genre of potlatch oratory that is witnessed less and less frequently today.

Heritage Foundation set forth to build an Ahtna-administered, standards-compliant digital language archive. The process of building C'H is described below.

4. BUILDING C'EK'AEDI HWNAX.

4.1 WHAT WE DID. *Funding.* With an estimated 3,000–5,000 hours of Ahtna-related recordings dispersed across the state, and with their aggregation, digitization, and dissemination within a locally accessible digital language archive now a primary concern of the AHF, the first step was to acquire funding. In May 2009 AHF sought financial support from the Institute of Museum and Library Services (IMLS), a federal source of funding for American museums and libraries that offers several granting programs for organizations run by federally recognized Native American tribes.⁹ In the early autumn of 2009, the AHF was awarded an IMLS Enhancement Grant for USD 149,746.00 over a period of two years. Supplemented by nearly USD 40,000.00 in cost-sharing funds from Ahtna, Inc. and the University of Alaska Fairbanks, the grant would cover equipment purchases, personnel costs, and a bit of travel. The staff consisted of Project Manager Taña Finnesand and Technical Director Karen Linnell, plus two technical assistants, Tana Mae Pete and David Bell, who did the bulk of the digitization work over the course of the project. Linguist Andrea Berez volunteered as consultant. Work began in early 2010.

Facility and equipment. The archive facility is part of the Ahtna Cultural Center at Wrangell-St. Elias National Park, just north of the village of Copper Center (Figure 2). The Cultural Center is primarily a small museum that provides information about Ahtna people, history, and culture to park visitors, and often hosts local activities like dance troupe performances and Elders' luncheons.



FIGURE 2: The Ahtna Cultural Center at Wrangell-St. Elias National Park

In the back of the Cultural Center is a climate-controlled storage room with a fireproof cabinet to hold the cassette tapes, and a small suite of offices where the archive hardware, pictured in Figure 3, is kept. Hardware purchased for the project includes a computer, the only professional-quality digitization suite in the region, and 2TB of onsite RAID storage

⁹ <http://www.imls.gov>

(off-site backup storage is managed at the University of Alaska, discussed below). For a detailed equipment list, see the Appendix.



FIGURE 3: Archive hardware

Gathering tapes and previously digitized items. Gathering tapes and digital recordings for deposit required several strategies. In the early months of the project, the staff collected the AHF-owned tapes from around its offices. They also met with local organizations like Ahtna, Inc. and the Copper River Native Association to request copies of their collections. Additionally, the staff made contact with various government bodies (e.g., the Bureau of Indian Affairs, the Alaska Department of Fish and Game) and the American Philosophical Society. In each case, organizations were cooperative in sharing their items with C'H. Ahtna individuals also began to donate their privately owned items, slowly at first, and then in increasing numbers. In these cases cassettes were deposited in exchange for a copy of the digital version.

Training. For a week in March 2010 the staff sought training in digitization procedures, database development, and metadata collection from James Crippen, then a graduate student in linguistics at the University of Hawai'i. Crippen also worked as a student assistant at Kaipuleohone, the University of Hawai'i Digital Ethnographic Archive (Albarillo & Thieberger 2009),¹⁰ a digital language archive of similar size and scope to that of C'H. Crippen is himself of Alaska Native descent, which gave him particular sensitivity to privacy and access protocols found in many Alaska Native communities.

Data storage, the metadata catalog, and joining OLAC. At the time of this writing, C'H has amassed some 550 items, more than half of which were received in analog format and digitized at a high resolution by the archive staff. Digital files are backed up on-site on a 2TB RAID storage device, and off-site on servers at the University of Alaska Fairbanks. Low internet bandwidth in the Copper valley prevents automatic daily backup to the servers in Fairbanks, so for the time being a small portable hard drive is mailed to the University on a periodic basis.

¹⁰ Kaipuleohone, the University of Hawai'i Digital Ethnographic Archive:
<http://www.ling.hawaii.edu/langdoc/archive.html>

The metadata catalog is kept in a FileMaker Pro relational database that tracks items, collections, and speakers according to the OLAC metadata set.¹¹ The database was modeled after those of two other linguistic archives, PARADISEC¹² and Kaipuleohone. Both of these archives gladly shared their database configurations with C'H, since there is little preconfigured software available for linguistic archives.

In December 2010 C'H became a member of OLAC, committing itself to adherence to international standards for data preservation and metadata collection, and to making the catalog discoverable online via the regular OLAC harvester.¹³ The procedure for exporting metadata for harvesting in an OLAC-compliant format, while not easy, benefited greatly from an XSL style sheet shared with C'H by Nick Thieberger, then the director of Kaipuleohone. The process involves exporting the FileMaker Pro database, applying the XSL style sheet, and storing the resulting XML document online as a static repository. Once the repository is registered with OLAC, the harvester automatically gathers archive metadata for publication on the web. The sharing of knowledge and procedures across language archives has been and continues to be an important part of the C'H workflow, and the staff is dedicated to sharing knowledge with other regional archives with similar goals.

Involvement of Elders. Early in the project timeline the staff were invited to present their plan to a group of Ahtna Elders at a luncheon in Copper Center. This was a fortuitous opportunity, as it gave the Elders an immediate opportunity to voice their concerns over access—indeed, their first questions were about who would have access to the recordings and how the archive would protect Ahtna knowledge. The C'H staff then held several more meetings with a core group of involved Elders (see Figure 4), who were central in helping to determine the archive's access policies (see below).



FIGURE 4: Meeting with Ahtna Elders to discuss the future of the C'H archive. Pictured (left to right): Mr. Markle Pete, Mrs. Jeannie Maxim, Tana Mae Pete, Mrs. Virginia Pete, Mrs. Ina Lincoln, Taña Finnesand.

¹¹ <http://www.language-archives.org/OLAC/metadata.html>

¹² The Pacific and Regional Archive for Digital Sources in Endangered Cultures: <http://www.paradisec.org.au/>

¹³ A faceted search of the entire OLAC catalog can be found at <http://search.language-archives.org/index.html>.

A few months later, after many of the cassettes had been digitized and just before C'H opened its doors to local visitors, the staff held an Elders' Tea event, both to confirm the new name of the Cultural Center and archive and to launch the archive itself. During this event, Chief Ben Neely blessed the archive and the Cultural Center, and the Elders were able to listen to Ahtna language recordings using headphones. This transparency with respect to the archive's activities encouraged Elders to visit frequently (which they do), to listen to recordings, and to help enrich the metadata about their contents as well as the circumstances in which they had been recorded.

Policies. Developing deposit and access policies has been more difficult than anticipated because of privacy and access concerns that are often found in Native American communities.¹⁴ The C'H staff developed a general deposit form for new acquisitions that allows for three levels of access based on a potential user's affiliation: (i) a member of the Ahtna community, (ii) a bona fide researcher working in cooperation with AHF, or (iii) a member of the general population. (More specific access policies, such as restricting access to members of certain clans, can be established on a case-by-case basis.) The deposit form also contains a sunset clause that relinquishes the right to determine access policies to AHF after 25 years.

Determining access to older materials, however, is far less straightforward, and can lead to disputes in cases in which the original collector did not adequately address issues of access. Two such cases serve to illustrate some interesting access problems: the first involves mid-20th century recordings of Ahtna songs made by Frederica de Laguna, in which the interviewee clearly states that because of longstanding customs, the songs are not to be sung in the Ahtna village of Copper Center. The Ahtna Cultural Center itself is located less than five miles from Copper Center—so close that, although state maps do not officially locate the property in Copper Center, local tradition and popular wisdom still consider it to be part of the village (see Figure 5). The question arises, then, as to whether the recordings can even be played at the Cultural Center facility itself.



FIGURE 5: Proximity of the Ahtna Cultural Center to the village of Copper Center

¹⁴ For current recommendations for respecting cultural knowledge in Alaska, see Alaska Native Knowledge Network (2000) and Alaska Library Association (2011).

A second case regarding access to traditional knowledge via the archive involved an incident that occurred in the Cultural Center in the summer of 2011. A traditional Ahtna raven story had been translated from a recording in the archive, and the translation was displayed in the museum room of the Cultural Center. National Park employees working in the visitor center next door who had been to the Cultural Center and read the raven story then recounted the story to tourists. Some members of the Ahtna community felt that Park employees did not have the right to retell the raven story, and instead should have referred visitors to the Ahtna-run education and outreach facility just next door. This incident caused some hard feelings and brought to light the potential difficulty of monitoring the spread of information once it is made available. Both of the above cases illuminate the importance of attention to issues of access, and C'H is continually refining its policies.¹⁵

Memorandum of Agreement with ANLA. The development with perhaps the most impact on the future of archiving in the state of Alaska is the Memorandum of Agreement (MOA) between ANLA in Fairbanks and C'H that grew out of this project. Under the MOA, the ANLA has agreed to (i) share their Ahtna collection with C'H, (ii) offer “gray storage” backup for C'H files, and (iii) turn over all access decisions to C'H.

As for the first of these terms, the ANLA gave copies of the 134 previously digitized recordings in their Ahtna collection to C'H for deposit. C'H then enriched these items' metadata—especially regarding their contents—and in turn shared the metadata with ANLA for their catalog. With regard to the second term, ANLA's involvement has been a key factor in helping C'H observe the mantra that “lots of copies keeps stuff safe” for digital data preservation.¹⁶

As previously mentioned, ANLA keeps a copy of all the digital files in the C'H collections on University of Alaska servers in *gray storage*: the University stores and migrates the data, but does not administrate or have access to the contents. In this way, C'H is able to ensure preservation of the precious Ahtna materials by keeping a copy far off-site. This backup and migration plan is essential to a sustainable archive, as it not only insures against disaster (e.g., forest fires), but it also keeps the data safe should C'H experience an unfunded period.

As for the third of the MOA's terms, all decisions about access to the Ahtna collection at ANLA are now handed over to C'H. At present, users searching the ANLA catalog must request access to items by e-mail. ANLA acknowledges it does not have the authority to make decisions about access to Ahtna cultural heritage, and has agreed to forward all requests to C'H and the AHF. After all, who is better equipped to make decisions about such access than the body charged with sustaining and promoting Ahtna culture?

4.2. WHERE WE ARE GOING. C'H has already had an impact on community-wide awareness of Ahtna language through several initiatives to mass-distribute CDs containing tran-

¹⁵ The question of access to culturally sensitive materials, especially in the case of older materials for which a protocol was never developed, is one that is being asked by Indigenous archivists worldwide. We the authors advocate more discussion between different archives for sharing solutions to such difficult problems.

¹⁶ See, e.g., <http://www.lockss.org/lockss/Home>

scribed, glossed, and translated recordings at annual Ahtna, Inc. shareholders' meetings. At present the majority of the C'H collection is available for on-site access at the Ahtna Cultural Center. Users can search the catalog and listen to recordings, and can also request copies in compliance with access restrictions for individual items. While this single workstation is already a great improvement in accessibility to the Ahtna collection, it is convenient only for people who live near the Cultural Center. The next step is to increase access in all Ahtna villages—especially Mentasta, Chistochina, and Cantwell, which are too far from the Cultural Center to make visiting realistic. One solution under consideration is the installation of a series of remotely networked workstations in the tribal offices across the region. The workstations, once installed, will also allow users to enhance the metadata of the collection through a moderated commenting system.

As for the collection of new materials, C'H has played a role in the development of protocols for researchers conducting linguistic, archaeological, and anthropological studies in the area. By providing a safe location for archiving research materials into the future, the AHF can ensure that research conducted in the Copper valley and beyond becomes—and remains—available to the Ahtna people.

5. CONCLUSION: THE FUTURE OF DISTRIBUTED ARCHIVING IN ALASKA. The model of locally-administered distributed archiving embodied by C'H has already been adopted in part by another Alaska Native organization. Sealaska Heritage Institute, which preserves and promotes Tlingit, Haida, and Tsimshian culture in southeast Alaska, has recently entered into an agreement with ANLA similar to the MOA with C'H, in which ANLA provides copies of relevant digitized items and longterm backup on UAF servers in exchange for enriched metadata (Alaska Dispatch 2011).¹⁷

The development of C'H represents positive progress in the timeline of language archiving in Alaska as other communities seek more local control of archiving practices and access; for instance, the town of Tok has been planning a local Upper Tanana language archive at its UAF extension campus. We hope that C'H can provide a model of distributed archiving that conforms to best-practice standards while allowing local communities to maintain control of their collections in partnership with ANLA.

¹⁷ <http://www.sealaskaheritage.org>

APPENDIX

The items listed below comprise the inventory of equipment purchased to establish and operate the C'H archive. We hope this list will prove helpful to others who may wish to purchase their own archiving equipment. Many thanks to Nick Thieberger of Kaipuleohone, the University of Hawai'i Digital Ethnographic Archive, upon whose equipment list our purchases were based.

C'H Archive Equipment Inventory

- Benchmark 2-Channel 24-bit Analog/Digital Converter with USB (ADC1-USB)
- Tascam Professional Dual-Well cassette deck (202MKV)
- JVC Dual Deck DVDR/SVHS/VHS (SR-MV45US)
- Grass Valley Analog/Digital Converter for video (ADVC-55)
- 2 Yamaha powered monitor speakers (HS80M-CA)
- 2 Sennheiser circumaural monitoring headphones (HD280PRO)
- PreSonus FaderPort automation controller
- PreSonus Monitor Station Desktop Control Center
- Rack + power conditioner with lights
- Desktop computer
- 2TB RAID storage
- Universal Power Supply
- Cables, splitters, etc.
- Sony Creative Imagination Studio Suite
- FileMaker Pro
- Fireproof filing cabinet

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