

S O M E H Y P O T H E S E S R E G A R D I N G
P R O T O - H O K A N G R A M M A R

Terrence Kaufman
University of Pittsburgh (through 2011)
IDLMA, El Cerrito CA (since 2013)

June 1989
September 2004
July 2011
October 2015

prepared for the Hokan-Penutian Workshop
July 4-5, 1989
Tucson Arizona

copyright 1989, 2015 by Terrence Kaufman

As I have said before, I believe that the Hokan hypothesis refers to a real genetic group, and that the ancestral language can be reconstructed in a fair amount of detail (See Kaufman 1989 = TK:FG).

The Hokan stock is made up of the following (reasonably) well-documented languages and families: 1. Pomoan family; 2. Chimariko language; 3. Yanan small family; 4. Karuk language; 5. Shasta language; 6. Achuan family; 7. Washu language; 8. Salina language; 9. Yuman family; 10. Seri language; 11. Chontal language area; 12. Tol (= Jicaque) small family.

Some other poorly-documented languages are probably Hokan, but because of lack of data they cannot serve as the basis of reconstruction: Esalen, Kochimi*, Pajalat, Komekrudo = Yeme*, maybe Kotoname = Yue*.

Others often thought of as Hokan are probably not Hokan: Chumash, Tonkawa, Karankawa. In any case, the first two, which are reasonably well documented, have not successfully been shown to be Hokan, in spite of Sapir's efforts.

Contra Sapir 1925 (aped in Greenberg 1987) Tlapaneko-Sutiaba is Oto-Mangean, not Hokan. Whether Hokan and Oto-Mangean are related remains an open question. In Kaufman 1993 I suggest that this is indeed the case.

I think it is fitting to form hypotheses about the grammar of proto-Hokan just as it is for phonemes and phonotactics. In any case a protolanguage can only be reconstructed by incorporating the whole range of the subparts of the descendant languages' structures. Most of the specific hypotheses discussed here are not new with me, but since Sapir no-one has attempted to lay out a typological outline of what proto-Hokan grammar may have been like.

These hypotheses can be met with various responses: [a] disinterest; [b] disbelief; [c] attempts to support them; [d] attempts to find better hypotheses. I address my remarks to those who find the latter two attitudes, [c] and [d], to be relevant and interesting.

I have formed these hypotheses on the basis of a thorough sifting of practically all Hokan comparative work and a growing but still less than deep knowledge of the attested Hokan grammatical structures.

To date the most notable contributions to Hokan typology and comparative Hokan grammar have been made by Sapir, Jacobsen, Langdon, Gursky, Grey, and Oswalt. Naturally I build on their work, while not necessarily accepting every detail of it.

I have some ideas about how the Hokan languages may have diversified, but they are premature. I do however have a fair amount of evidence to suggest a North : South division, North being 1-8, and South being 9-12. I attribute to proto-Hokan anything found in at least one Northern and one Southern language (group); I attribute to proto-Northern Hokan anything found in at least two non-adjacent Northern language (group)s, and to proto-Southern Hokan anything found in at least two non-adjacent Southern language (group)s. Of course, as a more detailed theory about Hokan diversification is worked out, some of what I have characterized as Northern Hokan or Southern Hokan may prove to relate to lower-level groupings.

I will discuss morphology first and word order second, since "today's morphology reflects yesterday's syntax" (modifying Givo*n's "today's morphology is yesterday's syntax", which overstates the case). To foreshadow a bit, Hokan morphology is typically OV, while several Hokan groups currently show VO syntax.

At this point in comparative Hokan studies it seems hardly exceptionable to project back to proto-Hokan times postulated etyma for grammatical morphemes if they show similar form and function. Because of changes in preferred word order, such items may not always be uniform for position. Etyma which do not occur in a fixed position, however/naturally, are suspect of being originally clitics or freely stressed words rather than affixes.

The number of postulable proto-Hokan or proto-Northern Hokan grammatical morphemes is quite large -- about 150. While some of them may be chimaeras, most of them probably are not. At least 90 grammatical markers can be postulated for proto-Hokan, being found both in Northern and Southern languages.

Grammatical traits that will be discussed are as follows in the order given: demonstratives, personal pronouns, nouns, verbs, adjectives, interrogatives, negatives, and quantifiers. First the general structure of proto-Hokan will be outlined. After that will be cited the etyma that fill the various grammatical functions.

Abbreviations are at the end of the manuscript, before the

Bibliography.

DEMONSTRATIVES (DEICTICS) and ANAPHORS

A rather large number of deictic etymologies -- about a dozen -- can be discerned in the Hokan languages. The reconstructibility of such a seemingly large number of deictics is not unusual and need not be suspect: Mayan, with a time depth of ca. 4200 years, has 15 of them. In Hokan languages deictic elements have often been the source of first and second person pronouns, noun classifying affixes, and tense-aspect-mood markers on verbs. Third person anaphoric pronouns are deictics by definition. RECIPROCAL and REFLEXIVE are represented by one etymology that is in origin a noun meaning 'back' or 'body'.

PERSON MARKERS, FIRST & SECOND PERSON

Most Hokan languages [e.g. Yan, Yum, Ser] have Accusative case-marking; some [e.g. Chi, C&E Pom, Cho] have Active case-marking. While Ergative languages often have completely different sets of person markers for Ergative versus Absolutive case (Mayan, Philippine languages), Accusative (Yuta-Nawan) and Active (Siuan, Masatekan) languages often show related or even identical markers for the case categories that encode Agent and Patient. Once the person markers of deictic origin are removed from consideration, the Hokan languages show 6 to 8 person marking etyma that refer to first and second person pronoun categories. Only one of these is explicitly plural in meaning, and may mark INCLUSIVE.

In Yana, an Obj-Subj suffixed person-marking combination follows TAM markers on the verb. In Chontal an Active person marker precedes the verb stem and a Neutral (= Stative) person marker follows all other verbal inflexional suffixes. In Yuman and Seri a prefixed Obj-Subj combination precedes the verb. In Chimariko Agent **or** Patient is prefixed to the verb (The category that is marked is chosen according to a person hierarchy). Since in Pom and Sal verbs are not person-marked for subject and object agreement, it seems likely that proto-Hokan had no such marking. The Chontal order reflects its SIVO pattern (VO is favored by Meso-American languages: I means indirect object), and the Seri, Yuman, and Chimariko patterns reflect their current SV and OV word orders, which are probably the proto-Hokan orders as well, although the pattern with full NP arguments is specifically SOV, not OVS. The Yana, Yuman, and Seri data suggest that in early Hokan there may have existed an O-V (O-S?) clitic combination for person markers. The Yana order would then reflect the verb-first syntax of Yana. If pHokan was an Active

rather than an Accusative language, the alignment categories of the pronominal clitic combination would be Neutral-Active. See below for possessor marking on nouns.

NOUNS

The NOUN STEM is made up of a ROOT optionally followed by a NOMINALIZER (4 exx), or a FIRST-ORDER NOMINAL SUFFIX (1 ex) and a SECOND-ORDER NOMINAL SUFFIX (3 exx). In Pomo and Chimariko a noun root may be preceded by another noun root to form a noun-noun compound with the first noun modifying the second; Salina and Yuma have no such compounding, and the status of such compounds in proto-Hokan is still in doubt.

		(NOMLZ)	
(ROOT)	ROOT	{	(NOM ₂)
		(NOM ₁)	

The NOUN WORD consists of a NOUN STEM plus up to two preposed optional grammatical markers, a POSSESSION STATE PREFIX [Pom, Sal, Yum] (3 exx), and a PROCLITIC CLASSIFIER (6 exx), one optional POSSESSION STATE SUFFIX (1 ex) and one obligatory CASE SUFFIX (8 exx). The classifier has become a prefix in many languages. It is possible that future study may lead to a slight modification in the order statement about pronominal inflexions. The cases are both locative and relational, but the only relational cases that have etymologies are limited to Southern Hokan and encode switch-reference (**same subject** versus **different subject**).

(CLASS) (POSS) **NOUNSTEM** (POSS) CASE

VERBS

The VERB STEM is made up of a ROOT optionally preceded by a STATIVIZER (2 exx), a CAUSATIVIZER (4 exx), or an incorporated INSTRUMENTAL PREPOUND [Pom, Chi, Yan ("primary verbs"), ?Sha, *Kar, Ach, Ats, Wsh, Yum, Ser, *Cho] (9 exx) and optionally followed by a FIRST-ORDER VERBALIZER (3 exx) and an incorporated DIRECTIONAL POSTPOUND [Pom, Chi, Yan, Kar, Sha, Ats, Wsh, Yum, Cho] (18 exx + 9 from NC).

Both Northern and Southern languages have instrumental prepounds. Only Salina seems definitely to lack them.

Both Northern and Southern languages have directional/locative postpounds. Again, only Salina seems definitely to lack them.

It is not clear whether there is evidence for simple noun incorporation or verb root compounding. No incorporation is found in ?Pom, Sal, or Yum. V-N incorporation is found in Yan, but is probably an innovation reflecting its VO syntax. Langdon 1988 shows that compound verb stems whose first member is not necessarily instrumental occur in Yana, Shasta, Atsugewi, and Washu.

```
(STAT) |
(CAUS) } ROOT (VRBLZ1) (DIR)
(INSTR) |
```

The VERB WORD (or VERB COMPLEX) consists of a VERB STEM plus up to three preposed optional grammatical markers and up to 5 postposed grammatical markers, of which one is obligatory. The preposed markers are [-1] PLURALIZER PREFIX (2 exx), [-2] FUTURE PROCLITIC (1 ex), [-3] TEMPORAL SUBORDINATOR PROCLITIC (2 exx). The postposed markers are [+1] PASSIVIZER SUFFIX (1 ex) or SHIFTER (2 exx), [+2] ANDATIVE SUFFIX (2 exx: Northern Hoka only), [+3] obligatory TAM₁ SUFFIX (8 exx), [+4] TAM₂ SUFFIX (2 exx), [+5] TAM₃ ENCLITIC (3 exx). VERB-TAM order is found generally in Hoka: Pom, Chi, Yan, Kar, Wsh, Sal, Yum, Cho.

```
(TEMP (FUT) (PL) VERBSTEM (PASS) (ANDAT) TAM1 (TAM2) (TAM3)
SUBORD)
```

ADJECTIVES

Some adjective-like words act like nouns and some act like verbs. It is likely that proto-Hoka had both kinds, and while it is possible that adjectives as a class had no independent existence, is equally possible that there were two kinds of adjectives which were neither nouns nor verbs, as there are in Nahua, Mayan and Bantu languages, to name just three cases.

INTERROGATIVES

In Amerindian languages and elsewhere, interrogative words are often encoded by lexical items that also have generic reference, such that **who?** = 'person', **what?** = 'thing', **where?** = 'place', **how?** = 'manner',

and so on. Three of the eight interrogative etyma so far identified have this property.

NEGATIVES

There are four widespread etyma with 'negative' meaning. This is quite a few, but not so many as to arouse suspicion; Oto-Mangean has three or four, Mayan has at least two, and Indo-European has two. If proto-Hokan indeed had four negative morphemes, they must have had at least partially different syntactic distributions.

QUANTIFIERS

There are three widespread etyma that mean 'one' and/or 'only, alone'. There are three that mean 'three', and two that mean 'two' (The Oto-Mangean stock also shows multiple etyma for most of the low numerical values, and little evidence for numbers above **five**). Etyma with values above **three** are found only in Northern Hokan (in my sense). The etyma for numerical values often can only be discerned by segmenting the numerals of the various languages into two or more parts. The various words for 'two' in the Hokan languages do not all reflect a single unitary proto-Hokan etymon, and the invented word **Hok[an]** does not directly represent any of them, although such was Dixon & Kroeber's intention.

Hokan Grammatical Etyma. Attestation supporting each etymon is named, but the linguistic forms are not cited. Where attestation is not cited, I couldn't find the etymology because it was filed out of order. Such items will be tracked down. Etyma cited in **BOLD** are found in both Northern and Southern Hokan languages.

(DEICTIC) DEMONSTRATIVES

- #i** 1. 'this' [N];
2. 'first person singular pronoun marker' [NC].
cf. #-i 'present/imperative' [N] (= demonstrative #i 'this/here') [Chi,Yan,Ach: Sapir,Gursky]
- #sV** 1. *demonstrative;
2. 'first person singular pronoun marker' [NC+TM];
'present tense marker' [N/S].
cf. **#-s(i)** 'present/future/same time' [N/S].
(= demonstrative #si 'this/here'.
See **#s** 'first person') [Sha,Ach,Ats,Yem: Sapir,Gursky]
- #Ti** 1. *demonstrative;
2. 'first person singular/plural pronoun marker'
(may contain #i 'this') [N/S: Ach,Ats,Wsh,Paj: Gursky].
- #ya** 1. 'this; here' [N/S];
2. 'first person singular/plural pronoun marker (exclusive?)'
[N/S: Pom,Chi,Sha,Yem: Gursky]
- #wa ~ #wi** 1. 'this; here' [N/S];
2. 'first person singular/plural pronoun marker' [N]
- #mE** 'this' [N/S: Pom,Yum: Grey]
- #(h)U** 1. 'yon' [N/S];
2. 'third person pronoun (marker)'
[N/S: Pom,Kar,Ats,Sal,Yum,Paj,Tol: Sapir,Gursky]
- #hE** 1. weak demonstrative [N];
2. definite article [N];
3. > absolutive suffix in Yahi. [Pom,Yan,Wsh,Sal: Sapir]
- #ha** 'third person pronoun (marker)
[N/S: Pom,Chi,Ats,Yum,Paj: Sapir,Gursky]
- #qa ~ #qi** 'weak demonstrative' [N/S: Ach,Ats,Cho: Gursky]

#La 1. `*demonstrative`;
2. third person singular/plural pronoun marker [N/S].
cf. #-la `imperative` [N/S] (?= demonstrative #La)

#n^ya `demonstrative: location unspecified` [N/S:
Pom, Yan, Kar, Sha, Esa, Sal, Yum, Paj, Yem, Cho, Tol: Sapir, Gursky]. cf.
#-Na absolutive noun suffix [N]. Could be the same as the
preceding item.

Certain Hokan demonstrative particles become absolutive suffixes in
Karuk and Esalen: #ta, #pA, and #sa.

#pA ~ #pi 1. weak demonstrative [S];
2. definite article [N];
3. > absolutive suffix in Kar, Esa. [Pom, Chi, Yan, Kar, Esa, Sal, Ser,
Tol: Sapir]

#ta 1. weak demonstrative [N/S];
2. third person pronoun marker [N/S];
3. definite article [N];
4. > absolutive suffix in Kar, Esa. This may share a morpheme with
#Ti, cited above. [Wsh, Yan: Sapir]

#sa 1. `yon` [S];
2. > absolutive suffix in Kar, Esa;
3. **#s** `first person singular pronoun marker` [N/S];
#si `present/future tense` [N/S]. This item was already referred
to above. [Kar, Esa: Sapir, Gursky]

#ZERO `third person` [N/S]

#ma free particle `reciprocal; reflexive (+/- possessive)` (<
#mak^y ~ #ma(L) `back` and/or *mat `body`) [N/S: Grey]

PERSON MARKERS, FIRST AND SECOND PERSON

#mi ~ #ma `second person pronoun marker`
[N/S: Chi, Pom, Yan, Kar, Sha, Ach, Ats, Wsh, Esa, Sal, Yum, Ser, Paj, Yem,
Cho, Tol: Sapir, Gursky]

#n^yi [i ~ a] `second person singular pronoun marker`
[N/S: Ats, Esa, Yum, Yem: Gursky]

#n^ya [gen] ~ #n^yi [N] 'first person singular pronoun marker'
[N/S: Chi, Yan, Kar, Esa, Yum, Paj, Yem, Cho, Tol: Sapir, Gursky]

\emptyset v [\emptyset ~ c[^]] 'first person singular pronoun marker'
[N/S: Chi, Yan, Paj: Sapir, Gursky]

#Ha 'first person singular/plural pronoun marker (exclusive?)'
[N/S: Pom, Esa, Sal, Yum, Ser: Sapir, Gursky]

#l^ye 'first person singular/plural pronoun marker'
[N/S: Wsh, Esa, Cho: Gursky]

#KV 'first person plural pronoun marker (inclusive?)'
[N/S: Pom, Yan, Sal, Cho, Tol: Sapir, Gursky]

#q^hv 'second person plural pronoun marker' (same as #KV?)
[N: Chi, Yan, Kar, Sal: Sapir, etc.]

NOUN DERIVATION

FIRST-ORDER NOMINAL SUFFIX [position +1]

#-l^y derivational noun suffix [N/S: Pom, Chi, Wsh, Esa, Yum: Sapir]

NOUN DERIVATION BY CLASS SHIFT [position +1]

Some of these create new lexical items, while others merely nominalize lexical verbs under higher predicates or other subordinators (as analogs of infinitives and participles). The latter suffixes I call 'shifters'

DEVERBALIZING NOMINALIZERS

#-yaw 'verb --> noun' [N: Pom, Yan, Kar: Sapir]

#-u: 'verb --> noun' [S: Yum, Ser: Langdon]

SHIFTERS

#-i7i [i₂ ~ a] 'infinitive' [N/S: Yan, Ser: TK]

#-t.A 'agentive' [N/S: Sal, Cho: Sapir, Gursky]

SECOND-ORDER NOMINAL SUFFIX [position +2]

#-c[^]i 'diminutive noun' [N/S: Pom,Yan,Kar: Sapir]

#-La [?*l^y] 'diminutive noun' [N:] Chi,Sal: Sapir

#+7θa 'female noun' [NC: Chi,Yan: Sapir]

NOUN INFLEXION

PROCLITIC CLASSIFIER [position -2]

The classifier category I have set up includes elements that have demonstrative, definitizing, absolutivizing, and classificatory functions in the various languages, and in grammatical status can be proclitic, inflexional, or derivational. Other things being equal, I take the loosest relation to be the oldest.

#p'- 1. 'absolute(?) noun prefix' [N];
 'derivational noun prefix' [N] [Sal,Pom]

#p^h(a)- 'adjective prefix' [N/S: Chi,Yan,Yem]

#p(a)- 'adjective prefix' [N/?S]

(All three of the above morphemes are etymologically distinct and also distinct from #pA [a ~ i] 'demonstrative' [N/S])

#t.- 1. 'proclitic article' [N];
 2. 'absolute noun prefix' [N];
 3. 'derivational noun prefix'
 [N] [Pom,Yan,Sha,Ach,Wsh,Sal: Sapir,Gursky]

#t.(a)- 'adjective prefix' [N]

(These two are probably distinct from #ta 'demonstrative' [N/S])

#l^y- 1. 'proclitic count noun article' [S];
 2. absolute noun prefix [N];
 3. derivational noun prefix [N] [Sal,Cho: Sapir]

#l- 1. proclitic mass/plural noun article [S];
2. absolutive noun prefix;
3. derivational noun prefix [N] [Sal,Cho: Sapir].
cf. #La 1. '*demonstrative'; 2. third person singular/plural
pronoun marker [N/S] [Esa,Yum: Gursky]

#c^- derivational (?) noun prefix
[N/S: Pom,Chi,Ach,Wsh,Yum: Sapir]

#C^h- derivational noun prefix [N/?S]

#s^i- derivational (?) noun prefix [N/S: Sal,Yum: Sapir,Gursky]

POSSESSION STATE PREFIX [position -1]

#7a:- 1. 'absolutive of intimately possessed noun' [S];
2. 'substance or mass noun prefix' [N/S].
1. and 2. are possibly different ways of looking at the same thing.
[Yum,Ser,Cho,Tol: Gursky]

#Hi:- 1. 'body-part prefix' [N/S];
2. 'possessed state of intimately possessed noun' [N/S].
1. and 2. are possibly different ways of looking at the same thing.
I refer to this marker as the part-possession marker.
[Pom,Chi,Yum,Ser,Cho: Gursky]

#k^{wh}i- 1. 'indefinite third person (+/- possessive)' [N/S];
2. 'absolutive noun prefix' [N/S];
3. 'derivational noun prefix'
[S: Pom,Kar,Sha,Yan,Wsh,Sal,Yum,Ser: Sapir,Jacobsen,
Grey,Langdon]

POSSESSION STATE SUFFIX [position +1]

#-Na absolutive noun suffix [N]. Could be the same as the
following item. [Yan,Kar,Esa: Sapir,Gursky]

#n^ya 'demonstrative: location unspecified'
[N/S: Pom,Yan,Kar,Sha,Esa,Sal,Yum,Paj,Yem,Cho,Tol: Sapir,Gursky]

CASE [position +2]

There are both relational and oblique case categories in the Hokan languages.

RELATIONAL CASE

#-K 'same subject' [S:Yum,Tol: TK?]

#-m 'different subject' [S:Yum,Ser,Tol: Langdon]

#+(7)a 'vocative' [N/S:Pom,Yan,Yum: Grey]

OBLIQUE CASE

#-lu [l ~ n] loc case 'by means of (instrument)'
[N: Wsh,Esa: Sapir]

#-awA [a ~ o] loc case 'from' [N: Pom,Wsh: Sapir]

#-a loc case 'at' [N: Pom,Yan,Wsh: Sapir]

#-l^y(a) loc case 'in(to)' [N/S: Pom,Chi,Kar,Yum: Langdon,Grey]

#-s^a [a ~ o] loc case '(with)in' [N: Kar,Wsh: Sapir]

(LOCATIVE ADVERBS. These items are often based on nouns that refer to parts of things, and sometimes have traces of their nominal origin, or indeed nominal nature, in the presence of the part-possession prefix *Hi:-)

(LOCATIVE ADVERBS that become locative case suffixes in some languages (Yum, Kar, Wsh) and prepositions in others (Sal, Yan). These are not locative case suffixes on the proto-Hokan level)

#Ki adv/case/prep 'at' [N/S: Yan,Kar,Sal,Yum,Ser: Sapir]

#x.aK'a adv/case 'together' [N: Kar,Wsh: Sapir,Gursky]

#(i)mE adv/case 'out (from); away (from)'
[N/S: Wsh,Yum: Grey] (#i is *Hi:-)

#aypV [?glott/asp] adv/case 'away' [N/S: Kar,Ser: Grey]

(LOCATIVE ADVERBS that become locative case suffixes in some languages (Pom), incorporated directionals in others (Wsh, Kar), and either/both in still others (Yan, Yum). These are not locative case suffixes on the proto-Hokan level)

#+(i)ma *adv/case/dir `with (instrument and accompaniment)`
[N/S: Pom, Chi, Yan, Kar, Ach, Esa, Sal, Yum: Sapir, Gursky]
(#i is *Hi:-)

#+yey *adv/case/dir `with, by means of`
[N: Pom, Yan: Sapir] (?#y₁ = *Hi:-)

#+yV *adv/case/dir `in` [N/S: Pom, Yum: Grey] (?#y = *Hi:-)

#Iwi [i ~ a] adv/case/dir `on (top), above`
[N: Kar, Wsh: Sapir].
Related to words for `*mountain`.

#K'a adv/case/dir `near` [N/S: Pom, Yan, Yum: Gursky]

#K'a(m) adv/case/dir `toward, hither` [N: Yan, Kar, Sal: Sapir]

#+an [n ~ l] *adv/case/dir `toward` [N: Pom, Yan, Kar: Sapir]

#ma adv/case/dir `thither, there, elsewhere`
[N/S: Pom, Chi, Yan, Sal: Sapir, Gursky]

(LOCATION IN GENERAL. These markers are not case suffixes or incorporated directional postpounds)

#mina `back; behind` [NC]

#iT^hi `down; bottom` [N/S]

PLURALIZERS (especially of nominals). The relative order of these markers with respect to other inflexions of nouns is not clear.

#K `plural pronoun marker; noun plural marker` (mostly postposed)
[N/S: Pom, Wsh, Sal, Yum, Paj, Cho, Tol: Sapir, Gursky]

#-s[^](i) `dual and plural of noun/pronoun`
[N: Kar, Wsh, Esa: Sapir]

#-wi [i ~ a] `dual and plural of noun/pronoun/demonstrative`
[N: Chi, Yan, Kar, Sha, Ats, Wsh, Sal: Sapir, Gursky]

#-l^ye 'plural of noun/adjective/stative'
[N/S:Sal,Cho: Sapir,Gursky]

#n 'floating pluralizer' [N/S: Kar,Sal,Yum: Gursky]

ADJECTIVE DERIVATIONAL SUFFIXES

NOUN-LIKE

#-k^y 'adjective suffix' [N/S:Pom,Eaws,Yum,Tol: Sapir]

#-aRa 'noun --> adjective' [NC:Kar,Sha: Silver]
VERB-LIKE

#-ni 'adjectival; durative/intransitive/static' [N]

VERB DERIVATION

STATIVIZER [position -1]

#m(a)- 'stative/static (adjective/intransitive)'
[N/S: Pom,Chi,Yan,Esa,Sal,Yum,Ser: Sapir]

#qV- 'stative/static (intransitive/adjective)'
[N/S: Pom,Esa,Sal,Ser,Kot: Sapir]

CAUSATIVIZER [position -1]

#sV- 'transitive (causative) [N/S: Yan,Tol: Sapir] (weak set)

#a:- 'instrumental/causative' [SW: Yum,Ser: Langdon]

#K- 'instrumental/causative [SW: Yum,Ser,?Wsh: Langdon]

#pa- 'transitive/active' [N/S: Pom,Wsh,Sal,Yem: Sapir,Gursky]
(this may be an instrumental prepound)

#ta= 'causative' [N/S] (= tv *'to make, do')

INSTRUMENTAL PREPOUND [position -1]

INSTRUMENTAL PREPOUNDS are seemingly recruited mostly from noun and verb roots. They are found in most of the Northern languages and Yuman, but apparently not in the rest of the Southern languages, except sporadically in Chontal. A more thorough analysis of the lexicons of the Southern languages other than Yuman on the lines of Haas's and Hinkson's work on Karuk might uncover evidence of instrumental prepounds. The cognate instrumental prepounds that I have noted are assembled here.

#Pa= 'with the mouth' [N/?S] (< *'to say; shout').
cf. Cho **pa-lay** 'to speak' (pHok #Ley 'to speak').

#k^ya= 'by speech' [N/S] 'by speech' (< *'to speak, talk').
#k^ya=now 'to talk; tell' [N/S]

#qa= [Chi q'] 'by biting/chewing, with teeth/jaws' [N] (< *'to bite')

#ǰa= [ǰ ~ ǰ] 'with the mouth/teeth' [N/S] (< *'to bite')

#px.u= 'by blowing' [N] (< *'to blow')

#mi= ~ #ma= 'with the foot' [N] (< *'foot')

#pew= 'with the foot' [N] (< *'foot')

#is= 'with the hand' [N/S] (< *'to take, hold, bring')

#tu= 'with the hand' [N].

Not derived from any known noun or verb root.

FIRST-ORDER VERB DERIVATIONAL SUFFIXES [position +1]

#-a: numeral --> verb 'to do X times' [SW: Yum, Ser: Langdon]

#-(h)i noun --> verb 'to do X'
[N: Yan, Kar, Sal; cf. Yum: Sapir, Gursky]

#-ni 'adjectival; durative/intransitive/static'
[N: Chi, Sal: Sapir]

DIRECTIONAL POSTPOUND [position +2]

For a priori (or cross-linguistic typological) reasons I believe most of these markers are in origin incorporated verbs of movement.

#=(7)uL [l ~ n] 'down' [NC: Yan, Kar: Sapir]

#=Ri 'up' [N: Kar, Wsh: Jacobsen]

#=c^a [a ~ o] 'up' [N/S: Chi, Yan, Cho: Sapir, Gursky]
(weak set)

#=ema 'into' [NC: Chi, Yan, Kar: Sapir]

#=ta 'out' [NC: Chi, Yan, Ach, Ats: Sapir]

#=low 'apart, out' [NC: Chi, Yan: Sapir]

#=wV [w ~ m] 'thither, towards there'
[N/S: Yan, Kar, Wsh, Yum: Jacobsen]. See #ma locative postpound.

#=uk^y 'hither' [N/S: Chi, Yan, Kar, Sha, Wsh, Yum, Yem: Sapir]

#=PiL [p ~ p'] 'here and there' [N: Yan, Wsh: Jacobsen]

#=KaL 'into one's mouth' [N]

(LOCATIVE ADVERBS. These items are often based on nouns that refer to parts of things, and sometimes have traces of their nominal origin, or indeed nominal nature, in the presence of the part-possession prefix *Hi:-)

(LOCATIVE ADVERBS that become preverbs in Eastern Pomo and/or incorporated directionals in Northern California. These are not Directional Postpounds at the proto-Hokan level)

#Ca adv/dir 'away' [N: Pom, Yan: Sapir]

#sa [s ~ š] adv/dir 'through' [N: Pom, Chi: Sapir]

#mi (y) [i ~ a] adv/dir 'to the side'
[N/S: Pom, Yan, Yum, Ser: Sapir, Grey]

#ma (L) [l ~ n] adv/dir 'back; after' [N/S] (< '*back')

#(i)yow adv/dir 'down' [N/S: Pom,Kar,Yum: Grey] (#i is *Hi:-)

#ri adv/dir 'down' [N: Yan,Kar,Wsh,Sal: Gursky]

#=taN [t ~ t.] adv/dir 'down' [NC: Chi,Ach; cf. Kot: Sapir]

#=KuLV [l ~ n] adv/dir 'into' [NC: Yan,Kar: Sapir]

#px.uLu [l ~ n] or #fuLu adv/dir 'into the house'
[NC: Chi,Yan,Kar,Ach: Sapir]. The former accounts for Chi, Kar.
The latter accounts for Yan, Ach, ?Kar. It does not seem feasible
to combine all these. Perhaps #x^wuLu would account for all of them,
but *x^w is not known to occur before rounded vowels.

(LOCATIVE ADVERBS that become locative case suffixes in some
languages (Pom), incorporated directionals in others (Wsh,
Kar), and either/both in still others (Yan, Yum). These are not
Directional Postpounds at the proto-Hokan level. Already treated
above under NOUNS)

#+(i)ma *adv/case/dir 'with (instrument and accompaniment)'
[N/S] (#i is *Hi:-)

#+yey *adv/case/dir 'with, by means of' [N] (?#y₁ = *Hi:-)

#+yV *adv/case/dir 'in' [N/S] (?#y = *Hi:-)

#Iwi [i ~ a] adv/case/dir 'on (top), above' [N].
Related to words for '*mountain'.

#K'a adv/case/dir 'near' [N/S]

#K'a(m) adv/case/dir 'toward, hither' [N]

#+an [n ~ l] *adv/case/dir 'toward' [N]

#ma adv/case/dir 'thither, there, elsewhere' [N/S].
See #wV directional postpound.

VERB INFLEXION

TEMPORAL SUBORDINATOR PROCLITIC [position -3]

#n^ya free particle 'when, while, after' [N/S: Pom, Yum: Grey]

#{i)n^y(i)+ subordinator [N/S: Sal, Yum: Gursky].
May be same as preceding item.

FUTURE PROCLITIC [position -2]

#Ka- 'imperative/future'
[N/S: Yan, Kar, Wsh, Sal, Ser, Cho: Gursky, Crawford, Grey, Langdon].
This is related to #Kam free preposed particle 'future'
[S: Paj, Tol: Campbell]

PLURALIZER PREFIX [position -1]

#Pa- [ʔglott/asp] 'plural (human) object' [S: Yum, Paj: Gursky]

#m- 'plural verb' [N: Pom, Yan, Ats: Gursky]

PASSIVIZER SUFFIX [position +1]

#-p [ʔasp] 'passive' [N/S: Sal, Yum, Ser: Gursky, Langdon]

SHIFTERS [position +1] (already dealt with above under NOUNS)

#{-i7i [i₂ ~ a] 'infinitive' [N/S]

#{-t.A 'agentive' [N/S]

ANDATIVE SUFFIX [position +2]

#{-Tu 'go and VERB' [N: Yan, Wsh: Sapir]

#{-iL [i ~ a] 'go and VERB' [N: Kar, Wsh: Jacobsen]

TAM₁ SUFFIX [position +3]

#-la 'imperative' [N/S: Esa,Cho: Sapir] (?= demonstrative #La)

#-i 'present/imperative' [N: Pom,Yan,Wsh,Sal: cf. Yum: Sapir]
(= demonstrative #i 'this/here')

#-s(i) 'present/future/same time' [N/S: Yan,Yum,Ser: Gursky] (= demonstrative #si 'this/here'. See #s 'first person')

#-x^yA [x^y ~ x.x] 'future/optative'
[N/S: Pom,Chi,Yan,Yum: Gursky,Crawford,Grey,Campbell]

#-a 'past/aorist' [N: Pom,Wsh: Sapir]

#-aT' 'completive' [N/S: Kar,Ats,Wsh,Yum: Gursky]

#-n^yI [n ~ l] 'remote past'
[N: Pom,Yan,Kar,?Wsh: Sapir,Gursky,Jacobsen]

#-p^hi [i ~ a] (*p^h or *px.) 'hypothetical/if'
[N: Pom,Yan: Sapir]

#-ta 'desiderative/polite imperative'
[N/S: Pom,Sal,Cho: Gursky]

TAM₂ SUFFIX [position +4]

#-l^ye 'conditional/would' [N/S: Pom,?Wsh,Yum: Grey]

-k^yi (function unclear: seems to have many developments;
completive/past/preterit is the most common)
[N/S: Pom,Chi,Wsh,Yum: Sapir,Gursky]

TAM₃ ENCLITIC [position +5]

#+n 'imperative enclitic' [N: Kar,Sal: Gursky]

#+ma 'customary' [N: Pom,Yan: Sapir,Gursky]

#+(a)yu 'again/repeated/habitual' [N/S: Pom,Kar,Yum: Gursky]

OTHER ELEMENTS IN THE VERB PHRASE

#Hipa free particle 'in the past' [N: Pom, Kar: Gursky]

MISCELLANEOUS SYNTACTIC MARKERS

#Ka 'perhaps' [MA: Cho, Tol: Oltrogge]

#+k^{yh}(i) 'emphasis (especially with pronouns)'
[N: Pom, Yan, Wsh: Sapir, Gursky]

#+pa 'emphasis' [N/S: Pom, Yum: Grey]

#itá 'and' [N: Kar, Wsh, Sal: Jacobsen]

INTERROGATIVES

#ma '*person; who?' [N/S: Chi, Sal, Yum: Sapir]

#am ~ #aw '*something; who?; what?'
[S/?N: Pom, Chi, Yan, Yum: Sapir, Gursky] (?same as #ma)

#(a)c^{hi} 'thing; what?' [N/S: Chi, Yan, Ach, Yum, Ser: Gursky]

#Lu [l ~ n] 'where?' [N/S: Chi, Yum, Paj: Sapir, Gursky]
(fairly weak set)

#k^{ya} 'general interrogative'
[N/S: Sha, Kar, Ach, Yum, Paj, Yem, Cho, Tol: Sapir, Gursky];

#k^{yi} 'general interrogative' [N: Pom, Esa, Sal: Sapir, Gursky]

#Ku 'general interrogative' [N: Sha, Wsh: Sapir] (?= *k^{yu})

#x^{ya} [a ~ o] 'general interrogative'
[N/S: Chi, Paj, Yem: Gursky] (fairly weak set)

#-n 'interrogative suffix (?on verbs)' [N/S: Yan, Yum: Gursky]

NEGATIVES

- #ma:** 'negative' [N/S: Sha, Ach, Yum, Ser, Paj, Yem, Cho, Tol: Campbell]
#k^{yh}u (wa) 'negative' [N/S: Pom, Chi, Yan, Sal, Yum, Yem, Tol: Sapir]
#(a)x.u 'negative' [N/S: Chi, Yum, Ser, Paj: Sapir]
#sey 'negative' [N/S: Kar, Ser, Tol: Campbell]
#T'V 'negative' [N/S: Sha, Yum, Ser: Gursky] (weak set)
#pa [a ~ o] 'negative' [NC: Chi, Kar, ?Yum: Sapir]

QUANTIFIERS

- #s^e** 'one' [N/S: Pom, Yum: Grey]
#pey 'one' [N/S: Yan, Esa, Paj: Sapir, Gursky].
#p^ha 'one; only; alone' [N/S: Yan, Kar, Yem, Tol: Sapir].
#(xi)Pu 'first' [N/S: Chi, Yum: Sapir]
#k^y'a 'one' [N: Pom, Yan, Wsh: Gursky]
#(q-)x.ow(a) 'two' [N/S: Pom, Esa, Jic: Sapir, etc.]
#haq^hu 'two' [N/S: Ach, Ats, Cho: Sapir, etc.]
#(q-)x.ow=haq^hu [a ~ o] compound 'two' [Chi, Sha, Yum].
Contracted to #(q)x.aq^hu in Kar, Sal.

#x.a [a ~ o] 'first half of three'
[N: Pom,Chi,Esá,Yum,Ser: Sapir, etc.]

#ma 'second half of three'
[N: Pom,Esá: Sapir, etc.]

#Xó múk^y'a 'three' [N/S: Pom,Esá,Yum: Sapir, etc.].
(#Xó = ?*x.a ~ *x.o; #mu = ?#ma; #k^y'a = ?'*one')

#1-AP 'three' [Coast: Sal,Esá: Sapir, etc.].
May be made up of **#ap** 'three' with a classifier proclitic #1-

#ap=Xa 'three' [S: Ser,Cho: Gursky]. (#Xa = *x.a ~ *x.o)

#tow 'to count [Kar]; four [Yan, EPom]; five [Kar]'
[N: Pom,Yan,Kar: Gursky]

#em+a 'five' [N: Pom,Yan: TK]

#sUy "subtract one" [SW: Yum,Ser: Langdon]

#la7(a)wa 'little, few' [MA:Cho,Tol: Oltrogge]

#+k^yu 'a little; just' [NC: Chi,Yan: Sapir]

Word Order.

The following remarks are based on a structural survey of certain languages only: Pomo [p.c. Oswald, McLendon], Chimariko [TK], Yana [p.c. Hinton], Salina [p.c. Turner], and Yuma [p.c. Hinton, Langdon]. Before much more can be done in this area, syntactic descriptions of Karuk [Bright], Shasta [Silver], Washu [Jacobsen], and Seri [Marlett] will have to be consulted, and descriptions of Achumawi, Atsugewi, Chontal, and Tol will have to become available.

Sentence-level constituents:

1. On the level of the sentence SOV word order is attested from Pomo, Chimariko, and Yuma, and proto-Hokan probably had this order as well.

*SOV [Pom (Oswald: subord clause only; otherwise V second; McLendon: SOV in all clauses), Chi, Yum, Ser]
BUT: (VSO [Yan], VOS [Sal], V...O... [?Cho])

Noun phrase:

2. Within the NP the modifying adjective probably followed the noun it modified. Pomo, Chimariko, and Yuma all attest this. As is well-known by now, NA order is neutral with respect to OV or VO constituent order, and not unharmonious with OV order.

*NA [Pom, Chi, ?Yan, Yum, Ser]
BUT: (AN [Sal])

3. There are two kinds of possessive constructions: one where the possessor [G] is an NP and one where it is a first or second person pronoun [Pn]. Several languages distinguish between intimate and casual possession or between kin terms versus all other possessed nouns. The first type of possession in each case may have been marked by prefixing or preposing a pronoun marker directly to the noun [Pom, Chi, Cho]. The second type of possession may have been marked by Pn-objective case # N [Pom, Yum]. 'Objective case' is variously accusative, genitive and benefactive in the various descendant languages. When G is a N or NP it was preposed to the possessed N [Pom, Chi, Yum]. The possessor N(P) was perhaps case-marked objective [Pom, Yum] and the possessed N may have been marked to agree for person of possessor [Chi, Sal, Ser]. This GN pattern would be like that of present-day Turkish.

G-obj/ben # N [Pom]
 G # N-his [Chi]
 G #his-N [Sal, Ser]
 Pn-acc # N [Yum]
 Pn-N [Pom (kin terms only; otherwise like G...N), Sal, Ser]
 Pn:Erg-class-poss-N [Cho]
 Pn:Neu-N [Chi (intimate possession)]
 N-Pn:Act [Chi (casual possession)]
 *GN [Pom, Chi, Sal, Yum, Ser]
 BUT: (NG [?Yan])

4. Proto-Hokan probably had postpositions, judging from the evidence of Pomo and Yuma. These morphemes are not obviously related to nouns in most present-day languages (although they are in Seri), but their nominal origin is often apparent in etymologies that span the stock.

*Po [Pom, Yum, Ser]
 BUT: (Pr [?Yan, Sal])

With the exception of the NA order, all of the word-order traits discussed above, as well as the positioning of the TAM and case markers, are shared by proto-Yuta-Nawan, and -- for all I know -- proto-Penutian. These facts should not be taken as supporting either diffusion or genetic relationship between the three stocks; although either or both might be the case, they are not necessarily involved; these are morphosyntactic phenomena that are quite typical of languages with OV syntax, and are found as well in Eurasia [e.g. Turkic] and South America [e.g. Qhechwa]. On the other hand, incorporated instrumental prepounds and directional postpounds are entrenched in Hokan, but sporadic in Yuta-Nawan [instrumental prefixes in Numic only] and Penutian [instrumental prefixes and directional suffixes in Maidu, Klamath, and Sahaptian -- hardly the "Penutian kernel"].

Summary of Results.

A reasonably elaborate model of word-structure for proto-Hokan can be constructed from the intersection of cognate morphemes, their distributions, and recurrent typological traits in the stock. More cognate morphemes are likely to be recognized in the future, and I expect these will reinforce the structural patterns postulated here rather than force their abandonment, though in a small number of cases retreat may be in order. Most of the etymologies supporting the

reconstruction of specific grammatical morphemes were discovered by Sapir, though not always in their full range of attestation. Gursky is the next most prolific discoverer of grammatical etymologies. The typological overviews of Sapir and Langdon have been the most helpful in pointing the way to postulating grammatical patterns for proto-Hokan, but I think that before now nobody has yet stuck his neck out and offered such an elaborate model of the grammatical structure of proto-Hokan as is found here.

I close by stressing that what I have done is to offer a **series of hypotheses** about the grammatical structure of proto-Hokan, and that that structure was undoubtedly more complex and elaborate than what has been presented here, even for the topics dealt with. A good deal of data to support these hypotheses has already been assembled, mostly by earlier students of the subject, but a fair amount of the supporting evidence is still incomplete or available only in phonologically inaccurate representations. I feel that virtually all the etyma cited in **BOLD** are likely to survive into later formulations of proto-Hokan structure.

Further Research.

[a] The undescribed languages need to be documented in print or in dissertations; these are mainly: Achumawi, Atsugewi, Chontal, and Tol.

[b] A structural overview of the stock that would try to apply a single set of concepts and a uniform terminology would be most helpful. I have done this for Mayan grammar in general, and for Oto-Mangean verbs. Langacker has done this for Yuta-Nawan.

[c] A theory of the case-marking (NP role encoding) system of proto-Hokan needs to be developed, and the reconstructible proto-Hokan pronoun markers need to be fit into that framework.

[d] Numerous details of the NP, VP, and Sen patterns of Hokan languages need to be described and compared.

[e] The development from proto-Hokan to the individual languages needs to be traced in detail, and the unaccounted-for residue in each language identified.

Abbreviations.

Ach	Achumawi
Ats	Atsugewi
Chi	Chimariko
Cho	Chontal
Esa	Esalen
Kar	Karuk
Yem	Yeme*
Yue	Yue*
Paj	Pajalat
Pom	Pomo (an)
Sal	Salina
Ser	Seri
Sha	Shasta
Tol	Tol (Jicaque)
Wsh	Washu
Yan	Yana (n)
Yum	Yuma (n)

Bibliography.

Here I list all the Hokan cross-branch comparative studies that have come to my attention, published and otherwise. For each study that contains data that can help to establish a Hokan etymology, a code is assigned that is used in the Hokan etymologies I recognize. This code makes it convenient to assign credit (or blame) for a particular proposed etymology to those who discovered (or invented) it and all those who have cited it. The ordering of this list is by author, and chronological priority is assigned according to the author's first cross-branch comparative Hokan study. Though this may make references a bit hard to find, the list is not overlong, and shows at a glance when each scholar entered the Hokan field.

XX

RD:SA1

Dixon, Roland B. 1905. 'The Shasta-Achomawi: a new linguistic stock with four new dialects', **AA** 7.213-217.

RD:SA2

Dixon, Roland B. 1906b. 'Linguistic relationships within the Shasta-Achumawi stock', **P-ICA15** 255-263.

XX

D&K:H

Dixon, Roland B. & A. L. Kroeber 1913. 'new linguistic families in California', **AA** 15.647-655.

XX

AK:SCH

Kroeber, A. L. 1915. 'Serian, Tequistlatecan, and Hokan', **UCPAAE** 11.279-290.

XX

JS:C

Swanton, John R. 1915. 'Linguistic position of the tribes of Southern Texas and Northeastern Mexico', **AA** 17.17-40.

XX

XX

ES:Y

Sapir, Edward 1917. 'The position of Yana in the Hokan stock', **UCPAAE** 13.1-34.

ES:W

Dixon, Roland B. & A. L. Kroeber 1919. 'Linguistic families of California', **UCPAAE** 16.47-118. [on pp108-112 Sapir gives evidence for Washo as a Hokan language].

ES:HC

Sapir, Edward 1920a. 'The Hokan and Coahuiltecan languages', **IJAL** 1.280-290.

ES:C

Sapir, Edward 1920b. 'A note on the first person plural in Chimariko', **IJAL** 1.291-294.

ES:SW

Sapir, Edward 1921. 'A supplementary note on Salinan and Washo', **IJAL** 2.68-72.

ES:S

Sapir, Edward 1925. 'The Hokan affinity of Subtiaba in Nicaragua', **AA** 27.402-435, 491-527.

XX

PR:Y

Rivet, Paul 1942. 'Un dialecte hoka columbien, le yurumangui', **JSAP** 34.1-59.

XX

G&S:J

Greenberg, Joseph H. & Morris Swadesh 1953. 'Jicaque as a Hokan language', **IJAL** 19.216-222.

XX

XX

SS:SK

Silver, Shirley 1964. 'Shasta and Karok: a binary comparison',
UCPL 34.170-181.

SS:NH

Silver, Shirley 1976. 'Comparative Hoka and the Northern Hoka
languages', **Hoka Studies** 193-202.

XX

SM:PY

McLendon, Sally 1964. 'Northern Hoka (B) and (C): a comparison
of Eastern Pomo and Yana', **UCPL** 34.126-144.

XX

Gu:Q

Gursky, Karl-Heinz 1964. 'The linguistic position of the Quinigua
Indians', **IJAL** 30.325-327.

Gu:AGH

Gursky, Karl-Heinz 1965a. 'Ein lexikalischer Vergleich der
Algonkin-Golf und Hoka-Subtiaba Sprachen', **Orbis** 14.160-215.

Gu:R

Gursky, Karl-Heinz 1965b. 'Das Proto-Hoka Wort für "Kaninchen"'.
.

Gu:W

Gursky, Karl-Heinz 1966a. 'On the historical position of
Waikuri', **IJAL** 32.41-45.

Gu:G

Gursky, Karl-Heinz 1966b. 'Ein Vergleich der grammatischen
Morpheme der Golf-Sprachen und der Hoka-Subtiaba-Sprachen',
Orbis 15.511-537.

Gu:GH

Gursky, Karl-Heinz 1968. 'Gulf and Hoka-Subtiaba: new lexical
parallels', **IJAL** 34.21-41.

XX

DO:JC

Oltrogge, David 1975. 'Proto Jicaque-Subtiaba-Tequistlateco: a comparative reconstruction', M.A. thesis, UT Arlington.

XX

VW:CH

Waterhouse, Viola Grace 1976. 'Another look at Chontal and Hokan', **Hokan Studies** 325-343.

XX

JC:CY

Crawford, James M. 1976. 'A comparison of Chimariko and Yuman', **Hokan Studies** 177-191. [134 sets]

XX

ML:SY

Langdon, Margaret ca.1977 h.o. 'Seri and Yuman'. 5pp.

ML:PY

Langdon, Margaret 1979. 'Some thoughts on Hokan with particular reference to Pomoan and Yuman', **LNA** 592-649.

ML:PSY

Langdon, Margaret 1982 h.o. 'Pomoan, Seri, and Yuman'. 3pp.

ML:HV2

Langdon, Margaret 1988 h.o. 'More on Hokan verb structure'. 4pp.

XX

RO:T

Oswalt, Robert L. 1977. 'The Hokan word for "tongue": the Pomo evidence', **University Museum Studies** (Southern Illinois University) 11.69-78.

XX

XX

O&C:H

Oltrogge, David & Lyle Campbell. 'Proto-Tol (Jicaque)', **IJAL**
[gives evidence for relating Jicaque and Chontal]

XX

Gr:Am

Greenberg, Joseph H. 1987. **Language in the Americas.**

XX

TK:FG

Kaufman, Terrence 1989. 'A research program for reconstructing
proto-Hokan: first gropings', in **Proceedings of the 1988
Hokan-Penutian Workshop**, Scott DeLancey, editor.

XX

DL:BP

Les^c^iner, D. R. 1989. 'Rekonstrukcija nazvanij c^astej tela v
jazykax sem'i xoka', pp159-166 in Lingvistic^eskaja Rekonstrukcija
i Drevnejs^aja Istorija Vostoka: Materialy k diskussijam na
Mez^dunarodnoj konferencii (Moskva, 29 maja - 2 ijunja 1989g.),
C^ast' 1. Moscow: Izdatel'stvo "Nauka".

XX

NW:STH

Webb Nancy M. n.d. 'The relationship of Seri and Tequistlatec
with California Hokan languages' [not seen]

XX

THE END