Initial thoughts on developing a registration authority for Alaska Native place names

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Background

Indigenous place names are of undisputed value to understanding culture history (Kari 2010). In Alaska place names have been used to inform our understanding of archaeology , climate, migration, etc. Place names also provide insights into indigenous conceptualization and usage of the landscape, and there is great potential for place names to inform may other fields. Unfortunately, knowledge of place names is quickly disappearing as the shift away from Native languages accelerates. Documentation of Native place names collected over the past two centuries, and especially the last 30 years, is extremely fragile and almost as endangered as the languages themselves.

One of the greatest challenges for place names researchers is maintaining consistent reference to location. Whether using paper records or electronic (geo)databases, toponymists in Alaska and elsewhere have almost always relied on assignment of an identifying number to a named location. Place name maps are often annotated with a number, and associated metadata—including the Native name, its literal translation, English name, source language, speaker, etc.—are stored separately in a print document, spreadsheet, or database. Numbering is assigned on an ad-hoc basis; that is, each individual researcher uses their own system for assigning numbers. It is important to note that:

- different researchers may use different systems of numbering;
- a given researcher may modify the numbering system over time, so that different iterations of mapping contain different numbers for the same location
- when a place is named in more than one language, it may receive different numbering in each language

An example of variation of numbering can be see in the Lower Tanana language names recorded for Dugan Hills (Table 1) and Kantishna River (Table 2). Variations in spellings and word segmentation are typical of Alaska Native languages for which orthographic standards have evolved only recently; these variations are less significant than the variation in numbering, which presents a barrier to recognizing these records as instances of names for the same location.

Table 1: Variation in numbers assigned to Dugan Hills (GNIS 1401463)

Number	Name	Source
138	Tthaych'edroddha	Andrews et al. (1980)
108	Ttha Ch'edroddha'	Kari (1999)
240	Ttha Ch'edroddha	Kari et al. (2012)

Table 2: Variation in numbers assigned to Kantishna River (GNIS 1404437)

Number	Name	Source
39	Khenteeth No'	Gudgel-Holmes (1991)
134	Xenteeth No'	Kari (1999)
70.1	Hentith No'	Kari et al. (2012)

A given place may also be assigned different numbers in different languages.

Table 3: Variation in numbers assigned to lake east of Lower Dall River (no GNIS entry)

Number	Name	Language	Source
63	Noochooonee Tl'ene' Bene'	Koyukon	Raboff & Kari 2011
1128	Nuchuni Tth'ena Bena'	Lower Tanana	Kari et al. 2012

Lack of a common system for identifying locations of Native place names is a significant barrier to progress in name documentation. Researchers cannot easily discern which places already have documented names, and which still lack names. Sharing of data between researchers is difficult. The general public and researchers outside the linguistics and anthropology fields have almost no access to existing documentation. Because of this it is extremely difficult for an individual with knowledge of a given place name to contribute to place name documentation in Alaska. There is no ready way to discover whether a name has already been recorded for a given place.

A Place Name Registry

A name registry could lower many of the current barriers to place name research by providing a consistent and common standard for identifying the locations of named places. In order to see how such a system might be beneficial it is useful to consider some parallels.

The field of linguistics faced a similar challenge a few decades ago with the identification of languages. As linguists rushed to document the world's 7000 or so endangered languages, the lack of a common standard for identifying languages led to much confusion. Was "Aleut" spoken on Kodiak Island, the Aleutians, or both? To solve this problem linguists worked on the development of a new international standard 3-letter code, adopted in 2007 as ISO 639-3. Using this system the language spoken on the Aleutians, known variously as Aleut and Unangan, is *ale*; and the language of Kodiak Island, known variously as "Aleut", "Alutiiq", and "Sugpiaq", is ISO code *ems*. A registration authority maintains the ISO 639-3 codes, providing a name resolving service and arbitration regarding language divisions (http://www-01.sil.org/iso639-3). The ISO 639-3 registration system is far from perfect,

since the distinction between language and dialect remains a fuzzy theoretical concept. However, the system has been almost universally adopted and has become the de-facto standard; for example, the National Science Foundation now requires that proposals for language documentation make use of the ISO 639-3 registry.

The field of archaeology faces similar challenges in the identification of archaeological sites. As with place names, it is crucial to know whether a particular site has already been documented, and to know the history of research on that site. Without a common database of sites this task would be formidable, since site reports are compiled by various agencies and researchers, often without public access. To address this problem the Alaska Heritage Resources Survey (AHRS) was created. The Alaska Department of Natural Resources Office of History and Archaeology serves as the registration authority and maintains a password-protected portal to access the database. AHRS also ingests new site documentation submitted by researchers (http://dnr.alaska.gov/parks/oha/ahrs/ahrs.htm).

Finally, it should be recognized that a place names registry does indeed exist for Alaska in the form of the US Board on Geographic Names Geographic Information Service. GNIS assigns a unique ID to each officially named place and provides a name resolution service which allows users to locate official names using recognized variants. While GNIS could help to resolve some of the issues with Alaska Native place name documentation, two key aspects of GNIS render it inappropriate as a registry for Native names.

First, GNIS only catalogs places for which official names have been adopted. The official naming process is governed by federal statute, and the barrier to official name adoption can be quite steep and politically charged. Witness the long-standing and as yet unsuccessful campaign to adopt "Denali" as the official name for Alaska's tallest mountain. GNIS currently lists about 31,000 official geographic names in Alaska. While a significant (but unknown) portion of these may be of Native origin, conservative estimates place the total number of Alaska Native place names at over 50,000. Hence, GNIS in its current form does not begin to cover the state.

Second, GNIS and the Board on Geographic Names process is founded on the assumption of a one-to-one correspondence between locations and names. This convention ignores the very real existence of multi-lingual naming. The place known in English as "Talkeetna River" is known in the Dena'ina language as *K'dalkitnu*. GNIS can represent this name as a "variant" but has no way to distinguish among variants which are actual Native names and variants which happened to be reported in error. In fact, GNIS lists 8 variants for Talkeetna River; these variants are intended as a discovery tool, allowing users to locate the place regardless of how it has been referred to in previous publications. This problem is exacerbated for places which are named in multiple Native languages. Among the most famous of these is Mt. McKinley, which has names in 7 different Alaska Native languages. While these 7 names are included among 47 variant names, GNIS does not indicate which name corresponds to which language.

Names Versus locations

If we decouple the one-to-one correspondence between names and locations assumed by GNIS, then we must decide whether a registry should be based on names or on locations. Several lines of argument support basing a Native place name registry on location rather than on names. That is, the registry should be a registry of locations which have Native names.

The challenge for basing a registry on location rather than name is that there may be uncertainty as to the precise location of a name. Not only is there variation between researchers as to the location of a name, there is also uncertainty within the work of a given researcher. For example, Andrews et al. (1980) offer two different locations for the Lower Tanana name *Dradlaya Chaget*, along the Chatanika River.

Figure 1: Excerpt from Andrews et al. (1980) map showing locations of *Dradlaya Chaget*

This type of location discrepancy is usually minor and is usually not significant. More often such apparent discrepancies reflect the low resolution of name locations. For example, names located using 1:250,000 quads may be only be approximate. On the other hand, names located in the field using GPS may be artificially precise, representing a place with areal extent as a single point. Where such discrepancies are significant and actually represent differences in the analyses, this can be indicated using descriptive metadata. A single location can serve as a point of reference.

A less tractable problem arises with names for which the location is not merely uncertain but unknown. This arises for example in cases where a speaker recalls a certain name but does not know its location. Here different solutions are possible. One would be simply to ignore such data points, since these are in some sense not geographic data (or at least not geolocated data). Another solution would be to code this uncertainty into the name database. So for example, if a speaker knew that a name was located in a certain drainage, then this drainage could be entered along with the name and an assigned level of

uncertainty. The problem with the latter approach is that such uncertainty is usually specific to only a certain dataset; it is unlikely that another dataset would contain an unknown name which would apply to the same bounded region of uncertainty.

In spite of the aforementioned challenges, location is the single property which can readily join together multiple geographic datasets. Basing a registry on location allows facilitates interoperability with GNIS through the GNIS feature ID. (In fact, one approach to building an Alaska Native language place name registry would be to start with GNIS and build out from there.)

Implementation

I believe the details of implementation are best left to future discussion, bringing together key stakeholders and experts in geographic databases. One major issue to be resolved is whether a registry should serve as an authoritative reference for Native names. Clearly the registry would need to offer names in multiple Alaska Native languages, but how should a registry handle cases where there is more than one name in a given language for a given place? Arbitrating between competing names and recognizing valid alternates is a worthy goal and would provide a useful service to users. However, such arbitration requires expert oversight, adding to the bureaucratic burden of maintaining a registry. Other potential issues for discussion:

- database structure
- appropriate metadata
- procedure for adding new locations and names
- procedure for adding new names to existing locations
- how to remove locations
- advisory/governing board
- funding (startup and ongoing)
- location of the registry
- appropriate partners
- dissemination and access

Related Efforts

The Alaska Native Place Names project was initiated in 2011 by Gary Holton with support from Alaska EPSCoR. ANPN is essentially a "lost and found" project which seeks to identify existing sources of Alaska Native place name data and provide a central repository for those data. In 2014 ANPN partnered with the National Snow and Ice Data Center in Boulder, Colorado to develop a geo-database for Alaska Native place names, building from the Exchange for Local Observations and Knowledge of the Arctic (ELOKA) project (Gary Holton and Peter Pulsifer, PI's). This effort makes use of the Nunaliit atlas framework, an open source geo-database which facilitates interactive community-based mapping. While Nunaliit may not be appropriate as a name registry, it could provide a vehicle for disseminating place name information from a name registry.

- Alaska Native Place Names Project: http://www.uaf.edu/anpn/
- ELOKA Yup'ik Atlas: http://staging.eloka-arctic.org/communities/yupik/atlas/
- Nunaliit Atlas Framework: http://nunaliit.org/

Many other efforts to compile place name data for Alaska exist on a regional scale. These include the National Park Service, Bristol Bay Native Corporation, and the Iñupiat Hisotry, Language, and Culture department of the North Slope Borough. There are likely other of which I am not aware. A useful task would be to compile a list of these related place name efforts.

References

Andrews, Elizabeth, Chad Thompson and Peter John. 1980. Native Names of Minto Flats and Vicinity, Central Alaska. Fairbanks: Tanana Chiefs Conference and Minto Village Council.

Gudgel-Holmes, Dianne. 1991. Native place names of the Kantishna Drainage, Alaska. Anchorage: National Park Service Alaska Region.

Holton, Gary. 2011. 'Unknown unknowns' and the retrieval problem in language documentation and archiving. Language Documentation and Conservation 5.157-68. Online: http://hdl.handle.net/10125/4496

Kari, James 1999. Draft Final Report: Native Place Names Mapping in Denali National Park and Preserve. National Park Service.

Kari, James. 2010. The concept of geolinguistic conservatism in Na-Dene prehistory. The Dene-Yeniseian Connection, ed. by J. Kari and B.A. Potter. Fairbanks: Department of Anthropology, University of Alaska Fairbanks.

Kari, James, Gary Holton, Brett Parks and Robert Charlie. 2012. Lower Tanana Athabaskan Place Names. Fairbanks: Alaska Native Language Center.

Raboff, Adeline Peter and James Kari. 2011. Compilation of Yukon Flats Athabascan Place Names for Stevens Village, Beaver, Birch Creek and Fort Yukon. Fairbanks: Dena'inaq' Titaztunt and Alaska Native Language Center.