

PREHISTORY OF SALISHAN LANGUAGES

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0. **Background.** The question of an Urheimat for Salishan speaking peoples may never have been a major issue, but there has not been consensus about it either.¹ Since the late nineteenth century various scholars have made specific claims about the peopling of the northwestern United States and western Canada; often these claims were reasonable given the evidence available, although they have not always stood up to later investigation.

A specific case in point can be found in the claims about the peopling of this area made by Franz Boas, who was, the first scholar to make careful and detailed studies of a large sampling of the peoples of the area. During the late nineteenth century he made anthropometric measurements of a wide variety of Indians from British Columbia, Washington, and Oregon, made notes on their cultures, gathered extensive collections of their folklore, and collected important data on their languages. Basing his conclusions on the distribution of physical types and mythological motifs, as well as on archaeological evidence adduced by Harlan I. Smith, Boas claimed that Tsimshian and Salishan peoples had migrated to the coast from somewhere in the interior, although he allowed for the prior presence of Wakashans along the coast. Speaking of the Salishan area and referring to differences in stone-flaking techniques and in cranial types, he says:

"All this goes to show that there must have been a considerable change of population in this region, which in all probability was due to an invasion of tribes from the interior, by which the population of the coast was considerably modified. It is very interesting to know that this conclusion, which is based on archaeological evidence, is borne out by linguistic and ethnological studies It, therefore, seems reasonable to conclude that the Salish were new arrivals on the coast and displaced an older littoral people" (Boas 1905: 96).

Turning then to the Tsimshian to the north, he says:

Extended migrations must have taken place also in northern British Columbia and in the adjoining parts of Alaska.... [A] detailed comparison of the customs and folk-lore of the Tsimshian shows very clearly that their affiliations with the coast tribes have been recent. The Tsimshian ... possess a great many peculiar features which do not seem to fit into the general circle of coast ideas.... [I]t seems justifiable to assume that the Tsimshian are new arrivals in this part of the country, that they have gradually assimilated the customs

¹ 1 This paper is a conflation of papers read at the 88th Annual Meeting of the American Anthropological Association in Washington, D. C. on November 17, 1989 and at the Great Ocean International Conference at the North Pacific Studies Center in Portland, Oregon on March 21, 1990. I thank Wayne Suttles for comments and suggestions pertaining to topics treated in this paper. References to sources of language data are not given here; most can be found in standard sources especially Thompson 1979. Time has not permitted rechecking forms cited in this paper; they should therefore be used with caution.

of the coast tribes, that they have developed them somewhat independently, and that in their turn they have influenced the culture of the surrounding tribes" (Boas 1905: 97).²

In the long run, Boas's physical measurements proved inconclusive; additional data showed that physical types were not distributed as neatly as he had earlier believed, and could not be used as evidence of migrations at all. Archaeologists, too, eventually changed their minds; although Charles E. Borden long supported Boas's position, the generally accepted archaeological position today is that the original Salishan people lived on the coast (that is, west of the Cascade Mountains) and subsequently spread into the [2 198] interior. Ethnologists such as Charles Hill-Tout, Alfred L. Kroeber, and Philip Drucker, and the folklorist-anthropologist Melville Jacobs also posited movements out of the interior by various contemporary coastal groups, and here again more recent evidence often speaks against them. Suttles and Elmendorf (1963) specifically proposed a coastal origin for Salish, indeed in precisely the area to be suggested below (although extending further south; 1963: 45). A recent summation of the whole question has been made by Wayne Suttles (1987: 265-270), who argues for a coastal origin of the Salish on both ethnographic and linguistic grounds.

Suttles's arguments are of interest because they are the most specific to date regarding the spread of Salishan languages. His case is actually of a fairly general nature, but uses criteria widely accepted by linguists. In the early part of this century the linguist Edward Sapir suggested that the most probable homeland of the speakers of a group of related languages, and the area from which they dispersed, would most likely be the area of greatest linguistic differentiation within the language family and the area where the deepest splits occur. Applying these criteria to North American languages, linguists have proposed a central Alaskan homeland for the large and widespread Athabaskan language family. Homelands proposed on the basis of other criteria for some other families, such as Uto-Aztec, Iroquoian, Hokan, or Penutian, are in areas that might also be proposed on the basis of the greatest differentiation and the deepest splits. (A summary of speculations on homelands of American Indian language families can be found in Kinkade and Powell 1976.) Suttles's criteria, then, are in accord with the work of other scholars.

Still other procedures are available, however, for speculating on the homeland of a language family. Since the latter part of the nineteenth century, linguists have used the comparative method and lexical reconstructions to this end. Speaking specifically of Indo-European languages, the German historical linguist Hans Hock has written (1986: 574):

"The basic assumption is highly plausible: If we can reconstruct a word which refers to a particular plant or animal, then the speakers of Indo-European must have found that plant or animal in their environment (or close by). Through pollen samples in the appropriate layers of moors and through skeletal remains, it should then be possible to establish the area in which that plant or animal flourished some 5000 to 6000 years ago, at the time when it is commonly assumed Proto-Indo-European must have been spoken. And if we limit our investigation to those plants and animals whose habitat was geographically highly limited or unique, we should be able to pinpoint the exact area in which the speakers of Proto-Indo-European lived."

² Boas repeated, these claims about the Salish and the Tsimshian six years later at another International Congress of Americanists, this time in Vienna (Boas 1910).

This is the procedure that was used by Frank Siebert (1967) in locating the original home of the Proto-Algonquian speakers in the eastern Great Lakes region.³ The method is not infallible, and there has been considerable controversy even about the specific location of the homeland of Indo-European as deduced this way. Nevertheless, it provides a means of narrowing down the choices.

Curiously, in spite of the fact that northwestern languages have been studied now for over a century, no one has attempted to apply this method to any of the languages of the area. Some scholars have used various statistical means applied to vocabulary to attempt to suggest time depths for several language families of the area, and, as has been noted above, speculations about homelands on other bases have been made. Certainly there are enough data available now on most northwest languages that the comparative method can be used profitably, and homelands can be posited, although if one did so on the basis of *published* reconstructed Salishan vocabulary, one would probably reach the conclusion that Boas was right. However, more comprehensive studies of Salishan terms for flora and fauna that I have undertaken support Suttles.

1. Environment. Those familiar with the Northwest as a whole know that this region has two startlingly distinct ecological areas. The Cascade Mountains divide Oregon, Washington, and British Columbia into a semi-desert interior and a temperate, productive coastal zone. Weather coming off the Pacific Ocean keeps the temperature of the west side mild, and rain is abundant but spread throughout much of the year in light rainfall. Highs of 90° F and lows of 0° are considered extreme and are infrequent; high temperatures between 30° in the winter and 80° in the summer are more usual. As a result of the mild temperatures and the rainfall, plant life is abundant, and food resources are plentiful. This allowed Indians to live in permanent villages and to develop the elaborate cultures familiar to us from the literature.

The interior, as I will call it (and as it is usually called in the Northwest), is a different world. Temperatures are more extreme, with summer highs regularly in the 90s and above for about two months and winters often below zero. Summer rains are infrequent, and winter snowfall can be considerable. The result of this is a near desert, where everything is brown right down to the edges of the rivers during the summer, and soil is often thin and supports limited plant life.⁴ Life for pre-contact populations was not as easy as for coastal peoples, although fish, game, and plant foods were nevertheless abundant except in the very early spring before the new year's fish and plants appeared.

Given this sharp split between the coast and the interior in terms of flora and fauna, it is not surprising that a number of plant and animal species are unique to one zone or the other. However, many plants and animals occur on both sides of the Cascades, but may be far more common on one side than the other. For example, the dominant evergreen trees on the coast are red cedar and Douglas fir, while these are replaced in the interior by ponderosa and lodgepole pines. Cedar and fir occur in the interior, and pines on the coast, but are in both cases secondary. There are also differences between more northerly and more southerly species, although there are

³ This is more properly a homeland only for the eastern and central Algonquian languages, since Siebert did not include data from Blackfoot, Arapaho, or Cheyenne. Neither did he consider the more distantly related Wiyot and Yurok (in northern California).

⁴ 4 Some areas, of course, have excellent and deep soil, and irrigation in recent decades has allowed the development of excellent farms in this area.

fewer such differences, and the transitions are more gradual, than between the coast and the interior. These divisions in distribution of plants and animals provide a basis for attempting to determine a Salishan homeland.

2. Methodology. For this present study, I use my own reconstructions,⁵ based on data from all 23 languages of the family. Not all available sources are equally comprehensive in the necessary vocabulary, so gaps do occur, and it can be expected that further data will result in even more reconstructible forms.

I take a conservative stance in my reconstructions, and make only the most obvious observations on derivations; thus speculative reconstructions are kept to a minimum. I posit a reconstruction to the proto-language only if it is attested in two or more of the five branches of the family. Bella Coola and Tillamook, as outliers separated from the main body of the family by unrelated languages, as well as their having divergent structures, makes them particularly useful in comparing vocabulary. If either of these two languages has a word that has a cognate in other languages of the family, that word is a good candidate for reconstruction to Proto-Salish and is less likely to have been borrowed either within Salish or from a neighboring unrelated language.

In an attempt to rule out borrowing, I do not reconstruct a form if it is only attested in two or three languages that neighbor each other, even if they are in different branches, especially where regular contact was known to have existed. Thus the Tsamosan languages neighbor Twana and Lushootseed, and contact was frequent and easy. Further north, Lillooet and Thompson were in frequent contact with Halkomelem, Squamish, and Sechelt peoples via connecting waterways. Less is known about contacts across the Cascade Mountains between Lushootseed and Columbian speakers; both ethnographic and archaeological studies show that such contact existed, and was probably more common than we might expect today. It is known that marriages were arranged across the mountains, that coastal people regularly visited the headwaters of Lake Chelan, and also that groups of (interior) Columbian Salish speakers had settled in the (coastal) [4 200] Skagit valley by the 19th century (just as Sahaptin speaking peoples had moved across into the Nisqually, Cowlitz, and Lewis River valleys further south). Comparative linguistic evidence offers further support of this north Cascades contact, and suggests that trade between Lushootseed and Columbian speakers was common. For example, Columbian borrowed Lushootseed words for 'humpback salmon' (Cm *hánuw'*, NLd *hədu'*, SLd *hâdu*, with other cognates in Clallam, Straits, Chilliwack, Lillooet, Thompson, and Shuswap) and 'butter clam' (Cm *s'áx^wu'*, Ld *s'áx^wu'*, with other cognates in Nooksack, Straits, Halkomelem, and Squamish); both of these are coastal species. On the other hand, Lushootseed borrowed Columbian words for 'whitefish' (an interior species; Ld *x^wəy'cid*, Cm *sx^way'cín'*, Cv *x^wu x^wy'úcn*, and further cognates in Spokane, Kalispel, and Flathead), 'sockeye salmon' (Ld *sc'əwád(x^w)*, Cm *sc'uw'an'*, OkCv *sc'uwín*; I assume the borrowing into Lushootseed because of the analogical addition of a final *x^w* and because of the Colville-Okanagan form with the regularly changed vowel), 'blue grouse' (Ld *səsəq^w*, Cm *səsəq^w*, Sh *səsəq^w*, 'muskrat' (Ld *sqədix*, Cm *han'áx^w*, OkCv *s'ánix^w*, and 'coyote' (Ld *sbiáw*, Cm *smyáw*, Sp *smyéw*, Cr *smyíw* – the Lushootseed form seems to have been further borrowed into Samish as *sməyáw* and Nooksack as *smyú* [Curtis]; there are other cognates for this form, but meaning 'lynx').

⁵ 5 These may differ slightly from reconstructions offered elsewhere by, for example Aert Kuipers or Henk Nater. My reconstructions are based on a broader range of data than was available to others, although that does not necessarily make them better.

Also borrowed were words for 'grizzly bear' (Ld [Skagit and Snohomish] *stəbtáb*, Cm *stəm'tám'əl'*), 'dipper' (Ld *sx̣ʷʌx̣ʷc'q'*, Cm *xʷuxʷʌc'q'ʷ*), and 'bullhead' (Ld *stəbáykʷ*, Cm *stmáykʷ*); here the direction is not clear.

3. Proto-Salish. Using data available on all 23 Salishan languages, it is possible to reconstruct terms for over 140 plant and animal names. Since many of these plants and animals (especially mammals, birds, and trees) occur throughout the region where Salishan languages are or were spoken, the number useful for localizing a homeland is much smaller. Furthermore, not all kinds of flora and fauna are equally useful. Bird names are often of imitative origin, and are frequently similar even in unrelated languages; borrowing of a special nature seems to have affected this kind of name. The few insect names that are reconstructible refer to whole families or genera (such as bee, fly, spider), some members of which can be found in any part of the region.

The total list of plant and animal names that appear to be reconstructible at this time follows in (1). In several instances two, and sometimes three, names for the same species are reconstructible; the significance of this apparent synonymy is unclear. The names might have applied to different subspecies or the like, there may be semantic shifts involved, or one of the terms might be a later development than the other which then became widespread. A number in parentheses indicates the number of alternate terms reconstructible.

(1) aplodontia?, black bear (2), grizzly bear (2), beaver, bobcat, chipmunk, cougar, coyote, mule deer, fisher, lynx?, hoary marmot, mink, mole, mountain goat, mouse (3), muskrat, porcupine, raccoon, harbor seal, skunk, squirrel, weasel, whale, bushytail woodrat; cormorant, crow, duck (in general), mallard duck, bald eagle, flicker, goose, blue grouse, ruffed grouse, great blue heron, hummingbird (2), magpie, osprey, band-tailed pigeon, seagull (2), snipe, woodpecker; bullhead, flounder, perch, salmon (gen.), chum salmon, coho salmon, spring salmon, smelt (2), steelhead (2), sucker; bee (3), butterfly (2), flea (3), fly (2), louse (3), mosquito (2), spider, woodtick; barnacle, chiton, horse clam, littleneck clam, cockle (2), crab/crawfish, frog (2), mussel, oyster, sea cucumber, sea urchin, snail/slug, snake (2); blackberry (2), blackcap; blueberry/huckleberry (2), cattails, celery/wild rhubarb, wild cherry, cranberry, devil's club, blue elderberry, red elderberry, bracken fern (2), sword fern, wood fern, fireweed, gooseberry, grass, hazelnut, red huckleberry (2), lichen/moss, mushroom/fungus (2), nettles, wild plum, potato (2), Indian rhubarb, salal, salmonberry (2), seaweed, serviceberry, skunk cabbage (2), soapberry, strawberry, thimbleberry, tiger lily, tobacco, water-lily; alder, red cedar, cottonwood, Douglas fir, spruce, willow/dogwood?, yew [5 201]

Absence of a term from this list does not mean that the item was unknown to the Proto-Salish. In some cases, the original name may have been lost entirely, or retained with a distribution that does not permit reconstruction to the parent language. Examples of such items would be 'wolf and 'elk'; all Salishan languages have terms for these animals, but so many new names were made up for them over the centuries that no original names can be traced. Yet it is unlikely that the Proto-Salish did not know these animals, since they are widely distributed in the area.

3a. Homeland evidence. Of these names, roughly two dozen represent species found only on the coast, and hence suggest a coastal, rather than an interior, homeland for the Salish. These are given

in (2), along with my reconstruction of the Proto-Salishan forms (using standard Americanist phonetic symbols; an equals sign precedes lexical suffixes).

(2) 'harbor seal' * ζ asx^w''; 'whale' *q^wanís; 'cormorant' *mácák; 'band-tailed pigeon' *ham'im'ú; 'seagull' *q^waní(c); 'seagull'₂ *q^walítaq; 'flounder' *pəwáy'; 'perch' *s-k'âmək(')^w; 'smelt' *k'əmáni ζ ; 'smelt'₂ ?*q^walâstyu ζ ; 'barnacle' *c'um=us or *c'um=áy'u; 'horse clam' *mat'áy/t'amáy; 'littleneck clam' *k^wúx^w'ani ζ ; 'cockle'₁ *sinâ ζ =əq; 'cockle'₂ *s-žəlú ζ əm; 'oyster' *(k'ə)žâ^w-; 'sea cucumber' * ζ al'ás; 'sea urchin' *k^wíc'-; 'red elderberry' *k'ípt; 'bracken fern' *pəták^w-; 'bracken root' *sa ζ âq; 'sword fern' *s-ca-alím; 'wood fern' ?*c'âk^wa ζ ; 'red huckleberry'₁ *s-qála; 'red huckleberry'₂ *s-t'ix^wl'ím; 'salal' *mik'úl; 'salmonberry'₁ *yətawán'; 'salmonberry'₂ *q^wilá; 'seaweed' *lâq'əs; 'red cedar' *catáw; 'yew' *žəmâq'.

These words are useful for deciding between the coast and the interior; a smaller number point to north-south limitations. The most useful reconstructions refer to specialized species such as clams, ferns, and berries. Since more than one clam name is reconstructible (horse clam, littleneck clam, cockle), a coastal origin is clearly indicated because there is only one mollusc found in the interior. Ferns do occur in the interior, although they are named only infrequently, and then by descriptive terms that appear to be of recent origin; two or three kinds of fern (bracken, sword fern, wood fern) can be reconstructed to ProtoSalish, however, based on coastal languages. Names for up to fourteen berry species can be reconstructed, and four of these species are found only on the coast (red huckleberry, red elderberry, salal, salmonberry).

The evidence for the fourteen most useful of these reconstructions is given in (3),⁶ although no attempt will be made here to explain all the details of the correspondences.

(3) a. 'horse clam' *mat'áy/t'amáy; CxSl *mát'ay*, Pt *sm't'áy*, Se *smât'ay*, Lm *t'əmyéq* 'geoduck', Cl *t'âm(ə)čə ζ q* 'geoduck', SLd *st'âbcə ζ* , Tw *st'âbd^za* (borrowed from Ld); Qn *mit'áqs*; OkCv

⁶ 6 Forms between angle braces are in the orthography of my source for that language, and do not represent phonetic transcriptions comparable to other forms. The correct phonetic shape of these items is not available to me. Abbreviations of language names used here are Be Bella Cools, Ch Upper Chehalis, Chm Chemakum, Chn, Chinook, Ck Chilliwack Halkomelem, Cl Clallam, Cm Columbian, Cr Coeur d'Alene, CTs Coast Tsimshian, Cv Colville, Cw Cowichan Halkomelem, Cx Comox, Cz Cowlitz, Fl Flathead, Gt Gitksan, Hei Heiltsuk, Hl Halkomelem, Ka Kalispel, Kwk Kwak'wala, KwkN Nawiti Kwak'wala, Ld Lushootseed, Li Lillooet, Lm Lummi dialect of Straits, Lo Lower Chehalis, Mak Makah, Ms Musqueam Halkomelem, Na Nanaimo Halkomelem, Nk Nooksack, NLd Northern Lushootseed, Ns Nisqually dialect of Lushootseed, Nsg Nishga, Ntk Nootka, OCh Oakville dialect of Upper Chehalis, Ok Okanagan, Pt Pentlatch, Qlt Quileute, Qn Quinault, Sa Saanich dialect of Straits, SahNW Northwest Sahaptin, SahTd Taidnapam Sahaptin, Se Sechelt, Sg Songish dialect of Straits, Sh Shuswap, Sk Skagit dialect of Lushootseed, Sl Sliammon, SLd Southern Lushootseed, Sm Samish dialect of Straits, Sp Spokane, Sq Squamish, Ss Satsop dialect of Upper Chehalis, St Straits, TCh Tenino dialect of Upper Chehalis, Th Thompson, Ti Tillamook, Tw Twana, WSh Western Shuswap.

t'm't'm'áʔl 'snail', Fl *t'am'yó* 'snail', Cr *t'am't'am'yúye* 'snail', Cm *(s)t'am't'am'l'úy'a?* 'slug, polliwogs' [6 202]

b. 'littleneck clam' **k^wúx^wani* ζ ; Be *k^wuxani* 'nick clam', NLd *k^wúx^wdi* ζ , Tw *k^wáx^wadi*, Qn *k^wúx^wana* ζ 'butter clam', Lo *k^wúx^wni* ζ , OCh *k^wÁ^{-w}n* ζ , Cz *k^wúx^wni* ζ

c. 'cockle'₁ **sinÁ* ζ = *əq*; Lo *sí* ζ n, Cz <*sé'nek*> (unidentified shellfish), Ti *sisinÁ* ζ *əq* 'blue-neck clam'

d. 'cockle'₂ **s-žəlu* ζ *əm*; Se *sžĀl'um*, Sq *sžlú* ζ *əm*, Cw *sžəlá* ζ *əm*, Sa *sžəlá* ζ *əm*, Lm *sžəló* ζ *əm*, Sm *sž (ə)lá* ζ *əm*, Cl *sž i yú* ζ *əm*, Lo *sžú* ζ *ələm*, OCh *žó•lim-*, Cz *sžú* ζ *ələm* (and possibly also Sl *tliy* ζ *əm* and Cx *liy* ζ *əm*, although the initial consonant does not fit)

e. 'red elderberry' **k'ipt*; Be *k'ipt*, Cz *č'ipt*

f. 'sword fern' **s-ca-alim*; Be *-ala*; Pt *sa-álən*, Sq *c-álm*, CwMs *sθ-éləm*, Ck *(s)θ-é•ləm*, Sa *sθ-éyləm*, SgLm *s-éləm*, Sm *s-éləm*, Cl *sc-áyəm*, Ld *s-á-əl=č*, *s-Á-əl=č*; Ch *sá-lm*, Ti *s-elíw=i*; Th *s-á* ζ y' = *eq*

g. 'bracken fern' **pəták^w-*; Sq *pták^wm*, Hl *pték^wəm*, Nk *pték^wm*; OCh *paták^w=n'l*

h. 'bracken fern root' **sa* ζ *Áq*; Se <*sa'aq*>, Na <*sä'eq*>, Ck *séeq*, Nk *se* ζ *eq*, Sk <*saq*>, Tw *sa* ζ *Áq*; Ch *s* ζ *Áq*, Cz *scÁq*; Ti <*saa'k*>; Li <*cä'ak*>, Th *sé* ζ *aq* 'bracken fern'; Cw *səqé•n*, St *səqé•n*, Nk *sé* ζ *eqən*, Tw *sa* ζ *áq=ay*; Cz *cáq=an'l*; Li *se* ζ *q^w=úpze* ζ

i. 'wood fern' ? **c'Ák^wa* ζ ; Sq *c'Ák^wa* ζ , Ck *t^θÁk^we*, Lm <*tsuk'kwa*> 'small brake fern', Cl <*tsa'qwa*>, Ns <*tsō'kwi*>; Lo *c'q^wi* ζ 'fern sp.', (OCh *c'aq^wé* ζ 'tigerlily root'); Th *c'úk^we* ζ 'dried bracken root'

j. 'red huckleberry'₁ **s-qála*; Be *sqala*, Ck *sqe'•le*

k. 'red huckleberry'₂ **s-t'ix^wl'im*; Sl *t'ix^w* ζ *əm*, Cx *st'Áx^w* ζ *əm*, NLd *st'ət'ix^w* and *st'ít'ix^w*, SLd *st'ix^wib*, Qn *t'Áx^wl'əm*, Lo *st'Áx^wl'əm*, OCh *st'Á^{-w}lam* '-

l. 'salal!' **mik'úl*; Be *mik^wl*, Ti *wičúl*

m. 'salmonberry'₁ **yətawán*'; Pt *yətáni*, Se *yətwán*, NLd *d'ətg^wád*, SLd *st'Ág^wəd* and *st'Ág^wád*, Tw *yətáwad*, Lo *y'Átw'a* ζ , Ss *y'Átəwa* ζ , OCh *y'Átwa* ζ , TCh <*y'Átwa*>, Cz *y'Átawa* ζ , Ti *yət'Ág^wən*, Li *twén*

n. 'salmonberry'₂ **q^wilá*; Se *q^wíq^wl*, Qn *q^wəlÁ*, Lo *q^wəláh* and *sq^wəlil'^t* ζ [6 203]

The set of forms for 'horse clam' is interesting because of the Interior Salishan cognates, all of which mean 'snail' (with a further Change in Columbian). The three northern Central Salish languages, Comox, Pentlatch, and Sechelt, show metathesis of the first two consonants of the root

(it is this metathesized form that appears in Wakashan Kwak'wala, with a Kwak'wala suffix added). If the Quinault form is cognate, it has metathesized the second and third consonants and added a different suffix. The Interior Salishan languages that have a cognate for this etymology have changed the ending or added a new suffix; they also generally reduplicate the first two consonants and add diminutive glottalization of resonants. This indicates that the meaning 'snail' is secondary. The meaning is shifted to apply to a smaller creature, although still one with a shell. However, it may not be the shell that these creatures share that is relevant. One of the most remarkable characteristics of horse clams (and more markedly of geoducks) is the large neck that protrudes from the clamshell, and which cannot be retracted into the shell. It is probably this neck that is the common element in the coastal and interior terms. A semantic shift in the other direction is unlikely. Salishan languages seldom have words for both 'snail' and 'slug', and there is a separate, quite good etymology for this creature from forms in Bella Coola, Central Salish, Tillamook, and Interior Salish.

Three of the berry etymologies are remarkable in that in each case cognate forms occur in only two of the 23 languages; however, they are enough to claim they go back to Proto-Salish. This is because of the wide separation of the two languages in question, and the fact that in each case one of the two languages is Bella Coola, an isolated branch within the family, and the language that is always assumed to have split off earliest from the rest of the family.

The two 'salal' forms occur in the two isolated branches of the family, one at the extreme north and the other at the extreme south. The correspondences are just what should be expected. As can be seen [7 204] from the forms cited below in footnote 7, there are in fact similar forms in Northern Wakashan, but with an initial *n* rather than *m* as in neighboring Bella Coola. This could be a borrowing, although Sahaptin which has a form closely resembling the Wakashan one, is not close to any of the languages attesting this particular form. These present rather mysterious correspondences.

'Red elderberry' is almost as good, with cognates only in Bella Coola and Cowlitz, the southernmost language in the Tsamosan branch of the family. The third pair is 'red huckleberry'. Here the languages are not as far apart but there would certainly have been no recent contact between them.

The 'fern' words are not as spectacular as these, although they are just as convincing. What is interesting about ferns is that names for two, and possibly three, kinds of ferns are reconstructible, yet words for any kind of fern are virtually nonexistent in Interior Salishan languages. The forms for 'sword fern' occur in all four coast branches of the family; given its location outside the area where this plant is common, the Thompson form is likely a borrowing. The first word for 'bracken fern' occurs in the northern part of Central Salish and then again to the south of this entire branch in Upper Chehalis. The second 'bracken' word probably referred only to the edible rhizome of the plant; the third set of forms are clearly derived from this one. The root of the form is attested in Central Salish, Tsamosan, and Tillamook; the forms in Lillooet and Thompson may again be borrowings. The reconstruction of a form for 'wood fern' is less certain, largely because names for this plant are poorly attested and difficult to obtain; the plant was formerly an important food source, but has been little used for many years (Turner, et al. ms.). This probably accounts for the wide variety of translations given for these forms.

A small number of reconstructible plant and animal names, inconclusive as to origin in themselves, add support to conclusions based on the clam, fern, and berry terms. The fish reconstructed as 'perch' in (2) are not well identified in individual languages, making this species

somewhat uncertain; 'smelt' is more secure, although it is not clear how far up various rivers smelts travelled. Both the cormorant and the seagull are primarily coastal birds, but since both are reported from interior sightings, their support of a coastal origin of the languages cannot be more than secondary. Similarly, although both the red cedar and the yew are found in various areas of the interior, they are not dominant trees there, whereas the red cedar is one of the major coastal trees and was extremely important to native peoples all along the coastal lowlands. 'Harbor seal' and 'whale', if valid reconstructions, also strongly support a coastal origin. 'Bandtailed pigeon', 'oyster', 'barnacle', 'sea urchin', and 'flounder' would also support the claim of a coastal origin; however, similar forms occur widely throughout the area in several non-Salishan languages, and may in the long run turn out to be loanwords. It is even more probably that 'sea cucumber' and 'seaweed' were borrowed from neighboring Wakashan languages.⁷

All this evidence gives strong support to the notion of a coastal homeland for Proto-Salish. These people must also have had access to mountains, in particular the Cascade Mountains, because they had names for mountain goats and hoary marmots, both of which are found only at higher elevations.

Further delimitation of a homeland is possible. A number of animal species whose names are reconstructible did not occur at all in certain coastal areas. Vancouver Island lacks bobcats, chipmunks, [8 204] coyotes, fishers, mountain goats, porcupines, skunks, and rats, thus excluding Vancouver Island from the Salishan homeland. The coastal area north of the Fraser River, where Squamish, Sechelt, and Sliammon are spoken, can be excluded on similar grounds. In addition, bobcats do not occur very far up the Fraser River. Whether or not 'aplodontia' is reconstructible is uncertain; it also barely reaches into British Columbia (the areas where this animal is found are in

⁷ Because of biases toward Wakashans as the early occupants of the coastal region and Salish as an intruder from the east, any word shared by a Salishan language and a Wakashan language is often automatically taken as a borrowing by the Salishan language. This, of course, is nonsense; borrowing took place both ways. On the other hand, none of this early Salishan vocabulary seems to have been borrowed from any other language in the area, although some was borrowed (or is similar by areal contact) by Tsimshian, Chemakuan, Sahaptian, or Chinookan languages. Forms from neighboring languages that are similar to my Salishan reconstructions are the following:

'seagull'₁ Ntk *q^wini*, Mak *q^walal*, Qlt *k^walil*, Chn <*qonē' qonē*>; 'seagull'₂ Chm *q^wā* *ɛ* *ilit*;
 'band-tailed pigeon' [widespread]; 'oyster' Hei *žú-wžú-w*, Ntk *žó-wžó-w*, Mak <*kloh-kloh*>, Chn <*Lō'xLox*>; 'horse clam' Kwk *mət'áni* *ɛ*, *mət'ánay'i* *ɛ*; 'littleneck clam' Hei *k^wúx^wani*, Kwk *k^wíx^wani* 'geoduck'; 'cockle'₂ Mak <*klá-lab*>; 'barnacle' CT *c'ma•y*, Kwk *c'ú'um'a*, Qlt *c'ó* *ɛ* *bayo*; 'sea urchin' CT *ɖ'i&g^wi•c*, Nsg *c'ik^wic'*, Hei *c'k^wic'*, Mak *k'uča•pi-*, Qlt *cick^wóq^wa* *ɛ*, Chm *k^wočóq^wō*; 'sea cucumber' Hei *ɛ* *áll'ás*, Kwk *ɛ* *ál'as*;
 'flounder' Hei *p'uai*, Kwk *p'ó* *ɛ* *i* 'halibut', Ntk *p'ox^w-*, *p'ó* *ɛ* *i* 'halibut'; 'smelt'₁ (Kwk *k'áma* 'tiny fish sp. '); 'yew' Hei *ž'Ámq'ás*, Kwk *ž'Ámq'i*; 'red elderberry' Hei *k'ibát*, (Ntk *c'iw'i•pt*); 'salal' Hei *nk^wl*, Kwk *nək^wÁl*, SahNW *nik'ú(•)l*; 'salmonberry'₁ SahNW *ɛ* *aytún*; 'salmonberry'₂ (Hei *ğúláli*, KwkN *Gúlali*); 'sword fern' (Qlt *c'i-iž* 'fern roots'), SahTd *c-limay*; 'bracken root' Chn <*cā'qcaq*> 'pteris'; 'spinywood fern' (Kwk *cəgán'u*), Qlt *c'iq^wó•pat*; 'seaweed' Gtk *laq'asx^w*, Hei *lq'st*, Kwk *laq'ás* 'red laver'.

both Central Salish and Tsamosan, but these are contiguous, so borrowing might account for the similar forms in these branches). These facts point to a homeland south of the lower part of the Fraser River. In the other direction, it probably did not extend to the southern part of Puget Sound, however, because porcupines and lynx do not occur that far south. Location on the Olympic Peninsula is more difficult to determine based on flora and fauna, although Salishan occupation of this regions seems later for other reasons; the Clallam almost certainly arrived there from across the Strait of Juan de Fuca and Admiralty Inlet where the languages most closely related to Clallam are found, and the Twana would have been near the southern part of the original Salishan territory, moving southward and around the southern end of Puget Sound as the whole group expanded.

The homeland thus delimited for the Proto-Salish would extend from the Fraser River southward at least to the Skagit River, and possibly as far south as the Stillaguamish or Skykomish River. Expansion to the south would probably have been rapid in any case, since the country is relatively open and accessible. From west to east, their territory would have extended from the Strait of Georgia and Admiralty Inlet to the Cascade Mountains. A tongue of the family probably extended up the Fraser River through the Fraser Canyon; this is the most likely route of expansion into the interior (via the Thompson River), although Indians certainly knew a number of routes through the Cascades further south.

3b. Salishan expansion. Before abandoning the interior entirely as a possible homeland for the Salish, it must be pointed out that a homeland there would be difficult to prove in any case. In order to show that this were possible, plant and animals names would have to be reconstructed for the family as a whole, and then it would be necessary to identify those which are found only in the interior. However, since most of the languages of the family are found on the coast, their speakers would be unfamiliar with these exclusively interior animals and plants, and the initial reconstruction would be impossible on the basis of the only branch which is found in the interior. Names for fewer than forty species are reconstructible for the Interior Salishan branch alone, and of these, only eight to twelve represent exclusively interior species ('red fox', 'yellowbelly marmot', 'pika', 'sharp-tailed grouse', 'Clark's nutcracker', 'squawfish', 'rainbow trout', 'bitterroot', 'chokecherry', 'rye grass', 'lichen sp.', 'lodgepole pine', 'ponderosa pine'), and even some of these can be found in the Cascade Mountains and could have been known to coastal groups (although they generally lack names for them). In any case, they do not outweigh the evidence for a coastal homeland.

Expansion of the Salish into the interior may have been the last phase of the growth of the family. Interior Salishan languages are quite homogeneous, with structural diversity perhaps less than is found among western Germanic languages. This suggests fairly recent expansion within this group. On the other hand, the Salish on the coast probably expanded rapidly to the south, with the Tsamosan peoples at the forefront moving on beyond southern Puget Sound into the Chehalis River valley, and from there out to the Pacific Coast as well as continuing southward into the Cowlitz River valley. Understanding how the two outliers of the family, Tillamook and Bella Coola, reached their modern locations is more difficult. Neither language has close relatives within the family as a whole, although Tillamook is thought to resemble Central Salish more closely than it does other parts of the family. Bella Coola seems about equally distant from all others.

It is not possible at this time to speculate on how Tillamook got to the Oregon coast. It is separated from the rest of Salish by Chinookan and Athabaskan languages, and has ended up in an area of extreme linguistic diversity. Its separation from the rest of Salish must be quite old,

although whether the Tillamooks migrated across alien territory to reach their present location, or whether an earlier Salishan continuum has been divided by Chinookan expansion cannot be determined at this time.

Nuxalk Bella Coola, however, does provide the basis for some speculation of itself having an *interior* origin. It is usually assumed that the Bella Coola are an extension of the coast Salishan languages that either moved north of the Kwakiutl and Heiltsuk, or the latter moved in to separate an earlier Salishan [8 205] continuum. Certainly the Kwakiutl were expanding southward during the nineteenth century at the expense of the Comox and Sliammon. However, Bella Coola is not really more like Central Salish than Interior Salish; it shares velar consonant retentions with the Interior languages, but has gender categories like Central Salish. Both must be old traits of Salish. An examination of Bella Coola names for local flora and fauna, however, suggests that the Bella Coola may not originally have been on the coast at all. In his stem list of Bella Coola, Nater (1977) cites both Salishan and Wakashan forms that resemble those in Bella Coola. Of those for which he found similar forms, it is striking that the large majority of terms relating to typically coastal species (clams, salt water fish, and other sea life) are borrowed from Wakashan. Only one clam, 'harbor seal', and a seagull match other Salishan languages. This is hardly the situation that would be expected if the Bella Coola had been on the coast all along, and simply the northern extension of coastal Salish (although the location of their villages well up the inlets limited their access to some marine life – meaning that they could have lost some of the old marine vocabulary). Furthermore, that extension would be to the north of the Sunshine Coast (the coastal area north of the Fraser River), an area that I have said was probably not part of the Salishan homeland. Yet another suggestion of an interior origin for the Bella Coola is the sharing of a few terms cognate with interior forms, although not coastal languages: items such as 'porcupine quill', 'muskrat', 'fisher', 'willow grouse', 'hummingbird', 'fireweed', and others.⁸ These cognate sets are given in (4).

(4) 'porcupine quill': Be *sk^wult*; Li *sk^wÂl'*, Th *sk^wíç*, WSh *sk^wél*, Cv *sk^wált*;

'porcupine': Li *k^wÂl'k^wəl'*, Th *sk^wíç*, Ok *sk^wál'*, Cm *sk^wÂl'*, SpKaFl *sk^wíl'*, Cr *sk^w(u)k^wél'*

'muskrat': Be *klax^w*; Li *kəkl'éx^w*, Sh *skélx^weç*, Sp *č'č'léx^w*, KaFl *ččléx^w*, Cr *čálex^w*

'fisher': Be *cipsx*; Cr *cišps*

'ruffed (willow) grouse': Be *tak^ws*, *taq^ws*; Li *tek^wx^weç*, Th *tek^wx^weç*

'hummingbird': Be *-^w(n)-^wnm*, *-^wn-^wnam*; Sh *-^wé-^wneç*, OkCv *-^wnam-^wn(a)m*, SpFl *-^wním-^wnim*, Ka *ł-^w-^wən'í*; Fl *ł-^wən'í*

'fireweed': Be *c'ay-*; Sh *c'y--n=elp*, Cm *c'íçc'ay--álp* (unid. plant)

⁸ All these species are found on the coast as well, but not with cognate names; hence the distribution of these etyma does not suggest an interior source for Salish as a whole.

Note here particularly that the cognate words for 'fisher' are only in Bella Coola and Coeur d'Alene, the Interior Salish language located far to the east.

Putting the Bella Coola into the interior does not need to contradict my claim of a coastal origin for Salish. All that is necessary is that the Bella Coola be at the northern end of Salish along the Fraser River; this could place them south of or near the mouth of the Chilcotin River (now in Athabaskan Chilcotin territory), which would provide a rather direct route (upstream) toward the coast. This is not the only possible scenario to account for the present location of the Bella Coola and the vocabulary items similar to interior languages. It would be conceivable that they moved north essentially on the coast, but using inlets and river valleys to move north somewhat inland rather than staying along salt water. This would require contact along the way with interior groups (particularly the Lillooet) in order to pick up the interior vocabulary. 'Some suggestion that they were indeed in the area at the upper reaches of some of these coastal rivers (whether by a move up the coast or by a coastward spread from the interior) was given by some "older Chilcotins" who "believed that the Bella Coola once controlled most of the habitable lands along the east front of the Coast Range south of Anahim Lake" and that "Salish people lived around the headwaters of the Homalco river" and in "the main valley of the Chilcotin River" (Lane 1981: 402). However, a more interior origin for the Bella Coola is rather strongly indicated by the particular lexical shapes of forms for 'hummingbird', by the distribution of derivatives for 'porcupine' and 'porcupine quill', and by the fact that cognates for 'fisher' are found only in Bella Coola and Coeur d'Alene; some of the other Bella Coola-Interior Salish faunal similarities could be loans into Bella Coola from Lillooet, Thompson, or Shuswap. [9 206]

4. Beyond Salish. The use of lexical reconstructions for determining a prehistoric homeland is particularly well suited to a language family with several members, but less useful for families with few members, with members closely associated in a small area, or language isolates. Nevertheless, once a Proto-Salishan homeland has been determined there is considerable room for speculation about surrounding groups. In narrowing down the Salishan homeland to the relatively small area south of the lower Fraser River, all the areas now occupied by Salishan speakers become available for speakers of other languages. The evidence for such potential people is, of course, essentially eliminated by their replacement by the Salish. Nevertheless, it is probable in many instances that there were occupants before the Salish. It seems fairly clear that the Wakashans (Nootka, Kwakiutl,'eic.) occupied all of Vancouver Island and the south-central British Columbia coast. They may even have been further south on the coast than they were at first white contact, and were supplanted by Salishans moving north and by Bella Coolas moving across from the interior. This is the opposite of more recent spreading in this area; it is known that during the eighteenth and nineteenth century the Kwakiutl were expanding southward at the expense of Salishan neighbors.

The Olympic Peninsula was most probably occupied by Chemakuan peoples, who by the nineteenth century remained only as a remnant Chemakum group on the northeast corner of the peninsula and the Quileute on its northwest coast. Their discontinuous distribution suggests that they were earlier neighbors (this is confirmed by Quileute tradition) or that there were other languages in the family that disappeared long ago. George Gibbs (1877: 224) reported that he had been told that they once lived on the upper portions of the Nisqually and Cowlitz Rivers. If this report can be given any credence, it is possible that Chemakuan speakers once occupied, (not necessarily simultaneously), most of southwestern Washington, the Olympic Peninsula, and

possibly the southern Puget Sound area. They may have retreated into their recent locations on the Olympic Peninsula from southwestern Washington under pressure from the expanding Salish.⁹

Athabaskan groups in the area almost certainly arrived later than others, and are generally thought to have moved south out of Alaska by interior routes. Athabaskans have no maritime traditions, and are consistently found in wooded and mountainous areas. The penetration of the Tsetsaut to salt water on Portland Canal (at the southern edge of Alaska) was likely a relatively late move, and the Chilcotin are believed to have moved onto the Chilcotin plateau relatively late (Lane 1981: 402). Athabaskan migration to southwestern Oregon and northwestern California represents one of the earliest splits within this language family, and the small Athabaskan groups at the mouth of the Columbia River (Swaal ~ Kwalhioqua and Clatskanai) may have moved south at roughly the same time.

All other languages spoken in the northwest are either isolates (Haida, Kutenai, Molala, Alesa, Siuslaw) or belong to families with no more than four members (Tsimshian, Sahaptian, Chinookan, Takelma-Kalapuyan, Coosan); each of these families occupies continuous territory, and, except for Takelma-Kalapuyan, there are no deep divisions within the families. The Tlingit, of southern Alaska, speak a language believed to be distantly related to Athabaskan languages, but are close to what is [11 207] believed to be the Athabaskan home area; their location to the south of this region does not represent any great move. Sahaptian consists of only two languages – Nez Perce and Sahaptin – but these languages occupy a fairly extensive territory. This suggests recent expansion on the Plateau. There may, of course, have been other Sahaptian languages which were replaced by Salishan languages, or the earlier occupants of the Plateau may have spoken some other unknown language(s). Any or all speakers of these languages may have been in their modern

⁹ This suggestion that the Chemakum once lived on the upper reaches of the Nisqually and Cowlitz Rivers was apparently accepted by Collins (1949: 150), and repeated by Powell (1975: 3) (although both give a Gibbs 1855, reference rather than the correct 1877 one). The exact statement by Gibbs is:

I have been informed that the Tsemakum and Toanhūch once lived on the upper waters of the Niskwalli and Kowlitz Rivers, and the Satsop and the Satsall upon the south fork of the latter; but the Indians who made this statement declared that their own people, the Staklamish, had never moved. (1877: 224)

(The Toanhūch are the modern-day Twana or Skokomish, and the Satsall are the Black River Indians, a subgroup of the Upper Chehalis; Staktamish – the l is an error – is what the Nisqually Indians called the Upper Chehalis.) A different interpretation of this passage is possible. Gibbs does not give his source of this claim about earlier tribal locations. It is quite possible that it came from the informant who provided him with a Twana vocabulary; this was an Indian from Port Gamble (in 1854; the vocabulary was later 'corrected' with the help of another man, this time in Olympia; Pilling 1893: 27). Port Gamble is located at the northern end of original Twana territory, next to Chemakum territory, and intermarriage between the tribes undoubtedly took place. A Port Gamble informant might then refer to his combined ancestors having come from the south when in fact it was only the Twana, for whom such an earlier location would make much better sense than for the Chemakum. This is purely speculative, however, since the specific source(s) of Gibbs's information is unknown, and he did collect both Chemakum and Twana vocabularies.

locations for a long time. Not enough is known about most of them to allow speculation on their prehistory.

5. Conclusion. What is now needed is further examination of some of this vocabulary, as well as Interior Salishan forms for exclusively interior species, and study of material cultural names to help correlate Salishan homeland with archaeological evidence. Current archaeological thinking emphatically has Salish as beginning on the coast. Thus in general at least, linguistic evidence agrees with archaeological evidence, although archaeologists date many sites to a period earlier than can be meaningful in terms language history.

Undoubtedly the people who occupied early archaeological sites spoke something; we have no way of knowing what it was. It is also certain that Indians migrated into the North American continent, and that a language group such as Salish did not spring up *in situ*. The Salish came into their homeland of the Fraser River from somewhere else, although linguistic evidence does not tell us when or where. The same is true, of course, of all other American Indian languages. In positing a homeland, all that can be claimed is that this is the area from which the current members of a specific language family spread.

All this shows that linguistics can suggest a fair amount concerning the homeland and spread of language family, but needs diversity within the family to allow convincing claims to be made. Thus a number of speculations can be made about the development and spread of Salishan and Athabaskan languages in the Northwest, although little can be said about the other languages of the area. It is hoped that further study of these languages will provide additional insights into their prehistory. [208 12]

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