

Andrew Garrett, Susan Gehr, Erik Hans Maier, Line Mikkelsen,
Crystal Richardson and Clare S. Sandy

47 Karuk

“The Karuk language is a canoe. It holds all of our baskets, our regalia, our materials, our food. The canoe holds all our practices, songs, and stories. It holds all our people and all the Karuk people yet to be born. The canoe carries us all; without it, we can’t get anywhere.”
– Charlie Thom, Sr., 2012 (Richardson 2018)

Abstract: Karuk is an isolate language of northern California with a rich history of academic and locally-based documentation for over 100 years and an active community of learners, teachers, and speakers today. In this chapter, we provide an overview of the language’s history, social contexts, and grammatical patterns through present-day language use and language reclamation. After an introduction to the language’s sociocultural and linguistic setting, we offer a grammatical profile of this polysynthetic, highly agglutinating language, whose phonological patterns cause extensive fusion at morpheme boundaries. Among other features of typological interest, we discuss the Karuk pitch-accent system, its elaborate system of directional suffixes, multiple pluractional categories, the absence of a copula, and pragmatically determined word order. We conclude with a history of documentation and revitalization work in the Karuk community.

47.1 Context

47.1.1 Sociocultural setting

Since time immemorial the Karuk people have lived in northern California along almost 100 miles of the Klamath River (Figure 1), from below *Panámnik* (present-day Orleans) to above *Athithúfvuunupma* (Happy Camp). Today, they also occupy a diaspora in California and around the world. Their language is *araráhih* ‘the people’s language’. To the west of Karuk land, downriver along the Klamath and on the Pacific coast north of the Klamath mouth, Tolowa (Dene) and Yurok (Algic) are spoken; Shasta and Konomihu were spoken to the east, Hupa (Dene) along the Trinity River south of Weitchpec. The Karuk words *káruk* and *yúruk* mean ‘upriver’ and ‘downriver’; the *káruk va’áraaras* are the ‘upriver people’.¹

¹ Traditionally, *káruk va’áraaras* designated anyone from upriver of a reference point or person speaking (Kroeber and Gifford 1980:96). According to Phoebe Maddux (Harrington 1932a:2), *ithivthanéen’aachip va’araar* ‘middle of the world person’ was a traditional way of referring to the people who are now called Karuk. The spelling “Karok” in older sources was based on a misunderstanding.



Fig. 1: Karuk territory (cartography by Jackie Honig Bjorkman, p. 85 of Victor Golla, *California Indian Languages*, © 2011 by the Regents of the University of California, published by the University of California Press).

Before 1849, Karuk people lived in villages along the Klamath and its tributaries. The water and land were rich with resources that people used and managed with care. Tobacco was cultivated and of great cultural importance; redwood, dentalium (shell money), and obsidian (used ceremonially) were obtained by trade. Such interactions also involved the exchange of songs, stories, and other cultural practices, to such an extent that Hupa, Karuk, and Yurok people are widely known for “speaking diverse

languages but following the same remarkable civilization” (Kroeber 1925:1).² The landscape itself is rich in sacred sites, and places associated with creation stories and spiritual life. People care for the health of the land and one another through ceremonies, basketry, ecologically responsible hunting and fishing, and other cultural practices. “The Karuk are fix-the-world people”, in the words of Karuk anthropologist Carolyn Smith (2016:40). “They live, take care of, and fix the world.”

The American invasion of Karuk land began in 1849. Supported by government militias and funding, outsiders poured into northern California in search of gold and other natural resources. Invaders massacred, raped, and enslaved Indigenous people, burned villages, damaged sacred sites, and scarred the land; atrocities, disease, and cultural destruction were everywhere (Norton 1979, Lindsay 2012, Madley 2016). The colonial government forced Indians into the wage economy, disrupting ways of life. A rich educational system was shattered when children were separated from families and put in schools that forbade Native languages and cultural practices.³ Ceremonies were banned; other 19th and 20th century government policies were meant to eliminate Indigenous cultures, compel assimilation to Euro-American cultural norms, and bring about “linguistic genocide” (Skutnabb-Kangas 2000).

Nobody could avoid the impact of the invasion. Faced with incomprehensible damage, some understandably fled or hid their identities. But Karuk people maintained and transmitted their cultural knowledge and practices. In 1849 there were perhaps about 2,700 Karuk people (Cook 1956:98); today, the Karuk Tribe has nearly 4,000 enrolled members. They continue to fix the world through basketry, ceremonies, managing natural resources, singing songs, telling stories, and teaching, learning, and using the Karuk language.

47.1.2 Linguistic setting

Linguists have identified several areal or genealogical groups to which Indigenous California languages belong. Karuk has been classified as “Hokan”, meaning that it belongs to an early linguistic group in California with similarities that reflect either ancient language contact or a very remote genealogical relationship (Jany, this volume). Other languages of northern California that are usually classified as “Hokan” include Chimariko, Yana, the Palaihnihan languages, and Karuk’s neighbors in the Shastan family (Konomihu, New River Shasta, and Shasta). A typical “Hokan” feature is the presence of “instrumental prefixes”; in Karuk (Bright 1957:86–87, Haas 1980, Macaulay 1993),

² For more information on Karuk culture see Bright (1978), Lang (1994, 2012), and Smith (2016).

³ A Karuk elder interviewed in 2004 (Richardson 2018) remembered his first day in the boarding school (in a former military fort) to which he had been forcibly removed from his blind grandmother: his hair was cut; his clothes were taken; and he was repeatedly punished for speaking Karuk.

these are unproductive root-initial elements, such as *pa-* ‘with the mouth’ (*páchup* ‘kiss’, *páputh* ‘chew’).

Throughout California, Indigenous communities were multilingual before the use of European languages was enforced. Depending on their circumstances, Karuk people often spoke one or more of the neighboring languages: Yurok, Hupa, Tolowa, or the Shastan languages. In 1901, for example, Karuk elder Martha Horne shared Karuk, Shasta, and Tolowa words and sentences with an outside researcher (Kroeber 1869–1972: notebook 10, carton 12:11). Multilingualism and cultural interactions naturally led to linguistic contact effects, especially involving Hupa, Karuk, and Yurok. These three languages show numerous indications of “functional convergence” (Conathan 2004), i. e., mutual adaptation, especially in pragmatically salient aspects of language; see also O’Neill (2006, 2008). This includes calquing of place names, environmental vocabulary, and other constructions; for example, in Karuk and Yurok, you call a rattlesnake “aunt” in speaking directly to it (Karuk *chuxáchvaas* ‘deceased mother’s sister’). Between these two languages, there are also enough similarities in morphosyntax, syntax, and semantics (Bright and Bright 1965) that we may consider the possibility of language shift, perhaps as the Algic language Yurok entered the Klamath River basin. For example, Yurok innovated two pluractional categories whose functions closely match those of their Karuk counterparts (§ 2.2.3 below).⁴

Traditionally, Karuk men and adolescent boys lived together in the *ikmaháchraam* ‘sweathouse’, while women, girls, and young boys lived in the *ikrívraam* ‘living house’. Each was a site of traditional education, including language pedagogy. For example, according to Phoebe Maddux, *pikvah* (creation stories about the time before human beings came into the world) were “told only in wintertime, at night, both in the sweathouse and in the living house” (Harrington1932a:8).

The Karuk discursive world fits its environment. One notable example involves spatial reference. Like other languages of Pacific coast river basins, Karuk routinely uses terms meaning ‘upriver’, ‘downriver’, ‘uphill’, ‘downhill’, and ‘across’ in contexts where English would use relative expressions like *behind you* or *to your left* (Levinson 1996). A nearby object is conventionally identified as in (1), with *sâam* ‘a little downhill’.⁵

- (1) *Sâam utháaniv pami’aama.*
sâam *u-tháaniŵ* *pa=mi-’áama*
 a.little.downhill 3SG-lie the=2SG.POSS-salmon
 ‘Your salmon is (lit., lying) just downhill.’
 (Lottie Beck, 1949–50, KL-18)

⁴ On some linguistic effects of more recent contact with English see Bright (1952).

⁵ Abbreviations used in glossing and text citation are explained in an appendix.

Living in the steep Klamath River basin, it is impossible to be unaware of the river’s location and course.

47.2 Grammatical profile

Karuk is a polysynthetic, highly agglutinating language whose phonological patterns (especially the vowel coalescence described in § 2.1.1) cause extensive fusion at morpheme boundaries and, therefore, opaque morphological combinations in many instances. Phonology and phonetics are discussed in § 2.1; morphology and morphosyntax in § 2.2; and syntax and discourse in § 2.3. The grammar by Bright (1957) is largely concerned with phonology and morphology; for overviews see also Golla (2011:84–87) and Sandy (2017:14–47).

47.2.1 Phonology and phonetics

47.2.1.1 Phoneme inventory and phonetics

Karuk has the small vowel inventory and moderately small consonant inventory in (2). Acute (*ú*) and circumflex (*ô*) marks on vowels indicate contrastive accent (§ 2.1.3). Underlyingly vowel-initial words begin with a surface glottal stop, so all syllables surface with onsets (initial consonants). Complex onsets (those with more than one consonant) do not occur underlyingly, but sometimes occur in speech due to word-initial vowel deletion.

(2)	Consonants						Vowels (short and long)		
	Plosives	<i>p</i>	<i>t</i>	<i>ch</i> [tʃ]	<i>k</i>	<i>ʼ</i> [ʔ]	High	<i>i, ii</i> [i:]	<i>u, uu</i> [u:]
	Fricatives	<i>f</i>	<i>th</i> [θ]	<i>s</i> [s]	<i>sh</i> [ʃ]	<i>x</i> <i>h</i>	Mid	<i>ee</i> [e:]	<i>oo</i> [o:]
	Nasals	<i>m</i>	<i>n</i>				Low	<i>a, aa</i> [a:]	
	Other	<i>v</i> [v ~ β]	<i>r</i> [r]	<i>y</i> [j]					

Several details are of interest in (2). One is the asymmetric vowel system, with three short and five long vowels; *ee* and *oo* result from coalescence of *a* + a high vowel. A second is the limited distribution of some phonemes. For example, *sh* is largely the result of *s* palatalization (after front vowels and *y*), but it is also found in a few loanwords. A third detail is the presence of a fricative *th*, which is typologically unusual (Mithun 1999:16–17, Moran and McCloy 2019). Today this is [θ], but at an earlier time it was a “blade-dental slit-spirant” (Bright 1957:8), i. e., a laminal dental sound like [ɬ]. All 19th-century transcriptions wrote “s”, and many 20th-century speakers used the earlier sound (Conathan 2006:225–227). The shift to [θ] may reflect English influence.

Phonetic processes include the lengthening of nasals and oral stops and fricatives in several contexts, such as adjacent to a long accented vowel: *akâay* [ʔak:â:j] ‘who?’, *púufich* [pú:f:it͡ʃ] ‘deer’ (with lengthened *k* and *f*). According to Bright (1957:9), some words have even longer contrastively lengthened consonants: *ákah* [ʔákkah] ‘father’ (vs. *tákus* ‘pelican’ with short [k]). A three-way surface consonant length distinction is not common in the world’s languages (Ladefoged & Maddieson 1996:93).

A second phonetic process is final-syllable devoicing. As described by Bright (1957:13), this affects unaccented prepausal syllables with short vowels: *nímuustih* ‘I am looking at it’ (with a devoiced vowel in the last syllable). The durative suffix *-tih* is an especially common target; because devoiced syllables can be hard to hear, the vowel lengthening that *-tih* sometimes triggers on a preceeding syllable (*imus* ‘look at’ → *nímuustih*) is in practice often the cue for that suffix.

A third phonetic process is reduction or deletion of initial short vowels; words like *akvaat* ‘raccoon’ and *ikrívraam* ‘living house’ may be heard with initial *k*. And a final process of interest is perseveratory high-vowel coarticulation: unaccented short initial-syllable *i* and *u* are sometimes partially or entirely realized as off-glides on a following consonant. This is especially likely if the following vowel is accented. Details vary: different speakers have had this pattern across different consonants; some lack it altogether. The examples in (3) are transcribed from the speech of Vina Smith (in 2010 and 2012).

- (3) a. *puxích* ‘very (much)’ → [pux^wít͡ʃ] (with reduced [u])
- b. *púufich* ‘deer’ + *’íish* ‘meat’ → *pufích’íish* [puf^wít͡ʃʔi:] ‘deermeat’ (with reduced [u])
- c. *vika* ‘weaving work’ + *yav* ‘good’ → *vikáyav* [vik’ájau] ‘good weaving’

All three phonetic processes affect the perceived rhythm of Karuk speech and are thus quite conspicuous.

47.2.1.2 Morphophonemics

Karuk has a rich portfolio of morphologically conditioned alternations in phonology. We can only mention a few here. One is a sound-symbolic process in which a diminutive suffix like *-ich* induces the changes *r* → *n* and *th* → *ch* throughout its base: *ithárip* ‘fir tree’ → *ichánipich* ‘small fir’, *yupthúkirar* ‘mountain lion’ → *yupchúkinanich* (familiar term, in a *pikvah*). A second is glide deletion. As shown in (4), morpheme-final *y* is lost between short vowels; resulting vowel sequences contract.

- (4) a. *ni-* ‘1SG>3’ + *’ay* ‘be afraid of’ + *-at* ‘PST’ → *ni’âat* ‘I was afraid of (something)’
- b. *iyvay-* ‘pour’ + *-ishrih* ‘down’ → *iyvêeshrih* ‘spill’

A third aspect of Karuk morphophonemics is the existence of two kinds of *v*, represented by Bright (1957) as *v* and *ṽ*. The properties in (5) distinguish them.

- (5) a. Plain *v* (but not *ṽ*) also undergoes the glide deletion process in (4):
kun-vathiv-anik (3PL-fight-ANC) → *kunvátheenik* ‘they had a fight’
u-thitiṽ-anik (3SG-hear-ANC) → *uthitívanik* ‘s/he heard’
- b. Plain *v* (but not *ṽ*) undergoes deletion (with compensatory lengthening) between a non-high non-front vowel (i. e., *a(a)* or *oo*) and a consonant:
’aṽ-raam (eat-place) → *amnaam* ‘hotel’
ikyav-raam (make-place) → *ikyáaraam* ‘factory’
- c. Nasalizing *ṽ* (but not *v*) surfaces as *m* before consonants:
u-vathiv-tih (3SG-fight-DUR) → *uvathíúvtih* ‘s/he is fighting’
u-thitiṽ-tih (3SG-hear-DUR) → *uthítiimtih* ‘s/he is hearing’

Nasalizing *ṽ* only occurs morpheme-finally (and mainly in verb stems); only a few verbs have non-alternating *m* in this position.⁶

47.2.1.3 Prosodic phonology

Word-level prosody in Karuk can be described as “pitch accent”: the prosodic system uses both tone and stress, but tone has an impoverished distribution (Sandy & Mikkelsen 2015, Sandy 2017). The basic pattern is that each phonological word has one accent, namely, a high (H) tone that coincides with stress and is followed by a low (L) tone. The drop from H to L can be across syllable boundaries, or a HL contour on a long vowel. Possible accents are exemplified in (6): HL and H on long vowels, and only H on short vowels.

- (6) a. HL on a long vowel: *tîim* ‘edge’, *pûuvish* ‘bag’, *uvâaram* ‘s/he left’
 b. H on a long vowel: *pâah* ‘boat’, *pûufich* ‘deer’, *umâahtih* ‘s/he saw him’
 c. H on a short vowel: *áhup* ‘wood’, *kúkuum* ‘again’, *kunímnish* ‘they cook’

The whole word is typically characterized by an H span followed by an L span, the drop coinciding with the pitch accent, though the entire pattern may not be realized on very short words and may be affected by phrasal boundary tones. Stress coincides with the syllable containing the H-tone-bearing mora (at the right edge of the H span), if present, thus marking the surface contrastive tone in the word. Words may be lexically accented or unaccented. Unaccented words (*ishpuk* ‘money’, *paah* ‘peppernut’) surface with a final H tone, except at the right edge of an utterance, where they are toneless. In the absence of a surface H tone, stress falls on a long vowel or the final syllable.

Overall, the Karuk prosodic system resembles the systems of other “pitch accent” languages, especially phonetically, but with important differences. Any syllable in the word can bear prominence, but its location in a given word is largely phonologically determined, based on typologically unusual alignments of tone and syllable structure

⁶ See Levi (2008) for an analysis; see Sandy (2017:27–28) on Bright’s (1957:39–40) two kinds of *r*.

(cf. Hayes 1995). These include a basic H-before-long-vowel alignment, Bright's (1957) "recessive accentuation"; a protected HL alignment that blocks the basic alignment; and a dispreference for aligning H on a short closed syllable. The basic or "recessive" pattern is illustrated in (7).

- (7) a. *na-* '1SG' + *'áathvu* 'be afraid' + *-at* 'PST' → *ná'aathvat* 'I was afraid' (Mamie Offield, 1949–50, KL 64)
 b. *kun-* '3PL>3' + *sar-* 'carry things' + *-piithvu* 'around PL.ACT' + *-tih* 'DUR' + *-anik* 'ANC' → *kunsánpiithvutihānik* 'they had been carrying them around long ago' (Phoebe Maddux, 1926–33, TK 65)

Accent patterns are nonetheless not fully predictable on phonological grounds; a full explanation requires morphological information. For example, derivational suffixes place a H tone on the final syllable of the stem they attach to, as shown by the verb forms with *u-* '3SG' in (8). If the resulting accentuation falls into the protected HL alignment, as in (8a), the intermediate accentuation is retained on the surface, even if the result contradicts the basic alignment in (7). However, if the stem-final H tone falls on a short vowel in a closed syllable (a dispreferred alignment), the vowel is lengthened, as in (8b). In these cases, the derived length is retained and the basic alignment applies at the surface.

- (8) a. *ikyĩṽ* 'fall' + *-uraa* 'up' → *ikyívuraa* → *ukyívuraa* 'he was thrown into the air' (Daisy Jones, 1949–50, KL-20)
 b. *ikyĩṽ* 'fall' + *-kurih* 'into (water)' → *ikyĩmkurih* → *úkyĩmkurih* 'she fell in' (Julia Starritt, 1949–50, KL-32)

Karuk prosodic domains include the accentual phrase (AP) and intonational phrase (IP). The AP is marked by a left-edge boundary tone, which links to a single mora that does not bear H tone, resulting in a L tone on any unaccented short vowel at the left edge of a word. This L cannot surface on an initial unaccented long vowel, due to a prohibition on LH contours. A default phrasal boundary tone occurs at the right edge of an otherwise unaccented AP. The AP ordinarily coincides with the word, but there are instances of mismatches between the AP and the word. For example, as illustrated in (9), the Perfective *ta-* forms a single morphosyntactic word with its host; but it bears lexical accent and can form its own AP in some phonological circumstances, and joins with the stem AP in others.

- (9) a. One AP: *ta-* + *u-* '3SG' + *vâaramu* 'go (there)' → *tuvâaram* 's/he went (there)'
 b. Two APs: *ta-* + *u-* '3SG' + *ipvâaramu* 'go back' → *tóopvâaram* 's/he went back'

The IP is characterized by a right-edge boundary tone, which is also associated with glottalization and devoicing. IP-final boundary L overrides AP-final tones, resulting in a final L on a short vowel or HL contour on a long vowel bearing a H tone. Devoicing can spread to unfooted syllables at the right edge of the word, as noted in § 2.1.1 above.

47.2.1.4 Orthography

Outside researchers have employed a variety of phonetic transcription systems; for use in the community two main systems have been used. The first was Unifon, a mid-20th-century quasi-phonetic alphabet adapted in the 1970s for several languages of northwestern California (Hinton 2001:244–245). This was used locally for two decades, but it lost support because it was inconvenient to type and in practice not all phonological contrasts were expressed.

Today, the Roman alphabet is used for Karuk. As written in (2) it is mostly phonemic, and intuitively represents vowel length; but there are potential sources of confusion. First, because consonant gemination (doubling) is not written, learners may ignore it if they hear it; and not all gemination is phonologically predictable. Second, because the digraphs *sh* and *th* are used for [ʃ] and [θ], respectively, the sequences *s + h* and *t + h* must be spelled differently; a hyphen is used (*s-h*, *t-h*), but this is easy to neglect. Finally, because the distinction between words that begin with underlying vowels (and automatic glottal stops) and underlying glottal stops is not represented, it may be hard for learners to know which words have which. The difference is significant: underlyingly initial vowels are deleted in certain contexts, while vowels “protected” by an underlyingly initial glottal stop are not.

47.2.2 Morphology and morphosyntax

Karuk word classes include nouns, verbs, adverbs, particles, postpositions, interjections, and adjectives.⁷ Some of the most complex and interesting aspects of Karuk word structure arise in the verb. The remainder of this section will address some of these. Note that the names of Karuk grammatical categories (like “Future”) are capitalized to avoid the implication that these are semantic designations.

47.2.2.1 Verbal structure

The Karuk verb is often analyzed in terms of position classes. Bright (1957) assigns 75 verbal suffixes to a dozen position classes, also identifying several prefix positions; Sandy (2017:22) describes the two prefixal and four suffixal categories shown in Table 1.

⁷ Adjectives can be identified based on several diagnostics; for example, any adjective (but only nouns denoting persons) can take the plural suffix *-sa*. Some common adjectives are nearly always compounded with nouns: (*áhkaam* ‘a big fire’, *amvákaam* ‘a big salmon’; *ipahá’anamahach* ‘a small tree’, *pufich’anamahach* ‘a little deer’), which may give the misleading impression that adjectives are marginal.

Tab. 1: Karuk verb template, with numbers of suffixes belonging to various groups (Sandy 2017:22)

Inflectional prefixes	Derivational prefixes	Root and inner suffixes	Derivational suffixes	Semi-derivational suffixes	Inflectional suffixes
Person / number marking (13)	Iterative; Mode; Plurality	Reduplication; Direction / manner / result state (9)	Direction (41); Manner / motion (7); valence (4)	Plurality; Durative; Diminutive	Tense / aspect / modality (7); Optative; Inverse; Negative

Some of the system is clearly semantically based rather than arbitrary (cf. Rice 2011). For example, Bright assigns causative *-math* and directional *-ishrih* ‘down’ (which also expresses resultative aspect) to two suffix classes, but they are found in both orders (10a-b).

- (10) a. [*ishkax* ‘be quiet’ + *-ishrih*] + *-math* → *ishkáxishrihmath* ‘stop (someone)’
 b. [*’ásiṽ* ‘sleep’ + *-math*] + *-ishrih* → *’asimáchishrih* ‘put to sleep’

The pluractional suffix *-va* (§ 2.2.3), which also has variable placement depending on its scope, can even occur between suffixes of the same class. The root *ikréemyah* ‘blow’ can be combined with the directional suffix *-vara* ‘in through’ and Plural Action *-va* to yield *ikreemyahváraa*, with a specialized meaning ‘play music (of any kind)’. From this can be derived a word like *ukreemyahváraathunatih* ‘he is going around playing music’ (JPH-10:665), with *u-* ‘3SG’, a second directional suffix *-thuna* ‘here and there’, and Durative *-tih*.

The Karuk verbal agreement system has been analyzed by several researchers. Of special interest has been a pattern whereby agreement is usually controlled by the subject (*nímuustih* ‘I’m looking at it’, *ímuustih* ‘you’re looking at it’, *úmuustih* ‘s/he’s looking at it’), but sometimes by the object. For example, in the positive paradigm, the same prefix is used for all forms with 1PL objects (*kinímuustih* ‘you, s/he, they look at us’, *kin’ípeentihat* ‘you, s/he, they used to tell us’); another prefix is used for forms with 2PL objects, together with a suffix *-ap* (*kíkmahap* ‘I, we, you, s/he, they see you’). Macaulay (1992) treats the pattern as an inverse system with a hierarchy 2PL > 1 > 2SG > 3 and an inverse marker *-ap* used if a verb’s object outranks its subject. Campbell (2012:135–48) generally supports her analysis (*contra* Béjar 2003:159–162), also adding a precise account of mismatches between object agreement control and the distribution of *-ap*.

47.2.2.2 Directionals

Among the derivational suffixes in Table 1 are several dozen directionals, expressing either the path, or the path and ground (Talmy 1985), of a motion or fictive-motion event (Talmy 1999). They include *-iroopith* ‘around’, *-sipriv* ‘up’ (both expressing path only,

in their purely directional uses), *-furuk* ‘into an enclosure’, *-roovu* ‘upriverward from here’, *-vara* ‘in through a tubular space’, and *-vrath* ‘into a sweathouse’ (all expressing path and ground).

Macaulay (2004) argues that these directionals, except for a few that express only a path, are “applicatives” in the sense that they license additional (overt or understood) verbal arguments. This is shown in (11): without a directional suffix, the verb in (11a) denotes an activity with no path; in (11b), with the suffix *-furuk*, a path is expressed.

- (11) a. *Chími nukôohi panuhmáratih.*
chími nu-kôohi-i pa=nu-ihmára-tih
 soon 1PL-stop-IMPV COMP=1PL-run-DUR
 ‘Let’s stop running.’
 (KV)
- b. *Kári xás kunpihmárafuruk iinâak.*
kári xás kun-p-ihmára-furuk iinâak
 then and 3PL-ITER-run-into.an.enclosure indoors
 ‘Then they ran back indoors.’
 (Nettie Ruben, 1949–50, KL-11)

The examples in (12) show how the interpretation of locational expressions can depend on a directional suffix (Garrett & Mikkelsen 2015). In (12a), with no directional, *úuth* ‘out in the water’ denotes the event location; in (12b), with the same verb root and a directional, *kaanvári* ‘around there’ denotes the path, as does *úuth* with a directional in (12c). It is common, as in (12c), that a complement licensed by a directional suffix specifies its reference; similarly *-roov(u)* ‘upriverward (from the deictic center)’ licenses more specific path terms such as *kâam* ‘a little upriver’.

- (12) a. *Káru pápaa úuth uthívruuhtih.*
káru pa=paah úuth u-thivruh-tih
 also the=boat out.in.water 3SG-float-DUR
 ‘The boat too is floating out in the water.’
 (Julia Starritt, 1949–50, KL-92)
- b. *Chavúra kaanvári uthívruuhma.*
chavúra kaanvári u-thivruh-mu
 at.last around.there 3SG-float-towards
 ‘Eventually he floated to that vicinity.’
 (Chester Pepper, 1949–50, KL-03)
- c. *Xás kúkuum úuth upáathkar.*
xas kúkuum úuth u-path-kara
 and again out.in.water 3SG>3-throw-into.water
 ‘And again he threw it out into the river.’
 (Nettie Ruben, 1949–50, KL-41)

Maier (2016) describes a three-way distinction in motion verb roots: roots like *arih-* ‘move’ that must combine with directionals; roots like *path* ‘throw’ and *thivruh* ‘float’ that may do so; and (“telic”) roots like *ipak* ‘return’ that cannot do so.

47.2.2.3 Tense and aspect

Tense and aspect categories are mainly expressed by verbal affixes. Here we identify a few features of the system. One is that past-time reference is often found without overt temporal marking, as in (13), in a *pikvah* recounting Coyote’s journey.

- (13) *Kári xás uvâaram. Xás ... u’árihroov.*
kári xás u-vâaramu xás ... u-’árih-roov
 then and 3SG-go and 3SG-move-upriver
 ‘Then he left. And he went upriver.’
 (Chester Pepper, 1949–50, KL-3)

For past-time reference Karuk also encodes degrees of remoteness (cf. Botne 2012), including Past *-at* (14) and Ancient *-anik* (5a) as well as Anterior *-aheen* (27c). The suffix *-at*, called a “marker of past time” by Bright (1957:67), can be used to establish past-time reference (often with an adverbial), as in (14a), but examples like (14b) show that it is more precisely a relative tense marker (restricted to past time). The main clause in (14b) has no overt tense marking and is understood as having past-time reference (‘she ran’). The relative clause with *-at* denotes an event prior to that past time.

- (14) a. *Papishyavpîish mit ni’ákunvarat.*
pa=pishyavpîish mit ni-’ákunvu-ar-at
 the=autumn PST 1SG-hunt-go-PST
 ‘Last fall I went on a hunting trip.’
 (Benonie Harrie, 1927, DAF_KT-5c)
- b. *Váa kúuk ukvîripma pa’îpa unhîshriihvat pa’áthiith.*
váa kúuk u-ikvîrip-mu pa=’îpa u-inhi-ishrih-vu-at
 PRO to.there 3SG-run-to COMP=PST 3SG-tie-down-PL.ACT-PST
pa=’áthiith
 the=hazel.withe
 ‘She ran there where she had tied the hazel branches.’
 (Mamie Offield, 1949–50, KL-64)

Unpublished work by Kayla Begay has shown that the Future, in its temporal interpretation, is also a relative tense or prospective aspect. As (15) shows, it is not restricted to future time. (In addition, not shown here, it also sometimes has modal readings.)

- (15) *Káruma vaa íp uvúpareeshat pamúspuk.*
káruma vaa íp u-vup-ar-eesh-at pa=mu-ishpuk
 in.fact PRO PST 3SG>3-string.beads-INSTR-FUT-PST the=3SG.POSS-money
 ‘He was actually going to string his dentalium money with it.’
 (Julia Starritt, 1949–50, KL-4)

Two pluractional constructions express event-external (including multiple-occasion) repetition and event-internal repetition, respectively. The first involves the Plural Action suffix *-vu* in (16), expressing distributed or repeated action (here, multiple drops of water).

- (16) *Xás pa’íshaha tu’irihshúroo tik’ípanich.*
xas pa=íshaha ta-u-’irih-suru-va tíik-’ípan-ich
 and the=water PERF-3SG-drip-off.of-PL.ACT hand-end-DIM
 (Describing a picture:) ‘The water is dripping off of the fingertips.’
 (Julia Starritt, 1949–50, KL-92)

This suffix enjoys variable positioning, with different interpretations. Attached to a root, it can modify its lexical meaning: *mah* ‘see’ → *máahva* ‘visit’. Attached to a derived stem, it adds a multiple-action interpretation: *íhuk* ‘do a flower dance’ → *íhukar* ‘go flower dancing’ → *íhukanva* ‘(multiple dancers) go flower dancing’; compare *íhukanva* (“go” + PL.ACT) and *máahvar* ‘go visiting’ (PL.ACT. + “go”), with the order of two suffixes reversed. The Plural Action suffix *-vu* can even be positioned variably in relation to the Durative suffix *-tih*; compare the order *-vu-tih* in (28) with the reverse order in *uthivrúhtihva* ‘clouds are floating’ (*u-thivruh-tih-vu* 3SG-float-DUR-PL.ACT).

Event-internal pluractionality is marked by verbal reduplication (Macaulay 1993, Conathan & Wood 2003). With semelfactive (instantaneous non-transitional) verbs and some stative verbs, reduplication indicates rapid iteration of an action as part of a single event: *imyah* ‘breathe’ → *imyahyah* ‘pant’. Compare also the unreduplicated verb form in (17a), denoting a single cut, with the reduplicated form in (17b), whose context makes the repetition clear.

- (17) a. *Takunikpaaksur paxavish’ásxaay ishvit.*
ta-kun-ikpak-suru pa=xávisish-’ásxaay ishvita
 PERF-3PL>3-chop-off.of the=mock.orange-damp.wood piece
 (Making an arrowwood pipe:) ‘They cut a piece off of the green arrowwood.’
 (Phoebe Maddux, 1926–33, TK 138)
- b. *Ipsnúunkinachas vúra takunikpákpak.*
ipshnúunkinach-as vúra ta-kun-ik<pak>pak
 short-PL INTNS PERF-3PL>3-chop<RED>
 (Picking tobacco stems:) ‘They cut them into short pieces.’
 (Phoebe Maddux, 1926–33, TK 89)

47.2.3 Syntax and discourse

47.2.3.1 Argument omission and position

Davis *et al.* (2020) observe that “Karuk exhibits the three surface characteristics of a non-configurational language” in the sense of Hale (1983): omission of subjects and objects, splitting of subjects and objects, and free word order. Each of these is constrained in some way. First, omission of subjects and objects is incompatible with certain interpretations, such as additive (“too”, “also”) focus as in (18).

- (18) Context: “And Hookbill said, ‘Humans will eat me first, when I get there’ [=20d]. And Eel said:”

Naa káru pishûich ni’îpaktiheesh xátikrupma.

náa káru pishûich ni’îpak-tih-eesh xátikrupma
1SG also first 1SG-return-DUR-FUT springtime

‘I, too, will return first in the spring.’

(Yaas, 1926–33, JPH_KT-7)

Subject and object splitting too is subject to constraints; not all logically possible split NPs (noun phrases) are documented. For example, splits are not attested for subjects of transitive clauses. Split NPs that include a quantifier as in (19) are especially constrained: the quantifier (*koovúra* ‘all’, *áxak* ‘two’) is immediately preverbal; the associated noun is either after (19a) or before (19b) the verb. The common pattern in (19c) differs from (19b) only in that there is no overt material between the quantifier and its (presumably also preposed) associated noun.

- (19) a. *Xás koovúra upíktit pasárip.*

xás koovúra u-píktit pa=sárip
and all 3SG>3-unravel the=hazel.twigs
‘And she unwove all the sticks.’

(Violet Super, 1989, GD-MD-VSu-1)

- b. *Káan xás kêechas péeshpuk chavúra áxak nimah.*

káan xás kêech-as pa=ishpuk chavúra áxak ni-mah
there and big-PL the=money at.last two 1SG>3-see
‘And there at last I found two big gold nuggets.’

(Benonie Harrie, 1927, DAF_KT-5b)

- c. *Pa’áptiik koovúra uvrárasur.*

pa=’áptiik koovúra u-ivrara-suru
the=branch all 3SG-fall.PL-off.of
‘The branches all fell off.’

(Daisy Jones, 1949–50, KL-20)

As for word order, while clauses with multiple overt (lexical) verbal arguments are not the norm, most permutations of subject (S), object (O), and verb (V) are attested on the

surface (20a-e). Only the SOV and SVO patterns in (20a-b) seem common; the absence of VSO examples may be an accident. Note that OSV sentences as in (20d) are associated with *îin*-marked subjects, as in (33) below, and pronominal objects.

- (20) a. *Puhínupa yaas'ára chishûi chuphûunishtiheeshara.*
pu=hínupa yaas'ára chishûih chûuphi-ûunish-tih-eesh-ara
 NEG=surprise human dog speak-to-DUR-FUT-NEG
 'A human must never talk to a dog.'
 (SOV: Phoebe Maddux, 1926–33, JPH-13:479)
- b. *Xás paaxûich kuníkshuupkuti pa'ápsuun.*
xas pa=axûich kun-ikshup-ku-tih pa='ápsuun
 and the=child 3PL>3-point-to-DUR the=snake
 (Describing a picture:) 'And the children are pointing at the snake.'
 (SVO: Julia Starritt, 1949–50, KL-92)
- c. *Ta'ítam kun'ífrikaheen paxuntápan pa'asiktávaansa.*
ta'ítam kun-'ífik-aheen pa=xuntápan pa='asiktávaan-sa
 so 3PL>3-pick.up-ANT the=acorn the=woman-PL
 'Then the women gathered the acorns.'
 (VOS: Mamie Offield, 1949–50, KL-17)
- d. *Naa vúra pishûich yaas'ára îin ná'aamtiheesh pani'îipmahaak.*
Naa vúra pishûich yaas'ára îin na-'aŭ-tih-eesh
 1SG INTNS first human OBV 3SG>1-eat-DUR-FUT
pa=ni-'îipmu-haak
 COMP=1SG-return-IRR
 'Humans will eat me (hookbill salmon) first when I return.'
 (OSV: Yaas, 1926–33, JPH_KT-7)
- e. *Pufichtaay kuniykáratih itráhyar mutúnviiv.*
púufich-taay kun-iykára-tih itráhyar mu-túnviiv
 deer-many 3PL>3-kill-DUR ten 3SG.POSS-children
 'His ten sons were killing lots of deer.'
 (OVS: Chester Pepper, 1949–50, KL-53)

Word order variation is constrained pragmatically; see § 2.3.5.

47.2.3.2 Copular equivalents

Karuk lacks an overt copula equivalent to English *be*. This leads to patterns of at least two distinctive types. First, in clauses of location like (1) and (21a-b), positional verbs are regularly used. This forces a choice among verbs based on conventional postures. For example, people and animals “sit” (21a), trees “stand” (21b, 30a), and objects like dead fish, bags, and rocks “lie” (1). If a figure is described in non-conventional terms, as in (30b), the verb is understood literally.

- (21) a. *Iinâak pamúkiit úkrii.*
iinâak pa=mu-kîit u-ikriv
 inside.house the=3SG.POSS-female.grandrelative 3SG-sit
 ‘His grandmother was (lit., sat) inside.’
 (Fritz Hansen, 1926–33, JPH_KT-6)
- b. *Xás ípahá’anamahach káan u’íhya.*
xás ípahá-’anamahach káan u-’íhya
 and tree-small there 3SG-stand
 (Describing a picture:) ‘And a little tree is (lit., stands) there.’
 (Julia Starritt, 1949–50, KL-92)

Second, other “copular clauses” lack verbal predicates altogether. Clausal predicates may belong to any word class, including nouns (22a), pronouns (23c), adjectives (23b), adverbs (22b), and particles (22c).

- (22) a. Context: “They burned brush on the mountain. Then they came back down-hill.”
Áraar patúuyship.
áraar pa=túuyship
 person the=mountain
 ‘The mountain is a person. (It’s a divine person.)’
 (Nettie Ruben, 1949–50, KL-83)
- b. *Yánava vúra pukára káanhara.*
yánava vúra pu=akára kaan-hara
 VIS INTNS NEG=who there-NEG
 ‘(He saw) there was nobody there.’
 (Julia Starritt, 1949–50, KL-8)
- c. *Uumkun vúra kichheesh.*
uumkun vúra kich-heesh
 PRO.PL INTNS just-FUT
 ‘It will just be them (lit., they will be only).’
 (Julia Starritt, 1949–50, KL-89)

In such clauses the pronoun *uum* is common, without a clear referential function; examples are in (23). Karuk is evidently undergoing a grammaticalization change of the demonstrative > copula type (Li & Thompson 1977, Heine & Kuteva 2002: 108–109); occasionally, as in (23c), this is even extended to non-third-person contexts. The English copula may have reinforced the pattern, but the example in (23a) and several similar examples were recorded in 1889 and probably precede English influence.

- (23) a. *Páy uum John muchíshiih.*
páy úum John mu-chíshiih
 this PRO J. 3SG.POSS-dog
 ‘This is John’s dog.’
 (Curtin 1889:209)
- b. *Kúna chámuxich uum vúra ípihar.*
kúna chámuxich úum vúra ’ípih-ara
 in.addition sucker PRO INTNS bone-having
 ‘But Sucker (the suckerfish) is bony.’
 (Mamie Offield, 1949–50, KL-37)
- c. *Hôoy uum náaheesh?*
hôoy úum naa-heesh
 where PRO 1SG-FUT
 ‘How about me (lit., where will I be)?’
 (1926–33, JPH-11:85)

47.2.3.3 Interrogative and negative clauses

In content questions, *wh*-expressions (content question words) are usually clause-initial (24a), though occasionally a single constituent precedes a *wh*-expression (24b). (Some *wh*-expressions are also used as indefinites.)

- (24) a. *Hûut áta táná’iin?*
hûut áta ta-na-’iina
 how maybe PERF-1SG-experience.something.unpleasant
 ‘What’s wrong with me, I wonder?’
 (Nettie Reuben, 1949–50, KL-41)
- b. *Nanuhrôoha hûut tu’iin?*
nanu-ihrôoha hûut ta-u-’iina
 1PL.POSS-wife how PERF-3SG-experience.something.unpleasant
 ‘What’s the matter with our wife?’
 (Julia Bennett, 1902, KS-8)

Polarity questions like (25) employ a second-position clitic *hum*, which is also sentence-final in predicate-only questions like *upathrtheesh hum?* ‘is it going to rain?’ (*u-pathrhi-eesh* 3SG-rain-FUT).

- (25) *Íshaha hum téexrah?*
ishaha hum ta-i-ixrah
 water Q PERF-2SG>3-thirst.for
 ‘Are you thirsty for water?’
 (Charlie Thom, Sr., 2013, CT-1)

Negation is circumfixal (with markers before and after the predicate), including a verbal suffix and a proclitic that often immediately precedes the predicate (26), but can appear earlier in a clause (20a, 22b).

- (26) *Ithéekxaram âanxus pu'ikviit-hára*
ítha-ikxáram âanxus pu=ikvíit.hi-hara
 one-night weasel NEG=sleep-NEG
 'Weasel did not sleep the whole night.'
 (Lottie Beck, 1949–50, KL-18)

47.2.3.4 Subordination

Subordinate clauses are marked by a conjunction *pa=* that is identical in form to (and presumably grammaticalized from) the definite article. It is found in adverbial clauses (20d, 27a), conditional clauses (27b), complement clauses (11a), and relative clauses (14b).

- (27) a. *Kóova tuvíshtar póomuustih.*
kóova ta-u-víshtar pa=u-imus-tih
 so PERF-3SG>3-like COMP=3SG>3-look.at-DUR
 'He got so hungry for it as he looked at it.'
 (Phoebe Maddux, 1926–33, JPH-KT_5)
- b. *Áhup mûuk takunitvítship pávaa káan tu'ífahaak.*
áhup mûuk ta-kun-itviitship pa=váa kaan
 stick with PERF-3PL>3-knock.off COMP=PRO there
ta-u-'if-ahaak
 PERF-3SG-grow-IRR
 'They knock it (tobacco) off with a stick if it grows there (in a graveyard).'

Complement clauses as in (11a) are ordinarily postverbal (Davis *et al.* 2020).⁸ This can clash with other word-order constraints, such as a requirement that the focus marker *kich* 'only' (which precedes the verb) be adjacent to an overtly realized expression that it is associated with. As Davis *et al.* (2020) show, the clash is resolved in examples like (28) with an anticipatory pronominal *vaa*; compare (11a), with no *kich* and no *vaa*. A comparable effect is seen in (14b) above: the surface object of the postposition *kúuk* is *vaa*, referring forward to a postposed relative clause.

⁸ A complement clause only very rarely precedes its verb, as in the following example, elicited in a context where the verb *ishxay* 'fish' was under discussion: *panishxáyatih tánipikyâar* (COMP=1SG-fish-DUR PERF-1SG-finish) 'I finished fishing' (Vina Smith, 2013, VS-21).

- (28) *Iinâak vaa kîch uthítimti poopakurîhvuti.*
iinâak vâa kîch u-thitîv-tih pa=u-pâkurîh-vu-tih
 inside PRO just 3SG-hear-DUR COMP=3SG-sing-PL.ACT-DUR
 ‘Inside he just heard her singing.’
 (Lottie Beck, 1949–50, KL-18)

Numerous (apparent) main clauses also have the subordinating conjunction *pa=*. This is especially common in questions (29a), but it is attested in other contexts in many corpus examples (29b).

- (29) a. *Fâat peetâpkuuputih?*
fâat pa=i-tâpkupu-tih
 what COMP=2SG>3-like-DUR
 ‘What do you want?’
 (Jeannette Horne, 1904; Figure 2 below)
- b. *Ôok pámit ni’âkunvarat.*
ôok pa=mit ni-’âkunvu-ar-at
 here COMP=PST 1SG-hunt-go-PST
 ‘I went out hunting here.’
 (Benonie Harrie, 1927, DAF_KT-5a)

These clauses serve pragmatically to background the clausal content following *pa=*.⁹

47.2.3.5 Discourse and information structure

Narrative, pragmatic, and textual organization can be expressed through particles and word order variation. One common pattern is that a noun is before the verb on first mention and after the verb thereafter (if expressed). This is shown in (30) with successive sentences that were given in describing a single picture. In (30a) and the first clause of (30b), a new referent (*ípaha* ‘tree’, *ávansa* ‘man’) is positioned preverbally. A previously mentioned nominal (*pa’ípaha* ‘the tree’) is postverbal in the second clause of (30b).

- (30) a. *Vîri vaa kâan ípaha u’îihya.*
vîri vâa kaan ípaha u-’îihya
 so PRO there tree 3SG-stand
 ‘A tree is (lit., stands) there.’

⁹ They may be analyzed as clefting (‘what is it that you want?’) or as what Evans (2007) and Mithun (2008) have called “insubordination” (the recruitment of subordinate clauses for main-clause purposes).

- b. *Káru ávansa káan uhyárih, úksuupkuti pa'ípaha.*
káru ávansa kaan u-ihyárih u-ikshup-ku-tih pa='ípaha
 also man there 3SG-stand 3SG>3-point-to-DUR the=tree
 'And a man is standing there, he's pointing at the tree.'
 (Julia Starritt, 1949–50, KL-92)

A second common pattern is that contrastive topics (topical noun phrases that express contrast) are typically preverbal, even if already mentioned. This is shown in (31), a sequence of successive sentences (describing a single picture) from the same source as (30). The clauses in (31a–b) feature newly mentioned nominals, all preverbal. With (31c), the topic shifts from the rattlesnake (the topic in 31b), so even though the children were previously mentioned, the contrastive topic *paaxíich* 'the children' is preverbal. As in (30b), the previously mentioned object of 'point' in (31c) is postverbal.

- (31) a. *Payôok kuyráak axíich kun'iruvêehriv.*
payôok kuyráak axiich kun-'iruvêehriv
 here three child 3PL-stand.PL
 'Here three children are standing.'
- b. *Káru tapas'ápsuun káan ..., utákviihriv muxvâa a' uhyárih.*
káru tápas-'ápsuun kaan u-takvih-riř mu-axvâah a'
 also real-snake there 3SG-curl-at.rest 3SG.POSS-head up
u-ihyárih
 3SG-stand
 'And a rattlesnake is lying coiled there ..., its head is standing up.'
- c. *Xás paaxíich kuníkshuupkuti pa'ápsuun.*
xás pa=axiich kun-ikshup-ku-tih pa='ápsuun
 and the=child 3PL>3-point-to-DUR the=sake
 'And the children are pointing at the snake.'
 (Julia Starritt, 1949–50, KL-92)

A third pattern is that focused elements precede contrastive topics. In (32) the previous topic was the floor; *pa'ávansa ... kích* 'only the men' is focused, while *mukun'ikrívkir* 'their seats' is the new topic.

- (32) Context (in a description of the living house): "On the floor were their cooking baskets and whatever else they had."
Xás pa'ávansa vúra kích mukun'ikrívkir utâayhiti.
xás pa='ávansa vúra kích mukun-ikrívkir u-táay-hi-tih
 and the=man INTNS only 3PL.POSS-seat 3SG-much-DENOM-DUR
 'And just the men had many seats (lit., just the men's seats were many). (The women sat on the ground.)'
 (Julia Starritt, 1949–50, KL-77)

Finally, some particles and other elements are sensitive to discourse properties. For example, according to Bright (1957:129), the postposition *îin* optionally marks overt animate subjects of transitive verbs with animate objects. Macaulay (2000) refines his analysis by suggesting that *îin* “tags a subject NP as a peripheral character acting on the main character” (p. 465). This occurs in sentences with third-person subjects and objects, as in (33), the first of several sentences (in a *pikvah*) naming insects that ate Coyote. As in (20d), *îin* can also mark first-person subjects with second-person objects.

- (33) *Kári xás pâanpay pishpishih'îin tákun'av.*
kári xás pâanpay pishpishih'=îin ta-kun-'aũ
 then and after.a.while yellowjacket=OBV PERF-3PL>3-eat
 ‘And after a while yellowjackets ate him (Coyote).’
 (Nettie Ruben, 1949–50, KL-1)

More generally, a large text corpus over many decades also rewards study of narrative, rhetorical structure, and textual cohesion (Bright 1980, Brugman & Macaulay 2009, 2015).

47.3 Documentation and revitalization

Throughout California, 19th century documentation of Indigenous languages took place in the context of the American invasion, which included resource extraction and genocidal policies; linguistic and cultural documentation was sometimes an element of those policies.¹⁰ Some Karuk linguistic information was recorded in this period by journalists, travelers, military officers, and employees of the Bureau of American Ethnology (Curtin 1889).

In the first years of the twentieth century, several Karuk people made important contributions to the documentation of their language, including especially Martha Horne and her daughters Julia Bennett and Jeannette Horne (later Beaver). All three worked with the anthropologist A. L. Kroeber: Martha Horne shared a *pikvah* and some vocabulary and sentences in 1901; in 1901 and 1902 Bennett shared seven *pikvah* and extensive linguistic material. In 1904, Jeannette Horne created a notebook of Karuk words and sentences in her own hand, one of the earliest surviving California examples of writing by an Indigenous person in her own language; see Figure 2. Kroeber’s papers are housed in The Bancroft Library at the University of California, Berkeley (Kroeber 1869–1972); ten notebooks include original Karuk material.

¹⁰ Language documentation remains fraught over 150 years later. In the words of Crystal Richardson (Hinton et al. 2018:xxv), “certain elders ... refer to researchers as ‘Brain Pickers’, and the job of collecting information to be disseminated to the outside world is considered one of the foulest forms of exploitation known to Karuk traditionalists.”

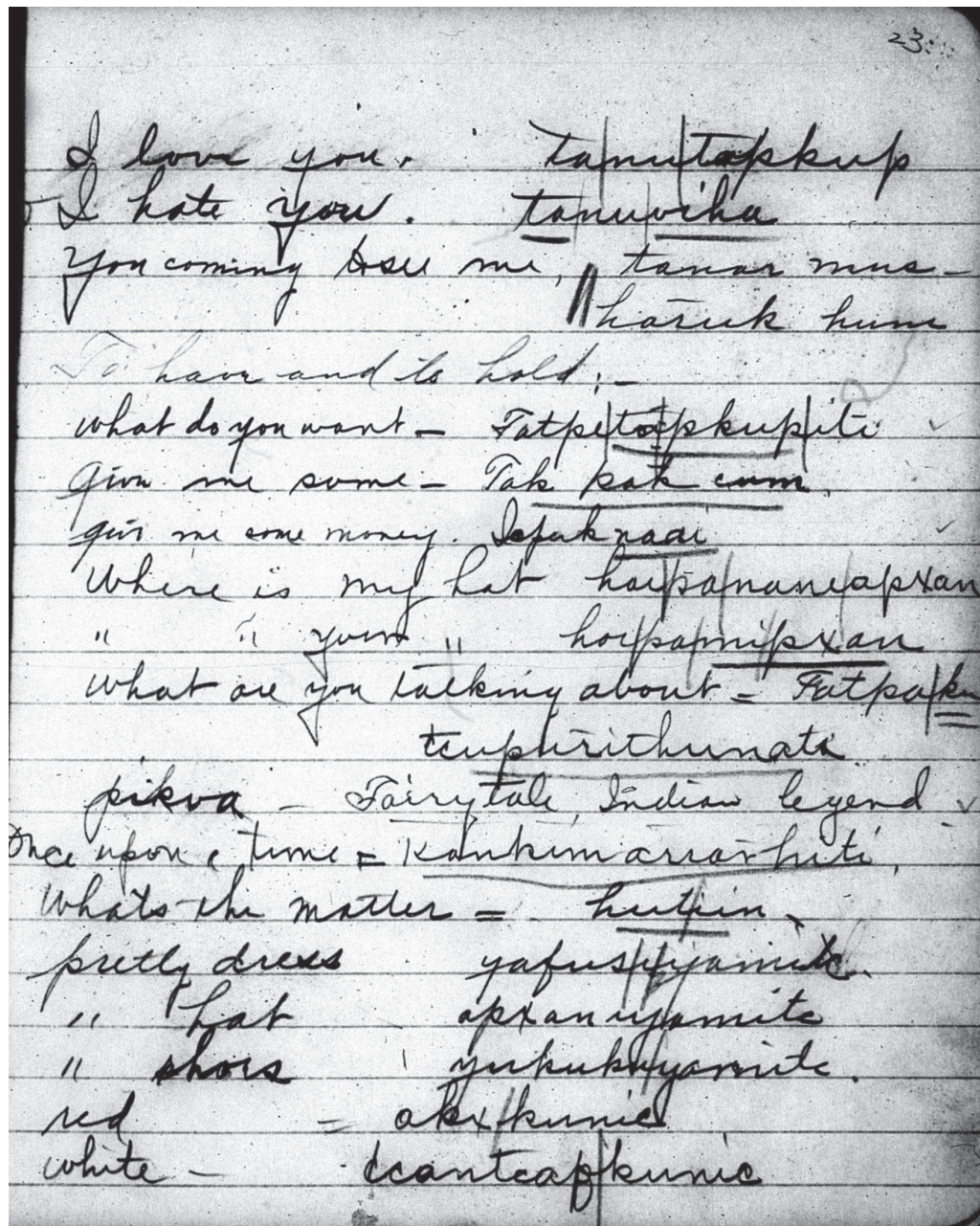


Fig. 2: Notebook prepared beginning on August 2, 1903, by Jeannette Horne for A. L. Kroeber, with English and Karuk, page 23. A. L. Kroeber Papers, 1869–1972, notebook 89 (carton 9:44), BANC MSS C-B 925, The Bancroft Library, University of California, Berkeley.

Two decades later, the linguist John Peabody Harrington (employed by the Bureau of American Ethnology) came to Karuk territory to document the language and culture. This work took place in 1926, 1928–1929, and 1933, mainly with Fritz Hansen, Sylvester Donahue, and especially Phoebe Maddux (Figure 3), who went with Harrington to Wash-



Fig. 3: Phoebe Maddux at Somes Bar on the lower Salmon River, 1908. Photograph by Grace Nicholson / Carroll S. Hartman, photCL 56 (A-82-1), Grace Nicholson Photograph Collection, The Huntington Library, San Marino, California.

ington, DC for nearly a year in 1928–29.¹¹ These collaborations yielded three major publications (Harrington 1930, 1932a, 1932b) and a rich archive of thousands of manuscript pages, preserved in the National Anthropological Archives and now accessible online (Harrington 1925–1933). *Tobacco among the Karuk Indians of California* (Harrington 1932a) deserves special mention for its remarkable detail, depth and diversity, and scores of pages of Karuk language; Harrington is its listed author, but Maddux is the actual author of almost all the Karuk in it.

In the 1940s and 1950s, the linguist William Bright worked with Karuk speakers as a graduate student at the University of California, Berkeley; his 1955 dissertation was *A grammar of the Karok language*. He reported then that there were around 200 speakers of Karuk, but that children were not learning the language. Bright worked with Karuk speakers from Orleans and the lower half of Karuk territory, including Lottie Beck, Maggie Charley, Daisy Jones, Mamie Offield, Chester Pepper, Nettie Ruben, and Julia Starritt. Some of his materials (including sound recordings) are archived at Berke-

¹¹ In this period documentation was also created by Benonie and Margaret Harrie and Frank and Nettie Ruben, working with Jaime de Angulo and L. S. Freeland (De Angulo & Freeland 1931); other material is preserved from fieldwork by Ursula McConnel (1932–1933) and Hans Jørgen Uldall (n.d.).

ley (Bright 1949), but most are in the American Philosophical Society (APS) Library.¹² The APS has processed Bright's papers, put some material online, and made a point of seeking out ways to connect Karuk language learners with its collections.

In 1966, Humboldt State University (HSU) established the Center for Community Development (later the Center for Indian Community Development, CICD). Under its director Tom Parsons, CICD began to prepare pedagogical materials and establish school- and community-based language classes, initially for Hupa and then for other Indigenous languages. Shan Davis and Leaf Hillman from the Karuk Tribe led a collaboration with CICD whose goal was to bring language education and revitalization to their community. Hillman taught Karuk language classes with Davis in Orleans and Happy Camp; they and Fannie Fisher worked to render Bright's (1957) lexicon in the Unifon writing system (§ 2.1.4); and elders discussed and Fisher transcribed extensive information on the people whose names were documented in the dictionary. Until the 2000s, CICD arranged regular language speaking and documentation sessions, many of them guided by Karuk speakers or by learners from the tribe with community-specific research emphases. By 2009, HSU began the process of closing CICD. A topic of concern was that the ownership of CICD materials might be contested, so Susan Gehr (2012) prepared a report, drawing on community-based understandings of ownership, principles of ownership in the field of oral history, and the precedents of unpublished Native American language documentation sharing to date. Once the HSU Library agreed to accept the collection, Gehr (2012–2015) prepared a finding aid and the collection was physically transferred.

Two Karuk people who documented and published on the language over the years are Julian Lang and Nancy Steele. Lang taught in the Karuk Language Bilingual Credential Program in the late 1980s and reviewed many CICD publications. An important artist as well as a language activist and teacher, he has transcribed many of Harrington's notes and other Karuk language materials, edited volumes of *pikvah* and Karuk art (Lang 1994, 2012), and contributed to other volumes on Karuk culture, language, and texts (Hickox 1991, Luthin 2002). Steele has long been a highly collaborative advocate for the revitalization of the Karuk language as well as an accomplished storyteller, basket weaver, and traditional singer. During the 1970s and 1980s, she served as coordinator of the American Indian Languages and Literature Program at CICD, developing language curriculum and publications for Karuk (Richardson 1993) and supporting similar projects for Hupa, Yurok, and Tolowa. In 2019, she received the Linguistic Society of America's Excellence in Community Linguistics Award for her contributions to language revitalization (Hinton *et al.* 2001) and her Karuk work in particular.

The 1980s saw new, community-based language projects and infrastructure development. The Karuk Language Restoration Committee (KLRC) was formed in 1988

¹² See Bright (1949–2006). Also in the APS are recordings created in the 1980s by Stella Howerton and Violet Super, working with Monica Macaulay, together with associated notes (Howerton *et al.* 1989).



Fig. 4: Violet Super, Vina Smith, and William Bright recording and transcribing Karuk, February 2004, Orleans, California. Photograph by Susan Gehr.

to preserve and foster the continued use of the Karuk language. Founding members Nancy Steele, André Cramblit, Jeanerette Jacups-Johnny, Vi Silva, Blanche Moore, Robert Goodwin, Vina Smith, Alvis “Bud” Johnson and advisors Bright and Lang encouraged the documentation of fluent speakers, the growth of new speakers, and community language learning and use. Bright had worked on other projects in the 1960s and 1970s, but returned to work with Karuk people at their request by the mid-1980s. Academic linguists were the primary audience of his 1957 grammar, as shown by its theory-dependent (structuralist) analytic assumptions; as he himself would say, decades afterwards, there was much in it that even he could not understand. In his later years, Bright’s work was guided by the needs of the Karuk language community.¹³

In the early 1990s, Terry and Sarah Supahan started teaching weekly Karuk language classes at Orleans Elementary School, as well as community language classes in their home, with Terry Supahan’s aunt Violet Super as the fluent mentor. She had grown up speaking Karuk because her family kept her from being taken to boarding school. Though doubtful when her family first sought her involvement with revitalizing Karuk, she eventually embraced the work, telling her family that she needed to live to be 100, because she had a job to do (Figure 4). Supahan & Supahan (1996) also published curricula for the pre-school and elementary school levels. And through extensive community involvement, Hoopa Valley High School established a Native languages program,

¹³ Shortly before he died in 2006, in recognition of this work, Bright was the first person named an honorary member of the Karuk Tribe (Gehr 2006).

offering courses in Karuk, Hupa, and Yurok. If a student completed two years of one language with a passing grade, they satisfied the non-English language requirement for entrance into California public universities. The Karuk language class has been taught in past years by Phil Albers, whose children grew up speaking the language (Albers & Albers 2013), and by Susan Gehr.

In the 2000s, tribally centered projects have generated additional resources. Beginning in 2002, for example, the Administration for Native Americans (ANA) supported a project to develop teaching materials, train teachers, and hold language classes and events. A new printed Karuk dictionary (Bright & Gehr 2005) was a major outcome; an instructional video of Karuk pronunciation, featuring speakers Violet Super and Elizabeth Snapp, and transcriptions of many of J. P. Harrington's notes were also locally produced by Jim Ferrara. Through another ANA grant (2008–11), Karuk community members documented speakers Sonny Davis, Julian Lang, Vina Smith, and Charlie Thom, Sr.; some results are available online (<http://videos.karuk.org>). In this project elders indicated that any language documentation or training event needed to be accompanied by opportunities for speakers to speak Karuk together. Since then, training events and many community gatherings always include a speakers' circle (Rouvier 2017).

In 2012–13, the National Endowment for the Humanities supported an audio and video documentation project undertaken by Crystal Richardson, as a result of which 119 hours of recordings with elder speakers were archived at the Survey of California and Other Indian Languages at the University of California, Berkeley. Most recently (2015–19), the Karuk Tribe received National Science Foundation funding to prepare language materials created by or repatriated to the tribe for archival processing, and to make it possible for community members to care for their work products with preservation and future access in mind. The goals are to facilitate preservation and care of language materials by the Karuk Tribe itself and members of the Karuk language community. Because language learners now do their own documentation and create their own language teaching materials and media, they should also think about and prepare their personal language collections with long-term preservation in mind. This project informs language advocates about the various practical and intellectual activities involved in archiving and encourages them to think about their personal work as worthy of long-term preservation, and where it should go in the future.

During this period, a collaboration between the Karuk Tribe and the University of California, Berkeley led to further documentation of elder speakers (Davis *et al.* 2010–17) and the creation of *Ararahih'urípih*, an online dictionary (expanded from Bright & Gehr 2005) and text corpus (<http://linguistics.berkeley.edu/~karuk>). The corpus contains over 5,000 sentences in 200 texts, ranging from *pikvah* transcribed by Kroeber in 1901 to stories and linguistic elicitation sessions recorded in the 2010s. All are morphologically parsed and linked to the dictionary; many include sound recordings.

In 2020, there are only a handful of elder first-language Karuk speakers. But there are fluent younger speakers who did not grow up fluent; and it is important to add that they and many others did grow up with the language around them. There has



Fig. 5: Julian Lang and Maymi Preston-Donahue meet to converse in Karuk. Photograph by Adam Loftin (*Emergence Magazine* 2019).

never been a time when Karuk was absent from every home. Today, language classes are taught in Yreka schools; community classes are offered in Arcata by Julian Lang, and in Yreka by Arch Super, Florraine Super, and Franklin Thom. Lang sometimes puts his classes on social media (Facebook Live), so Karuk people who live elsewhere can participate. Used in some homes throughout Karuk territory (and its diaspora), the language shows every sign of strengthening. This also has a broader significance. As Maymi Preston-Donahue has said (“Language keepers” 2019), “language has a huge role in the healing of our people from the historical trauma of being colonized by the settlers and the miners in this area.”

Acknowledgements: Gehr thanks her language teachers Julian Lang and the late “Auntie” Violet Super, Elizabeth Snapp, Marge Houston, Alvis “Bud” Johnson, and Sonny Davis. While it feels impossible to acknowledge everyone, she wants to show appreciation to some of her linguistic, language revitalization, and archival mentors: William Bright, Scott DeLancey, David de Lorenzo, Debra Hansen, Leanne Hinton, Lauren Lassleben, and everyone involved with San José State University’s Circle of Learning project. She thanks Jeanerette Jacups-Johnny for welcoming her back to Karuk country and connecting her with our language. *Pananúhih chími nuchúuphi!*

Richardson would like to thank her aunt Nancy Steele for being her first Karuk language teacher. She would also like to thank the language masters who took her under their wing and helped her become a heritage language speaker: Julian Lang and the late Vina Smith, Leland “Junie” Donahue, Sonny Davis, Charlie Thom, Sr., Lucille Albers,

and Alvis “Bud” Johnson. For discussions and help related to this work she also thanks her linguistics professors Julia Menard-Warwick, Vaidehi Ramanathan, Justin Spence, and Georgia Zellou. Her dear friends who have helped her better understand Karuk linguistics, Leanne Hinton and Patricia Shaw, also have her gratitude. And to all the current and future Karuk language teachers and speakers of their language, *vúra táay nu’ítapeesh!*

Garrett, Maier, Mikkelsen, and Sandy thank their Karuk language teachers Julian Lang, Crystal Richardson, Nancy Steele, and the late Lucille Albers, Sonny Davis, Alvis “Bud” Johnson, Vina Smith, and Charlie Thom, Sr. for their generosity, hospitality, and patience over many years, as well as all who welcomed them and shared their commitment to *araráhih*. For discussions and help related to this work, they also thank colleagues Kayla Begay, Leanne Hinton, Monica Macaulay, Karie Moorman, Ruth Rouvier, and Ronald Sprouse.

The authors gratefully acknowledge support from the Documenting Endangered Languages program of the National Endowment for the Humanities and National Science Foundation (NEH FN-50097-11 to Richardson, NSF BCS-1065620 to the University of California, Berkeley for Garrett and Mikkelsen, NSF BCS-1500605 to the Karuk Tribe for Gehr). The views expressed in this chapter are those of the authors.

Abbreviations

Grammatical categories

Names of grammatical categories are not necessarily semantic descriptions; in many cases they are names introduced by Bright (1957). Omitted are numbers (SG, PL) and persons (1, 2, 3).

ANC	Ancient Tense	ITER	Iterative
ANT	Anterior	NEG	Negative
COMP	Complementizer (<i>pa=</i>)	OBV	Obviative (Macaulay 2000)
DENOM	Denominative	PERF	Perfective (<i>ta-</i>)
DIM	Diminutive	PL.ACT	Plural Action
DUR	Durative	POSS	Possessive
FUT	Future	PRO	Pronominal (<i>uum</i> , <i>vaa</i>)
IMPV	Imperative	PST	Past
INSTR	Instrumental	Q	Polarity Question Particle
INTNS	Intensive (<i>vúra</i>)	RED	Reduplication (Macaulay 1993, Conathan & Wood 2003)
IRR	Irrealis (based on unpublished work by Rea Peltola)	VIS	Visible (Brugman & Macaulay 2015)

Texts cited

CT, GD-MD-VSu, VS = sentence collections in *Ararahih'urípih* (<http://linguistics.berkeley.edu/~karuk>)
 DAF_KT = De Angulo & Freeland (1931), cited by text number
 JPH = Harrington (1925–1933), cited by reel and frame number (individual speakers are often not identified)
 JPH_KT = Harrington (1930), cited by text number
 KL = Bright (1957), cited by text number (we assume all texts were recorded in 1949–1950)
 KS = Bennett et al. (2020), cited by text number
 KV = William Bright, *Karok verbs* (n.d.), 2 vols., in Bright (1949–2006), organized alphabetically by verb
 (individual speakers and further sources are not identified)
 TK = Harrington (1932a), cited by page number

References

- Albers, Phil & Elaina (Supahan) Albers. 2013. Karuk language and the Albers basket. In Leanne Hinton (ed.), *Bringing our languages home: Language revitalization for families*, 33–40. Berkeley: Heyday Books.
- Béjar, Susana. 2003. *Phi-syntax: A theory of agreement*. Toronto: University of Toronto PhD dissertation.
- Bennett, Julia, John Gorham, Martha Horne & Little Ike. In preparation. *Kunkúphaanik: Karuk stories from 1901–1902*. Edited with commentary by Andrew Garrett, Julian Lang & Erik Hans Maier from transcriptions by A. L. Kroeber.
- Bright, William. 1949. The William Bright collection of Karok sound recordings. LA 78, Survey of California and Other Indian Languages, University of California, Berkeley. Online: <http://cla.berkeley.edu/collection/10145>.
- Bright, William. 1949–2006. *William O. Bright Papers*. American Philosophical Society Library, Mss.Ms.Coll. 142.
- Bright, William. 1952. Linguistic innovations in Karok. *IJAL* 18. 53–62.
- Bright, William. 1957. *The Karok language*. Berkeley: University of California Press.
- Bright, William. 1978. Karok. In Robert Heizer (ed.), *California*, 180–189. (Handbook of the North American Indians, vol. 8). Washington: Smithsonian Institution.
- Bright, William. 1980. Coyote's journey. *American Indian Culture and Research Journal* 4. 21–48.
- Bright, William & Jane O. Bright. 1965. Semantic structures in northwestern California and the Sapir-Whorf hypothesis. *American Anthropologist* 67. 249–258.
- Bright, William & Susan Gehr. 2005. *Karok dictionary*. Happy Camp: Karuk Tribe.
- Brugman, Claudia & Monica Macaulay. 2009. Relevance, cohesion, and the storyline: The discourse function of the Karuk particle *káruma*. *Journal of Pragmatics* 41. 1189–1208.
- Brugman, Claudia & Monica Macaulay. 2015. Characterizing evidentiality. *Linguistic Typology* 19. 201–237.
- Botne, Robert. 2012. Remoteness distinctions. In Robert I. Binnick (ed.), *The Oxford handbook of tense and aspect*, 536–562. Oxford: Oxford University Press.
- Campbell, Amy. 2012. *The morphosyntax of discontinuous exponence*. Berkeley, CA: University of California, Berkeley, PhD dissertation. <https://escholarship.org/uc/item/7x94n1wm> (accessed 1 June 2020).
- Campbell, Lyle. 1997. *American Indian languages: The historical linguistics of Native America*. Oxford: Oxford University Press.
- Conathan, Lisa. 2004. *The linguistic ecology of northwestern California: Contact, functional convergence and dialectology*. Berkeley, CA: University of California, Berkeley, PhD dissertation. <https://escholarship.org/uc/item/0jj5h838> (accessed 1 June 2020).
- Conathan, Lisa. 2006. Recovering sociolinguistic context from early sources: The case of Northwest California. *Anthropological Linguistics* 48. 209–232.

- Conathan, Lisa & Esther Wood. 2003. Repetitive reduplication in Yurok and Karuk: Semantic effects of contact. In H. Christoph Wolfhart (ed.), *Papers of the Thirty-Fourth Algonquian Conference*, 19–33. Winnipeg: University of Manitoba.
- Cook, Sherburne F. 1956. *The aboriginal population of the north coast of California*. (Anthropological Records 16/3.) Berkeley: University of California Press.
- Curtin, Jeremiah. 1889. Karok vocabulary. MS 1450, National Anthropological Archives, Smithsonian Institution. <https://sova.si.edu/record/NAA.MS1450> (accessed 1 June 2020).
- Davis, Sonny, Andrew Garrett, Erik Hans Maier, Line Mikkelsen, Crystal Richardson, Clare S. Sandy, Vina Smith & Charlie Thom, Sr. 2010–2017. Materials of the Berkeley Karuk Project, SCL 2017–04, Survey of California and Other Indian Languages, University of California, Berkeley.
- Davis, Sonny, Vina Smith, Nancy Super, Peter Super, Jr., Charlie Thom, Sr. & Line Mikkelsen. 2020. Forms and functions of backward resumption: The case of Karuk. Manuscript, University of California, Berkeley. To appear in *Language*.
- De Angulo, Jaime & Lucy S. Freeland. 1931. Karok texts. *IJAL* 6.194–226.
- Evans, Nicholas. 2007. Insubordination and its uses. In Irina Nikolaeva (ed.), *Finiteness: Theoretical and empirical foundations*, 366–431. New York: Oxford University Press.
- Garrett, Andrew & Line Mikkelsen. 2015. Documenting, analyzing, and teaching the grammar of direction in Karuk. *4th International Conference on Language Documentation and Conservation*. <http://hdl.handle.net/10125/25285> (accessed 1 June 2020).
- Gehr, Susan. 2006. Tribal Council awards honorary tribal membership to William Bright, *uhyanapa-tánvaanich*. *Karuk Tribal Newsletter* Fall 2006.11. <http://www.karuk.us/images/docs/newsletters/Fall06Newsletter.pdf> (accessed 1 June 2020).
- Gehr, Susan. 2012. CSU-HSU-CICD Language Ownership Policies. Humboldt Digital Scholar. <http://hdl.handle.net/2148/1357> (accessed 1 June 2020).
- Gehr, Susan. 2012–2015. Center for Indian Community Development Collection finding aid. Humboldt State University Library. <http://library.humboldt.edu/humco/holdings/CICDAid.html> (accessed 1 June 2020).
- Golla, Victor. 2011. *California Indian languages*. Berkeley: University of California Press.
- Haas, Mary R. 1980. Notes on Karok internal reconstruction. In Kathryn Klar, Margaret Langdon & Shirley Silver (eds.), *American Indian and Indoeuropean studies: Papers in honor of Madison S. Beeler*, 67–76. The Hague: Mouton.
- Hale, Ken. 1983. Warlpiri and the grammar of non-configurational languages. *Natural Language and Linguistic Theory* 1. 5–47.
- Harrington, John Peabody. 1925–1933. Northern and central California: Karok/Shasta/Konomihu. John Peabody Harrington papers, National Anthropological Archives, Smithsonian Institution.
- Harrington, John P. 1930. Karuk texts. *IJAL* 6.121–161.
- Harrington, John P. 1932a. *Tobacco among the Karuk Indians of California*. (Bureau of American Ethnology, Bulletin 94.) Washington: Government Printing Office.
- Harrington, John P. 1932b. *Karuk Indian myths*. (Bureau of American Ethnology, Bulletin 107.) Washington: Smithsonian Institution.
- Hayes, Bruce. 1995. *Metrical stress theory: Principles and case studies*. Chicago: University of Chicago Press.
- Heine, Bernd & Tania Kuteva. 2002. *World lexicon of grammaticalization*. Cambridge, U.K.: Cambridge University Press.
- Hickox, Elizabeth Conrad. 1991. *Elizabeth Conrad Hickox (1873–1947): Baskets from the center of the world*. Arcata: Reese Bullen Gallery, Humboldt State University.
- Hinton, Leanne. 2001. New writing systems. In Leanne Hinton & Ken Hale (eds.), *The green book of language revitalization in practice*, 239–250. San Diego: Academic Press.
- Hinton, Leanne, Leena Huss & Gerald Roche. 2018. Introduction: Language revitalization as a growing field of study and practice. In Leanne Hinton, Leena Huss & Gerald Roche (eds.), *The Routledge handbook of language revitalization*, xxi–xxx. New York: Routledge.

- Hinton, Leanne, with Matt Vera & Nancy Steele. 2001. *How to keep your language alive: A commonsense approach to one-on-one language learning*. Berkeley: Heyday Books.
- Howerton, Stella, Monica Macaulay & Violet Super. 1989. Karok language recordings. American Philosophical Society Library, Mss.Rec.180
- Kroeber, Alfred L. 1869–1972. A. L. Kroeber papers. BANC MSS C-B 925, The Bancroft Library, University of California, Berkeley.
- Kroeber, Alfred L., & Edward W. Gifford. 1980. *Karok myths*. Berkeley: University of California Press.
- Ladefoged, Peter & Ian Maddieson. 1996. *The sounds of the world's languages*. Oxford: Blackwell.
- Lang, Julian. 1994. *Ararapikva: Creation stories of the people*. Berkeley: Heyday Books.
- Lang, Julian (ed.). 2012. *Pi'êp káru payêem "long ago and today": An exhibition of Karuk art and culture*. Eureka: Clarke Historical Museum.
- Language keepers: The struggle for Indigenous language survival in California. 2019. *Emergence Magazine* 5. <https://emergencemagazine.org/story/language-keepers/> (accessed 1 June 2020).
- Levi, Susannah V. 2008. Phonemic vs. derived glides. *Lingua* 118. 1956–1978.
- Levinson, Stephen C. 1996. Language and space. *Annual Review of Anthropology* 25. 353–382.
- Li, Charles N. & Sandra A. Thompson. 1977. A mechanism for the development of copula morphemes. In Charles N. Li (ed.), *Mechanisms of syntactic change*, 419–444. Austin: University of Texas Press.
- Luthin, Herbert W. (ed.). 2002. *Surviving through the days: Translations of Native California stories and songs*. Berkeley: University of California Press.
- Macaulay, Monica. 1992. Inverse marking in Karuk: The function of the suffix *-ap*. *IJAL* 58. 182–201.
- Macaulay, Monica. 1993. Reduplication and the structure of the Karuk verb stem. *IJAL* 59. 64–81.
- Macaulay, Monica. 2000. Obviative marking in ergative contexts: The case of Karuk *'iin*. *IJAL* 66. 464–498.
- Macaulay, Monica. 2004. On the Karuk directional suffixes. *BLS* 30. 81–101.
- Maier, Erik Hans. 2016. Above or below: Modeling a telicity restriction on Karuk directional applicatives. In Christopher Hammerly & Brandon Prickett (eds.), *NELS 46: Proceedings of the Forty-Sixth Annual Meeting of the North East Linguistic Society*, vol. 2, 317–330. Amherst: University of Massachusetts, GLSA.
- McConnel, Ursula. 1932–1933. [Karuk field notes]. McConnel.001, Survey of California and Other Indian Languages, University of California, Berkeley.
- Mithun, Marianne. 1999. *The languages of native North America*. Cambridge: Cambridge University Press.
- Mithun, Marianne. 2008. The extension of dependency beyond the sentence. *Language* 84. 69–119.
- Moran, Steven & Daniel McCloy (eds.). 2019. PHOIBLE 2.0. Jena: Max Planck Institute for the Science of Human History. <https://phoible.org/> (accessed 1 June 2020).
- Norton, Jack. 1979. *Genocide in northwestern California: When our worlds cried*. San Francisco: Indian Historian Press.
- O'Neill, Sean. 2006. Mythic and poetic dimensions of speech in northwestern California: From cultural vocabulary to linguistic relativity. *Anthropological Linguistics* 48. 305–334.
- O'Neill, Sean. 2008. *Cultural contact and linguistic relativity among the Indians of northwestern California*. Norman: University of Oklahoma Press.
- Rice, Keren. 2011. Principles of affix ordering: An overview. *Word Structure* 4. 169–200.
- Richardson, Crystal. 2018. *Uhyanavararatih: A call across the divide*. Davis, CA: University of California, Davis, MA thesis.
- Richardson, Nancy. 1993. *Now you're speaking Karuk!* Arcata, Calif.: Center for Indian Community Development.
- Rouvier, Ruth. 2017. The role of elder speakers in language revitalisation. In Wesley Y. Leonard & Haley De Korne (eds.), *Language Documentation and Description*, vol. 14, 88–110. London: EL Publishing.
- Sandy, Clare S. 2017. *Prosodic prominence in Karuk*. Berkeley, CA: University of California, Berkeley, PhD dissertation. <https://escholarship.org/uc/item/8jm485q5> (accessed 1 June 2020).

- Sandy, Clare S. & Line Mikkelsen. 2015. Punctuation is prosody: Making historic transcriptions of Karuk accessible for revitalization and research. *4th International Conference on Language Documentation and Conservation*. <http://hdl.handle.net/10125/25330> (accessed 1 June 2020).
- Skutnabb-Kangas, Tove. 2000. *Linguistic genocide in education – or worldwide diversity and human rights?* Mahwah, N.J.: Erlbaum.
- Smith, Carolyn. 2016. *Weaving pikyav (to-fix-it): Karuk basket weaving in-relation-with the everyday world*. Berkeley, CA: University of California, Berkeley, PhD dissertation. http://digitalassets.lib.berkeley.edu/etd/ucb/text/Smith_berkeley_0028E_16698.pdf (accessed 1 June 2020).
- Supahan, Terry & Sarah Supahan. 1996. *A head start on our Indian language*. Orleans, Calif.: Shivshaneen.
- Talmy, Leonard. 1985. Lexicalization patterns: Semantic structure in lexical forms. In Timothy Shopen (ed.), *Language typology and syntactic description*, vol. 3, 57–149. Cambridge: Cambridge University Press.
- Talmy, Leonard. 1999. Fictive motion in language and “ception”. In Paul Bloom et al. (eds.), *Language and space*, 211–276. Cambridge: MIT Press.
- Uldall, Hans Jørgen. n.d. [Karuk texts]. Uldall.003, Survey of California and Other Indian Languages, University of California, Berkeley. DOI:10.7297/X29C6VB7.

The Languages and Linguistics of Indigenous North America

A Comprehensive Guide

Edited by

Carmen Dagostino, Marianne Mithun and Keren Rice

DE GRUYTER
MOUTON

2023