A Preliminary View
of Hydronymic Districts in
Northern Athabaskan Prehistory

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Stream drainages and stream names have served as territorial markers and cardinal lines in the Northern Athabaskan cognitive mapping system. I have made a preliminary grouping of seven "hydronymic districts" for 31 Northern Athabaskan languages and dialects based upon patterned shifts in the stems in placenames meaning 'course of stream'. When expanding into new territory, Athabaskans generally have continued to share boundaries with other Athabaskans. The Athabaskan hydronymic districts reflect alternating choices of solidarity or division within the larger network of languages. The geographical distribution of the hydronyms, combined with etymological analysis, offer some indications of directionality of movement and seriation of innovations during a series of expansions from an Athabaskan nucleus.

The aboriginal Northern Athabaskan language area was one of the largest contiguously held sets of territories in the world occupied by a hunter/gatherer people.[1] Several of my previous studies on aspects of Alaskan Athabaskan territoriality (Kari 1988, 1989, 1994, 1996a, b) emphasized toponomy, but as a lexicographer for several languages I have noted all types of geographically grounded lexical items including environmental and biological terms, ethnonyms, and riverine directionals.[2] Here I consider the hypothesis that hydronymic districts or other boundary- and region-marking features may be present throughout Northern Athabaskan.

Based upon my earlier study of stream names in a corpus of about 10,000 Alaskan Athabaskan placenames (Kari 1996b), we can show that there has been a geopolitical partitioning of the Yukon and Tanana rivers via changes in the stems used in placenames for 'stream' (map 1). The

Alaskan languages group into downstream or western languages, which use *-na' in stream names; and upstream or eastern Alaskan languages, which use *-niq'ə (or ndíg, nign, njik). I refer to these as the na' and niq'ə hydronymic districts. There is an abrupt shift in the stems used for 'stream' in placenames at the Athabaskan language boundaries on the Yukon River between Koyukon and Gwich'in (around Beaver village) and on the Tanana River between Middle Tanana and Tanacross (around Delta and the Goodpaster River). There are also exceptions to the shift, in stream names above and below these lines on the Yukon and the Tanana, which suggest that alternations between a primary and a secondary hydronymic stem function to highlight names in the cognitive map (Kari 1996b). These shifts in hydronym stems seem to function as boundary markers, as signs for travel corridors, or perhaps as founding names given at the time of earliest occupation of a region. Further evidence of the geopolitical function of Athabaskan placenames in Alaska is found in the shift in stems meaning 'mountain' in four Athabaskan languages of south central Alaska (map 1).

Stream in Northern Athabaskan Languages

I have been gathering sources on toponomy for each of the Northern Athabaskan languages. For Canadian Athabaskan, available sources on placenames are very uneven, but it is a useful exercise to assemble what can be found. Optimally we would want a verified native language placename inventory for all the major features in the language area.

Table 1 and map 2 present a grouping of seven Northern Athabaskan hydronymic districts. For 28 of the 31 Northern Athabaskan languages or dialects I have researched, there is enough information to determine the dominant stem in stream names. For three languages (Beaver, Sarcee, and Mountain), the materials are very sketchy but allow a tentative assignment.[3]

The seven districts are presented in this order: A,B,C refer to the Yukon River drainage, from Western Alaska eastward to the head of the Yukon River, and the Continental Divide area around the British Columbia-Yukon Territory border (the Stikine Plateau area). D,E,F refer to the Mackenzie River drainage southward, including the Peace River. G refers to the southern Interior Plateau area of British Columbia.[4]

Table 1 presents a ranking of the general quality of toponymic data and a total number of placenames reviewed (if available); the primary

(1) and secondary (2) stems used for 'course of a stream' (with a total number in that Athabaskan language); the commonly used word for 'stream' (S); and the word for 'lake' in placenames (L). In the right-hand column I note the major drainages that score the language area, and the sources used.

Map 1. Alaskan Stream and Mountain Isoglosses

Table 1. Hydronymic Districts in Northern Athabaskan Languages

Language: # of Names /Grade of Documentation	1 = main stem in p.n. 2 = secondary stem in p.n. S = commonly 'stream' L = lake in p.n.	Major Drainages of Region (Sources)
A. *-na' languages: Western Alaska		
Ahtna: 1490/A	1 -na' (495) 2 -tu' (4) S k'əna' L -bənə'	Copper R (Kari 1983)
Dena'ina: 1894/A	1 -tnu (468) 2 ch'edenitən (21), -niq', -neq' (3) S k'ətnu L -vəne	Cook Inlet Basin, Stony R L Clark, L Iliamna (Kari 1980)
Upper Kuskokwim: 300/B	1 -na' (52) 2 -nik' (4) S srəxna', xUna' L -məne'	Upper Kuskokwim R (Collins 1985)
Ingalik: 285/C	1 -no' (50) 2 -nigh (1) S srəxno' L -vən	Lower Innoko R, Yukon R (Kari 1981)
Holikachuk: 120/C	1 -na' (40) 2 -nigh (1) S səxna' L -mən'	Innoko R (Kari 1981)
Koyukon: 2000+/A	1 -na' (500+) 2 -q'ədlət (20+), niq'ə (4) S k'əna', səxna' L -bənə'	Koyukuk R, Yukon R (Jetté 1910, Jones 1980)
Lower Tanana: 737/A	1 -na' (171) 2 -nik'e (10), xUn'e S xUn'e L -bənə'	Tanana R (Kari 1990)
Middle Tanana: 174/C	1 -na' (50) 2 -nigə (6),	Tanana R (Kari 1993)

		-na' or -nigə(8)	
	S	ch'əna'	
	L	-mənə'	

B. *-niq'ə languages: Eastern Alaska, Yukon Territory

Tanacross: 466/B	1	-ndíg (102)	Tanana R
	2	-nda' (13), -tu' (2)	(Kari 1983)
	S	hən	
	L	-mənn'	

Upper Tanana: 751/A	1	-nign (176)	Upper Tanana R
	2	-tu' (4)	(Kari 1991)
	S	hənign	
	L	-mənn'	

Gwich'in:

822/B, Alaskan	1	-njik (103)	Yukon R
	2	-k'ǫǫ (26)	(Caulfield et al.1983)
652/B, Canadian	1	-njik (126)	Peel R, Lower/McKenzie R
	2	-teetshik (85)	(Ritter 1976)
	S	gwinjik	(Kritsch & Andre 1994)
	L	-vən	

Han: 80/C	1	-juu, -ndək (45)	Yukon R
		(same root)	(Ritter & Johnson 1978)
	2	-chù' (1)	
	S	təchöö	
	L	-mənn'	

C. *-tu'ə languages: Yukon Territory, Northern British Columbia

Northern Tutchone: 74/B

	1	-chú, -chúa	Upper Yukon R, Pelly R
	2	tagé, -gé (3)	(Tom 1987)
	S	tagé, -tehgé	
	L	-mən	

Southern Tutchone: D	1	-chù	Upper Yukon R, upper
	2	-gà	Alsek R
	S	tágà	
	L	-mən	

Tagish: 130/A	1	-tú'ə (11)	Upper Yukon R
	S	tahgayə'	(Sydney 1980)
	L	-mən	

Kaska: D	1	-tu'ə	Upper Liard R
	S	tuzǫzə (creek)	
	S	tahgáh (river)	

Tahltan: C	1	-tu'ə	Upper Stickine R
	S	sanatu' (creek)	(Hargus & Kari 1988)
	S	tucho (river)	
	L	-mənə'	

D. *-nilənˠi languages: Lower McKenzie, north of Great Bear Lake

Hare: C	1	-nilíne'	Lower McKenzie R,
	2	lilíné', lilínegá'	Anderson R
		(creek)	(Rice 1978)
	S	deh (river)	
	L	-túé'	

Also found in Tolowa, Hupa, Chilula, Whilkut, Wailaki, Navajo, Chiricahua Apache, Lipan

E. *-dezhʷə' languages: Northwest territories

Bear Lake: 100/C	1	-de, -di (16)	Great Bear Lake
	2	-line, li (6)	(Osgood 1975)
	S	-de	
	L	-tu'ə	

Mountain: D	1	de	Keele R, South Nahanni R
	S	de	(Osgood 1975)
	L	-tu'ə	

Southern Slavey: C	1	deh, -dezé	McKenzie R, Lower Liard
	S	deh (river)	R, Lower Hay R
		deha, dehtsel (creek)	(Rice 1977; 1983;
	L	-túé, -mie	Bloomquist n.d.)

Dogrib: C	1	deh	Great Slave Lake,
	S	deh (river),	Yellowknife R
		nili (creek)	(Feenstra 1992)
	L	-ti	

| Yellowknife: D | 1 | -dezə | Coppermine R, Back R |
| | | | (Gillespie 1981) |

Chipweyan: B	1	-desə	Upper Thelon R, Seal R,
	S	des (river),	Lake Athabasca,
		desazə (creek)	Slave R
	L	-tu'ə	(Elford 1983)

F.   *-ɢah languages: Portland Canal, east-central British Columbia, west-central
     Alberta

Tsetsaut: 34/B	1	-gah (13)	Behm Canal, Portland
	2	-na', naq (4)	Canal
	S	togah	(Boas 1895; Boas &
	L	-mən	Goddard 1923)
Sekani: 57/B	1	-gàh (9)	Finley R, Upper Peace R
	2	-ts'eli (creek) (5)	(Hargus 1990)
	S	tagàh (river)	
	L	mən	
Beaver: D	1	-gah	Peace R
	S	sahgi (river),	(Goddard 1917;
		sahge (creek)	Story 1984)
	L	məge	
Sarcee: D	1	tsìsgà	Bow R
	S	tsìsgà, chìsgà	(Sapir 1922)
	L	-túchu	

G. *-qʷəh languages: Central British Columbia

Babine-Witsuwit'en: 498/A			
	1	-qwəh (55)	Upper Skeena R
	2	-ts'anli (30)	(Witsuwit'en People 1988)
	S	k'əqwəh	
	L	-bən	
Carrier: B	1	-koh	Upper Fraser R
	S	əkoh	(Morice 1932)
	L	-bən	
Chilcotin: D	1	-koh	
	S	əkoh	
	L	-mən	

Also found in Kwalioque-Tlatskanai, Galice, Bear River, Mattole, Sinkyone, Kato

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    Verified toponymic data are uneven throughout Northern Athabas-
kan, but if we combine the various historic sources with an analysis of
maps and gazetteers, along with the available oral placename data, we
find considerable evidence of large-scale regional patterning in the use
of the generic term for 'course of stream' throughout Northern
Athabaskan.

Map 2. Northern Athabaskan Hydronymic Districts
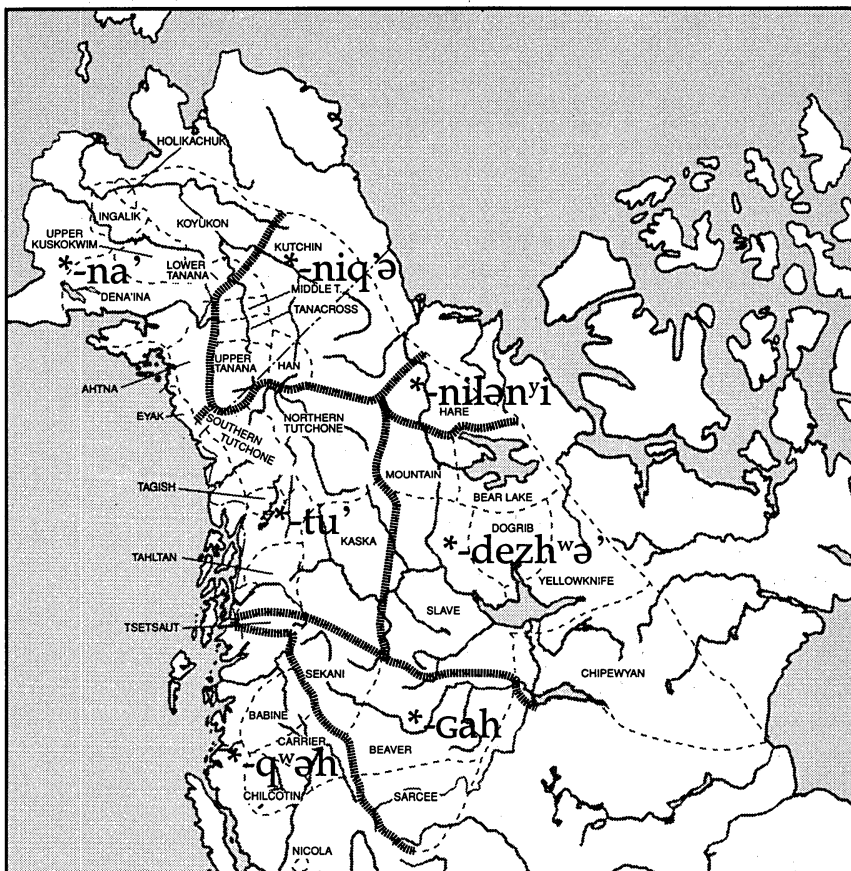
Etymological Comments on 'Course of Stream'

Etymological analysis of the dominant hydronyms can shed some light on the prehistoric significance of the hydronymic districts. However, I do not have thorough information on many fine points of hydronyms for many of the languages, especially information on the absence of specific stems and on the use of a secondary hydronym.

A. *-na' is a regionalized innovation, probably extended from the related set of noun and verb roots of the shape *na, na·, ne 'sign, premonition; move, move nomadically', found only in placenames in Western Alaska and not found elsewhere (except possibly in Tsetsaut).

B. *-niq'ə* is a regionalized innovation based upon the riverine directional stem *ni* 'upstream' plus the postposition *q'ə* 'on', 'on the upstream side'. This term is found only in eastern Alaska or as a secondary name in western Alaska and in the Yukon Territory. It apparently is absent elsewhere. As I have noted (Kari 1996b), "It is highly emblematic that the hydronymic stem *niq'e* can be traced to the riverine directional root *ni* 'upstream', and that the *niq'e* hydronymic district is in an upstream direction from the westerly district with *na'*."

C. *-tu'* or *-tu'ə*, the possessed form of *tu* 'water', is the plainest and probably oldest form for 'course of stream'. The word *tu* 'water, liquid' is found in all Athabaskan languages. There appears to be a significant semantic shift in the area of the Continental Divide, where the Yukon drainage languages have *-tu'* for 'stream' and *bən* for 'lake', whereas most of the Mackenzie drainage languages use innovated terms for 'stream' and then apply *-tu'* to 'lake' names. John Ritter (p.c.) notes that there are names in the Kaska area where *-tu'* is applied to either 'stream' or 'lake'. The element *-tu'* is also used to refer to 'stream' and 'spring' in many of the Apache languages.

D. *nilən^{y}i* is found in the smallest hydronymic district, and the only one that is represented by a single modern language, Hare. This is a nominalization of the basic proto-Athabaskan verb root, *lən^y* 'current flows', which is attested in all the languages. This root can occur in numerous nominalizations referring to types of streams and stream conditions; this particular form is an *n*-neuter, 'that which is flowing'. This same form is the secondary hydronym in Dogrib. Other nominalizations of this root appear as secondary hydronyms in various languages (e.g., Sekani, Dena'ina). Similar nominalizations are used in stream names in various Apache and Pacific Coast languages. It seems to be used as a default term, of minimum geopolitical salience.

E. *-dezh^{w}ə'* occurs in the largest hydronymic district. Most Athabaskan languages of the Northwest Territories use a possessed form of PA *desh^w* for 'stream'. An interesting series of semantic shifts has taken place. In Alaska *desh^w* is 'shoal, low island'.[5] *Desh^w* also occasionally occurs as a generic term in Koyukon and Lower Tanana placenames for a low river island. An example is *Yuqu Dezə'*, the Koyukon name for an island 16 miles above the confluence of the Yukon and Tanana Rivers; this is the only binomial name using the rather opaque name for the Yukon River. Gwich'in lacks a cognate term meaning

'shoal' or 'stream' (John Ritter, p.c.). Of relevance is a cognate Tanacross and Upper Tanana term applied to the 'yellowlegs' (Tringa spp.), the common shorebird that inhabits river bottoms: Tc. *des nəy*, UT *diah*. In Tanacross the name means 'the one that says "shoal"'. In Upper Tanana this word is a homonym meaning 'shoal' or 'yellowlegs', but more commonly the latter.

F. *-Gah* is from an areal noun meaning 'along, linear', probably a very early semantic extension applied to 'stream'. The element *-Gah* occurs in the noun 'stream' and in some placenames of the *-tu'* district in the Yukon Territory. On the Liard River drainage, *-tu'* and *-Gah* are probably intergraded, with *-Gah* becoming the dominant hydronym in the southerly drainages. However, I have very little data from the Slave-Beaver interface. Interestingly, *-Gah* is the dominant hydronym in the Tsetsaut names at Portland Canal recorded by Boas on the coast in 1894 (Boas 1895, Plate VII). The element *-Gah* is commonly used as an areal noun to mean 'along' in Canadian languages, but seems to be absent or very rare in the Alaskan Athabaskan languages.

G. *-qʷəh* is a regionalized innovation, restricted to the British Columbia drainages of the Skeena River and upper Fraser River, and significantly, to several Oregon and California Athabaskan languages. The Proto-Athabaskan origin of *-qʷəh* is more obscure than the other etymologies offered here, though it is probably cognate with the Ahtna and Dena'ina derivational string with *qu- 'into an enclosed space'; but this morpheme is not found elsewhere in western Alaska. It is also cognate with Navajo *kooh* 'arroyo'.

To summarize, the etymologies of the seven dominant hydronyms are accessible, and they can be structurally classed as follows: (a) one primary stem, *-tu'*, the plainest and probably the most ancient term in Northern Athabaskan stream names; (b) one nominalized verb *-nilənʸi*, which is widely attested but dominant only in one small district; and (c) five innovated terms for 'stream' that are restricted to specific districts: three semantic extensions of Proto-Athabaskan stems, *-Gah*, *-dezhʷ*, and *-qʷəh*; and two innovations, *-niq'ə* and *-na'*.

Some Prehistoric Implications of Hydronymic Districts

Etymological analysis of the hydronyms can be combined with an analysis of the geography and cultural history of the Athabaskan language areas. This is a rich topic, and we could draw upon ethnohistoric,

legendary, archaeological, or linguistic sources. I make a few brief preliminary generalizations.

One can speculate about what the hydronymic districts mean in relation to the modern-day differentiation we find among the Athabaskan languages. The history and complexities of classifying the Athabaskan languages have been the subject of considerable discussion (Krauss 1973, 943-50; Krauss & Golla 1981). The earlier ethnographic classifications of Northern Athabaskan have been rather arbitrary, and the languages do not fall into neat subgroups as in the sub-branches of Indo-European. The language relationships are best presented as a complex of dialects, as in the mapping of bundles of linguistic isoglosses. Some separate languages have been lumped (Carrier as opposed to Carrier vs. Babine-Witsuwit'en). Conversely, some groups, such as Beaver and Sekani, are a set of intergraded dialects. In some depopulated areas (the Coppermine River area or the Kuskokwim Mountains) there probably were other Athabaskan languages or dialects.

In contrast, the geography of the seven hydronymic districts is suggestively simple, and is vastly easier to summarize than is the geography of the Northern Athabaskan linguistic relationships (map 2). The Yukon River drainage is partitioned into three districts. The Mackenzie River drainage is partitioned into five districts. Two districts, *niq'ə* and *tu'*, straddle the Yukon and Mackenzie drainages. In my view the hydronymic districts reflect the drainage-marking activities of early band movements, and they imply an ordered series of radial expansions. Language differentiation and some internal migration have taken place over several millennia within and between the districts or in the context of the peripheral expansions.[6]

One of the best summary statements of Athabaskan geography remains that of Harrington (1940, 31-32) which is accompanied by a very interesting map (map 3).

> The homeland of the Athapaskawan bloc seems always to have been in the bleak interior of northwestern Canada, just as Algonquian has been in northeastern Canada. Not far north of the Missouri drainage, streams flow into the Arctic. The most northerly part of the Great Plains and the Laurentian Upland to its east have Arctic Ocean drainage. To the west of these northern Plains run the Rocky Mountains, and west of these, the Coast Range, known in its northern sections as the Alaska Range. Between the two ranges, a trough known as the Northern Interior Plateau extends

> all the way from Cape Prince of Wales to the United States line. The
> northernmost tip of the Great Plains lies within the Mackenzie River basin,
> and the northernmost tip of the Plateau in the great Yukon River valley.
> Practically all the interior northwest of North America has, as far as is
> known, been inhabited since immemorial times by the northern or nuclear
> branch of the Athapaskawan-speaking people. The diversity of their
> languages and dialects argues long occupation in situ. All evidence
> indicates that these northern people were the nucleus or homeland from
> which islands of southern Athapaskawan peoples, surrounded by alien
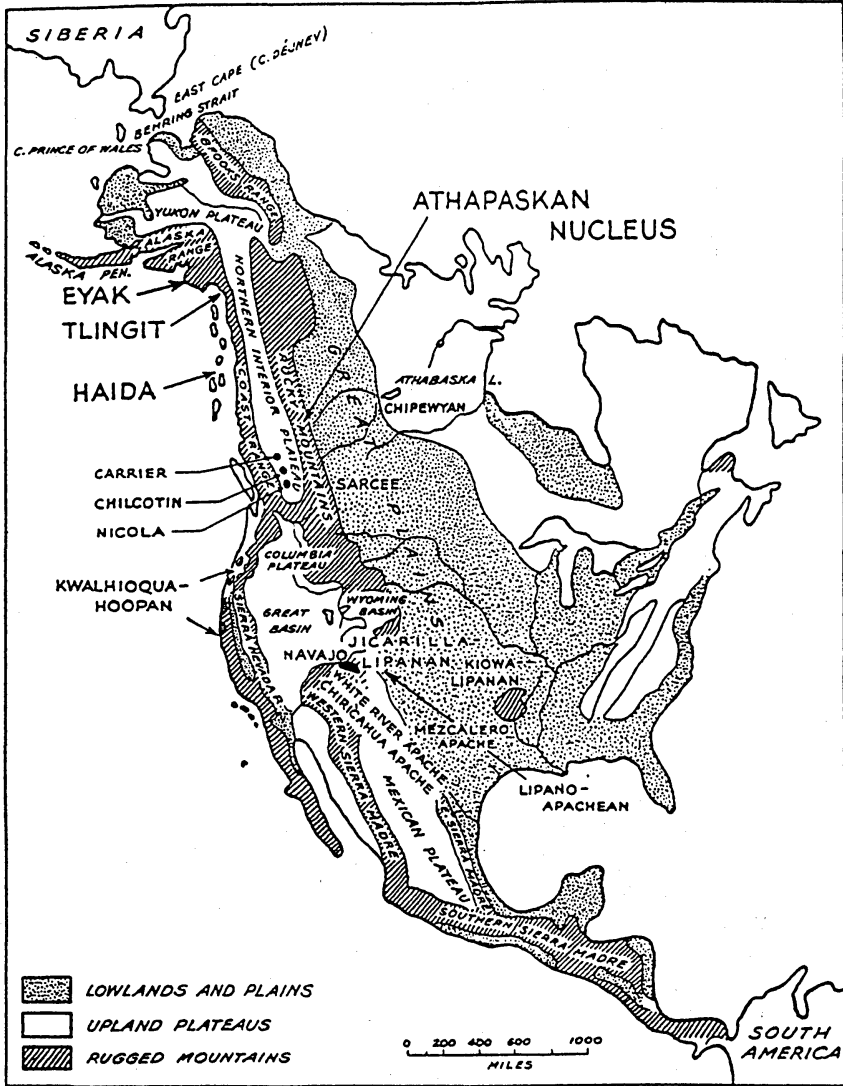> tongues, have broken off.

The map in Harrington 1940 highlights in white the upland plateau areas of northwest North America, some portion of which can be equated with the "Athapaskan Nucleus" and early expansions.

I offer the hypothesis that the hydronymic districts can contribute to a model of the expansion and spread within Northern Athabaskan. I present in figure 1 a generalized diagram of possible directionality and seriation in the hydronyms, along with a few brief comments.

I am placing the original nucleus in stage 1 at the Pacific/Arctic divide, where on Harrington's map the Northern Interior Plateau meets the Great Plains. It seems to be significant that the *-*tu'* district is on the Continental Divide that straddles three major watersheds: the Yukon, the Mackenzie, and the Stikine. This headwaters area around Dease Lake and the Liard River Plain in northern British Columbia was the geographical center for Northern Athabaskan at the time of contact, and, for the sake of discussion, I posit that this region was the Proto-Athabaskan homeland prior to the series of radial expansions.

From the vantage point of the *-*tu'* district, one finds that 'stream' is called by different names to the north, to the east, and to the south. In addition, I am especially intrigued by the second hydronymic shift in the area of the Yukon/Mackenzie divide. As is shown in table 1 in 'lake' hydronyms, there is a division for 'lake' in placenames: *-wənə' in the Pacific drainage, and *-*tu'ə* in the Arctic drainage. Furthermore, there seems to be a third layer of signage in some cross-cutting patterns in the Canadian languages, with the use of 'mountain'. (Map 1 shows how 'mountain' has two distinct regions in Alaska.)

Map 3. Distribution of Athabaskan (from Harrington 1940)

SIBERIA

EAST CAPE (C. DÉJNEV)

BEHRING STRAIT

C. PRINCE OF WALES

YUKON PLATEAU

ALASKA RANGE

ALASKA PEN.

EYAK

TLINGIT

HAIDA

NORTHERN INTERIOR

ROCKY MOUNTAINS

ATHAPASKAN
NUCLEUS

ATHABASKA L.

CHIPEWYAN

CARRIER

CHILCOTIN

NICOLA

SARCEE

KWALHIOQUA-
HOOPAN

COLUMBIA PLATEAU

WYOMING BASIN

GREAT BASIN

JICARILLA

NAVAJO LIPANAN KIOWA-
LIPANAN

WHITE RIVER APACHE

CHIRICAHUA APACHE

WESTERN SIERRA MADRE

MEXICAN PLATEAU

MEZCALERO APACHE

LIPANO-
APACHEAN

SOUTHERN SIERRA MADRE

SOUTH
AMERICA

LOWLANDS AND PLAINS

UPLAND PLATEAUS

RUGGED MOUNTAINS

0   200 400 600   1000

MILES

Athapaskawan divisions in relation to North American
topographic features.

Figure 1. A Model of Directionality and Seriation of Athabaskan Hydronyms
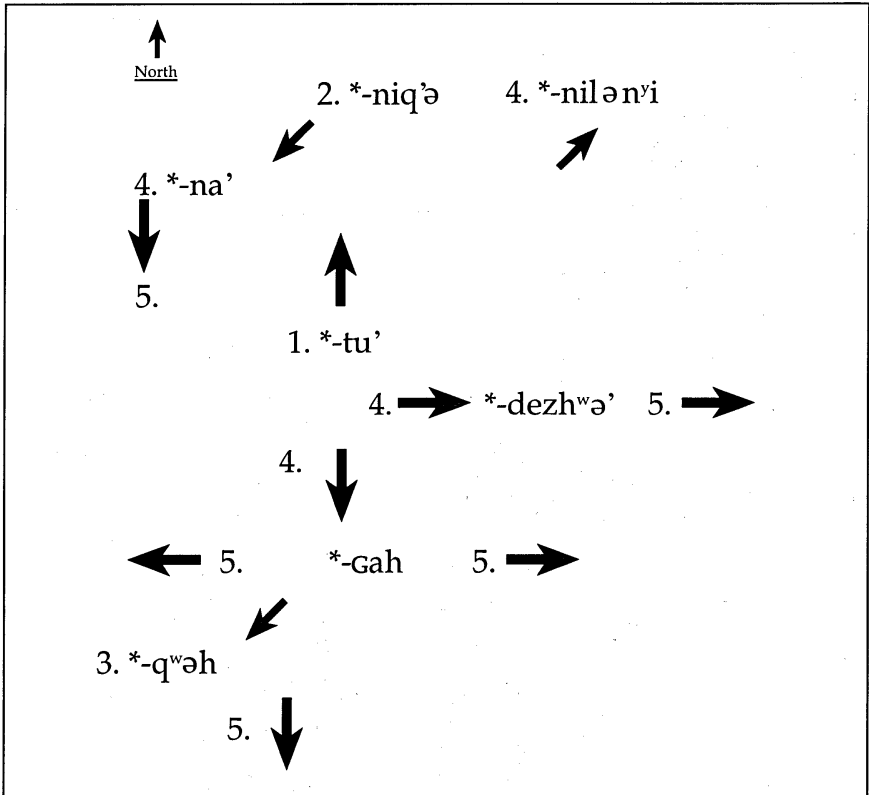
1. The Athabaskan nucleus: the Pacific/Arctic divide
2. 1st northward expansion: north to Tanana R and middle Yukon R
3. 1st southward expansion: south to Skeena R and upper Fraser R
4. Early peripheral expansions: west down the Yukon R, northeast to lower Mackenzie R, east toward Great Slave Lake; south down Peace R
5. Later peripheral expansions: south into Cook Inlet; east to Hudson Bay; south into Oregon; west to Portlad Canal; east to Bow R

   I further suggest that the first expansion from the nucleus, stage 2, was north down the Yukon River and into the Tanana River; *-*niq'ə* was innovated at that time. At stage 3, I speculate that there was an early southward move to the Skeena/Fraser divide at Babine Lake. Stages 4 and 5 I call early and later peripheral expansions. These represent some of the plausible movements without making finer-grained distinctions. I am suggesting that the declarations of distinct hydronyms took place

at stages 2, 3, and 4. In stage 5, these hydronyms were being extended into the peripheral territories.

Eventually a model of Athabaskan territorial expansion may be correlated with archaeological evidence. Archaeologists such as Donald Clark and William Workman have speculated that the Northern Archaic archaeological materials from the interior of northwest North America, which began 5000-6000 years ago, are associated with some historical Athabaskan groups (Clark 1991, 44, 56). Some "middle era archaeology" in northwest North America seems compatible with this model of Athabaskan expansion.

Hydronymic districts could have implications for clarifying some features of aboriginal Athabaskan political leadership. Some degree of regional coordination and negotiation must have taken place. It seems clear that there was a well-developed sense of boundaries, of boundary declarations, and of boundary maintenance. Within this continental network, the regional affiliation of individuals has been communicated by hydronyms and geographically based ethnonyms, as well as by sib clans and (as discussed by Ives 1990) a flexible Dravidian-based kinship system.

To summarize, as the Athabaskans expanded from a nuclear center, stream drainages and their placenames have been territorial markers and cardinal lines in the Athabaskan cognitive mapping system. When expanding into new territory, Athabaskans usually have continued to share a boundary with other Athabaskans. The hydronymic districts seem to reflect a truly archetypal process of geopolitical decision-making: an alternation of choices of solidarity or division within the larger network of languages.

Notes

1. I would like to thank John Ritter for his many contributions to Northern Athabaskan work, and Bill Bright, Patrick Marlow, and Barbara Townsend for their comments on an earlier draft of this paper. I accept responsibility for any errors of fact or interpretation.

2. I am also interested in how geography figures into the local culture history. For example, the Dena'ina have a fascinating prehistory of expansions through the Alaska Range and into Cook Inlet which can be traced in the lexicon of the dialects as well as in narratives of clan origins, travel, trade, warfare, and sacred places (Kari 1988, 1996a).

3. The orthographic conventions used in this article strive for maximal congruence. Consonants follow Athabaskanist practice and employ digraphs and trigraphs, e.g. *tth*. Front and back velars are standardized as *k, k', g, q, q', G*. Vowels in reconstructed Proto-Athabaskan (PA) forms and in specific languages are also standardized with single symbols: *i* (high front), *e* (low front), *u* (high back), and *a* (low back). In some languages (Deg Hit'an, Gwich'in), *o* is used as a mid back vowel. The symbol ə is schwa in PA forms and in most of the languages; *U* and *α* are used for the other reduced vowels. To further standardize the forms, vowel length distinctions, as in Middle Tanana and Ahtna, are ignored. Tones are marked if information is available.

4. Based upon a few days of work with three speakers in 1894, Boas (1895) published more detailed information on the geography of the extinct Tsetsaut on Portland Canal than is available for several Athabaskan languages that have received extensive anthropological and linguistic study. Beaver and Sarcee are assigned on the basis of a mere handful of names from Goddard 1917 and Sapir 1922. The Mountain dialect of the Slave language is tentatively assigned to a district based upon 14 names in Osgood 1975, said to be in Mountain territory. The native-drawn map from the 1730s presented by Gillespie (1981, 165), of streams from Churchill on Hudson Bay to the Coppermine River (over 500 miles to the northwest), records 14 Chipewyan or Yellowknife stream names with the stem *-dezə '*. A local Forest Service map of the Chilcotin area provides a number of examples of the hydronym *-koh*.

5. I have noted (Kari 1994, 242) that six shallow fishing lakes in Alaska, all with ancient village sites, have the same name, **Bən Desh^w Bənə '* 'shoal lake - lake'.

6. We can take into account evidence for proto-historic shifts in the language areas. Some jockeying for territory between Koyukon and Gwich'in has taken place for three or four centuries if not longer. Gwich'in bands extended much further to the west in the western Brooks Range until about 1800 (Burch & Mischler 1995), and their presence on the lower Mackenzie River may date only from about 1800 (Ritter 1976).

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