

FROM SPACE TO TILE IN TENSES IN KIKSHT¹

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0. The elaboration of morphological tense distinctions in kiksht has been often noted as a striking feature. (Sturtevant 1947: 58, Hoijer 1954: 10). A similar system of four preterite tenses has been discovered also in Greek (Haas 1940), but the kiksht elaboration is even more striking than first appears, for it involves not only the four preterite tenses (beside a present and future), marked by initial prefixes, but a further series of discriminations as well, coming to a total of ten (see section 5).

These further discriminations are marked by two 'directional' (Boas 1911: 590) prefixes, and at this point the elaboration becomes a problem, for the semantic relation between the directional use and the temporal use of the two prefixes is not at all clear. On first examination the relation even appears to be contradictory.

In this paper I propose an interpretation of the semantic character of the directional prefixes, and a hypothesis as to the premise underlying their extension into temporal use. Section (1) sketches the history of the problem, and outlines the tense system. In (2) the tenses are reviewed individually, to give a fuller notion of their character. In (3) the relations between the spatial and temporal uses of the two directional prefixes is considered. The interpretation of their semantic character, and the hypothesis as to the basis of the analogy from space to time is presented in (4). The paper concludes with summary observations on the semantic character of the system as a whole (5).

1. The elaboration of verb-initial tense distinctions in kiksht dialects of Chinookan was first reported by Edward Sapir (1907). His report remains a useful introduction to the problem addressed in this note. Sapir writes (1907: 538-539):

'Turning again to morphology, there was one feature which was well calculated to arouse a certain degree of surprise. The work which had been done on Lower Chinook disclosed a paucity of tenses that is, on the whole, quite in accordance with the general morphologic character of many American linguistic stocks. In Wishram, however, I found that it was necessary to distinguish carefully six tenses: 1st, a tense characterized by the prefix ga- (before consonants) or gal- (before vowels) in certain cases optionally by the prefixed consonant n-), which refers to time long past, say more than one year ago, and which is used regularly in the recital of myths; 2nd, a tense characterized by the prefix ni(g)-,² used to refer somewhat indefinitely to time past and which is used in speaking of events that happened say less than a year ago, yet more than a couple of days; 3rd, a tense characterized by prefixed na(l)- and suffixed -a, which seems to refer to recent time exclusive of to-day, more specifically to yesterday; 4th, a tense characterized by prefixed i(g)-, which refers to an action already performed to-day; 5th, a tense characterized normally by suffixed -t, referring to an action now going on but, as it seems, with the implication of its soon being completed; and 6th, a future tense normally characterized by prefixed a(l)- and suffixed -a.'

In a footnote (p. 539, n. 1) Sapir gives examples of the set of tenses with four verbal themes (i/ya 'to go, come', gikl 'to see, look at', x - x 'to become', x 'to do'). For the third theme, there occur the following forms:

galixux	'he became'
nigixatx	
nalixuxwa	
igixux	
-----	[no present form given]
alixuxwa	[he will become]

Notice the change before the stem in the second form; there is t- instead of u- [xa- is the alternant of the x- in other forms, the a- going regularly to zero before this u-]. Another form would be possible as well: nigixux. Both forms would indicate the past in the range between ga(l)- and na(l)-, but each to a different degree.

Such interaction between the pre-stem prefixes of verbs, t- and u-, and the verb-initial markers of tense, was noted by Sapir in his preliminary report with regard to the present. He continued his exposition in these words (1907: 539):³

'Besides this series of six positively characterized tenses, I should not omit to mention that some verbs, when referring to present time, are morphologically tenseless, and seem to form their immediate past tense by a verbal prefix -t- which ordinarily denotes action toward the speaker.¹²

'[2] Thus úxt (=a+u+xt) means 'she is seated', but 'she was sitting' is rendered by átxt, in which the prefix -u- has been changed to -t-. Cf., for this interchange, lugwat 'they fly (away from me)' and ltgat 'they fly toward (me)!'

Further research would show that the first pair of forms (utxt, atxt) belong to Sapir's fifth type of positively characterized tenses, as do lugwat/ltgat. The stem in the first pair of forms is -x with suffixed -t (literally, 'she is'), just as the second pair of forms have stem -ga (-gwa after u-) with suffixed -t. Indeed, further research (by Walter Dyk in the 1930s, under Sapir's direction, and by myself, and by Michael Silverstein) would show that the u/t alternation enters more widely into the series of 'positively characterized tenses'.

The late Walter Dyk was the first to present this pattern, and in his unpublished Grammar of Wishram (1933), he gives the following 'Table of temporal function' (modified in format here) (1933: 47):⁴

	u-	t-
ga(l)-	remote past	past from 1 to 10 years ago
ni(g)-	past of from a week to a year ago	past of last week
na(l)-	--	--
i(g)-	--	--
∅- (-t)	actual present	immediate and near past
a(l)-	immediate and near future	distant future

2. Let me now give examples of the several contrasts in tense, together with a discussion of the semantic features that appear to be involved in them. I shall give first an illustrative full set, then introduce additional examples with individual tenses.⁵

nakim, naxtkim	'she said'
nikim	'he said'
galikim	'he said'
galixtkim	
nigikim	
nigixtkim	
naligima	
igikim	
igixtkim	
igimt	'he is saying'
ixtgimt	'he was saying'
ixtgimnil	'he was saying (right along)'
aligima	'he will say'
alixtgima	'he will say (remote)'

2.1. n-. Sapir found 'no apparent difference' in temporal force between such sets as nakim, naxtkim, and galakim, galaxtkim 'she said'. Both refer equally to the most distant past. Dyk found n- to be 'a shortened storial form of the remote past sometimes used in tales' (noted in his lexical files with naxaima 'she was lying'), and to be used 'only before pronominal elements i- and a-' (1933:26). See Silverstein's analysis in the preceding monograph.

2.2. ga(1)-. In his field notes Sapir commented as follows: 'galikim, used more in stories; galixtkim used more in ordinary talk; isk'úlya galixtkim sounds odd, as if what he Coyote said could really be vouched for.' That is, as if what this leading figure of the myth age said could be within the experience of a person of today. In keeping with this, Philip Kahclamet commented on the second form as 'after the story time'. When the

myth age vis-a-vis the present, cultural age is in question, this contrast is clear, and the form without t-, the remote form (u- being replaced by zero in an intransitive verb), is standard in myths. When what is in question is the period within human modern experience, however, a contrast between the two ga(1)- tenses can still be maintained. Thus, Philip Kahclamet contrasted ganigítbaix: ganig'íbaix 'I was on my way out (of a place, e.g., leaving the village)' in these terms: the first would be about 3 or 5 years ago, and the second, 'very ancient people tells you (70-80-90)'. The stress on the ancient age, and the fact that such old people would have experienced not only a different generation in youth, but, given acculturational history in the last century, something of a different age indeed, suggests the continuity between the two pragmatic contexts (the frame of myth, the frame of personal experience).

A spontaneous expression of a sense of the temporal implications of the initial and pre-stem prefixes jointly occurred when Mr. Kahclamet gave the following two sentences:

(a) gaš(t)gílti gantíbat 'it rained when I came'

(b) gašdugílti ganuyabet 'it rained when I went'

(containing the verbal theme š(t)-gílti 'to rain' (with dual subject prefix) in the first word, and n- 'I', t/u-, i-, ya-, 'to go', and post-position -bat 'when' in the second).

Having given the two sentences, Mr. Kahclamet said, "No, no, gotta change that--we can't do that; can't use gašdugílti with ganuyabet.

So damned remote, it doesn't matter which way you're going. [(a) is] all right--gašgílti, [but the] other--wouldn't comply with one another.

One is too far back, one is too recently.' The point is of special interest

because there is no formal discord, quite the contrary; both words of (b) are formally with u-. Apparently the indexical force of the first person pronoun in the second word associated it in Mr. Kahclamet's mind with his or some other actual person's utterance, while the impersonal form of the first word ('it rained') associated itself with the more remote context of forms in myths. This interpretation fits the order of Mr. Kahclamet's comments ('too far back...too recently'), and no other interpretation appears possible.

ga(l)- then has to do with time considered beyond the range of a year, or seasonal round (the kiksht word wilx translates as both 'year' and 'earth'). In the context of a way of life, ga(l)-u-: ga(l)-t- contrast in terms of the myth age vs. the present cultural age. In the context of lifetimes, ga(l)-u- : ga(l)-t- contrast in terms of many years vs. a few. One might say that the contrast is one of before vs. within the present age, or of before vs. within recent experience and times.⁶

2.3. ni(g)-. Sapir referred this tense to 'less than a year ago, yet more than a couple of days'. Dyk associates its range with last week to a year ago. Dyk's lexical files contain many examples of temporal contrast between u/t in connection with ni(g)-, a contrast which he consistently notes with the parenthetic letters "(LS)" vs. "(LN)". The latter symbol is readily interpreted as 'last week'. My own notes contain examples, e.g.

nig-i-xma-t-gapx
n(i)-i-a-gi-t-xada-gwa

'he was working last week'
'last week--he left--he turn round
and come back after her' ('don't
use that much now--cause automobile
speed--go Dalles and come back same
day--don't pay much attention to
that round trip word anymore').

The former symbol is more likely for 'last season'. Dyk's notes and grammar do not identify it, but 'season' would fit the general range, and was probably a convenient tag for eliciting forms: 'last week?' 'ni...t-...'; 'last season?' 'ni...u-...'. Some examples from Dyk's files:

ni-č-i-u-čxm	:	ni-č-i-(t)-čxm	'he boiled him' (LS:L)
ni-č-i-u-čxm-al	:	ni-č-i-(t)-čxm-al	'he was boiling him' (LS:L)
ni-č-i-u-čxm-al-im-čk	:	ni-č-i-(t)-čxm-al-im-čk	'he boiled him (several times)' (LS:L)
ni-č-i-gl-ga	:	ni-č-i-gi-t-ga	'he got hold of him' (LS:L)
ni-č-(a)-u-ganim-čk	:	ni-č-a-t-ganim-čk	'he laughed at her' (LS:L)
nig-u-xw- <u>ti</u>	:	nig-u-xi-d- <u>ti</u>	'they(u) concentrated (came together)' (LS:L) (stem ia/i)
nig-a-i-l-kałx	:	nig-a-i-t-kałx	'he(i) thought of her(a)' (LS:L)
ni-št-u-gwilti	:	ni-š-(t)-t-gifti	'it rained' (LS:L)

Dr. Giram Smith also spontaneously translated this tense as 'last week' in the following sequence:

i-xm-gapx	'he's working'
i-xma-t-gapx	'he was working (this morning)'
nig-i-xma-t-gapx	'he was working (last week)'
gal-i-xma-t-gapx	'he was working (last year)'

ni(g)- then has to do with time considered beyond the range of a day or two, but within the range of a year, or seasonal round. ni(g)-u- : ni(g)-t- contrast in terms of beyond last week (and particularly, the present season) vs. last week (and within the present season). There is no indigenous kiksht term for 'week', and the acculturational term, a-s-andi, has to do with the marking of the weekly interval by that one of its days made salient by an imposed religion. There is an indigenous set of names for months, comprised primarily of terms descriptive of seasonal weathers and activities, plus 'moon', and an indigenous set of terms for seasons of the year, intersecting the month terms. It is likely that aboriginally a length of time beyond a day or two (or a few days) was not considered in terms of a week, in any specific sense of a fixed number of days,

but in terms of a small number of days, i.e., within a current month or seasonal activity, a distinct from a good many days, i.e., beyond a current month or seasonal activity (considering here only ni(g)-).

2.4. na(1)-. Sapir described this tense as one 'which seems to refer to recent time exclusive of to-day, more specifically to yesterday'.

Dyk (1933: 27) describes it as 'a past of yesterday and the day before'.

Dyk's characterization of ni(g)- as referring to a week to a year ago would leave open the interval between a day or two ago, and a week ago, while Sapir's earlier characterization of ni(g) as 'more than a couple of days' would not. My examples show na(1)- spontaneously rendered as 'yesterday'

by Mr. Hiram Smith. Thus, Mr. Smith contrasted

č-i-ga-gi-kwdi-t	'he's paying him'
na-č-i-ga-gi-kwdi-a	'he paid him yesterday'

and

i-č-i-u-malal	'he bought it'
na-č-i-u-malal-a	'(ditto) yesterday'

In another series of forms, however, Mr. Smith gave

č-i-u-gmst-x	'he's drinking now' (c- 'he, i- in re ič-cqwa,
č-i-t-gmst-x	'he drank yesterday' 'water')
i-č-i-u-gmst	'he drank'
na-č-i-u-gmst-a	'he drank last week'
ni-č-i-u-gmst	'he drank'

The series appears to be triggered by the initial contrast. The second form confirms Dyk's generalization (1933: 48) that '-t- with the present tense covers about the same period of past time that the two tenses i- and na- together do.' The present tense with t-, in other words, stands somewhat apart from the tenses of the past with initial prefix (ga(1)-, ni(g)-, na(1)-, ni(g)-); its closest link is in fact with the future (as

will be seen). Its temporal range will depend upon context. In the series in question, the context becomes an important part of the grammatical paradigm. Having referred the present tense with t- (*čitgmštɣ*) to 'yesterday', the next form is left unspecified in time, but implicitly more distant than yesterday; this leaves the na- form to shift somewhat from the 'yesterday' it elicits when immediately and exclusively contrasted with the present. It shifts to the next reference point back, 'last week'. Notice that the succeeding ni(g)- form is with u-, so that no conflict between the gloss given for na(l)- and the usual gloss for ni(g)- t- can arise.

A general point emerges. The tense markers are inherently indexical, expressing a relationship between the context of speaking and the context referred to (as Silverstein, building on work of Jakobson, emphasizes in his current research on pragmatics). The tenses are not mechanically geared to fixed units of time. The relative temporal difference is invariantly maintained, and within regular limits, but the immediate context affects the resulting calibration with days, hours, weeks, months, and years. The elicited sequence just described had one such effect. Stylistic, or socio-expressive, meaning enters as well. Having introduced a narrative as "Not long ago", Mr. Smith completed the sentence with a verb in the present tense in t-, and went on to recount the incident in the na- tense. Doing so brought the incident (or the telling of it) closer, in keeping with the introductory 'Not long ago'. (The effect seems somewhat equivalent to 'the other day' in English).

na(l)- then has to do with time considered beyond the range of the present day, normally with reference to yesterday. It does not normally interact with the u/t alternation with temporal effect (an apparent exception will be considered in (4) below). Thus, one has

ni-č-u-xa-ima : ni-č-u-xa-d-ima he let them(u) to' (LS:LM)
nig-i-(x)-xa-ima : nig-i-xa-t-xa-ima 'he laid down' (LS:LM)
al-i-(x)-xa-ima : al-i-xa-t-xa-ima-ya 'he will lie down'
(near : remote)
but nal-i-(x)-xa-ima-ya : nal-i-xa-t-xa-ima-ya 'he was lying down',
with the difference being that the second form is glossed 'while coming this
way'.

2.5. i(g)-. Sapir referred this tense to 'an action already performed to-day', while Dyk qualified its range (1933: 27) as 'usually not beyond the same day, often an immediate past translated as just'. This tense appears to be far and away the preferred tense for recent past, and to be used as such in conversation and narrative. In this role i(g)- is contrasted with ga(l)- as the preferred tense for distant past. One gains the impression that the first 'cut', so to speak, made by speakers in terms of times past is recent (i(g)-) : remote (ga(l)-), and that these two tenses serve for rough-and-ready purposes, when more specific referential distinctions or stylistic effects are not required.

recall that Dyk reported no temporal contrast in terms of the u/t alternation in this tense. Silverstein has pointed out (personal communication) that instances of temporal distinction in terms of the u/t alternation also occur with i(g)-, as in the following forms from his field notes:

i-n-i-u-tada-ba	'I threw it out of the house'
i-n-i-t-tada-ba	'I just now threw it out of the house'
i-n-x-k'i-tsum	'I finished eating'
i-n-xa-t-k'i-tsum	'I just now finished eating'

Such an instance can also be found in Dyk's lexical files. Thus, with the theme -x-ga 'to pull (at)', Dyk has

i-n-i-x-ga-niř-ck 'I pulled him (several times -niř)'
i-n-i-xa-t-ga 'I just pulled him'

Compare

a-n-i-x-ga-ya	'I'll pull him'
a-n-xa-t-ga-ya	'I'll pull him (remote future)'.

A sense of such a possibility appears to be reflected in the analysis Dyk gives two examples of verbs in the i(g)- tense in his Grammar of Wishram (p. 27):

ig-i-(t)-di-mam	'he just got here'
ig-a-(t)-di-mam	'she just got here'.

Dyk's analysis of an assimilated (t) implies a 'quantifier of time' before the allative directive prefix (here, d- before vowel). The stem is simply i- 'to travel, go come', with suffix of completion, arrival, -mam. The difficulty is that the directional force of the surface t- is clear, and indeed apparently invariant with verbs of travel motion such as this; moreover, the suffix -(m)am apparently invariably forces an interpretation of u/t in terms of direction, rather than of time. Finally, there is no indication in the language generally of co-occurrence of a directional t- and a time-quantifying t-. Although the translation 'just' may have suggested the analysis, Dyk also gives 'just' in the translation of forms in i(g)- with u-, instead of t-. Indeed, the translation with 'just' is not surprising; it's appropriateness would be a matter of context and emphasis, as is suggested by analogous forms with and without 'just' in the translation (Dyk 1933: 27):

i-č-a-n-l-u-tk	'he just buried her in me'
i-n-a-i-l-u-tk	'I just buried her in him'
i-n-i-u-tk	'I buried him'?
i-g-i-xl-čxm	'he just boiled'
i-č-i-u-cxm	'he boiled him'.

No unequivocal cases of temporal distinction through u/t alternation with i(g)- occur in my own field notes, but the possibility was not explicitly

sought. It does seem significant that no instances occurred spontaneously in that work, which systematically reviewed the u/t alternation in the future tense (al-), together with supplementary eliciting of other verb forms bearing on semantics and pragmatics, many of the supplementary forms being proffered by my Wishram colleague, Philip Kahclamet (who had been Dyk's main source as well). The rarity of examples in Dyk's extensive files is indicative even more of limited productivity. The situation is not surprising, since the temporal sense of the contrast ('just now' : earlier today) can be given through use of the present with t- in contrast to the usual form of i(g)- with u-. It remains clear that the u/t contrast can have temporal force; the marginality of the ig- tense in this regard will concern us further in (4) below.

2.6. \emptyset -. It was with regard to this 'zero' form that Sapir noticed the interaction of verb-initial position with u/t in the marking of tense. The suffix noted by Sapir as normal to the present, -t, is indeed common in it, but (a) it may form descriptions of state that lose their sense of temporal placement, e.g.,

y-u-m-t 'he is growing', tg-m-t 'they (tg-) are growing',
tg-m-t-wilx-ba 'the growth on the ground'

y-u-čga-it 'horse sweat' (the usual word, literally, 'he is sweating').⁸

Moreover, (b), the suffix may occur with verbs in other tenses to mark state, e.g.,

ga-č-i-gl-ga	:	ga-č-i-gl-ga-t	'he grabbed him'	:	'he had hold of him'
ni-č-i-gl-ga	:	ni-č-i-gl-ga-t	'he got, got hold of him' (LS):		
			'he was getting had hold of him' (LS)		
gal-i-xi-čxm	:	gal-i-xi-čxm-al	'he boiled'	:	'he was boiling'
gal-i-čxm-ix	:	gal-i-čxm-t	'it was boiled (done)'	:	
			'it was being boiled'		

i-x-ga-t : č-i-x-ga-t 'it is pulled' : 'he is pulling, has him pulled' (is holding it taut)
ni-č-i-xa-t-ga : ni-č-i-xa-t-ga-t 'he pulled him' (LW) : 'he was pulling, had him pulled' (was holding him taut)

Thirdly, (c), various other suffixes of an aspective character are far from uncommon in the present tense, and are a normal form with some verbs. Thus, one finds

y-u-čxm-t : y-u-čxm-ix 'it is in boiling, is being boiled' :
'it is boiled, has been boiled, is done'
č-i-u-čxm-al 'he is boiling him'
y-u-txwí-l-it : y-u-txwí-lal 'he is standing up, getting up' :
'he is standing'
č-i-wa-t : č-i-wa-lal 'he is following him' : 'he is chasing him about'
č-i-a-g-wa-kw-t : č-i-a-g-wa-l-kw-ī 'he is chasing him past over (g) her(a)' : 'he is driving him past over her'
č-i-waqw-t : č-i-wa-l-q 'he has him killed' : 'he is killing him'
n-i-x-bu-t : n-i-x-bu-niī 'I have him closed' : 'I'm closing it'
č-i-u-bičm : č-i-u-bičm-niī 'he has him bummed' : 'he's bumming him' [requesting a salmon from its taker]
a-č-i-u-kšt-a : č-i-u-kšt-im 'he'll see him' : 'he is looking at him'
č-i-u-t'iwa-t 'he is pushing him'
č-i-u-t'iwa-lal '" " " " (about or several times)
č-i-u-t'iu-niī '" " " " (again and again, as a heavy log to get it out of the way)
č-i-u-t'iwa-lal-m-niī '" " " " (around, about, with stops between)
č-i-u-t'iwa-cx/wlxt/px/pqt '" " " " down/ up / out / in'

Such suffixes, descriptive of direction and aspect, occur with other tenses as well, of course. It should be clear that the temporal character of verbs with zero prefix is independent of the -t suffix frequently found with them.

A verb construction with zero tense prefix and without suffix is an imperative, as in

č-i-a-l-di-t : y-a-l-ti-t : y-a-l-ti
 'he has her covered with it' : 'it is around her' : 'put it around her'.

Many imperatives have the second person prefix, m-, and occur with one or more characteristic suffixes. In work in 1956 I discovered that the second person imperatives and the future tenses are morphologically identical with regard to such suffixes. That is, the formation of the imperative and of the future tense is not predictable for the class of verbs as a whole; but for a given verb, the imperative is predictable from the future tense and conversely. This formal connection goes together with a semantic one, in that the near future tense serves as a polite imperative, the morphological imperative with zero tense prefix counting as a curt imperative. The unmarked present (with u-) and the future tenses are of course linked as well in being paired as the two non-past formations. All this supports an analysis of the semantic field of the tense-prefix system to be given in the next section. Nevertheless, when the present tense does occur with a pre-stem t- prefix, it marks, as we have seen, an anterior sense that overlaps the past tenses closest to the present. (I think that in fact the basis for this distinction in the present tense in terms of the u/t alternation is to be seen as parallel to the basis of the role of the alternation in the future, but that must wait for the final section.) Examples include:

i-gim-t	:	i-x-t-gim-t	'he is saying'	:	'he was saying'
(cf. i-x-t-gim-nił			'he was saying (right along)'		
y-a-l-ga-t	:	y-a-i-t-ga-t	'he is stuck/sticking in her'	:	'he was sticking in her'
č-l-u-gm̃stx	:	č-l-t-gm̃stx	'he's drinking now'	:	'he drank yesterday'

i-xm-ga-px : i-xmá-t-ga-px 'he's working' : 'he was working'
(this morning)
n-i-gm-u-x-t : n-i-g*ma-t-x-t 'I'm waiting for him' : 'I waited
for him this morning'

2.7. a(1)-. The future tense is perfective in character, as shown by Silverstein's historical analysis in the preceding study. In work with Philip Kahclamet in 1956, I found it necessary to provide a plausible hypothetical situation for him to be willing to provide a future form. Thus, when seeking the future form for a verb conveying 'buckled up', it was not enough at first even to propose two railroad cars, on the same track, hitting each other in head-on collision; Mr. Kahclamet refused to say the form--the cars might not be coming fast enough (to produce the effect the word described, of being squeezed out, burst out). He did finally: a-šd-u-muṭxi-xid-a.

As stated before, a(1)-u- : a(1)-t- contrast in terms of immediate vs. remote future. With second person subject the immediate future serves also as a polite imperative. Some further examples:

a-č-š-i-l-bixwa-ya	:	a-č-š-i-(t)-bixwa-ya	'he will inflate it'
a-n-i-u-buna-čkw-a	:	a-n-i-t-buna-čkw-a	'I'll lift it'
a-s-m-xl-tsgi-a	:	a-s-m-xi-(t)-tsgia	'you will lie down on your back'
a-č-ł-a-k-bwa-ya	:	a-č-ł-a-ga-t-bwa-ya	'he will put feathers(ł) on (k/ga) arrows(a)'
a-y-a-m-l-čagw-a	:	a-y-a-m-i-(t)-čagw-a	'I'll pay you some now' ;
			'I'll owe you the balance'
a-n-u-čga-l-id-m-a	:	a-n-(t)-čga-l-id-m-a	'I'll sweat again and again' (perspiration).

ϕ -t- has perhaps a connotation of specific reference to the present beyond that inherent in the indexical nature of tense. There is a sense of this in some examples. Thus, Philip Kahlamet translated both the following two words identically in the present, only then distinguishing them:

č-d-i-l-xi-amit : č-d-i-t-xi-amit 'He's lining them up to him'.

Mr. Kahclamet then added 'now he has them' vs. 'he did it'. Cf. also the translation of the middle term of the following series:

n-u-čga-it	'I am sweating'
n-(t)-čga-it	'I was sweating (when you came)'
na-n-u-čga-id-a	'I sweated (a day ago)'

The second example below seems to imply a similar sense:

Dan č-i-(a)-u-balam?	'What's he cussing (her) about it?' (now)
Dan č-i-a-t-balam axka?	'What was he cussing her about?'

That is, what was he cussing her about when I came, what has he been cussing her about?

Ø- then has to do with time considered in reference to the present, the 'now-continuative' as Silverstein has felicitously put it. Ø-u- is either strictly this or a generic state. Ø-t- indicates a time anterior to the present, perhaps with a connotation of continuation into, or continued relevance to, it.

3. The system of tense distinction in kiksht is complicated by the fact, noted by Sapir (section 1 above), that the contrast between u/t sometimes expresses tense, sometimes not. In the present section I will consider the way in which the two kinds of meaning, temporal and directional, interact. In the next section an hypothesis as to the semantic origin of the interaction will be proposed.

With a number of verbs the u/t contrast invariably expresses direction:

ga-n-u-ya	:	ga-n-t-i	'I went'	:	'I came' (stem ya/i)
m-u-i-t	:	m-t-i-t	'you are going'	:	'you are coming'
y-u-p-č	:	i-t-p-č	'he goes out'	:	'he comes out'
č-u-pčk-t	:	č-t-pčk-t	'they are going from water'	:	'they are coming from water'
i-n-i-a-l-čata-pčk	:	i-n-i-a-i-t-čata-pčk	'I threw it out of the water' : 'I pulled it out of the water'		
y-u-gwa-čx	:	i-t-ga-čx	'he's going down from the air, to land on the ground' : 'he's coming down.....'		

a-gal-mam : m-t-gal-mam 'Go get her!' : 'Come get me (as
over the telephone)'
a-x-ima : n-xa-d-ima 'let her go' : 'let me go'
i-n-gl-xa-ima : i-n-gi-t-xa-ima 'lay it(i) for(gl) me(n) (outside
over there)' : 'lay it for me (right
in here)'.

In other verbs, either a temporal or directional sense is possible.

Thus:

a-št-u-gwitti-a : 'it will rain' (soon, or there, that way)
a-š(t)-t-gitti-a : 'it will rain'(here, this way; or remote future)
št-u-gwitti : 'it is raining'
š(t)-t-gitti : 'it was raining' (or, this way, here)

The compresence of the two senses appears in a case such as the following.

Mr. Kahclamet gave the contrasting future forms in terms of direction:

a-n-x-gwad-am-a : 'I'll go down there to bathe'
a-n-xa-t-gwad-am-a : 'I'll come here to bathe'

but said also that the second form can't be said with kwaiš 'soon'--

'too far away'. *inxgwádama kwaiš* would be all right. The rejection of
the other collocation appears to depend on the conflict of the temporal sense
of t- in the future (remote) with that of kwaiš.

Certain suffixes appear to determine a directional, rather than tem-
poral sense. Thus one has:

ga-g-i-u-gwili-lx-ž-ck : 'she whipped him' (remote past)
ga-g-i-t-gili-lx-ž : 'she was whipping him' (last year)

but

ga-g-i-t-gili-lx-ž-am : 'she came to whip him',

where t- is not temporal (last year or so) but directional. This suffix, -am,
seems invariantly to override temporal force. Thus, one finds

i-n-i-xa-t-ga "I just pulled him", a rare instance to t- with temporal
force with i(g), but

i-n-i-xa-t-ga-mam 'I came to pull him'.

On the other hand, the secondary stem -q̄tq, perhaps determining a different sense of the stem complex, has the opposite effect:

a-n-i-u-glá-ya	'I'll see him off'
a-n-i-t-gla-ya	'I'll see him, notice him 'coming in', but
a-n-i-u-gla-q̄tq-a	'I'll be acquainted with him, know it thoroughly'
a-n-i-t-gla-q̄tq-a	' " " " " " " " " ' ,

where t- is not directional, but temporal (remote future) in force.

Finally, Silverstein (personal communication) notes that there are examples such that the difference between first person on third person (as subject : object) and third person on first person (as subject : object) is associated with use of u- vs. use of t-.

I am not able to offer a complete analysis of the factors governing temporal vs. directional force in the u/t contrast, nor of the hierarchy among them. For the purpose of this paper, however, the essential fact is already clear. Both the direction and the temporal senses are present in the state of the language being considered.

4. The problem is to find a consistent explanation for the semantic relationship between the directional and temporal use of u/t. Recall the table adapted from Dyk at the end of (1). (In (2.5) of course it was found that i(g)- also has temporal use of u/t). The past tenses are consistent. In ga(l)-, ni(g). and i(g)-, when the directionals have temporal force, it is u- that marks the further past, and t- that marks the nearer past. On first examination the future appears to be contradictory. In the future it is t- that marks the further point in time, and u- that marks the nearer.

On this basis alone it is clear that the directional prefixes cannot be consistently interpreted as intensifiers, or linear quantifiers, of temporal

distance, contrasting as to 'more' and 'less'. For u- is 'more' in the past, but t- is 'more' in the future.

One could infer a conceptual continuum to underly the system. One could hypothesize that the system implies a conception of time as moving toward a point in the future, or as moving from a point in the past (or both). This would agree with the original directional force of the prefixes. Within the sphere delimited by each verb-initial prefix, the relationship of u- : t- would be the same. Conceived as movement toward a point in the future, t- would be the nearer, u- the further. Conceived as moving from a point in the past, u- would be the nearer, t- the further, in relation to the point of origin. (Both conceptions might be involved.)

Such a hypothesis fits the preterite and future tenses, as the following chart shows:

	(l)-	ni(g)-	na(l)-	i(g)-	a(l)-	
ORIGIN	u	t	u	t	u	t

						GOAL

The difficulty is that such a hypothesis does not fit the present tense. In the present tense, the relationship of u- and t- is the opposite. If time is conceived as movement toward a point in the future, then t- is further from it, not closer to it, in the present. If time is conceived as movement from a point in the past, then t- is closer to it, not further from it, in the present.

The continuum hypothesis reflects the usual translation interpretation of the directional prefixes as just that, markers of direction--'to' and 'from', 'that way' and 'this way', allative and ablative. Such a conception is readily obtained from examples such as m-t-i-t 'you are coming' and m-u-i-t 'you are going'. One might employ this directional interpretation in

another way, looking at the tense system from the present as a central reference point. If one does so, then the analogical senses of u-, 'from', 'that way', 'away', do fit the preterite tenses, where u- is the more remote, and of course the analogical senses of t-, 'to', 'this way', 'toward', fit as well, t- marking the less remote. The future and the present, however, do not fit, since there it is t- that is further and u- that is nearer. Indeed, of all the tense distinctions, it is the present in u- that is precisely 'here', hic et nunc.

This hypothesis does have the virtue of calling attention to a respect in which the present and future go together, as against the preterite tenses. It reminds us at the same time that the respect in which t- is 'there' and u- is 'here' is not on the face of it the same in the present and future. Both present and future are most immediate with u-, but with t- the one is less immediate in respect to the anterior past, the other in respect to the future. The requirements of a satisfactory solution are given in these two facts. If the tense system as a whole has semantic consistency, then the basis for temporal interpretation of the directionals must account for the difference between the present and future, on the one hand, and the preterites, on the other, as to both directionals; and it must account for the difference between the present and the future as to t-.

It does seem reasonable, if not mandatory, to seek consistent semantic explanation for the tense system, since in the state of the language in question both the directional and the temporal force of the two prefixes (u/t) is very much in evidence. A disjunction between two parts of a system in the minds of its users, and in the underlying principle, is quite possible, but such a disjunction seems very unlikely, when the evidence indicates

that the one part is dependent upon an extension or analogy from the other, that both are functioning productively, and that the two intersect in the means of which they make use.

How, then, to account for the present and future, as against the preterites, and the present as against the future? The answer, or the first part of an answer, lies in a conception of the semantic character of the directional prefixes themselves. There are a variety of phenomena in kiksht to suggest that a strictly directional (allative, ablative) conception might not be appropriate. Many separate grammatical phenomena agree in expressing meanings as relations between two poles or terminals. Binary contrast is of course common in languages, and bipolar relationships are intrinsic to indexical phenomena such as tense and person (in respect to participants in both narrated events and the actual speech event itself). But kiksht shows some striking specifics, such as a kinship construction of the type found in this sentence (Sapir 1909: 76, line 23): 'K'aya m-na-wlx', translated 'I am not (k'aya) your neice'. Literally the sentence reads 'Not you-me uncle', i.e., not you-uncle-me, with the noun-stem being taken as if a verb stem preceded by a subject-object pair. Again, a recent acculturational term for 'window' expresses not a material (such as glass) or single direction, but a bipolar relation: s-x-i-l-u-qmit 'they two (diminutive) see (-qmit) each other (x) in relation to (l) it (i)', a deverbal construction preceded by the nominal prefix i-. The postpositions recently developed in kiksht under Sahaptian influence have a marked bipolar character. The elaboration of verb themes involving fixed occurrence of one or even two poles of a relationship as marked by an invariant pronominal prefix, and the elaboration of the pronominal bundle itself, as

part of the verb construction, all bespeak a recent, active orientation toward bipolar relationships. (See Hymes 1961, section 5, and the unpublished ms. of 1958.)

A recently noticed, rare phenomenon with certain verbs in i(g)- and na(l)-, documented in Dyk's files, proves to be a step toward an accurate conception of the directional prefixes. Recall that no temporal force for u/t is known in the na(l)- tense, and only a quite infrequent, recently noted temporal force in the i(g)- tense. This in itself is in keeping with, if not suggestive of, a bipolar orientation, for na(l)- and i(g)- are precisely the medial pair in the set of six verb-initial tense markers. The pairs at the temporal poles (past, now-continuing) are those in which temporal distinction is further, clearly elaborated. In any case, certain forms show a spatial meaning that is suggestive of a temporal implication linked to one pole of a direction. Thus, one finds:

i-č-i-u-čxm 'he boiled him' (just now)
i-č-i-(t)-čxm 'he boiled him' (before he came here)
i-č-i-u-čxm-al-im-čk 'he boiled him several times'
i-č-i-(t)-čxm-al-im-čk " " " " " (before he came here)'
na-č-i-u-čxm-aya 'he boiled him (yesterday)'
na-č-i-(t)-čxm-aya " " " " " (before he came here)'

but ni-č-i-u-čxm : ni-č-i-(t)-čxm, and ga(l)-u- ; ga(l)-t- with this verb with the usual temporal contrasts.

Again, one finds

na-č-i-u-ksd-a 'he saw him (yesterday)'
na-č-i-t-ksd-a " " " " " (over there)'

In these cases t- is associated with a spatial location rather than direction; not with 'came', or 'this way', i.e., from there to here, but with just the starting point, there. And there is a temporal inference from

the spatial location in the first pair of forms. The construction with t-, being there, is before he came here, and is contrasted with the construction with u-, which is rendered as more recent in time as just now.

Notice that this pair of forms reverses the temporal import of the cases noticed of temporal interpretation of i(g)-u/t- before (2.5). It does so by focusing on the starting point of the directional relationship, there (=further, earlier) in the case of t-, and here (=near, closer in time) in the case of u-.

Overall, then, with the i(g)- tense we have three alternative forces for the u/t alternation. One, the most common by far, is simply directional: 'from here to there' for u-, 'from there to here' for t-. A second, rarely attested force, focuses on the location of the starting point of each directional, and by analogy, or metaphor, gives a temporal interpretation, as just seen: 'here', 'nearer in time' for u-, 'there', 'further (earlier) in time' for t-. A third, also rarely attested force, focusses on the ending point of each directional, and by analogy, or metaphor, gives an opposite temporal interpretation, as seen in (2.5): 'there', 'further (earlier) in time' for u-, 'here', 'closer in time' for t-.

This last force is the general force for the preterite tenses, and it appears likely that it results from the same principle of analogy or metaphor. Before considering the implications of that principle, let us consider the implications of the data for i(g)- and na(l)- just given. Clearly the temporal interpretation of the directionals had not established itself in the medial pair of tenses, na(l)- and i(g)-. There is the bare suggestion of a temporal interpretation in the na(l)- constructions given above, and the clear temporal interpretation of the i(g)- case is rare

(though a complete search of lexical files may yield others), just as the temporal interpretation of i(g)- shown in (2.5) is rare. But just this marginality, and oppositeness of interpretation, suggest the recency and aliveness of the analogy or metaphor involved. One sees a pattern of semantic metaphor already established in the polar pairs of tenses (ga(l)-, ni(g)- : \emptyset -, a(l)-) beginning to extend into the medial pair of tenses. One sees, indeed, perhaps unconscious wavering or conflict, as between taking i(g)- (and na(l)-) with the first pair, as pasts, in which u- (with ending point there) is more remote, and t- (with ending point here) is closer (as in the data of (2.5); and taking i(g)- (and na(l)-) with the last pair, as pertaining to the sphere of the day (yesterday, today, now (today), immediate future-- recall that the present with t- overlaps na(l)- and i(g)-), in which u- (with starting point here) is closer, and t- (with starting point there) is more remote (as in the data just above).

What, then, as to the general principle of analogy or metaphor?

Clearly no consistent explanation can result from taking a single terminal of the spatial relations as the basis of analogical extension. If either point is taken alone, a contradiction arises. If the ending point is taken as basis, the prefix with spatially closest ending point (t-) is temporally closest, in the past, but not in the future, where it is the more remote. If the starting point is taken as basis, the prefix with spatially closest starting point (u-) is temporally closest in the future and present, but not in the past where it is the more remote. In sum, we cannot conceive of the directional prefixes as inherently based on, and temporally extended in terms of, a conception of one terminal (ending point, or starting point) alone, any more than as based on sheer quantity, continuum, or direction.

A consistent **explanation requires** that each directional prefix be conceived as marking a relationship between two points, or terminals, in some such way as this:

u-:: close starting point, distant ending point (from here to there)
t- : distant starting point, close ending point (from there to here).

A consistent explanation further requires, as implied above, that the extension from spatial to temporal use be dependent on that point, or terminal, which is nearest the present in a given case.

This hypothesis explains the way in which the present and future go together, as against the preterite tenses. For an event in the present or future, its starting point is the closer, its ending point the more distant. If nearness is the basis of analogy, it will be the starting point which is the basis of analogy in the present and future. The prefix with the closer starting point, u-, is the more suitable for the immediate future, while the prefix with the more distant starting point, t-, is the more suitable for the remote future. With regard to the present, the actual present is of course closest, and is of course marked by u-. Of events taking place with reference to the present, t- cannot mark anything other than those anterior to it.

In principle, to be sure, a tense having reference to the present in terms of some point not immediate to it might locate that second point either before the present or beyond it. That is, it might in the second case mark events beginning in the present, but continuing beyond it. Such a 'posterior' or 'now-continuative' present is already expressed precisely by the ϕ -u-tense. The fact of the matter is that in terms of analogy on the basis of starting points the only two choices are a starting point in or at the present,

and a starting point anterior to the present, but continuing into it in occurrence or relevance. A starting point after the present would not be in the present at all. Since u- preempts the actual present as starting point, the only temporal place left for a tense having reference to the present is one that locates the non-immediate starting point anterior to the here and now.

(Perhaps one might conceive a tense having reference to the present, but with starting point after the present, in the sense of a presently expressed wish, hope, desire, or the like; but kiksht has no morphological use for usch a tense. Such a sense can be expressed only syntactically with the regular future and additional words.)

For an event in the past, its starting point is the more distant, its ending point the closer. If nearness is the basis of analogy, it will be the ending point which is the basis of analogy in the past. The prefix with the more distant starting point, u-, is the more suitable for the further past, while the prefix with the closer ending point, t-, is the more suitable for the nearer past.

In sum, it appears that the two directional prefixes developed temporal senses in the present and future on the basis of their implicit starting points, but in the past on the basis of their implicit ending points. The common principle, analogy on the basis of the terminal nearest the present, explains the seemingly opposite results as between past and future, and the particular outcome with regard to the present.

The relationships can be indicated in two tables, one for the directional force, and one for the temporal force, of the two prefixes.

DIRECTIONAL FORCE

	Starting point	Ending point
t	there	here
u	here	there

TEMPORAL FORCE

	Starting point (Future, present)	Ending point (Past)
t	far	near
u	near	far

5. The extension of directional elements to temporal use has of course many parallels in the history of languages. (For an earlier discussion of the general tendency, cf. Cassirer 1923). Within kiksht the extension appears to be a further step in the general trend, so brilliantly analyzed by Silverstein in the monograph preceding this paper, from a verbal system primarily aspectual to one saliently temporal. In Jakobsonian terms, it is a step in the trend from a verbal system focussed on categories of either the narrated event (E^n) or speech event (E^s) in and of itself (as continuative, repetitive, completed, stative, etc.) to a verbal system focussed on the inherently indexical, and bipolar categories of tense and transitivity, i.e., of the two-way relationship between $E^s : E^n$ and $P^s : P^n$ (participants in the speech event and in the narrated event).

The semantic organization of temporal categories appears to have come to override the originally distinct meanings of the formally diverse elements of the system, and to override to some extent as well the inherited formal (shape-wise) parallels. It is ϕ -u- and a(l)- which share the curt vs. polite marking of the imperative. It is ϕ -t-, i(g)- and na(l)- which share re-

ference to today and yesterday, and it is ni(g)- and ga(l)- which share reference to time more remote than the sphere of the present day or so. The semantic reference points of the verb-initial tense contrasts the present day or so, the seasonal round or year, are not themselves to be read off from overt, shared marks. Yet in the state of the language to which kiksht had arrived among its last generation of fluent speakers, there do appear semantic connections paralleling the overt formal connection among verb-initial prefixes. One can suggest that these semantic connections, inferred from the forms and individual meanings, had reality for the speakers themselves, and played a part in the integration of the tense system as it is now known.

The semantic connections appear from alignment of the verb-initial tense prefixes according to semantic proximity (vertical and left-right) and formal parallel (upper, lower):

nig	ig	ϕ
gal	nal	al.

(I abandon morphophonemic alternations (such as ga(l)-) now).

Each of the three columns can be associated with a temporal reference point: the current year (nig, gal); the current day (ig, nal), and that which is now continuing (ϕ, al).

Within each column the upper form can be associated with location at or in the sphere of the temporal reference point: nig-, within the current year; ig-, within the current day; ϕ-, within the sphere of the now-continuative.

Within each column the lower form can be associated with location beyond the sphere of the temporal reference point: gal-, beyond the current year; nal-, beyond the current day; al-, beyond the now-continuative.

In short, the forms with [ig] (and ϕ) are associated with the location of the focus itself; the forms with [al] are associated with a relation to the focus from a point adjacent to it. (Without pressing historical conjecture, these formal marks are appropriate to the demonstrative, here-there, specific location use of /k/ in kiksht (cf. Mandelbaum 1949: 203-204), and to the 'in relation to' use of /l/ in postpositions to the indirect object.)

One can imagine an initial, central system of four members, organized in such a way as this:

	<u>today</u>	
	<u>complete</u>	<u>now-continuing</u>
<u>at</u>	ig	ϕ
<u>beyond</u>	nal	al

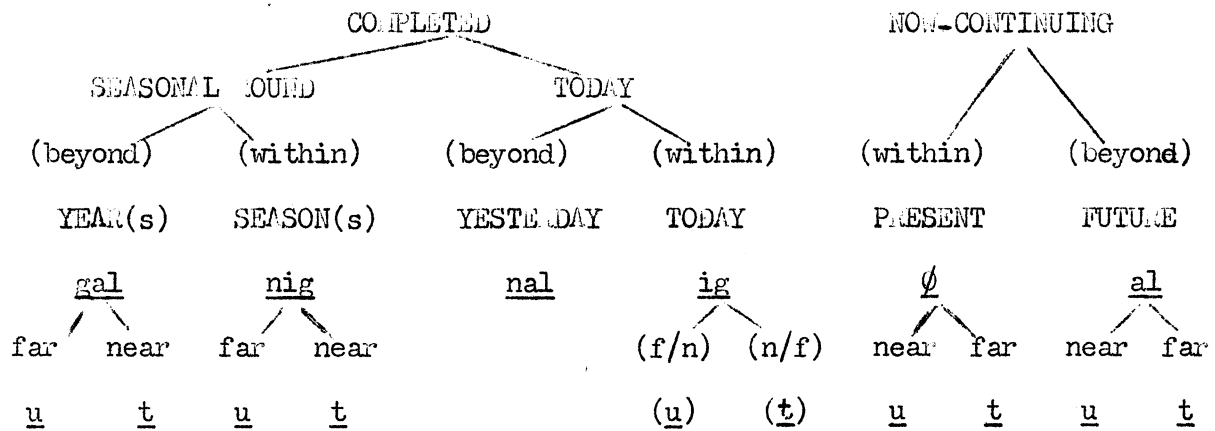
That is, with reference point as today, ig- marks (as it does now) an event already completed, that is, a time earlier today, while ϕ marks (as it does now) an event occurring or continuing now. The al- forms mark times beyond each of these. By itself (i.e., without prefix, corresponding thus to ϕ -), al- is associated with the sphere of the now-continuing, and the only location is of course future. With the past prefix n-, the marking of beyond today is of course located in the past, instead of the future, hence yesterday.

One can restate the chart semantically:

	<u>today</u>	
	<u>complete</u>	<u>now-continuing</u>
<u>at</u>	earlier today	now-continuing
<u>beyond</u>	yesterday	immediate future

Presumably the remaining pair of verb-initial prefixes, nig- and gal-, developed parallel to this central system with reference to the past, or completed, temporal reference point of major importance, the seasonal round.

The system as a whole can now be diagrammed as follows:



The subcategorizations displayed in the preceding diagram are clear when the tenses are considered in terms of their unmarked forms, the commonly occurring forms with *u-*. These are the forms used when no more specific contrast is required, and, as observed earlier, *gal-u-* and *ig-u-* appear to do duty for the major contrast in the past between recent and remote.

When the tenses are considered in terms of their marked forms, those with *t-*, the demarcations are more finely drawn. The relationships potentially take on more of a continuous, linear relationship to time. *gal-u-* : *gal-t* distinguishes far and near with respect to years of a lifetime or of ages, but the immediate distinction between being within or beyond the year (or seasonal round) is drawn between *nig-u-* : *gal-t*. *nig-u-* : *nig-t* distinguishes far and near with respect to time within the seasonal round, but the immediate distinction between being within the sphere of the current day and beyond it is drawn between *nal-* : *nig-t*. *ig-u* : *ig-t-* may sometimes mark far and near with respect to the present day, but a shading of distinction as to pertinence to the present develops with *∅-t-* as well.

The incipient relationships can be glimpsed visually by taking the adjacent slanting lines at the bottom of the preceding diagram as actually approaching each other (gal- near : nig- far; nig- near : nal; and, if the diagram were not kept symmetrical in terms of categories in this respect, ig- and ϕ - far, as the lines would be in a diagram subordinated to linear time).

It remains my sense of the state of the language in question that the temporal distinctions marked by u/t are subordinate to those marked by tense prefixes, that a hierarchy is maintained in this respect, and the full set of possible tense distinctions is not in fact treated in that direction, but tense distinctions with u/t were effectively non-existent in nal- and marginal in ig-, the medial pair of initial tenses, and were subordinate to the inherent force of various stems and suffixes in the polar pairs of initial tenses, where established. What the system might have become with another century of productive life can only be guessed.

FOOTNOTES

1. This paper began with the problem and hypothesis presented in section 5, while I was working on Wasco-Wishram with Hiram Smith and Philip Kahlanet at Warm Springs Reservation, Oregon, in the summer of 1956. The idea was developed into the initial substantive section (2), and springboard, of a paper written while a fellow of the Center for Advanced Study in the Behavioral Sciences in 1957-1958 (Hymes 1958 ms.). The general account of a cognitive style in that paper, including mention of the analysis of the tense system, was summarized as section 5 of Hymes 1961 (pp. 33-41), but the paper as a whole has remained unpublished. When Michael Silverstein began analysis of the development of the Chinookan tense systems, the possibility of some collaborative form of publication began to be discussed between us. I am indebted to him for helpful comments on the original presentation, and for the opportunity to append it here. His comments, the analysis in his monograph, and the present opportunity have stimulated an enlarged and much improved presentation. (I should note, however, that he has had no opportunity to comment on the present manuscript, due to a publication deadline.) I am particularly glad that these notes of mine can appear with a monograph that marks an advance in analysis of Chinookan unrivalled since the first years of the century.
2. Hereafter Sapir's parenthetic verbal account of the alternants of the prefixes before vowels and consonants is summarized by the parenthetic formulations ni(g)-, na(l)-, i(g)-, a(l)-.

3. Sapir's footnote 2 is indicated in brackets; it is on the same page (539). Here as elsewhere Sapir's orthography is made consistent with that in the rest of this monograph.
4. The original table inadvertently inverts the relationship of u/t in the ga(1)- tense, but the examples (1933: 48) give the contrast correctly: gačiutk 'he put him away' (remote), gači(t)tk 'he put him away (as last year)'. The several past tenses are verbally distinguished in the table, and elsewhere in the grammar, as immediate (ig-), near (nal-), distant (nig-), and remote (gal-). The scale is obviously correct, but exactly apt labels are not really available in English (a week ago (ni(g)-t-) is not usually 'distant'), and it seems possible to suggest a semantic analysis of the tenses with more specific meanings (as well be done in (3) below). For these reasons, no verbal labels are given here.
5. The u/t alternation occurs immediately before the stem of the verb. Its different forms, and morphophonemic accompaniments, are essentially as follows. The form of the verb with u- is generally the unmarked form. u- itself appears when no other morphemes occur between the direct object of transitive, or the subject of intransitive, constructions, and the stem (e.g., i-u-pčk-t 'it (i) is going from water', ga-i-u-pq 'it (i) went in'), except after third person plural tg- (y-u-mt 'he is growing', but tg-mt 'they are growing'. In imperative constructions, and whenever the transitive direct object or intransitive subject is followed by a relational, reflexive, or intransitivizing element, u- does not appear ('zero form' in Dyk's terminology) (e.g., i-lata 'throw him (i)!', a-n-x-pšu-d-a 'I'll (n) hide myself (x)', i-g-lalam 'he(i) is singing' (with intransitivizing g-),

i-č-i-a-l-l-ata 'he(č) dragged him (i) through her(a)' (with relational l-)). The exception is that u- appears when the verb stem is monophonemic or entirely consonantal (e.g., i-č-i-a-l-u-t 'he (č) gave him(i) to(l) her(a)', i-(i)-x-u-i-d-i-ix 'he(i) is going along the edge of him (i)' (the stems are underlined)).

Before t-, relational and reflexive morphemes preserve final -a (e.g., i-xma-t-gapx : i-xma-gapx 'he was/is working', a-n-i-xa-t-gá-ya : a-n-i-x-gá-ya 'I'll (n) pull him (i)' (later/soon); and the relational element l- becomes i- (e.g., ni-č-i-gi-t-ga ; ni-č-i-gl-ga 'he (č) got hold of him(i)' (last season/last week), y-a-i-t-ga-t : y-a-l-ga-t 'he (y) was/is stuck in(l) her(a)'). Note also the appearance in allomorphic form x- of the intransitive element k- (e.g., ig-i-x-t-kim : ig-i-(k)-kim 'he said'). Elements ending in t- show assimilation to the t- in question here (e.g., the dual prefix š(t)-), following a general rule of the language, and the t- in question here itself assimilations to the initial t-, č-, and sometimes š- of following stems (e.g., ni-č-i(t)-cxm 'he boiled him').

6. Silverstein's brilliant analysis of the development of the remote past tense prefix ga- from the basis of a qa- usitative, predicating customary or habitual action, as found in Kathlamet, is further supported by the fact (Dyk 1933: 59) that

'When continuative suffixes are attached to the ga-...-u-perfective tense the action becomes a tenseless habitative.'

Specifically, suffixes -l, -niš, -im, and stem-infix -l- have this effect.

7. Two translations miscopied from the lexical file have been corrected:

'he just buried her in him' (correctly 'me' in the Dyk file), and 'he buried him' (correctly 'me' in the file). Note that the 'her' and 'him', and analogous pronouns, in Dyk's translations are often not in reference to pronouns, but are a convention for rendering the concordial pronouns of direct and indirect object. The latter often are in concord with the initial prefixes of nouns for which no sex-gender, let alone personal, significance is appropriate.

The forms translated with 'just' on this page of the Wishram grammar do not have that translation in the lexical file, while one not translated with 'just' on this page is so translated in the file: ičiúčxm 'he boiled him', given with '(just now)' in the file. This example is taken up further in (4) below. The fluctuating appearance of 'just' presumably is covered by the general statement for i(g)- (1933: 27): 'often an immediate past translated as just'.

8. Cf. (a)-u-lapx 'one dug thing' (as the root abiāxi) (lit., 'she is...')

tg-lapx 'dug roots', 'anything dug' (edible roots, potatoes)

i-u-lapx i-ligalat 'dug carrot'

and

y-u-wiqi 'raw, unripe' (lit., 'he is...')

ī-u-wiqi 'straight up, Sunnyside up' (of eggs, ī-puyan-max)

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FROM SPACE TO TIME IN TENSES IN KIKSHT

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Due to a transposition of two pages of the original manuscript, section 2.7., concerning α 1)-, appears on page 15 in the midst of the discussion of section 2.6., concerning \emptyset . Please read section 2.7. (lines 3 through line 6 from the bottom on page 15) AFTER line 15 on page 16; that is, immediately preceding section 3 on page 16. The bottom 5 lines of page 15 are to be read as following immediately after the first 2 lines of that page.

Certain wordings in the text reflect the fact that the manuscript was intended to appear in a monograph by Paul Friedrich and Michael Silverstein, published in conjunction with IJAL. Difficulties with space and printers, following on the late completion of this paper, prevent its appearance in that monograph. Instead, the paper will appear in an issue of IJAL itself.