

Hopi Time

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Hopi Time

A Linguistic Analysis of the Temporal
Concepts in the Hopi Language

Ekkehart Malotki

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Meiner Frau

“After long and careful study and analysis, the Hopi language is seen to contain no words, grammatical forms, constructions or expressions that refer directly to what we call ‘time’ . . .”

Benjamin Lee Whorf
“An American Indian Model of the Universe.”
Manuscript approx. 1936

pu' *antsa* *pay* *qavong-va-qw* *pay*
then indeed ASSR tomorrow-R-SUBR ASSR
DS

su-'its *talavay* *kuyvan-sa-t*
very-early in visit-QNT-time
morning sun

paa-sa-t=ham *pu'* *pam piw*
that-QNT-time=APPROX then that again

maana-t *taa-tay-na*
girl-ACC RDP-awake-CAUS

‘Then indeed, the following day, quite early in the morning at the hour when people pray to the sun, around that time then he woke up the girl again.’

Ekkehart Malotki
Hopi Field Notes 1980

Preface

The present monograph presents linguistic information of certain insights and findings in the domain of Hopi time and temporal orientation. It owes its conception to Helmut Gipper at the Westfälische Wilhelms-Universität Münster, Germany, who kindled my interest in the Hopi language. The data that I have compiled here are the result of several years of intensive study of the target language. In its initial stage, when most of my research was devoted to learning the Hopi language in general and collecting spatial terms in particular, this project profited from a scholarship granted by the Deutsche Forschungsgemeinschaft in 1973. A preliminary inventory of lexical references to time had been accumulated when my dissertation on Hopi space was accepted by the Department of Linguistics at the University of Münster in 1976.

During the four years that it took to develop this core information in the semantic field of Hopi time, I had no grant support. Most of the support that I received would have to be termed moral. It came primarily from my wife who had to bear the brunt of my research. Not only did she have to orient family life around my research constraints, but she also participated in the endless tasks of typing, proofreading, and overall editing. Support also came from my parents in Bad Godesberg, Germany, who generously helped to ease the financial sacrifices for field trips and informant remuneration. Encouragement to complete the arduous chore came from Ronald Langacker, who read the entire manuscript and in its appraisal indicated to me that I was on the right track. Werner Winter's support for the project was equally enthusiastic. For their different contributions in their own personal ways I am deeply grateful.

The dialect represented throughout this monograph is that spoken in the Third Mesa villages of Hotvela and Paaqavi by generally bilingual Hopi in ages ranging from the late thirties to the late seventies. As to the major portion of linguistic input, I am first indebted to Michael Lomatewama from Hotvela and then Herschel Talashoma from Paaqavi. Without their willingness to get

involved in hundreds of hours of linguistic interviews, this gigantic project could not have been concluded. To their profound knowledge of both native language and cultural heritage the groundwork of this volume owes its existence. To them for their unfailing help goes my genuine gratitude. For me personally, the most gratifying result of the long-term work association with them has been that both have developed a keen interest in the preservation of their mother tongue. Herschel Talashoma has already been able to assist several other investigators working on Hopi, and Michael Lomatewama, who has mastered writing in his native language, is currently researching a bilingual project of his own.

In addition to these two men I need to express my thanks to many of their relatives, both clan relatives and blood relatives, who consented to sharing their linguistic remembrances of matters concerning Hopi time, an area that is rapidly becoming buried in the contemporary alluvium of ever – accelerating acculturation. My sincere feeling of gratitude also goes to many other Hopi friends and consultants who preferred not to be mentioned by name here.

A number of friends generously gave of their time to read all or portions of the manuscript: Walter Olson, Richard Sims, Paul Zolbrod, Fairlee Carroll, Jill Settlage, and Bryan Short. Their various suggestions, especially in the area of stylistic improvements, were gratefully accepted by the author, whose Teutonic background is always eager to interfere with his English mode of expression. Harold Ables advised on some astronomical matters. Finally, I need to acknowledge the assistance given by Robert Kemper and his staff at Northern Arizona University Library, which also made lighter the task of completing this book.

E.M.

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0 Introduction

The American ethnolinguist Benjamin Lee Whorf is globally known for his controversial yet challenging reflections on the interdependence of language and thought, an issue which looms against the even broader question of mutual affinity between language and culture or language and the world. Much of what Whorf had to say in this respect, he contrastively developed in a partial comparison between Hopi (a Uto-Aztecan pueblo language spoken in northeastern Arizona) and the western European languages, which he commonly lumped together as SAE or Standard Average European languages. The core of his theoretical speculations, which in his own words he characterized as “linguistic relativity,” is known today under such labels as the Sapir-Whorf Hypothesis, Whorfian Hypothesis, Linguistic Relativity Principle, or Linguistic Relativity Hypothesis.

The term ‘relativity’ is obviously indebted to Albert Einstein’s theory of relativity in which he postulates that the entities of space, time, and mass, until then believed to be absolutes, can only be determined in a relative way. Analogically, linguistic relativity implies that the notion of all mankind basically sharing the same thoughts, hitherto considered a constant or fixed truth, needs to give way to the idea that thinking and cognition are relative to the grammatical structure of a particular language.

Two recent publications on this subject successfully put the linguistic relativity movement that originated in the wake of Whorf’s statements in its proper perspective. Langacker points to the continuous gradation of theoretical positions in regard to the Linguistic Relativity Hypothesis (LRH) and comments on its strongest as well as its weakest version which depends, of course, on how its amorphous parameters (language and thought) are defined.

The LRH can be a strong claim or a weak claim, depending on how it is formulated. . . The weakest form of the LRH is also the least interesting. It claims only that language influences, facilitates, or is an instrument of thought. This is obviously true and

seemingly uncontroversial . . . At the other extreme we find the strongest version of the LRH. It claims that all thought is crucially dependent on language. We cannot think at all except through language, nor can we conceptualize things for which our language does not provide convenient expression. Because it is the strongest, this is the most interesting version of the LRH. It is also obviously false. I take it to be obviously false on the basis of such things as music, visual art, jigsaw-puzzle solving, the difficulty people often have in putting their ideas into words, and introspective analysis of how my own mind works (which is not to say that all minds necessarily work in exactly the same way) (1976c:308).

Haugen outlines some of the reasons for the failure of the Whorfian Hypothesis and advances a rather plausible line concerning Whorf's motivation for its formulation.

It is here suggested that much of the interest that Whorf's one-sided advocacy of the relativity hypothesis aroused was the result of an emotional commitment on the part of anthropological linguists. Like Whorf himself and his teachers Boas and Sapir, they were in the position of needing to justify the effort expended on the study of American Indian languages on grounds better than the mere accumulation of knowledge. In discussion with their colleagues in anthropology they felt obliged to contend that language was not a mere mirror of thought and culture, but an essential factor in shaping the content of both (1977:23).

In assessing the reasons for the rather cultish spread of the hypothesis, quite a few lead directly to Whorf himself, to his fascination with exotic languages, his bent for philosophical speculation, his cryptic and frequently mystic style. "His eloquence and enthusiasm," as Haugen puts it, "were infectious enough to excite a number of linguists with anthropological interests, especially American Indianists, as well as a wide circle of laymen and scholars in other fields" (1977:12).

One of the topics that Whorf dwells on extensively in substantiating his ideas is the different view of time that Hopi speakers supposedly have. One would assume that the fundamental experience of time is shared by all humans alike. One would also expect that the temporal frame of reference reflects a wide range of approaches showing great diversity from society to society, as is the case with other cultural phenomena. One would not, however, expect the Hopi to share our paramount interest in time or to possess a concept of time that approximates that of a commodity value. This notion, so ingrained in the present day consciousness of western civilization, has led to the attitude that "to waste 'time' is . . . almost a heinous sin unless confined . . . to formally defined periods" (Hallowell 1937:649). Nor would one suspect the existence of the other extreme along this continuum of attitudes

toward time, the possibility of a people living outside of, or detached from, the parameter of time.

In this modern age, therefore, which displays an obsession with time unparalleled in the history of the human race, and in a society which is on the brink of assigning 'time' divine rank, Whorf's apparent discovery of a people endowed with a "timeless language" (Carroll 1956:216) had to become a *fascinosum* of the highest degree. Many are the passages in which he hammers home his point about the 'timelessness' of Hopi life and language.

I find it gratuitous to assume that a Hopi who knows only the Hopi language and the cultural ideas of his own society has the same notions, often supposed to be intuitions, of time and space that we have, and that are generally assumed to be universal. In particular, he has no general notion or intuition of TIME as a smooth flowing continuum in which everything in the universe proceeds at an equal rate, out of a future, through a present, into a past (Carroll 1956:57).

After long and careful study and analysis, the Hopi language is seen to contain no words, grammatical forms, constructions or expressions that refer directly to what we call 'time,' or to past, present, or future, or to enduring or lasting . . . (Carroll 1956:57).

Hence, the Hopi language contains no reference to 'time,' either explicit or implicit (Carroll 1956:58).

Of course, these findings are not the only ones that have aroused almost universal curiosity in the Hopi people and culture. There is also the Whorfian claim that the two Hopi cosmic forms comparable to our two grand cosmic forms, space and time, are what he terms "manifested" or "objective" and "manifesting" or "subjective" (Carroll 1956:59). Further there is his contention that Hopi verbs show no tense inflection (Carroll 1956:144), and his view that the formal systematization of ideas in English seems "poor and jejune" when contrasted with Hopi ("English compared to Hopi is like a bludgeon compared to a rapier" (Carroll 1956:85)). There is also his judgement that "the Hopi actually have a language better equipped to deal with . . . vibratile phenomena than is our latest scientific terminology" (Carroll 1956:55), and there is finally his rather trivial yet puzzling observation "that our word *kiva* is taken from Hopi, but they [i.e., many people] think that it is the Hopi word for a *kiva*,² which it is not" (Carroll 1956:205). These and other statements of his have evoked a great deal of speculation both in scientific circles and in the lay community, speculation which in turn has contributed to a propagation of his views.

While his provocative theses have been quoted diligently in many textbooks and journals dealing with linguistics and anthropology, his

observations on Hopi time have also undergone every possible exegesis and endless examination; this has added to their notoriety. In the process Whorf's observations often have been distorted and occasionally have been radicalized, as may be gathered from these samples from the literature:

The Hopi are separated from us by a tremendous cultural gulf. Time, for example, is not duration but many different things for them. It is not fixed or measurable as we think of it, nor is it a quantity. It is what happens when the corn matures or a sheep grows up – a characteristic sequence of events (Edward Hall 1959:133).

Ein jahrelanges Studium der Sprache zeigte ihm [i.e., Whorf] die gänzliche Unbrauchbarkeit solcher zivilisierter Ausdrücke wie 'Zeit' und 'Raum' innerhalb des Hopi: es fehlten einfach die primitiven Äquivalente (Müller 1962:569).

Time as a primary category is something of which Hopi is innocent (Girdansky 1963: 38).

You have a watch, because Americans are obsessed with time. If you were a Hopi Indian you would have none; the Hopi have no concept of time (Greenway 1964:9).

The English concept of time is nearly incomprehensible to Hopis (Euler 1971:21).

The Hopi . . . do not possess the NOTIONS of space and time that we do; even less do they have an INTUITIVE AWARENESS of them which could be considered necessary and universal. (Rossi-Landi 1973:18).

It was inevitable that statements of this caliber—both Whorf's and those of his expounders—would spawn a number of myths once they started merging with the general and rather wide-spread fascination for the Hopi people and culture. This latter dimension needs to be taken into account when pondering the phenomenal spread of the Whorfian ideas. The very make-up of Hopi life and culture, its arts and crafts, its cathartic ceremonial performances, have exerted a tremendous fascination on most people that became exposed to them. While the famous Snake ritual has lured a legion of spectators from nearly every corner of the globe, the experience of a two-day kachina dance is probably without match in the northern hemisphere. Voegelin, Voegelin, and Schutz, in referring to the colorful kachina dances, compare Hopi dance fans with New York opera fans.

And with good reason, for the costuming and general grandeur and esthetic preparation of Hopi dances is no less impressive than the costuming and drama and esthetic practice of the Metropolitan Opera (1967:406).

Nor has there been a lack of scientific interest in the Hopi people. In addition to Whorf's writings there are the anthropological and ethnological accounts of Stephen, Fewkes, Voth, Curtis, Beaglehole, and Titiev, to mention only the most famous investigators and recorders of early Hopi life

and culture. Simmons' *Sun Chief* has been translated into German and French. It and the works of the above-mentioned authors today rank as primary source material on the Hopis, and many of the nearly 3000 items that Laird has compiled in his recent *Hopi Bibliography* are in one way or another indebted to them.

It thus comes as no great surprise that Whorf's linguistic views and observations on Hopi space and time got entangled in the world-wide web of overwhelmingly pro-Hopian if not Hopi-phile attitudes. The inevitable result has been the creation of a number of myth-like notions about the Hopis. One typical example of such a fusion of Whorfian thoughts (or those of his interpreters) with the prevailing admiration for Hopi culture can be found in the following quotation from a French travel magazine. Its distorting exegesis of Hopi time and the Linguistic Relativity Hypothesis already verges on the brink of science fiction. The English translation following the French quotation is mine.

Les Hopis sont des Indiens pas ordinaires du tout. Ils ont une langue tellement sophistiquée que, paraît-il, leurs jeunes gens s'en vont apprendre les mathématiques supérieures dans les Universités américaines uniquement pour se reposer l'intellect et par façon de divertissement. Toujours d'après ce qu'on m'a expliqué, la langue hopis [sic] considère le temps et l'espace comme des concepts relatifs, si bien qu'un enfant de cinq ans qui sait parler trouve les spéculations de feu Einstein tout simplement élémentaires (Pégase 1973:17).

The Hopis are not ordinary Indians by any means. They have such a sophisticated language that apparently their young people go to study higher mathematics at American universities solely to relax their intellect and as a means of distraction. Also, according to what I've been told, the Hopi language considers time and space as relative concepts, so that a five-year-old child who can speak finds the speculations of the late Einstein quite simple.

There is, of course, no intrinsic linguistic justification for the tremendous interest in the Hopi language. It was by sheer coincidence that Whorf began to demonstrate his thoughts on linguistic relativity in conjunction with this language. In response to some of Whorf's observations, especially the ones concerning the English tense system, it has even been suggested that "if English had been an American Indian language, it could have been used as an example of a language in which time relations are not distinguished" (Palmer 1976:58). Linguists familiar with languages beyond the confined horizon of Indo-European languages, have, in general, remained skeptical of the deterministic ingredients of Whorf's relativity theory, in particular of his radical claims that "the grammar . . . of each language is not merely a

reproducing instrument for voicing ideas but rather is itself the shaper of ideas" (Carroll 1956:212). Much criticism of the radical implications of his beliefs, however, has been based on intuitive assumptions, contradictory findings in Whorf's own writings, or observations that were not Hopi language related. In particular, Whorf's conclusions concerning Hopi timelessness have been questioned. Max Black, intuitively granting Hopi "pretty much the same concept of time that we have," voices his frustration in the absence of concrete Hopi data in a way that smacks of despair: "If the Hopi manage to get along without any reference to time, one would like to know their secret" (1959:235).

Thus, while Whorf's findings on the Hopi language aroused less fascination or were received with less serious concern in linguistic circles than in non-linguistic ones, there was, nonetheless, no hard core evidence stemming from linguistic research on the Hopi language to either verify or falsify his findings. Greenberg matter-of-factly summed up the linguistic needs in conjunction with this dilemma.

Now, I submit that, until we can resolve questions of that kind, we cannot judge anything in regard to the validity of Whorf's theories in so far as they refer to Hopi. We ought to have a complete dictionary, a set of texts, and a grammar of the Hopi language (Hoijer 1954:275).

A first responsive echo to this statement can be seen in Gipper 1972. Although Gipper's short stays on the Hopi reservation did not permit him to penetrate the Hopi language in any major way, he did bring back data which not only confirmed his suspicion of Whorf's conclusions in regard to the supposed uniqueness of the Hopi time picture, but also pointed in the directions where Whorf had erred the most (1972:215-227). My own research of the Hopi language has resulted in *Hopitutuwutsi/Hopi Tales*, a bilingual publication of Hopi stories that were collected in the vernacular. This research also produced "Spatio-temporale Metaphorik im Bereich der Pronominallokatoren der Hopi-Sprache," a paper which exemplifies the device of the spatio-temporal metaphor in conjunction with the Hopi pronominal locators, and *Hopi-Raum*, a semantic study of the Hopi spatial concepts. The latter monograph also includes a preliminary suffix inventory and allows additional grammatical insights into the Hopi language in the form of more than 1600 Hopi sentences that are glossed morpheme by morpheme.

The objective of this monograph is to close the linguistic data gap concerning Hopi time. It is my hope that this discussion will clarify a certain number of issues that have been puzzling scholars for several decades. I do not set out

to resolve the problem of the Linguistic Relativity Hypothesis. The foremost goal of this monograph is to provide extensive Hopi information in the form of linguistic documentation and data in an area that suffers from "tremendous gaps on the most vital points" (Hoijer 1954:274).

The approach embarked on for a considerable portion of this work is best described in terms of 'linguistic archaeology.' Its results may, therefore, be characterized 'salvage linguistics' to some extent, for the impact of linguistic acculturation, especially in the domain of time but also in other areas, is thorough and devastating.³ While the bulk of the collected data was either carefully elicited or spontaneously recorded, every effort was also made to canvass the pertinent literature, whether available in published or manuscript form. In this way many a valuable or rare expression concerning Hopi temporal orientation was unearthed. No linguistic item is included in this treatise, however, that was not confirmed and accepted by Third Mesa speakers. In some cases, where my informants showed familiarity with temporal terms stemming from other dialect areas, these are also mentioned. On an overall scale the linguistic and cultural picture of time that emerges bears the unmistakable stamp of the Third Mesa mother villages of Orayvi and two of its offshoots, Hotvela and Paaqavi.

The speech habits recorded are those of my primary consultants, whose vernacular is marked by certain phonological and morphological traits that are no longer practiced by speakers of the latest generation. The changes and differences encountered, however, are minimal and irrelevant in respect to the purpose and scope of this study. The rate and pace at which they occur is probably to be expected in situations where a minority language is engulfed and dominated by a numerically overwhelming majority language.

The orthographic notation employed in rendering the Hopi material is phonemic, but it avoids esoteric symbols familiar only to linguists. In all, twenty-one symbols are sufficient to transcribe the Third Mesa dialect, of which only the unlauded *ö* is not part of the English alphabet. For the glottal stop, one of the Hopi consonants, the apostrophe is used. The only diacritics drawn upon are the acute accent to mark primary stress in those cases where it occurs contrary to the rules of the Hopi second mora stress pattern⁴ (secondary stress is left unmarked), and the grave accent to indicate falling tone. The latter may occur on all long vowels, all diphthongs, and certain combinations of short vowel plus nasal and short vowel plus lateral. The following tables survey the various inventories of consonants and semivowels (Table I), vowels (Table II), and diphthongs (Table III). The range of falling tone occurrences is tabulated in conjunction with representative examples in Tables IV and V.

Table I

	LABIAL	ALVEOLAR	PALATAL	VELAR	GLOTTAL
STOPS	<i>p</i>	<i>t</i>	<i>ky k kw</i>	<i>q qw⁵</i>	<i>ʔ</i>
NASALS	<i>m</i>	<i>n</i>	<i>ngy ng ngw⁶</i>		
AFFRICATES		<i>ts</i>			
FRICATIVES	<i>v</i>	<i>r s</i>			<i>h</i>
LATERALS		<i>l</i>			
SEMI-VOWELS	<i>w</i>		<i>y</i>		

Hopi distinguishes the six vowels *a*, *e*, *i*, *o*, *ö*, and *u*. The grapheme *u* stands for the high, nonfront, unrounded vowel ɨ . As Voegelin has pointed out, "so far as vowel placements are concerned, Hopi is extraordinarily asymmetrical" (1956:124). None of them occur in word initial position. The glottal stop, which automatically precedes a word that would otherwise start with a vowel, will not be written, however. All of the above vowels have long counterparts. They are written by geminating the symbol for the corresponding short vowel. In addition, the dialect spoken in the Third Mesa villages is the only one of several Hopi dialects which also differentiates long and short vowels with the suprasegmental distinction of falling tone (see Table V).

Table II

	FRONT	CENTRAL	BACK
HIGH	<i>i</i>	<i>u</i>	<i>o</i>
MID	<i>e</i>	<i>ö</i>	
LOW		<i>a</i>	

Among the diphthongs we find perfect correspondences for all vowels with both *y*- and *w*-glide except for *o*, for which the *w*-glide is not attested. All diphthongs may in addition occur with falling tone. Table III and IV summarize the diphthongs with their respective key words, the former without falling tone, the latter with this suprasegmental characteristic.

Table III

DIPHTHONGS			
with y-glide		with w-glide	
<i>ay</i>	<i>tsayhoya</i>	'little child'	<i>aw awta</i> 'bow'
<i>ey</i>	<i>eykita</i>	'he is groaning'	<i>ew pew</i> 'here to me'
<i>iy</i>	<i>hakiy</i>	'who?/someone (ACC)'	<i>iw piw</i> 'more/also'
<i>oy</i>	<i>tuumoyta</i>	'he is eating'	* <i>ow</i>
<i>öy</i>	<i>iqötöy</i>	'my head (ACC)'	<i>öw ngölöwta</i> 'it is crooked'
<i>uy</i>	<i>muumuyt</i>	'gophers'	<i>uw puwva</i> 'he fell asleep'

Table IV

DIPHTHONGS WITH FALLING TONE			
with y-glide		with w-glide	
<i>ày</i>	<i>lavàyti</i>	'he spoke'	<i>àw hahàwpi</i> 'place of descent'
<i>èy</i>	<i>pèy'ta</i>	'it has a design'	<i>èw kwèwta</i> 'he put a belt on'
<i>ìy</i>	<i>torirìyku</i>	'he had a stroke'	<i>ìw hösìwpeq</i> 'at the door'
<i>òy</i>	<i>yòypu</i>	'cracked'	* <i>òw</i>
<i>òy</i>	<i>tsölòlòyku</i>	'it sprinkled'	<i>òw qölòwya</i> 'little hole'
<i>ùy</i>	<i>tsùyti</i>	'they laughed'	<i>ùw ùwta</i> 'it is blinking'

Table V tabulates the occurrences of falling tone in conjunction with short vowels. Two phonological constraints must be met for falling tone to affect short vowels. First, as pointed out above, the vowels only qualify for the supra-segmental if they immediately precede the nasals *m*, *n*, *ng*, *ngw* or the lateral *l*. Second, both the nasals and the lateral must be succeeded by either a stop, with the exception of the glottal catch, or the affricate *ts*.

Table V

	SHORT VOWELS WITH FALLING TONE
NASALS	
<i>m</i>	<i>nàm̄tökna</i> 'he turned it over,' <i>tso'òm̄ti</i> 'he jumped,' <i>tùm̄poq</i> 'to the mesa edge,' <i>tùm̄tsokki</i> 'piki house,' <i>pel̄èm̄ti</i> 'it got abraded in many places'
<i>n</i>	<i>pànti</i> 'he did it like that,' <i>kats̄inki</i> 'kachina shrine' <i>ts̄ònkyaqe</i> 'across back of neck,' <i>p̄enta</i> 'he wrote PL OBJ,' <i>kùntuva</i> 'he kicked it'
<i>ng</i>	<i>sikyàngpu</i> 'yellow,' <i>kwin̄ngqöyve</i> 'on the north side,' <i>òngtoyna</i> 'he is bumping it,' <i>òngtupqa</i> 'salt canyon/Grand Canyon,' <i>màngkilawu</i> 'he is making a sheep pen'
<i>ngw</i>	<i>sùngwki</i> 'he caught up quickly with him,' <i>haȳingw̄ti</i> 'he got close,' <i>q̄ò'àngwpokniy'ta</i> 'he is raising dust'
LATERAL	
<i>l</i>	<i>tum̄àlta</i> 'he worked,' <i>kan̄èlkwasa</i> 'woolen dress,' <i>yuk̄ilti</i> 'it got finished,' <i>ko'òltsiwa</i> 'it is locked up,' <i>pöv̄òlpiki</i> 'blue corn dumplings'

One of my integrated objectives in *Hopi-Raum*, of which *Hopi Time* must be considered a sequel, was to document the topic in question with as much linguistic evidence as practicable and feasible. The present work attempts to do the same. The actual presentation of Hopi language data must thus be seen as the central contribution made by this monograph. Logistically, nearly every language sample is displayed in a three-stage procedure, of which stage I supplies the phonemic transcription, stage II the morpheme-by-morpheme glossing, and stage III the translation. In regard to the mechanics of inter-linear glossing, I am heavily indebted to the example set by Langacker in his *An Overview of Uto-Aztec Grammar*. This also applies to the grammatical abbreviations of which he provides an extensive inventory (1977:8-10). A good number of additional mnemonic notations had to be created, however, to meet the linguistic problems encountered. An alphabetical listing of the abbreviations is compiled in Appendix B.

While not every gloss will be able to do justice to the complex semantic content of the segment in question, it will nevertheless serve to identify it. This is especially true of the many Hopi particles. In some cases, where the semantic sum total of the glossed morphemes may not be readily obvious

from the translation stage, the overall value is presented underneath the underlined sequence of glosses.

As regards stage III, the English translation, stylistic excellence is not always envisaged as a desirable goal. Frequently, preference is given to a rather literal rendition which may be awkward from a stylistic point of view, but may be more revealing of the Hopi thought patterns involved. As most of the example sentences are drawn from Hopi cultural reality and often constitute excerpts from larger context samples, explanatory information is added in square brackets to facilitate comprehension of the translations. As a rule, every temporal item discussed is exemplified in phrasal or sentential contexts.

1 The device of the spatio-temporal metaphor

1.0 Introduction

Man, in confronting reality, faces a kaleidoscope of phenomena ranging from the natural to the man-made, to the imaginary, to the totally abstract. Comprehension of such a broad inventory of reality and non-reality requires language, the tool that permits man to take verbal stock of objective and subjective experiences alike. In man's ongoing endeavor to conceptualize and verbalize a world that can never be fully known, language is the vital intermediary. Language provides a repertoire of coping mechanisms, of which metaphor is one of the most powerful and useful.

Metaphor is a principle deeply rooted in the human psyche, and records the perceived relationship between two objects. This Greek-derived term is high on the list of the established figures of speech. It literally denotes 'transfer' and accounts for "the extension of a word's range of meaning beyond its 'true' or 'original' meaning" (Lyons 1968:406). Hence it becomes one of the most dynamic catalysts in human speech. Man's tendency to rely on the use of metaphor will probably surface as a universal crosslinguistic feature. In the specific case of the space-time metaphor, the implicit comparison linking these two components involves a transfer from the physical concept of space to the highly abstract one of time.

Thrust into an environment of predominantly physical reality, man necessarily develops what Clark has referred to as "perceptual space" (1973: 28). Clark argues that man is endowed with *a priori* knowledge of space independent of language, and he isolates some of the essential factors that are responsible for the development of this capacity to perceive space. Man's very biological make-up, most prominently his bilaterally symmetrical perceptual apparatus; his upright posture and bipedal stance; his orientation along natural reference planes of left and right, front and back, and ground level; his characteristic forward movement; and his face-to-face social interaction combine to determine a fundamental preoccupation with space (1973:

28-35). It thus comes as no surprise that spatial expressions play a dominant role in metaphorical reference to non-spatial reality.

English provides a typical Indo-European example of how time is spatialized linguistically. It contains a large lexicon borrowed from the description of space and applied to the temporal domain. Most English speakers are not even aware of their ingrained habits of spatio-temporal metaphorizing. Overuse of a particular analogy or image produces 'dead metaphors,' which cease to be recognized as metaphors at all. Concurrent with the spatialization of nonspatial existents is their reification, their treatment as things. The number of instances that may be drawn from English is legion. Prepositions (in, on, against, behind, ahead of), adjectives (high, last, long, short, same, much, less, extra), nouns (portion, point, span, stretch, end, length, measure, amount), transitive verbs (lose, make, have, kill, spend, do), intransitive verbs (expire, pass, lapse, arrive, be up, draw near), even pronouns (some, every, my), etc., are found in conjunction with 'time.'

Such spatio-temporal metaphorizing is only a subcategory within the general phenomenon of objectification that pervades our language. In discussing the "Standard Average European" (SAE) concept of time and comparing it with his findings in Hopi, Whorf speaks of "our whole scheme of OBJECTIFYING – imaginatively spatializing qualities and potentials that are quite nonspatial" (Carroll 1956:145). To illustrate his point "that we can hardly refer to the simplest nonspatial situation without constant resort to physical metaphors," he constructs an English sentence⁷ and concludes:

The absence of such metaphor from Hopi speech is striking. Use of space terms when there is no space involved is NOT THERE – as if on it had been laid the taboo teetotal! (Carroll 1956:146).

In the same chapter Whorf argues against the belief among some linguists that the natural direction of semantic change in all languages goes from spatial to nonspatial. He blames that prevailing notion on Latin, which exercised this metaphorical extension quite freely, a trait which was later replicated in other Indo-European tongues. It is in this context that Whorf reiterates his point about Hopi:

Latin terms for nonspatials . . . are usually metaphorized physical references . . . This is not true of all languages – it is quite untrue of Hopi (Carroll 1956:156-157).

Whorf's claim, that spatial imagery – so widespread in English – is foreign to Hopi, has received a great deal of scholarly attention. While some writers were content with quoting Whorf in their comparative language studies,

others have written extensively on this topic, trying to clarify Whorf's startling implications. As a rule, Hopi emerges in such comparisons as the superior linguistic medium. Girdansky, while comparing "the Indo-European preoccupation with a split-level universe – one neatly partitioned into 'things' and 'actions'" (1963:36) with the Hopi concepts of space and time comments:

Thus it is understandable that a primitive group of people whose language had a high degree of thing-awareness might transfer its notions of space to the as-yet-vaguely-understood province of time; and this is, in fact, what the speakers of proto-European did. We have preserved this habitual confusion. 'It has been a *long* time since I saw him last,' 'A *lot* of time has *gone by* since that happened,' . . . all of these have original implications of spatiality, or location. But in Hopi the set of words which relate to time have little in common with those words used to refer to space-implying movement. In fact, Time as a primary category is rather un-Hopi-an (1963:37).

Likewise, Brown in his chapter on "Linguistic Relativity and Determinism" first couches Whorf's findings in his own words:

In the European languages it is customary to discuss time . . . in words borrowed from the description of space. In English we speak of *long* and *short* intervals of time . . . In Hopi, time has a vocabulary of its own – not used in spatial description (1958:242).

Then he adds his own speculative thoughts to those of many other writers who have succumbed to the fascinating myth of Hopi as a 'timeless' language.

It is conceivable that the Hopi transfer spatial notions to time . . . but do not transfer vocabulary . . . Are Europeans . . . more prone than the Hopi to image time . . .? (1958: 243).

My own experience with the Hopi language prompts me to challenge Whorf's observations. In fact, a close observer can find contrary evidence in Whorf's own corpus of writings. In his Hopi-English working dictionary, an unpublished manuscript available at the Museum of Northern Arizona Library, he lists approximately two dozen lexemes referring to the domain of time. One of the entries reads: "*Aapiy* 'away/off/forth/onward,' in time sense 'thereupon/thereafter.'"

Such evidence indicates quite clearly that Whorf must have been aware that a spatialized vision of time was not alien to the Hopi language. My objective in this chapter, therefore, is to demonstrate how greatly Whorf erred in appraising space-time transfer in Hopi. We shall see that the technique of spatio-temporal metaphorization is a ubiquitous phenomenon in Hopi. It

involves not only countless postpositions and adverbs of place but also a number of verbs and nouns, among them a direct equation of the noun *qeni* 'space' with the notion 'time.' The enormous body of pertinent data that I have been able to compile will be unfolded in various subchapters. Ample space will be devoted in particular to metaphors in the pronominal locator category. The term 'locator,' used by Whorf in one of his grammatical sketches of the Hopi language (1946:179), is retained here as a convenient category for adverbs of place, postpositions, and orientational case forms, regardless of whether they are based on pronominal or nonpronominal lexemes.

To fully appreciate the complex morphology of many of the locator forms that lend themselves to spatio-temporal transference, it will be necessary to delineate briefly the central concepts of the Hopi spatial system. It will also be useful to introduce major terminological notions that will be employed throughout this monograph.

1.1 Fundamentals of Hopi spatial orientation

Whorf proposed a less striking contrast between the Hopi and SAE (Standard Average European) notions of space than of time, stating that "the apprehension of space is given in substantially the same form by experience irrespective of language" (Carroll 1956:158). In Malotki 1979b *Hopi-Raum* I was able to show, however, that Whorf never fully came to terms with the sophisticated formal apparatus that the Hopi language offers in its surface structure to handle the space primes of place, goal, and source. It is on this level that Hopi displays a finer differentiation in its categorization of spatial reality than do well-known SAE languages.

Central to any analysis of spatial configuration are the linguistic coordinates that dissect the area taken up by the speaker (first person), the hearer (second person), and the persons or things other than the speaker and hearer (third person). English basically structures the terrain occupied by these entities into 'here' and 'there.' Formally adverbs, the semantic thrust of 'here' and 'there' is deictic, with 'here' indicating a point in the immediate vicinity of the speaker and 'there' selecting one further removed from him. If necessary this dissection into proximal and distal space portions may be expanded into a tripartite one, with extreme distal 'yonder/over there' taking up the area beyond distal 'there.'

A Hopi speaker orients himself according to the same principles. Morphologically, his corresponding adverbs of place crystallize around a series of

third person pronominal bases, of which there are four. To begin with, we find the proximal base *ya-* (gloss ‘here’) and its distal counterpart *pa-* (gloss ‘there’). Both bases are distinctly demonstrative and need to be distinguished from spatially medial *a-* which takes up the middle ground between *ya-* and *pa-* and has no equivalent in English; *a-* is deictically neutral and functions morphologically not only as the basis for a number of adverbs of place but also a series of postpositions. In the case of postpositions, the pronominal element refers, in the form of a pronominal copy, to a third person. My term for *a-* will be ‘referent base’ and its abstract gloss REF may be interpreted according to context as either ‘there (medial)’ or ‘he/she/it.’ A fourth demonstrative base is extreme-distal *ayá-* (gloss ‘over there’). Figure 1 illustrates these observations.

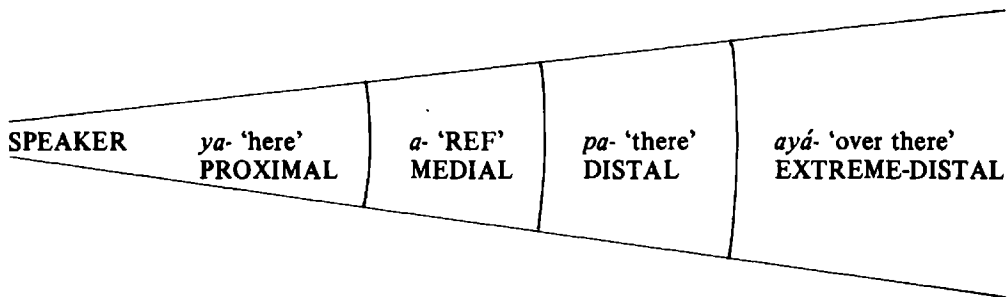


Figure 1

With the exception of the neutral referent base *a-*, the remaining demonstrative bases each have generated their own demonstrative pronouns. Thus, *i'* ‘this’ goes with *ya-*, *pam* ‘that’ with *pa-*, and *mi'* ‘yon/that one over there’ with *ayá-*. Just like Latin,⁸ Hopi lacks a personal pronoun for the third person. If pro-forms are required, both languages will make use of their existing demonstrative pronouns. Table VI indicates the morphological relationship between pronominal bases and their corresponding pronouns.

Table VI

SPATIAL ANALYSIS	PROXIMAL	MEDIAL	DISTAL	EXTREME-DISTAL
PRO-BASE	<i>ya-</i>	<i>a-</i>	<i>pa-</i>	<i>ayá-</i>
PRONOUN (NOM SG)	<i>i'</i> ‘this’	∅	<i>pam</i> ‘that’	<i>mi'</i> ‘yon’

The fundamental notions of primary spatial orientation, which revolve around the four central locator bases *a-*, *ya-*, *pa-*, and *ayá-* intersect with the reference planes of three-dimensionality, also observable in our familiar SAE languages. Within the three-dimensional configuration, resulting from a conjunction of verticality with the terrestrial reference plane, a three-way opposition prevails which is probably a universal feature of natural languages. It consists of the primary orientational distinctions 'at,' 'to,' and 'from.' The abstract concepts underlying the spatial reality of 'being in/on/at a place,'⁹ 'going to/toward/into a place,' and 'coming from/out of a place' are location, goal, and source.

Morphologically, Hopi captures these notions by fusing the above-mentioned pronominal bases *ya-*, *a-*, *pa-*, and *ayá-* with a number of postpositional elements. Since certain pronoun-postposition combinations function both as adverbs of place and postpositions, I will refer to the postpositional affixes expressing these three local concepts as 'cases.' Suffixes grammaticalizing the positional or stationary concept of 'in/on/at' will be termed 'locative,' those handling the directional notions of 'to/into' and 'from/out of' 'destinative'¹⁰ and 'ablative' respectively. Table VII summarizes these observations and lists the case designations used in my terminology.

Table VII

PRIMARY ORIENTATIONAL DISTINCTIONS	in/on/at	to/into	from/out of
ABSTRACT NOTIONS	positional (static)	directional (dynamic)	
ABSTRACT CONCEPTS	location	goal	source
LOCAL CASE TERMS	LOCATIVE	DESTINATIVE	ABLATIVE

To complicate matters, Hopi subcategorizes two of its fundamental space concepts. Both the static function of the locative as well as the dynamic notion of the destinative are subject to further spatial elaboration. The first of these subsystems concerns the area of contact between a given space occupant and its location along such lines as 'punctual' and 'diffuse.' It will be labeled 'field concept.' According to the results of the analysis, a given pronominal or nonpronominal locator base receives either a punctual or diffuse case ending. To simplify the complex nomenclature, the punctual locator will be referred to as 'punctive,' the diffuse locative as 'diffusive.'

The second subsystem affects both the locative and the destinative case. It operates with such criteria as distance and position. Depending on the

relative distance separating a given space occupant from the speaker, hearer, or other reference point, both on a horizontal and a vertical plane, differing case markers will be selected to signal proximal or distal conditions. As to the criterion of position, Hopi spatial analysis pays attention to certain topographical features of the location at which the occupant happens to be situated. Locations that constitute end points, peaks, rims, edges, etc., are marked in the same way as those that are considered distant on a horizontal plane or far up or down on a vertical one. As both criteria involve spatial 'extremes,' this subcategorization may be characterized 'concept of extreme distance and/or position.' As a more convenient description I will reserve the term 'extreme concept' for it. Since English does not pay attention to the extreme concept, case forms of the extreme locative will be differentiated from the nonextreme forms by receiving the additional extreme feature EX. The same abbreviation will set off the extreme destinative from its non-extreme counterpart. In addition to the content 'extreme goal,' however, the extreme destinative also expresses our spatial notion 'into.' The extreme form is justified here because the space occupant is 'swallowed' by its destination, that is, it disappears into a hollow configuration or merges with a mass goal.

The ablative, finally, involves neither a possible field concept nor an extreme concept. Whether an activity emanates from a point or area in space, or whether it originates from a hole or mass configuration has no bearing on the ablative marker. In addition to the spatial idea of 'from/out of' the ablative also conveys the idea 'in' with respect to three-dimensional interiority. Figures 2, 3, and 4 exemplify our analytic and terminological observations.

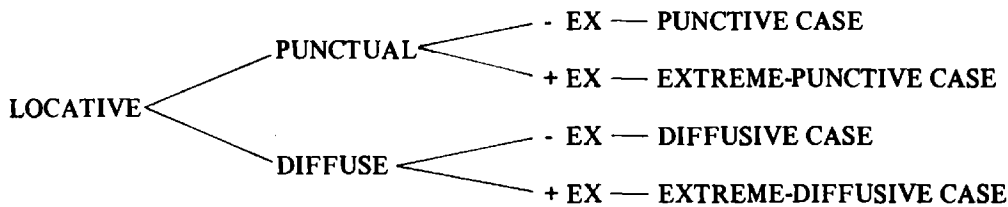


Figure 2

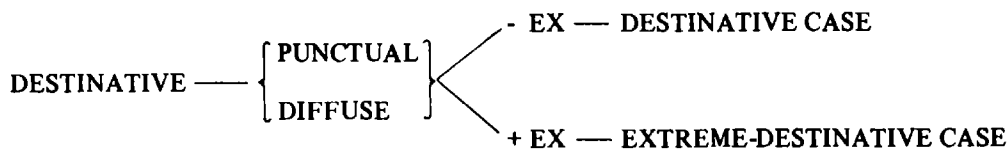


Figure 3

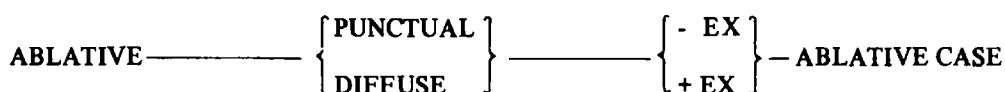


Figure 4

Hopi morphology thus provides a tripartite case system that is stocked with seven different case markers – four for the locative, two for the destinative, and one for the ablative. This abstract case system with its concrete endings – in regular as well as irregular forms – is fully pervasive in Hopi expressions dealing with primary spatial reality. Case suffixes representing the seven individual space analyses may attach to the following entities:

1. pronominal bases (personal, demonstrative, reflexive-reciprocal, interrogative-indefinite)
2. nonfree spatial morphemes encoding such spatial concepts as 'up,' 'down,' 'far,' 'between,' 'mesa edge,' cardinal directions, etc.
3. non-possessed nominal stems verbalizing spatial notions such as 'house,' 'mountain,' 'spring,' etc.
4. place names
5. possessed body parts
6. cardinal number bases from one to four
7. stems handling such temporal notions as 'noon,' 'evening,' 'tomorrow,' 'summer,' names of the months, etc.

For nouns, including nominalized clause constructions, which a number of constraints prevent from attaching the inflectional case endings, Hopi provides a series of seven postpositions that match the semantic content of the case markers. In addition to its local function, i.e., directionality toward a goal, the destinative postposition *aw* as well as its extreme counterpart *aqw*, also convey the grammatical function of indirect object.

The inventory of the seven postpositions is built on the third person pronoun base *a-* which acts as a pronoun copy of the nominal antecedent. Table VIII gives a survey of the regular case endings, their morphophonemic variants, and lists the corresponding postpositions. Note that in glossing the postpositions, 'him' will represent the possible gender-differentiated interpretations 'him,' 'her,' and 'it,' which are all part of the reference base *a-*.

Table VIII

PRIMARY SPACE CONCEPT	CASE	CASE SUFFIX	CASE SUFFIX VARIANT	POSTPOSITION
LOCATION	PUNCTIVE	-pe 'in/on/at'	-ve	e-p 'in/on/at him'
	EXTREME-PUNCTIVE	-pe-q 'in/on/at (EX)'	-ve-q	e-pe-q 'in/on/at him (EX)'
	DIFFUSIVE	-pa 'in/on/at (DIF)/along/through'	-va	a-ng 'in/on/at him (DIF)/along him/through him'
	EXTREME-DIFFUSIVE	-pa-qe 'in/on/at (DIF-EX)/along (EX)/through (EX)/around'	-va-qe	a-ng-qe 'in/on/at him (DIF-EX)/along/through him (EX)/around him'
GOAL	DESTINATIVE	-mi 'to/toward'	-	a-w 'to/toward him'
	EXTREME-DESTINATIVE	-mi-q 'to/toward (EX)/into'	-	a-qw 'to/toward him (EX)/into him'
SOURCE	ABLATIVE	-ngaqw 'from/out of/in (3-DIM)'	-	a-ngqw 'from/out of him/in him (3-DIM)'

1.2 Spatio-temporal metaphors in conjunction with the primary locators

1.2.0 Introduction

Locators coined on a purely pronominal base and embodying the elementary spatial concepts of location, goal, and source will be called primary. Of the twenty-eight forms that the four pronominal bases place at the disposal of the Hopi speaker, twenty-one, or three fourths, allow spatio-temporal extension. Their range of usage fluctuates, as may be expected, from quite frequent to extremely rare. Several locators derived from the referent base *a-* occur as temporal adverbs as well as temporal postpositions, while others occur only in idiomatically fixed phrases. Locators in the *ayá-* column frequently attach the additional specifier suffix *-wat*, when used metaphorically. Observations of such features will be mentioned in conjunction with the contextual exemplification of the particular locator attested in temporal sense. Except for the underlying spatial content of each locator, introduced by the letter S for ‘space,’ no additional formal or semantic specifics can be given here. Further information, including context samples displaying the various case forms is given in Malotki 1979b. (References to individual sections of Malotki 1979b will be abbreviated as HR 1.3.1.2, etc.)

Table IX on p. 24-25 summarizes our observations concerning the primary locators. Each locator of the four paradigmatic pronoun sets which is attested metaphorically is identified with the symbol T for ‘time.’

1.2.1 The proximal locators

1.2.1.1 *yep* S: ‘at this point/here’
T: ‘at this point in time/now’

Punctual *yep* (see HR 1.3.1.2) constitutes a temporal location in the present time of the speaker. Semantically almost identical with the temporal particle *pu* ‘now,’ it differs from it in that it carries definite emphatic overtones which are inherent in the demonstrative base *ya-*. Example (1) features both *pu* and *yep* in one statement.

- (1) *pu*’ *hapi* *a-w* *pitsi-w-iw-ta;* *pas* *hak*
now EMPH REF-to arrive-(?)-STAT-IMPRF very someone
- antsa* *loma-wuwa-n-t-e*¹¹ *ye-p* *hiita*
really nice-think-n-IMPRF-COND here-at something
SS ACC

tiingap-ngwu
 announce-HAB
 ceremony

‘Now the [appropriate time] for it has arrived; if someone really has good thoughts [in his heart] he announces something [i.e., to sponsor a dance] at this time.’

- 1.2.1.2 *yuk* S: ‘to this point/(to) here’
 T: ‘to this point in time/till now’

The destinative locator *yuk* is deictically proximal. Being nonextreme, it points to a location in the close vicinity of the speaker. In contrast to destinative *pew* ‘here to me’ (see HR 1.3.2.3), in which the envisaged goal is identical with the speaker’s position, *yuk* leads to a destination away from the speaker. To a certain degree *pew* and *yuk* may be likened to the directional content of the German place adverbials *hin* ‘away from the speaker’s location’ and *her* ‘toward the speaker’s location.’ Correspondingly, in metaphorical application *yuk* does not really indicate the ‘now-time’ of the speaker. It rather aims at a point in the present time which is set by the speaker as a deadline or termination mark for a given activity.

- (1) *yu-k*¹² *nu'* *pàa-sa-vo* *imu-y* *pahan-mu-y*¹³
 here-to I that-QNT-to these-ACC white-PL-ACC
 that long man

tumala-y'-ta-ni
 work-POSS-IMPRF-FUT

‘Until this time [in the future] I will take care of these whites [i.e., from then on no longer].’

- (2) *pay* *pi*¹⁴ *pam* *yu-k* *taawa-na-sa-mi* *pit-e'*
 well FACT that here-to sun-RCPR-QNT-to arrive-COND
 middle SS

sú-'o-ve-ti-ngwu
 exact-up-at-R-HAB

‘When it [i.e., the sun] gets here to noontime, it is directly up [in the sky].’

- 1.2.1.3 *yukyiq* S: ‘to this point (EX)/into this place/(to) here (EX)/
 into here’
 T: ‘to this point in time (EX)/till now (EX)’

Table IX

		THIRD PERSON SINGULAR PRONOUNS	
		PROXIMAL	MEDIAL
		<i>i</i> 'this one'	∅
		THIRD PERSON SINGULAR PRO-BASES	
		<i>ya-</i>	<i>a-</i>
SPACE CONCEPT	CASE	PRONOMINAL LOCATORS	
LOCATION stationary 'in'	PUNCTIVE	<i>yep</i> 'here' T	<i>ep</i> 'there' T
	EXTREME-PUNCTIVE	<i>yepaq</i> 'here (EX)'	<i>epeq</i> 'there (EX)' T
	DIFFUSIVE	<i>yang</i> 'here (DIF)/ along/through here'	<i>ang</i> 'there (DIF)/ along/through there' T
	EXTREME-DIFFUSIVE	<i>yàngqe</i> 'here (DIF-EX)/ along/through here (EX)'	<i>àngqe</i> 'there (DIF-EX)/ along/through there (EX)'
GOAL directional 'to'	DESTINATIVE	<i>yuk</i> '(to) here' T	<i>aw</i> '(to) there' T
	EXTREME-DESTINATIVE	<i>yukyiq</i> '(to) here (EX)' T 'into here'	<i>aqw</i> '(to) there (EX)' T 'into there'
1. SOURCE directional 'from'	ABLATIVE	<i>yangqw</i> 'from here' T	<i>angqw</i> 'from there' T
2. LOCATION stationary 'in' (3-DIM)		'in here (3-DIM)'	'in there (3-DIM)'

THIRD PERSON SINGULAR PRONOUNS	
DISTAL	EXTREME-DISTAL
<i>pam</i> 'that one'	<i>mi</i> 'that one over there/yon'
THIRD PERSON SINGULAR PRO-BASES	
<i>pa-</i>	<i>ayá-</i>
PRONOMINAL LOCATORS	
<i>pep</i> 'there' T	<i>ayám</i> 'over there' T
<i>pepeq</i> 'there (EX)' T	<i>ayáq</i> 'over there (EX)' T
<i>pang</i> 'there (DIF)/ along/through there' T	<i>ayé</i> 'over there (DIF)/ along/through over there'
<i>pàngqe</i> 'there (DIF-EX)/ along/through there (EX)'	<i>ayàngqe</i> 'over there (DIF-EX)/ along/through over there (EX)'
<i>panso</i> '(to) there' T	<i>ayó</i> '(to) over there' T
<i>pansoq</i> '(to) there (EX)' T 'into there'	<i>ayóq</i> '(to) over there (EX)' T 'into over there'
<i>pangqw</i> 'from there' T 'in there (3-DIM)'	<i>ayángqw</i> 'from over there' T 'in over there (3-DIM)'

The deictical component of extreme-destinative *yukyiq* (see HR 1.5.1.2) alludes in temporal extension to a point in time which, due to its overt extreme marker *-q*, is contemplated from a time further back in the past than is the case with *yuk*. The goal-oriented form thus involves an objectively longer time span than its nonextreme pendant *yuk*.

- (1) A: *yaw itaa-taha taavok súlaw-ti* B: *is ohi*
 QUOT our-uncle yesterday empty-R oh grief
 die EXCLM
 M

antsa, pay kya pi yu-kyi-q paa-sa-vo
 really well maybe FACT here-to-EX that-QNT-to
 that far

qatsi-mk-iwa-y'-ta-qe oovi
 life-give-ABSTR-POSS-IMPRF-CAUSAL therefore
 SS

'I heard that our uncle died yesterday.' 'I'm truly sorry; I guess he had been given to live until this long, that's why.'

- (2) *nu' as put pay hi-sa-t*
 I IMPOT that already some-QNT-time
 ACC long ago

tso-tsong-mewa-n-ta-qw nuwu yu-kyi-q
RDP-pipe-forbid-n-IMPRF-SUBR meanwhile here-to-EX
 smoke DS

pam qa navot-qe pu'=sa
 that NEG hear-CAUSAL now=only
 SS

*öhö-ng-po-k-ni-y'-num-ngwu*¹⁵
 cough-ng-fill-k-CAUS-POSS-CIRCUMGR-HAB

'Already long ago I told him not to smoke but to this time he has not minded [me], and now he goes around having coughing fits.'

- 1.2.1.4 *yangqw* S: 'from here/in here (3-DIM)'
 T: 'from this point in time/from now'

The proximal ablative locator *yangqw*, which refers to a source originating at the location of the speaker or in his immediate vicinity (see HR 1.3.3.2),

metaphorically contemplates a temporal beginning in the present time of the speaker.

- (1) *yang-qw itàa-totokya-y a-qw qa wuuya-vo pee-ti*
 here-from our-totokya-ACC it-to NEG large-to some-R
 day EX be left over

‘There is not much time left from now till our Totokya [i.e., the day before the dance].’

1.2.2 The neutral referent locators

- 1.2.2.1 *ep* S: ‘in/on/at the point referred to/there’
 T: ‘at the point in time referred to/on that day’

All seven locators resulting from the morphological fusion of spatially medial *a-* with a number of irregular case suffixes exercise the dual role of adverbial and postposition. Punctual *ep*, morphemically consisting of the referent base *e-* (a variant of more common *a-*) and the punctive case marker *-p*, allows both of these functions to be transferred metaphorically to the time domain. As their semantic range is quite diversified, the two functions will be dealt with in separate subchapters.

1.2.2.1.1 *ep* as adverb of time

When acting as temporal adverb, *ep* alludes to a given point in time which is either introduced lexically or can be gathered from the scope of the contextual circumstances. Semantically, the neutral locator approximates our periphrastic locution ‘at the referred time.’

- (1) *ason itam¹⁶ e-p pu’-ni*
 later we REF-at then-FUT

‘We’ll [go] at that time then.’

- (2) *nu’ hi-sa-t e-p pit-e’ e-p pay¹⁷*
 I which-QNT-time REF-at arrive-COND REF-at ASSR
 when SS

uu-mi peena-ni
 you-to write-FUT

‘When I get there, at that time I will write to you.’

- (3) A: *um nùutu-m¹⁸ tuva-vòo-pong-ma?*
 you the-at nut-RDP-pick-POSTGR
 others up

B: *qàa'e*,¹⁹ *e-p* *nu'* *hokya-qhi*
 no REF-at I leg-break

'Did you go gathering [pinyon] nuts with the others?' 'No, at that time I had a broken leg.'

(4) *pu'* *puma* *sòo-so-ya-m* *yung-qw*²⁰ *pu'* *tàa-taq-t*
 then those RDP-STEM-size-PL enter-SUBR then RDP-man-PL
 all AN PL DS

hàalay-toti-ngwu; *e-p-nii-kyangw* *ma-man-t* *qa*
 happy-R-HAB REF-at-NEX-SIMUL RDP-girl-PL NEG
 PL SS

mo-moy-mu-y *qeni-yamuy* *à-ng-qe* *yes-ngwu*
 RDP-STEM-PL-ACC space-their it-on-EX sit-HAB
 women ACC DIF PL

'Then when all of them have entered [the kiva], the men are happy; but at that time the girls do not sit in the women's area.'

Frequently *ep* goes beyond the pinpointed time of an event and takes on the broader meaning 'at the day referred to.'

(5) *e-p* *ura* *uma* *öki*, *nooqa'*?
 REF-at MEMO you arrive QTAG
 PL PL

'That very day you arrived, didn't you?'

If the referent range of *ep* 'that day' is considered too vague, it may be narrowed down by juxtaposing the locator with additional temporal phrases lexicalizing specific times of the day. (6) through (11) present a selection of diurnal subdivisions.

(6) *e-p* *talavay*
 REF-at in morning

'that morning'

(7) *e-p* *töngva-mi*
 REF-at midmorning-to

'that day toward midmorning'

- (8) *e-p taawa-na-sa-ve*
 REF-at sun-RCPR-QNT-at
 middle

‘that day at noon’

- (9) *e-p tapki-mi*
 REF-at early-to
 evening

‘that day toward early evening’

- (10) *e-p mihi-k-qw*
 REF-at get-k-SUBR
 night DS

‘that day at night’

- (11) *e-p sùu-toki=ha-q*
 REF-at exact-night=INDEF-at
 EX

‘that day at midnight’

Ep may combine with the precision prefix *su-* ‘just/exactly.’ *Su’ep* then denotes ‘just at the time referred to/at that very point in time/exactly on the day referred to.’

- (12) *noq su-’e-p pi piw pay tokil-ta-qa-t*
 and exact-REF-at FACT also ASSR time-CAUS-REL-ACC
 SI limit

e-p i’ itàa-tiyòo-ya mihi-k-qw haqa-qw
 it-at this our-boy-DIM get-k-SUBR somewhere-from
 night DS

pítu-kyangw yaw a’ni kur hiita a-kw naa-tuhota
 arrive-SIMUL QUOT a EV something it-with REFL-hurt
 SS lot ACC

‘And exactly on the day when [the sponsor] had set the date [for the dance], also this little boy of ours came home at night from somewhere and had evidently injured himself with something.’

For the time expressions *ep tokinen* ‘the evening before’ and *ep tavoknen* ‘the day before’ see the respective paragraphs under *took* ‘last night’ (2.2.4) and *taavok* ‘yesterday’ (2.1.7.2).

- (4) *pàytsin-tota-qa-t* *e-p* *songòopavi-y* *tat-kya*
 clean-IMPRF-REL-ACC REF-at PN-ACC south-at
 spring PL
- masà-y'-ta-qa*²³ *pòosi*
 wing-POSS-IMPRF-REL fall
 down

'At the time when they were cleaning the spring, a plane crashed south of Songoopavi.'

- (5) *hotvel-pe* *a-ngk-ti-w-qa-t* *e-p*
 PN-at REF-after-CAUS-PASS-REL-ACC REF-at
 PERF
 night dance
- pahaana-m* *wuko-öki*
 white-PL big-arrive
 man PL

'On the day of the night dances in Hotvela large numbers of whites arrived.'

- (6) *oray-ngaqw* *pumu-y* *hoona-ya-qa-t* *e-p* *nu'*
 PN-from those-ACC send-PL-REL-ACC REF-at I
 away
- naat* *qa* *háqa-m-o*
 still NEG somewhere-at-PS

'When they drove them out of Orayvi [during the factional split in 1906], I was not anywhere yet [i.e., I hadn't been born yet].'

- (7) *itam* *tsöngös-iwu-y* *e-p* *kyaa-navota*
 we famine-ABSTR-ACC it-at formidable-notice
 experience hardship

'At [the time of] the famine we had a very hard time.'

As examples (1-7) demonstrate, any event, whether only of interest to the individual or significant historically to a whole community, may theoretically become a temporal reference point in conjunction with *ep*. The postpositional antecedent may, of course, also be filled by an actual time unit (8-11) or a nonsecular occurrence that occupies a fixed time slot in the Hopi ceremonial calendar (12-14).

- (8) *santi-t* *e-p*
 Sunday-ACC it-at
 ‘on Sunday (NEO)’
- (9) *payi-s-tal-qa-t* *e-p*
 three-times-day-REL-ACC it-at
 ‘on the third day’
- (10) *i-t* *yàasangwu-y* *e-p*
 this-ACC year-ACC it-at
 ‘this year’
- (11) *itàa-qatsi-y* *e-p*
 our-life-ACC it-at
 ‘in our lifetime’
- (12) *patsavu-t*²⁴ *e-p*
 Patsavu-ACC it-at
 ceremony
 ‘at Patsavu [i.e., a special ceremonial extension of the Powamuy ritual]’
- (13) *soyalangwu-y* *e-p*
 Soy-al-ACC it-at
 ceremony
 ‘at Soyalangw [i.e., the Winter solstice ceremony]’
- (14) *wuwtsim-tu-y* *na-tnga-yamuy* *e-p*
 Wuwtsim-PL-ACC RCPR-put-their it-at
 society PL ACC
 OBJ
in
 initiation
 ‘at the time of the Wuwtsim initiation [i.e., the Manhood initiation]’

The final example (15) shows a time unit as an antecedent of the postposition in a complete sentence and exemplifies *ep* at the same time in the second of its possible pausal shapes. For the other shape see 1.2.2.1.2 (2).

- (15) *i-t* *muuyawu-y* *hapi* *e-p* *tiingap-wis-ngwu,*
 this-ACC month-ACC EMPH it-at announce-PREGR-HAB
 ceremony PL

<i>i-t</i>	<i>wuwtsimu-y</i>	<i>kuu-kuy-va-ni</i>
this-ACC	Wuwtsim-ACC	<u>RDP-emerge-R-FUT</u>
	ceremony	finish PL

‘On the sixteenth day from now they will finish this Wuwtsim ceremony [by emerging from the kiva].’

The final example represents a neologistic attempt to capture an English calendar date by using Hopi lexemes exclusively. Speakers of the younger generation will, of course, resort to wholesale morpheme borrowing from English in such a case.

(4)	<i>noq oovi</i>	<i>ason itam</i>	<i>i-t</i>	<i>muuyawu-y</i>	<i>pakwt</i>
	and therefore	later we	this-ACC	month-ACC	ten
	SI				

<i>löö-q</i>	<i>siikya-y'-ta-qa-t</i>	<i>e-pe-q</i>	<i>pu'-ni</i>
two-ACC	plus-POSS-IMPRF-REL-ACC	REF-at-EX	then-FUT

‘And therefore we will [go] on the twelfth of this month (NEO).’

1.2.2.3 *ang* S: ‘in/on/at the area referred to/there along/through’
T: ‘in/over/for a period of time/during’

The diffuse locator *ang*, which spatially functions both as adverbial and postposition (see HR 1.4.1.0), transfers its content temporally only in postpositional role. Contrary to punctual *ep*, which focuses on a definite point in time, *ang* indicates temporal extent and generally alludes to a long period of time or an event of lengthy duration. Of the supposedly five distinct temporal senses that Bennett quotes from Sandhagen for the English preposition ‘in’ (1975:113), several are captured by Hopi pronoun-copy constructions featuring *ang*. Most frequently one encounters *ang* in the meaning of *in*₃, characterized as “length of time occupied”. ‘In’ in this sense approximates the denotations of our temporal prepositions ‘during’ and ‘for,’ as (1-3) illustrate. Note that (1) exemplifies *ang* in a postpositional expression involving discontinuity.

(1)	<i>pam</i>	<i>pa-nso-q</i> ²⁵	<i>qölä-ta;</i>	<i>suu-kw</i>	<i>tookila-t</i>	<i>pay</i>
	that	there-to-EX	hole-CAUS	one-ACC	night-ACC	ASSR
	<i>yaw</i>	<i>pam</i>	<i>a-ng</i>	<i>yuku</i>		
	QUOT	that	it-in	finish		
			DIF			

‘He dug a hole to that place; in one night he finished it.’

The following example contains the loanword *santi* which, in addition to its original meaning ‘Sunday,’ also lexicalizes our time unit ‘week.’

- (2) *nu' pàykomu-y santi-t a-ng i-t pòöqa-n-ta*
 I three-ACC week-ACC it-in this-ACC weave-n-IMPRF
 DIF

‘I have been weaving this for three weeks.’

- (3) *naalö-s taala-t a-ng huu-hukya*
 four-times day-ACC it-in RDP-STEM
 DIF wind is blowing

‘It has been blowing for four days.’

The temporal sense of ‘along/through’ may also be subsumed under *in*₃. (4) captures this meaning with *ang* featured in a plural predicator.

- (4) *ya-ngqw hapi haki-m put a-ng-ya-ngwu*
 here-from EMPH someone-PL that REF-at-PL-HAB
 ACC DIF

‘From now on people [go] along through them [i.e., the months].’

Examples for the content of *in*₂, “units of time only part of which is occupied,” are (5) and (6). The activities mentioned are one-time or repeated happenings occurring over an extended period of time.

- (5) *itam suu-kw yàasangwu-y a-ng suu-s*
 we one-ACC year-ACC it-in one-times
 DIF

kwila-k-i-t pa-nso-q hòy-ta-ngwu
 step-k-NR-ACC there-to-EX move-IMPRF-HAB

‘In one year we move one step [on the way] to that place [i.e., the underworld].’

- (6) *itam löö-s kalapooni-t a-qw-ya-ngwu, suu-kw*
 we two-times PN-ACC it-to-PL-HAB one-ACC
 EX

yàasangwu-y a-ng-a'
 year-ACC it-in-PS
 DIF

‘Twice a year we [go] to California.’

- (2) *pay sumataq pas pay a-w pítu-ni*
 well CONJECT very immediately REF-to arrive-FUT

'I think it's almost time for it [i.e., the spectacle to get under way].'

As a rule, the event that *aw pitu* alludes to will be mentioned in the immediate contextual vicinity of the phrase. Syntactically, the referent event may be preposed (3) or postposed (4) in regard to *aw pitu*.

- (3) A: *itam noo-nova-ni* B: *ya pay piw a-w*
 we RDP-food-FUT Q already again REF-to
 eat PL

pitu?
 arrive

'We are going to eat.' 'Is it time again for that?'

- (4) *pu' yaw a-w pitu pam powamuy-vak-ni-qa-t*
 then QUOT REF-to arrive that Powamuy-enter-FUT-REL-ACC
 society

a-w-i'
 it-to-PS

'Then it came to it [i.e., that time] that he should enter [i.e., be initiated] into the Powamuy society.'

In postpositional arrangement, the event, if expressed verbally, requires nominalization with the relativizer *-qa*. One instance of such nominalization we witnessed in (4) for the postposed option of *aw pitu*. The more common construction with preposed object is exemplified in the following sentence.

- (5) *ta'á, hi-sa-t hapi umu-y*
 okay which-QNT-time EMPH you-ACC
 when PL
- as-na-ya-ni-qa-t a-w pitu-qw sen*
 wash-CAUS-PL-FUT-REL-ACC REF-to arrive-SUBR DUB
 hair DS
- itam a-w=haqa-mi umu-y hep-to-ni*
 we REF-to=INDEF-to you-ACC seek-PREGR-FUT
 PL

'All right, when it comes to the time where they will wash your hair

In conjunction with the precision prefix *su-* ‘exact/just’ the locator *aw* forms the adverbial compound *su’aw* (see HR 7.0.1.5). From its local sense ‘directly to the referred point/just to the right place’ *su’aw* shifts in a temporal framework to the value ‘just at the exact moment/exactly when/just when.’ The time adverbial will either emphasize the precise cooccurrence of two independent actions (11-13) or single out a temporal reference point with which the action is simultaneous. In the latter pattern the temporal reference nominal will stand in case congruence with *su’aw*, i.e., it too will be marked for destinative case (14-17).

- (11) *pam su-a-w wári-k-ni-ni-qw pos-mi-q*
 that exact-REF-to run-k-FUT-NEX-SUBR eye-to-EX
 DS

himu paki
 something enter

‘At the moment he was about to run off, something got into his eye.’

- (12) *su-a-w poni-l-ti-kyangw puts-qeq-ti*
 exact-REF-to turn-PASS-R-SIMUL wide-hang-R
 SS together
 become flat

‘Just when he turned around [with his car] he got a flat [tire].’

- (13) *su-a-w katsina-m²⁷ tiiva-n-ti-va-qw*
 exact-REF-to kachina-PL dance-n-CONN-INCHO-SUBR
 PL DS

oo-’omaw-t a-ngqw-ya
 RDP-cloud-PL REF-from-PL

‘Just when the kachinas started to dance clouds were coming.’

- (14) *su-a-w tuuwutsi-t so’ngwa-mi-q kur nu’ puw-va*
 exact-REF-to story-ACC end-ABSTR-to-EX EV I sleep-R

‘Just towards the end of the story I fell asleep.’

- (15) *pay su-a-w tapki-mi itam sonqe yúku-ni*
 well exact-REF-to early-to we probably finish-FUT
 evening

‘Just by early evening we should probably be done.’

- (21) *su-'a-w-sa-vo*
exact-REF-to-QNT-to
 mean

'for a good length of time'

- 1.2.2.5 *aqw* S: 'to/toward the person or thing referred to (EX)/into it/
 (to) there (EX)'

T: 'to the point in time referred to (EX)/till/by'

In terms of markedness, *aw*, the normal destinative referent locator, is unmarked. *Aqw*, embodying the extreme concept, is the morphologically complex term with respect to *aw* and therefore marked (see HR 1.5.1.0). Syntactically, the extreme form is attested both adverbially and postpositionally. It is triggered under conditions which characterize a given goal time as objectively and/or subjectively far removed or very close in regard to the present time of the speaker. Extreme distance as well as extreme closeness, i.e., almost-contact, are spatial realizations of the extreme concept and both interpretations occur metaphorically.

- (1) *itam pay qa pas àa-sa' a-qw-ya, itam pay*
 we ASSR NEG very REF-QNT REF-to-PL we ASSR
 NUM EX

panis pakwt tsivot siikya-y'-ta-qa-t a-qw-ya
 only ten five plus-POSS-IMPRF-REL-ACC REF-to-PL
 EX

'We are not [going] to the required length [of the puerperal period, which is normally twenty days], we are only [going] until the fifteenth [day].'

- (2) *puma pakwt na-vay siikya-y'-ta-qa-t a-qw*
 those ten RCPR-three plus-POSS-IMPRF-REL-ACC REF-to
 six EX

naa-na-pwa-la-ngwu
RDP-REFL-transform-CAUS-HAB
 fast

'They fast until the sixteenth [day].'

- (3) *e-p=haqa-m um sunat yàasangw-ni-y'-ta-qa-y*
 REF-at=INDEF-at you twenty year-CAUS-POSS-IMPRF-REL-ACC

a-qw um a-hoy wuuwa-ni
 it-to you REF-back think-FUT
 EX to

‘Think back to the time when you were twenty years of age (NEO).’

Besides goal-oriented ‘to’ and temporal ‘till,’ *aqw* may occur in a context which elicits our gloss ‘by.’ Intrinsically locative, the temporal preposition implies that an event or state comes about at the end of a given time period.

(4) *naa-lö-q yàasangwu-y a-qw pu' pay yaw*
RCPR-two-ACC year-ACC it-to then ASSR QUOT
 four EX
pumu-y himu tunös-maskya-'am²⁸ pay yaw pas
 those-ACC something food-spare-their just QUOT very
 supply

hi-ng-sa' pee-toti
 some-DIF-QNT leave-R
NUM over PL
 small amounts

‘By the [end of] the fourth year only tiny amounts of their food supplies were left.’

In addition to occurring with the concrete time goals presented in (1-4), the extreme locator *aqw* may be a concomitant of a number of idiomatic locutions containing such verbals as *pitu* ‘he arrived/got to,’ *hàkyalti* ‘he got close to it,’ and *peeti* ‘it is left over.’ It is in connection with these verb forms that *aqw* frequently expresses temporal proximity rather than remoteness. While *hàkyalti* and *peeti* are commonly constructed with reference points that are marked extreme, *pitu* is attested in both extreme and non-extreme expressions (see 1.2.2.4). Contrary to *aw pitu*, which seems to place emphasis on the fact that the general temporal outline of an event is reached, *aqw pitu* designates temporal immediacy in regard to the event and/or its initial realization.

(5) *a-qw pitu, tuma²⁹ qe'-ti*
 REF-to arrive EXHRT NEG-R
 EX IP quit
 NSG

‘It has come to the time [we set], let’s quit.’

- (6) *itam songòopa-ve sip-hiuyaya-n-ki-ve*
 we PN-at silver-sell-n-house-at
- nàaqa-t a-ng tay-num-qw pay kur*
 earring-ACC it-at look-CIRCUMGR-SUBR well EV
 DIF DS
- ùutsi-l-ti-ni-qa-t a-qw pitu*
 close-PASS-R-FUT-REL-ACC REF-to arrive
 EX

‘We were just looking at earrings in the jewelry store in Songoopavi when it came to closing [time].’

- (7) *pu’ yaw antsa a-qw pitu, nalö-s-tal-qa-t*
 then QUOT really REF-to arrive four-times-day-REL-ACC
 EX
- a-qw-a’*
 it-to-PS
 EX

‘Then it really came to the time, to the fourth day.’

Stative *pitsiwta* is used with the locator *aqw* in an euphemistic locution which refers to the imminence of death.

- (8) *pay kur pam a-qw pits-iw-ta*
 well EV that REF-to arrive-STAT-IMPRF
 EX

‘He’s evidently near it [i.e., his end].’

- (9) *itam kyaktay-ni³⁰ taq iù-tokila-y a-qw*
 we hurry-FUT because your-time-ACC it-to
 limit EX

su-pts-i-w-ma
 quickly-arrive-STAT-PROGR

‘Let’s hurry because it is getting quickly to [the end of] your time limit [i.e., the time that you have available].’

- (10) *ùu-tuwani-y a-qw hàykya-l-ti*
 your-measure-ACC it-to near-PASS-R
 EX

‘It got close to your measured [i.e., allotted] time.’

- (11) *ya hii-sa-vo a-qw pee-ti itam*
 Q which-QNT-to REF-to leave-R we
 how long EX over

noo-nova-ni-qa-t a-qw-a'?
 RDP-food-FUT-REL-ACC it-to-PS
 be eating PL EX

'How much time is left until we will be eating?'

- (12) *ya-ngqw hii-sa-vo soyalangwu-y a-qw pee-ti?*
 here-from which-QNT-to Soyal-ACC it-to leave-R
 how long ceremony EX over

'How much time is left from now till Soyalangw?'

1.2.2.6 *angqw* S: 'from the person or thing referred to/from there/in there (3-DIM)'

T: 'from the point in time referred to/since'

The neutral ablative locator *angqw* is only infrequently attested with temporal force. Usually, it stands in the postpositional slot in conjunction with noun phrases that are constrained from appending the regular ablative case marker *-ngqw* as in (1). However, the periphrasis with *angqw* may also provide an analytic alternate to the permissible synthetic construction. Thus, *nalöstalät angqw* in (2) is a perfectly legitimate variant of *nalöstalngaqw*.

- (1) *itam-u-y yùng-qa-t a-ngqw nu' pay qa*
 we-ACC enter-REL-ACC REF-from I ASSR NEG
 PL

i-tulewni-y a-w hi-n-tsaki
 my-weaving-ACC it-to some-way-do

'From the time when we entered [the kiva to begin the ritual] I haven't been doing anything with my weaving [project].'

- (2) *nalö-s-tala-t a-ngqw nu' na'sas-ti-va*
 four-times-day-ACC it-from I prepare-CAUS-INCHO

'From the fourth day on I started preparing [i.e., for the wedding].'

1.2.3 The distal locators

- 1.2.3.1 *pep* S: 'at that point/there'
 T: 'at that point in time/then'

<i>tiikive-y'-ta-ni-k</i>	<i>tiikive-y'-ta-qw</i>
dance-POSS-IMPRF-FUT-COND	dance-POSS-IMPRF-SUBR
SS	DS

pusu-su-ta-ngwu
drum-RDP-IMPRF-HAB

'When [people] have things abundantly to eat then it is Paamuya [month in summer]; at that time therefore, if a social dancer wants to have a dance and then has the dance, drumming is going on.'

In situations referring to habitual activities that are carried out at approximately the same time spot on a recurring basis, the reduplicated form of *pep* will be used in a temporal sense. In such instances it is never attested without the enclitic restrictive =*sa* 'only.'

- (4) *pay i-t muuyawu-y hak a-w*
INTR this-ACC moon-ACC someone it-to
- | | | |
|-----------------------|---------------|-----------------------|
| <i>tunatya-l-t-e'</i> | <i>haq-e'</i> | <i>hii-sa-y=haqam</i> |
| observe-PASS-R-COND | where-at | what-QNT-size=APPROX |
| SS | DIF | how big |
- muuyaw-ni-qw pe-p haki-y uuyi-'at qa*
moon-NEX-SUBR there-at someone-ACC plant-his NEG
DS
- tuusungw-ti-ngwu-ni-qw pu' nu' oovi*
freeze-R-HAB-NEX-SUBR then I therefore
DS
- pee-ve-p=sa uy-ngwu*
RDP-there-at=only plant-HAB

'If one pays attention to the moon where [on its course] it takes on what size, and if at that time one's plants don't freeze, then I plant at those times only [i.e., year after year].'

- (5) *paa-sa-t hak pee-ve-p=sa put*
that-QNT-time someone RDP-there-at=only that
ACC
- hii-hiita natwani-y a-w hi-n-tsak-va-ngwu*
RDP-something crop-ACC it-to some-way-do-INCHO-HAB
ACC

‘Then only at those times one starts doing all sorts of things to one’s crops.’

- 1.2.3.2 *pepeq* S: ‘at that point (EX)/there (EX)’
 T: ‘at that point in time (EX)/then (EX)’

The observations concerning *pep* also hold for its matching extreme form *pepeq*. As noted above, the occurrence of the locator is quite rare due to its inherent emphatic overtones. Example (1) again displays the syntactic pattern in which an event is first located in time and then focused upon once more in the distal locator. Note the ‘extreme congruence’ between destinative *aqw* and locative *epeq*.

- (1) *noq* *hii-sa-vo* *pi*³¹ *wuwtsim-t* *yungyi-w-ta-ngwu*
 and some-QNT-to IGNOR Wuwtsim-PL enter-STAT-IMPRF-HAB
 SI initiate PL
- niikyangw* *puma* *hi-sa-t* *tokila-y* *a-qw*
 and those some-QNT-time time-ACC it-to
 SIMUL limit EX
- pitsi-na-y-e’* *pe-pe-q* *pu’* *puma*
 arrive-CAUS-PL-COND there-at-EX then those
 SS
- nöö-nönga-ngwu*
 RDP-come-HAB
 out
 PL

‘I don’t know how long the Wuwtsim [society members] are in [the kiva], but when they reach the end of their [ceremonial] time, then they are coming out [i.e., to stage a public performance in form of a dance].’

(2) presents the pattern in reverse order, with the temporal specification following the emphatic deictic locator.

- (2) *puma* *kur* *pas* *nää-pe-ya-ni* *pe-pe-q* *hapi*
 those EV very REFL-on-PL-FUT there-at-EX EMPH
- nüutu-ngk* *talöng-va-qa-t* *e-pe-q*
 the-after daytime-R-REL-ACC it-at-EX
others
 last

‘They will be on their own there, on the last day [of the world].’

- 1.2.3.3 *pang* S: 'in/on/at that area/there along/through there'
T: 'along/through that period of time'

As I already pointed out while presenting *pep*, the nondiffuse pendant of *pang*, temporal exploitation of deictic locators, especially of the distal brand, is quite rare. To motivate their metaphorical usage a special temporal 'build-up' or 'lead-in' is required on which the distal locator can then bear down with added emphasis. Example (1) constitutes the only example that I have encountered so far which provides the appropriate prerequisites to trigger the temporal application of *pang*.

- (1) *niiqe yaw puma haqa-mi tokil-tota-qe naat*
and QUOT those where-to time-CAUS-CAUSAL still
CAUSAL limit PL SS
- pa-ng-ya-qw yaw amu-mi payotsi-m kiipo*
there-at-PL-SUBR QUOT they-to PN-PL raid
DIF DS PL

'They were still going through the time period for which they had set the date, when the Paiutes raided them.'

- 1.2.3.4 *panso* S: 'to that point/(to) there'
T: 'to that point in time'

The strong emphatic coloration of spatially directional *panso* (see HR 1.3.2.1) is also retained in metaphorical extension. As a rule, a speaker will first delineate a particular event in detail and then refer back to it in the destinate form. Older speakers still prefer the form *pangso* to *panso*.

- (1) *naat yaw oovi puma tiikive-y'-yung-qw*
still QUOT therefore those dance-POSS-IMPRF-SUBR
PL DS
- pay yaw kivaa-pe-q lestavi qõhi-k-kyangw amu-mi*
ASSR QUOT kiva-at-EX beam break-k-SIMUL they-to
SS
- sàapu; pay yaw pa-nso tiitso'a*
collapse INTR QUOT there-to finish
dancing
PL

'So they were still having the dance when a beam broke in the kiva and collapsed on them; at that time the dancing was over.'

- (2) *naat itam as a'ni tumala-y'-ta-qw pay*
 still we IMPOT a work-POSS-IMPRF-SUBR INTR
 lot DS

i-tiyòo-ya pos-q pay itam pa-nso pàa-sa-vo
 my-boy-DIM fall-SUBR ASSR we there-to that-QNT-to
 off DS that long

‘We were still working hard when my little boy fell off [the roof], and until that time [we worked and then we quit].’

Example (3) is interesting in that it presents in one sentence three different primary locators in destinative shape with temporal force.

- (3) *noq pu' ima katsina-m pe-p yu-k ay-ó'*
 and then these kachina-PL there-at here-to over-to
 SI there

uyis-mi tiingap-ya-qe pa-ngso hapi oovi
 planting-to announce-PL-CAUSAL there-to EMPH therefore
 time ceremony SS

puma kuu-kuyva-ni-qa-t ya-n yuku-ya
 those RDP-emerge-FUT-REL-ACC this-way make-PL

‘And at that time then these kachinas announced their [ceremonial] date to this time, that is, over there to planting time, and by that time they made it [i.e., they decided] that they would finish this [ceremony] like this.’

- 1.2.3.5 *pansoq* S: ‘to that point (EX)/(to) there (EX)’
 T: ‘to that point in time (EX)’

Directional *pansoq* (see HR 1.5.1.1), marked with the element *-q* for extreme destinative conditions, allows a speaker to envisage goal time that is projected further into the future than is the case with nonextreme *panso*. In both examples cited below, the temporal goal point constitutes a specific day on which a certain event is to take place. The form *pangsoq*, a variant of *pansoq*, is generally preferred by older speakers.

- (1) *pu' yaw puma wa-wari, na'sas-ti-va*
 then QUOT those RDP-run prepare-CAUS-INCHO

pa-nso-q-a'
 there-to-EX-PS

‘Then they would go running, [and by doing that] they began to prepare [for the race] that [day].’

- (2) *pu’ yaw oovi pam paa-piy pa-nso-q*
 then QUOT therefore that there-away there-to-EX
 from

*maqaptsi-y’kyangw*³² *so-y e-ngem*
 wait-POSS-SIMUL grandmother-ACC she-for
 SS

maq-num-ngwu
 hunt-CIRCUMGR-HAB

‘So therefore from that time on, while waiting for that [day], he was hunting around for his grandmother.’

- 1.2.3.6 *pangqw* S: ‘from there/in there (3-DIM)’
 T: ‘from that point in time’

The ablative locator is very sparsely attested in temporal extension. The contextual and syntactic prerequisites that motivate its metaphorical occurrence are difficult to describe. An important factor conducive to its usage is, however, the strong emphasis that the speaker places on the distal time point from which the event or action emanates. Note that *yàyna* ‘start at’ is typically constructed with the ablative in Hopi. Both examples quoted below are further characterized by embedded H-questions.³³

- (1) *antsa pas wuuha-q naawakna-qw, hi-n*
 really very large-amount want-SUBR which-way
 DS how

*i-tsako-qatsi, pa-ngqw nu’ yàyna-ni*³⁴
 my-small-life there-from I start-FUT
 childhood

‘Because you really want [to hear] a lot, I will begin how my childhood [was].’

- (2) *um pas sòoso-k*³⁵ *itamu-mi tìu-tuwuts-ni,*
 you very all-size we-to RDP-story-FUT
 ACC narrate
- hi-sa-t uma ya-ngqw àa-piy-nii-qe-y*
which-QNT-time you here-from REF-away-NEX-CAUSAL-ACC
 when PL from SS

pa-ngqw um yàyna-ni
 there-from you start-FUT

‘Tell us all [the historical facts]; begin at the time when you left this place.’

For the redundant time locution *pa-ngqw-viìpiy* (there-from-away:from) ‘from then on’ see 1.5.7.5.

1.2.4 The extreme-distal locators

1.2.4.1 *ayám* S: ‘over there/yonder’
 T: ‘at the last time unit’

Ayám, morphologically consisting of the extreme-distal base *ayá-* and the punctive case suffix *-m* (see HR 5.4), restricts its temporal application almost exclusively to past time. The only exception to this observation seems to be provided in a context which structures two events in temporal sequence. *Ayám* will then refer deictically to the time slot ahead of the preceding event.

- (1) *noq pu’ pàa-sa-t imu-y nìman-katsin-mu-y*
 and then that-QNT-time these-ACC return-kachina-PL-ACC
 SI home
- ni-nma-qw pu’ pàa-sa-t pay qa*
 RDP-return-SUBR then that-QNT-time ASSR NEG
 home DS
- haqa-m himu katsina-ni-ngwu; pas ason*
 some-where something kachina-NEX-HAB very later
- ayá-m soyalangwu-y e-p qöö-qöqlö-m öky-e’ pu’*
 over-at Soyál-ACC it-at RDP-PN-PL arrive-COND then
 there ceremony PL SS
- kiva-nawit hõtàa-tota-qw³⁶ pàa-sa-t pu’ puma*
 kiva-along open-CAUS-SUBR that-QNT-time then those
 PL DS
 OBJ
 PL
- piw a-hoy öki-ngwu*
 again REF-back arrive-HAB
 to PL

‘And at that time then, when these Home dance kachinas have returned home, there is no kachina around any more; later that year then, at the time of Soyalangw, when the Qööqöqlö kachinas arrive and open all the kivas [ceremonially] they [i.e., the kachinas] come back again.’

When not affected by modulation (for modulated forms see 1.3.3.1.4), its syntactic distribution seems to be limited to attributive position. This is accomplished by attaching the specificator *-wat*, which possesses adjectivalizing force. The temporal locutions in which the locator is attested fit the abstract formula ‘at the last time unit.’ The two examples that I offer in this connection are anglicisms, neologicistic loan translations which must have originated under the influence of Anglo calendar talk. I am, at this time, not aware of an indigenous pattern that might have served as a model for analogical extension for the following examples.

- (2) *aya-m-wat santi-t e-p=haqa-m puma yé-pe-q-a'*
 over-at-SPEC week-ACC it-at=INDEF-at those here-at-EX-PS
 there

‘Last week they were here (NEO).’

- (3) *pam aya-m-wat muuyawu-y e-p=haqa-m i-t*
 that over-at-SPEC month-ACC it-at=INDEF-at this-ACC
 there

qeena
 soak

‘He soaked this last month (NEO).’

1.2.4.2 *ayáq* S: ‘over there (EX)/yonder (EX)’

T: ‘in the past/at the last but one time unit’

Punctual *ayáq*, the extreme counterpart to *ayám*, locates a point further back in the past time than the nonextreme form. Unlike *ayám*, it is syntactically not limited to attributive position, as (1) demonstrates. In constructions of this sort its deictic nature adds an emphasis to the general time frame ‘past.’ Younger speakers no longer feel comfortable with this pattern and usually eliminate the extreme-distal locator in the same sentence, perhaps because *ayáq* in this expression is slightly tautological.

- (1) *ayá-q naalö-q yàasangwu-y e-pe-q ura itam*
 over- at four-ACC year-ACC it-at-EX MEMO we
 there EX

put uu-uya; naat itam qaa'ö-y'-yungwa
 that RDP-plant still we corn-POSS-IMPRF
 ACC PL

'Back there, four years ago, we planted that; we still have corn.'

In attributive position, suffixation of the specificator element *-wat* is called for. In accordance with the extreme concept the content of *ayaqwat* goes beyond that of *ayamwat* and correspondingly expresses the temporal notion 'at the last but one time unit.' While (2) may be idiomatic along aboriginal lines, (3) is an anglicism constructed on the pattern of (2).

(2) *nu' aya-q-wat tömö' i-kuku-y tuusungw-ta*
 I over- at-SPEC in my-foot-ACC freeze-CAUS
 there EX winter

'In the winter before last I froze my feet.'

(3) *aya-q-wat santi-t e-pe-q nu' tiimay-ma*
 over- at-SPEC week-ACC it-at-EX I see-POSTGR
 there EX dance

'The week before last I went to see a dance (NEO).'

Example (4) provides a case where the time unit that *ayaqwat* alludes to is understood from the general context and need not be repeated for this reason.

(4) A: *itam tömö' kyaa-nanapta*
 we in formidable-notice
 winter PL
 experience hardship PL

B: *pu' tömö'?* A: *qa'é, aya-q-wat*
 now in no over- at-SPEC
 winter there EX

'We had a hard time in winter.' 'This winter?' 'No, [the winter] before.'

1.2.4.3 *ayó'* S: 'to the place over there/away'
 T: 'to the future/to the next unit of time'

Contrary to the punctive locators derived from the extreme-distal base *ayá'*, whose force is metaphorically confined to past time, destinative forms generally refer to the future. *Ayó'* is spatially nonextreme and therefore unmarked (see HR 5.4). Like *ayáq* in 1.2.4.2 (1) it may simply add deictic emphasis,

- (4) *pay naat iyo-ho'-ni-qw hak hiitu-y*
 INTR still cold-ABS-NEX-SUBR someone beings-ACC
 DS
- nõnga-k-na-ni-qw pay naat qa hi-n-ta;*
 go-k-CAUS-FUT-SUBR well still NEG some-way-IMPRF
 out DS be all right
 PL
- pay ay-ó' himu si-y'-va-ni-qw*
 INTR over-to something flower-POSS-INCHO-FUT-SUBR
 there DS
- pa-ngso pay qatuvos*
 there-to ASSR complicated

'When it's still cold and someone wants to take kachinas out [i.e., from the kiva to have them dance], that is still in order; however, when it gets to the time where things get blossoms then it is complicated [and dangerous].'

A second spatial value of *ayó'* is 'away' (see HR examples 674-675). Metaphorically, this sense is attested in (5). The example is excerpted from a context which describes the old Hopi custom of keeping track of certain time periods by tying as many knots into a string as the period contained days.

- (5) *nen pu' oovi suukya a-ngqw ay-o'-ni-qw*
 and then therefore one REF-from over-to-NEX-SUBR
 then there DS
- pu' pam put ngà-y-ngwu*
 then that that untie-HAB
 ACC

'And when therefore one [day] is passed, he unties that [knot from the knotted cord].'

In the majority of cases, however, in which *ayó'* occurs spatio-temporally, it attaches the specifier *-wat*. Within a time frame considered nonextreme, *ayo'wat* usually allows the interpretation 'to the next unit of time.' While the specified form stands absolutely in (6), it behaves like a modifying adjective in (7) and (8).

- (6) *puma yaw totokya-y pay hihin ay-o'-wat*
 those QUOT totokya-ACC ASSR somewhat over-to-SPEC
 day there
- hóyo-k-na-ya niique pay qeni-toyna-ya*
 move-k-CAUS-PL and ASSR space-EFF-PL
 CAUSAL

'They postponed Totokya [i.e., the eve of their ceremony] to a slightly later date and so gave time [to do something else].'

- (7) *pas qa qeni, pay kya as ay-o'-wat*
 very NEG space INTR maybe IMPOT over-to-SPEC
 there
- santi-t a-w qéni-ni*
 week-ACC it-to space-FUT

'There is no time; maybe there is time next week.'

- (8) *nu' ay-o'-wat tal'ang-mi paapu nee-ngem maalam-ni*
 I over-to-SPEC summer-to ADMON REFL-for clear-FUT
 there field

'For next summer I will make sure to clear a field for myself.'

- 1.2.4.4 *ayóq* S: 'to the place over there (EX)/(to) yonder (EX)'
 T: 'to the next unit of time (EX)/to the next but one
 unit of time'

Analogously with nonextreme *ayó'*, extreme *ayóq* may introduce a future-oriented time goal. Its juxtaposition with the destinative time phrase renders it emphatic.

- (1) *ay-ó-q yas-mi-q=haqa-mi puma tiingap-ya*
 over-to-EX year-to-EX=INDEF-to those announce-PL
 there ceremony

'They have announced the [date for the] ceremony for next year.'

Frequently *ayóq* attaches the specifier element *-wat*. The motivating force for *-wat* may be an implied contrast as in (2) where *ayóq* points to a time location which lies beyond the one which is specified.

- (2) A: *nu' as yàa-piy löö-q santi-t*
 I IMPOT here-away two-ACC week-ACC
 from

<i>a-qw=haqa-mi</i>	<i>hiita</i>	<i>hi-n-tsak-ni-qa-y</i>		
it-to=INDEF-to	something	some-way-do-FUT-REL-ACC		
	ACC			
<i>wuuwa-n-ta</i>	B: <i>so'-ni</i> , ³⁷	<i>um</i>	<i>ay-o-q-wat</i>	
think-n-IMPRF	<u>NEG-FUT</u>	you	over-to-EX-SPEC	
	no		there	
<i>pu'-ni</i>	A: <i>haqa-mi?</i>	B: <i>pàykomu-y</i>	<i>santi-t</i>	<i>a-qw-'a</i>
then-FUT	where-to	three-ACC	week-ACC	it-to-PS
				EX

'I was thinking of doing something in two week's time.'
 'No, do it after that [time].' 'When?' 'In three weeks.'

The specifier is also called for in attributive position. Here the future reference of *ayóq* may either go to the next or next but one time unit specified in the context. The appropriate interpretation will, of course, depend on the duration that a speaker attributes to the interval that separates him from the 'next unit of time.' Thus, if he should speak of 'next summer' in the spring of the same year, he will most likely use nonextreme *ayó'*. Alluding to the same time from fall of the previous year will, on the other hand, motivate the attaching of the extreme marker *-q* to *ayó'*.

- (3) *itam ay-o-q-wat tömöl-mi-q paapu aapiy*
 we over-to-EX-SPEC winter-to-EX ADMON prematurely
 there

ko-k-'o-'oy-ni
 RDP-wood-RDP-put-FUT
 PL
 OBJ

'We will for sure gather wood for next winter ahead of time.'

- (4) *itam yàa-piy ay-o-q-wat santi-t e-p*
 we here-away over-to-EX-SPEC week-ACC it-at
 from there

haqa-mi-ya-ni?
 where-to-PL-FUT

'Where will we go the week after next? (NEO)'

1.2.4.5 *ayángq̄w* S: 'from over there/in over there (3-DIM)
T: 'from a point in the past'

The ablative locator is rare in spatio-temporal metaphor. Preference is usually given to its modulated form *ayangqaq̄w* (see 1.3.3.6.4).

(1) *hùita* *pi* *ayá-ngq̄w* *yà-y-ngwa-ngaq̄w*
something IGNOR over-from begin-ABSTR-from
ACC there

noo-nova-ngwu
RDP-food-HAB
be eating PL

'I don't know what people were eating back in the beginning [of time].'

1.3 *Spatio-temporal metaphors in conjunction with the interrogative-indefinite bases ha- and haqa-*

1.3.0 *Introduction*

In addition to the case forms derived from the pronominal bases *ya-*, *a-*, *pa-*, and *ayá-*, Hopi also makes metaphorical use of a number of locators which are generated from the bases associated with the interrogative-indefinite pronoun *hak* 'who?/someone.' The two existing bases, simple *ha-* and extended *haqa-*, clearly show their pronominal provenience. Within the paradigmatic set of seven possible locator forms, four are lexicalized around the base *haqa-*. The locative case is represented by punctual *haqam* 'where?/somewhere' and, in accordance with the areal aspects of the field concept, by the diffuse form *haqe* 'where (DIF)?/somewhere (DIF).' While the spatial configuration of a given space occupant and its relative position to a reference plane justify a lexicalization of both the punctual and diffuse terms with interrogative as well as indefinite force, the respective extreme forms are nonexistent. The logic behind their absence is quite evident. It obviously does not make much sense to inquire about the extremely conceived whereabouts of something if one has no knowledge of it. Nor can a declarative clause be specific in its message if accompanied by indefinite proforms.

The same reasoning lies behind the lexical gap of an extreme form of the destinative in conjunction with the interrogative-indefinite base. *Haqami* 'where (to)?/(to) somewhere' is, therefore, the only directional form in the paradigm. The ablative, which is concerned with neither field nor distance/

Table X

CASE	INTERROGATIVE-INDEFINITE LOCATOR	INTERLINEAR GLOSSES
PUNCTIVE	<i>haqa-m</i> 'where?' 'somewhere' T	where-at/somewhere-at
EXTREME-PUNCTIVE	—	
DIFFUSIVE	<i>haq-e</i> 'where (DIF)?' T 'somewhere (DIF)' T	where-at/somewhere-at DIF DIF
EXTREME-DIFFUSIVE	—	
DESTINATIVE	<i>haqa-mi</i> 'where (to)?' T '(to) somewhere' T	where-to/somewhere-to
EXTREME-DESTINATIVE	—	
ABLATIVE	<i>haqa-qw</i> 'where from?/in where (3-DIM)?' 'from somewhere/in somewhere (3-DIM)'	where-from/where-in:3-DIM somewhere-from/somewhere-in:3-DIM

position, is represented in the shape *haqaqw* ‘from where?/from somewhere.’ In analogy to the primary locators coined on the pronominal bases *ya-*, *a-*, *pa-*, and *ayá-*, the interrogative-indefinite locators, too, all of which occur as free adverbials, will be designated here as affiliates of the primary orientational system. As we will see in Chapter 1.3.3, the indefinite forms either fuse or combine clitically with actual pronominal and other nonpronominal locators to form a secondary system. Table X summarizes the above observations and lists the stressed interrogative-indefinite locators with the interlinear glosses which I assign to the decomposed elements. The table also singles out the forms which occur metaphorically and marks them T for ‘time.’

1.3.1 Metaphorical attestation of free interrogative-indefinite locators

1.3.1.1 *haqam* ‘where?/somewhere’

Nonenclitic *haqam*, bearing full primary stress, is extremely rare in a temporal sense. Metaphorically it seems to be limited to cooccurring with adverbial *naap* which in conjunction with indefinite proforms carries the semantic force ‘any/whatever (you like)’ (1). The same semantic result is achieved in juxtaposition with its reduplicated form *naanap* (2).

- (1) *pu’ pi pay himu-wa naap haqa-m*
 now FACT ASSR someone-SPEC any somewhere-at

pà-ng-qaw-ngwu, “itam púmu-y-ya-ni”
 that-way-say-HAB we those-ACC-PL-FUT

‘Now is the time when anyone says at any time, “We will [dance, i.e., impersonate] those [kachinas].”’

- (2) *tiikive pi pay hi-sa-t naa-nap*
 danceday FACT ASSR some-QNT-time RDP-any
 long ago

háqa-m-ni-ngwu
 somewhere-at-NEX-HAB

‘Dance day used to be on any day [i.e., not just on weekends as is nowadays generally the rule].’

1.3.1.2 *haqe* ‘where (DIF)?/somewhere (DIF)’

The diffuse form *haqe* is equally sparsely attested with temporal value. Its transferred meanings ‘where along in time?/somewhere along in time’ are only encountered in highly idiomatic locutions with *qalawma* (see Chapter 3).

- (1) A: *ya taawa haq-e' pu' qala-w-ma?*
 Q sun where-at now edge-STAT-PROGR
 DIF

B: *tapki-w-ma*
 early-STAT-PROGR
 evening

'Where is the sun going along now?' 'It is getting early evening.'

While (1) exemplifies the interrogative aspect of the locator, (2) shows it in an embedded situation, and (3) demonstrates its indefinite side.

- (2) *i' muuyaw pay ngas'ew haq-e' itamu-y*
 this moon ASSR at where-at we-ACC
 least DIF

qala-w-wis-qw aawin-ma-ni
 edge-STAT-PROGR-SUBR announce-PROGR-FUT
 PL DS

'This moon will at least tell us where we are timewise.'

- (3) *noq oovi pay oray-ve haq-e' pi*
 and therefore ASSR PN-at somewhere-at IGNOR
 SI DIF

haki-m pu' hi-n-wis-ngwu
 someone-PL now some-way-PROGR-HAB
 PL

'Therefore people in Orayvi don't know where they are going along [timewise] now [because there is no sun watcher anymore].'

The diffuse locator also occurs in the shapes *hàaqe'* and *haahaqe'* (see HR 4.1.2). While the latter is characterized by the exfixation of the initial syllable and pluralizes the diffuse concept 'indefinite area,' the former translates 'at several places' and differs from *haqe'* by featuring long *àa* with falling tone. As its content suggests, we are also dealing with a plural form here whose original shape **hahqe'*, marked by partial reduplication of the first syllable, gave rise to falling tone after vocalization of the laryngeal *h* (Jeanne 1974:14). Only indefinite *hàaqe'* is attested metaphorically with temporal force.

(4) *hàaqe'* *pi* *pay* *hi-sa-t* *qa*
 somewhere FACT ASSR some-QNT-time NEG
 PL

tiikive-ni-ngwu, *pu'* *pi* *pas* *àa-sa-ki-s*
 dance-NEX-HAB now FACT very REF-QNT-place-times
 every time

santi-t *e-p* *háki-m-ya-ngwu*
 week-ACC it-on someone-PL-PL-HAB

'At times in the past there were no dances, but nowadays someone holds one every week.'

(5) *hikis* *pi* *e-p=haqa-m* *haki-y* *tsako-qatsi-'at*
 even FACT REF-at=INDEF-at someone-ACC small-life-his
 occasionally childhood

piw *a-w* *a-hoy* *pítu-ngwu;* *pay* *nu-y-ni-qw*
 also REF-to REF-back arrive-HAB well I-ACC-NEX-SUBR
 to DS
 in my opinion

put *hak* *a-ng* *wuuwa-n-t-e'* *hàaqe'*
 that someone REF-on think-n-IMPRF-COND somewhere
 ACC DIF SS PL

hak *hàalay-ngwu* *pu'* *hàaqe'* *piw* *peehu*
 someone happy-HAB then somewhere also some
 PL INAN

himu *su-pak-'eway-ni-ngwu*
 something direct-cry-like-NEX-HAB
 ADJR

'Once in a great time someone's childhood comes back to one; and in my opinion, when one thinks about that period [of one's life], there were times when one was happy and then there were also some when one felt like crying.'

1.3.1.3 *haqami* 'where (to)?/(to) somewhere'

Of all the interrogative-indefinite locators, directional *haqami* is the one that exhibits spatio-temporal transference with any frequency at all. (1) illustrates its interrogative sense, which can be rendered 'to what point in time?'

Examples (2) and (3) exemplify its indefinite value which conveys the idea ‘to some indefinite point in time.’ (4), finally, shows *haqami* functioning as a pro-form of time in an adverbial relative clause.

- (1) *ung haqa-mi tokil-toyna-ya?*
 you where-to time-EFF-PL
 ACC limit

‘Until when did they give you time [to do this]?’

- (2) *um paapu qa haqa-mi tavi-y'-ma-t*
 you progressively NEG somewhere-to put-POSS-PROGR-PRIOR
 SS

pay a-w hi-n-tsa-n-ni
 right REF-to some-way-do-CAUS-FUT
 now

‘Don’t put it off to some indefinite time but do something with it [now].’

- (3) *pu' yaw taw-lawu pam-i'; pas uti yaw*
 then QUOT sing-CONT that-PS very surprise QUOT
 EXCLM

qa haqa-mi qe'-ti
 NEG somewhere-to not-R
 quit

‘Then he sang; surprisingly enough he didn’t stop at any time [i.e., he kept right on singing].’

- (4) *haqa-mi nu-y qalaptu-ni-qa-t a-w uma nu-y*
 where-to I-ACC get-FUT-REL-ACC REF-to you I-ACC
 well PL

qa hi-ng-sa-vo a-ngqw po-pta-ya-ni
 NEG some-DIF-QNT-to REF-from RDP-check-PL-FUT
 on

‘Until I get well, look in on me at short intervals.’

1.3.2 Comments on a footnote by Whorf

There is a footnote in Whorf’s chapter on ‘The Relation of Habitual Thought and Behavior to Language’ which implies that ‘somewhere’ – the Hopi

equivalent *haqam* is not cited – might possibly be an exception to his earlier statement that “there is not even more than a trace of apparent derivation from space terms” (Carroll 1956:146). The pertinent section from the footnote reads:

Another (trace) is that ‘somewhere’ of space used with certain tensors means ‘at some indefinite time.’ Possibly however this is not the case and it is only the tensor that gives the time element, so that ‘somewhere’ still refers to space and that under these conditions indefinite space means simply general applicability, regardless of either time or space (Carroll 1956:146).

After referring to another likely candidate involving spatial reality in temporal use, Whorf concludes:

There are other such traces, but they are few and exceptional, and obviously not like our spatial metaphORIZING.

Ironically, Whorf’s comment in regard to stressed *haqam* ‘somewhere’ is not borne out by Hopi linguistic facts. There exists, however, a syntactic construction in Hopi which features unstressed *=haqam* as an indefinite enclitic. Possibly this is the form that Whorf had in mind when he alluded to ‘somewhere’ being used “with certain tensors,” a term which he sets aside for a special part of speech in Hopi, denoting “intensity, tendency, duration, and sequence” (Carroll 1956:146). The topic of indefinite enclitics will therefore receive our attention in the following subsection.

1.3.3 *Metaphorical attestation of indefinite locator clitics*

In addition to the primary system of four free interrogative-indefinite locators, there exists in Hopi a secondary system which consists of the five indefinite forms *=haqam*, *=haq*, *=haqe’*, *=haqami*, and *=haqaqw*. Their semantic impact on the bases with which they either fuse or combine enclitically, is not easy to define. In general, however, their effect on a given locator can be described as ‘approximative,’ ‘vague,’ ‘unusual,’ ‘deviating from the norm,’ etc. For lack of a better term, and because the indefinite clitics color or modulate the definite locators along the notions mentioned above, I have termed them ‘indefinite modulators.’

In HR 4.2 I have tried to deal with the modulation phenomenon by filtering out the various factors conducive to it. Within the scope of this monograph it is, of course, significant that the aura of spatial indefiniteness is also transferred metaphorically. As a matter of fact, spatio-temporal use of

Table XI

CASE	INDEFINITE MODULATOR	MODULATED PRIMARY LOCATORS			
		BASE <i>ya-</i>	BASE <i>a-</i>	BASE <i>pə-</i>	BASE <i>ayá-</i>
PUNCTIVE	= <i>haqa-m</i> INDEF-at	<i>yep=haqam</i> T	<i>ep=haqam</i> T	<i>pep=haqam</i> T	<i>ayam=haqam</i> T
EXTREME-PUNCTIVE	= <i>ha-q</i> INDEF-at EX	<i>yep=haq</i> T	<i>epe=haq</i> T	<i>pepe=haq</i> T	<i>aya=haq</i> T
DIFFUSIVE	= <i>haq-e'</i> INDEF-at DIF	<i>ya-ng-qe'</i> T	<i>a-ng-qe'</i> T	<i>pa-ng-qe'</i> T	<i>aya-ng-qe'</i>
EXTREME-DIFFUSIVE	—	—	—	—	—
DESTINATIVE	= <i>haqa-mi</i> INDEF-to	<i>yuk=haqami</i> T	<i>aw=haqami</i> T	<i>panso=haqami</i> T	<i>ayo'=haqami</i> T
EXTREME-DESTINATIVE	= <i>haqa-mi</i> INDEF-to	<i>yúkyiq=haqami</i> T	<i>aqw=haqami</i> T	<i>pansoq=haqami</i> T	<i>ayoq=haqami</i> T
ABLATIVE	= <i>haqa-qw</i> INDEF-from	<i>ya-ngqa-qw</i> T	<i>a-ngqa-qw</i> T	<i>pa-ngqa-qw</i> T	<i>aya-ngqa-qw</i> T

‘At the time when the village was founded at Hotvela the people had a hard time.’

The additional precision prefix *su-* adds the semantic component ‘just.’

- (3) *noq sú-'e-p=haqa-m yaw piw mi'-wa*
 and just-REF-at=INDEF-at QUOT also yon-SPEC
 SI the other
- maana kur tuwat lõõqö-k-iw-ta*
 girl EV in marry-k-STAT-IMPRF
 turn

‘And just about at that time the other girl, too, was going through the wedding ritual.’

- (4) *nu' e-p=haqa-m=sa put a-w yóri-k-ngwu*
 I REF-at=INDEF-at=only that it-to look-k-HAB
 occasionally ACC

‘I see him only once in a while.’

The sense ‘once in a while’ is also part of the frozen adverbial clause construction *ephaqamtiqw*, featuring the realized state suffix *-ti* and the subordinator for different subject *-qw*. The overall meaning is then ‘it happens once in a while.’

- (5) *e-p=haqa-m-ti-qw nu' hiita ööna-ngwu*
REF-at=INDEF-at-R-SUBR I something without-HAB
 occasionally DS ACC desire

‘Once in a while it happens that I have no desire to do anything.’

- (6) *pay-p sunat yàasangwu-y e-p=haqa-m*
 three-at twenty year-ACC it-at=INDEF-at
- orayvi kii-qö-ti*
 PN house-break-R
 ruin

‘About sixty years ago Orayvi fell in ruins.’

- (7) *oovi yàa-piy naalö-s taala-t*
 therefore here-away four-times day-ACC
 from

<i>e-p=haqa-m</i>	<i>um</i>	<i>hii-tu-y</i>	<i>tiiva-na-ni</i>
it-at=INDEF-at	you	some-PL-ACC being	dance-CAUS-FUT PL

‘Four days from now, therefore, let some beings [i.e., kachinas] dance.’

1.3.3.1.3 *pephaqam* ‘there somewhere’

Modulated *pephaqam* retains its emphatic coloration when it indicates metaphorically an approximate time location in the past. The speaker’s uncertainty about the date located back in time is reinforced by his use of the conjunctural particle *sumataq*.

(1) A:	<i>ya puma qa löö-na-yis=haqa-m ura</i>			
	Q those NEG two-(?)-year=INDEF-at MEMO			
		ago		
	<i>hoote-mu-y tunatya-y'-ta?</i>	B: <i>as'á,</i>	<i>pay</i>	
	PN-PL-ACC <u>desire-POSS-IMPRF</u>	yes	well	
	sponsor	OVERNEG		
	<i>sumataq antsa pe-p=haqa-m puma tiiva</i>			
	CONJECT really there-at=INDEF-at those dance			PL

‘Didn’t they sponsor Hoote [kachinas] two years ago?’
‘Sure, at about that time they were dancing, I think.’

1.3.3.1.4 *ayamhaqam* ‘over there somewhere’

When used in a temporal sense, modulated extreme-distal *ayamhaqam* points to a time considerably back in the past. The vague recollection of the time of the event accounts for the approximativizing clitic *=haqam*.

(1)	<i>aya-m=haqa-m pi naat qa haqa-m</i>			
	over-at=INDEF-at FACT still NEG somewhere-at			
	there			
	<i>tasavu-ni-ngwu,³⁸ kòonina-m niqw payotsi-m=sa</i>			
	PN-NEX-HAB PN-PL and PN-PL=only			
		DS		
	<i>pe-qw óki-ngwu</i>			
	here-to arrive-HAB			
	EX PL			

'Way back in the past there were no Navajos around yet, only Havasupais and Paiutes used to come here [to us].'

- (2) *ura aya-m=haqa-m, pay löö-na-yis=haqam*
MEMO over-at=INDEF-at well two-(?)-year=APPROX
there

ura puma tiiva
MEMO those dance
PL

'Remember, way back, about two years ago, they danced.'

1.3.3.2 Modulated extreme-punctive forms

1.3.3.2.1 *yepahaq* 'here (EX) somewhere'

The content of *yepahaq* is best rendered with the circumlocution 'now finally after all this time.' The fact that the event in (1) has been anticipated by the speaker for a long time accounts for the extreme shape of the locator. The additional moment of modulation may rest in the speaker's subjective appraisal of the whole situation which took so long to come to a head.

- (1) *itam sutsep umüu-tupko-y meewa-n-tota qa pas*
we always your-younger-ACC warn-n-IMPRF NEG very
PL brother PL
- síkisve-y a-kw a'ni wa-war-ti-num-ni-qa-t;*
car-ACC it-with a RDP-run-CONN-CIRCUMGR-FUT-REL-ACC
lot
- noq pas ye-pe=ha-q pu' naa-tuho-ta-qe*
and very here-at=INDEF-at now REFL-hurt-CAUS-CAUSAL
SI EX SS
- pu' kya sen tsawna*
now maybe DUB get
scared

'We always told your younger brother not to drive around too fast with his car; now, that he finally hurt himself, he got perhaps scared.'

1.3.3.2.2 *epehaq* 'at him (EX) somewhere/there (EX) somewhere'

My data for *epehaq*, the modulated pendant of extreme-punctual *epeq*, indicate that the locator is used syntactically both as postposition (1) and as

adverbial (2). The temporal antecedent that *epehaq* refers to in the pronoun-copy construction must be located in the future; the adverbial use also allows reference to the past. Both objective aspects of the overall context, of which the modulator is a part, such as ‘unusual,’ ‘approximate,’ ‘abnormally long,’ etc., as well as subjective ingredients in the speaker’s attitude that can be characterized as ‘uncertain,’ ‘vague,’ etc., may combine to trigger the modulated forms in question. In (1) the uncertainty factor is introduced by the particle *kya* ‘maybe.’ In (2) the indefinite quantifier *hiisa*’ is responsible for the modulation.

- (1) *pay kya itam sunat taala-t e-pe=ha-q*
 INTR maybe we twenty day-ACC it-at=INDEF-at
 EX

pu' yawi-'oy-ni
 then loom-put-FUT
 PL
 OBJ

‘Maybe in about twenty days we will set up the loom.’

- (2) *hi-sa' yàasangwu-y e-pe=ha-q ura itam*
 some-QNT year-ACC it-at=INDEF-at MEMO we
 NUM EX

tuu-tuy-toti
 RDP-sickness-R
 be sick PL

‘Some years ago, as you remember, we got sick.’

1.3.3.2.3 *pepehaq* ‘there (EX) somewhere’

Extreme-punctual *pepehaq*, like the other locators derived from deictically distal base *pa-*, occurs metaphorically only as an adverb of time. With an emphatic undercurrent it may point into the past (1) or into the future (2). Accordingly, *pepehaq* translates either ‘at that time way back’ or ‘at that time way in the future.’

- (1) *pay puma pe-pe=ha-q pa-n yaw*
 INTR those there-at=INDEF-at that-way QUOT
 EX

qatsi-y'-yungwu
 life-POSS-IMPRF
 PL
 HAB

'At that time way back they lived like that.'

- (2) *noq oovi hapi màasawu-y hi-sa-t yaw*
 and therefore EMPH PN-ACC some-QNT-time QUOT
 SI one day
- a-hoy pitu-qw pe-pe=ha-q pu' yaw*
 REF-back arrive-SUBR there-at=INDEF-at then QUOT
 to DS EX
- i-t nùutu-ngk talöng-va-qa-t sen yaw*
 this-ACC the-after daylight-R-REL-ACC maybe QUOT
others
 last
- a-qw pitu-ni*
 REF-to arrive-FUT
 EX

'And if Maasaw, therefore, comes back one day, at that time [way in the future] then it will come to the last day [of this world].'

1.3.3.2.4 *ayahaq* 'over there (EX) somewhere'

Ayahaq, the modulated counterpart of extreme-punctive *ayáq*, may be used temporally when the time point in question is located in the distant past. The vague reminiscence of an event in the mythological past justifies the modulation in (1).

- (1) *pam pay naat pas aya=ha-q, ura*
 that ASSR still very over=INDEF-at MEMO
 there EX
- e-pe=ha-q palatkwapi kiiqö-ti-qw*
 REF-at=INDEF-at PN ruin-R-SUBR
 EX DS
- pe-pe=ha-q-a'*
 there-at=INDEF-at-PS
 EX

- (3) *ason yas ya-ng-qe'-ti-qw nu' piw pítu-ni*
 later next here-at-INDEF-R-SUBR I again arrive-FUT
 year DIF DS

‘When it gets about this time next year I will come again.’

1.3.3.3.2 *angqe'* ‘at him (DIF) somewhere/there (DIF) somewhere’
 Metaphorically, the semantic force of modulated *angqe'* can be defined as ‘around the time referred to.’ The diffuse form exists both in adverbial (1) and postpositional (2) constructions.

- (1) *nu' paapu tal'ang-mi tihu-law-ni; a-ng-qe'*
 I ADMON summer-to kachina-CONT-FUT REF-at-INDEF
 doll DIF

pahaana-m put hep-num-ya-ngwu
 white-PL that seek-CIRCUMGR-PL-HAB
 man ACC

‘I will definitely carve kachina dolls [in the time] before summer; around that time the whites are looking for them.’

- (2) *wuwtsimu-y a-ng-qe' haki-m songqa*
 Wuwtsim-ACC it-at-INDEF someone-PL most
 ceremony DIF likely

tuu-tuy-toti-ngwu
 RDP-sickness-R-HAB
 be sick PL

‘Around the time of Wuwtsim people are very likely to get sick.’

1.3.3.3.3 *pangqe'* ‘there (DIF) somewhere’
 The deictically distal space adverbial *pangqe'* points metaphorically at an interval of time which has vague or approximate demarcation points in the mind of the speaker. The temporal referent area of the pro-form is either the past (1) or the future (2).

- (1) *pay hi-sa-t haki-m pa-ng-qe'*
 INTR some-QNT-time someone-PL there-at-INDEF
 long ago DIF

kivàa-pa hii-hiita na-nawin-ya-ngwu
 kiva-at RDP-something RDP-plan-PL-HAB
 DIF ACC

pay a-w=haqa-mi umu-y niutay-yungw-ni
 ASSR REF-to=INDEF-to you-ACC wait-POSS-FUT
 PL PL

‘Because we are closing you in now [the idiomatic locution refers to the custom of a prospective kachina dance sponsor obliging a kachina group during a night dance to dance again at another time on the plaza] we will be waiting for you at that time.’

(2) *nu' ya-ngqw powamuya-t a-w=haqa-mi*
 I here-from Powamuy-ACC it-to=INDEF-to
 ceremony

tihu-law-manta-ni
 kachina-CONT-HAB-FUT
 doll

‘I will be carving kachina dolls from now till Powamuya.’

1.3.3.4.3 *pansohaqami* ‘(to) there somewhere’

The contemplated time goal of the demonstrative locator *panso* becomes more uncertain in conjunction with the unstressed modulator =*haqami*.

(1) *pa-nso=haqa-mi yaw puma totokya-y tavi-ya*
 there-to=INDEF-to QUOT those totokya-ACC put-PL
 day

‘Approximately for that time they set their Totokya [i.e., the day prior to the actual dance].’

1.3.3.4.4 *ayo'haqami* ‘(to) over there somewhere’

In accordance with the extreme-distal base *ayá-*, modulated destinative *ayó'* metaphorically denotes a future time goal which is not associated with a precise date but located in a rather large time frame. Note that in (1) the vagueness also affects the more specific time destination *tuho'osmi* which also receives the modulator clitic.

(1) *pay uma ay-o'=haqa-mi tuho'os-mi=haqa-mi*
 INTR you over-to=INDEF-to fall-to=INDEF-to
 PL there

pu' piw a-ngqw pòota-ni
 then again REF-from check-FUT

‘Come check again sometime in the future around fall.’

1.3.3.5 Modulated extreme-destinative forms

 1.3.3.5.1 *yúkyiqhaqami* '(to) here (EX) somewhere'

While the modulated extreme form *yúkyiqhaqami* matches its nonextreme counterpart in the approximate note conveyed by the clitic =*haqami*, it differs from it by the implication that the goal envisaged is at the end of an objectively longer time span.

- (1) *yú-kyi-q=haqa-mi pu' itàa-so*
 here-to-EX=INDEF-to now our-grandmother

hi-hi-n kwangwa-hì-n-ti
RDP-some-way good-some-way-R
 a little

'By this time our grandmother got a little better [i.e., after a long illness].'

 1.3.3.5.2 *aqwhaqami* 'to him (EX) somewhere/(to) there (EX) somewhere'

Both the adverbial and the postpositional function of spatial *aqwhaqami* are used metaphorically to indicate distant time goals. While the adverb usually aims at a time point vaguely located in the far future (1), the postposition transfers a specific spatial sense of *aqwhaqami* which implies 'as far as the eye reaches/as far as visible space extends.' Metaphorically this notion takes on the sense 'all the available time till' (2).

- (1) *noq pay oovi a-qw=haqa-mi tawvaya kya*
 and ASSR therefore REF-to=INDEF-to PN maybe
 SI EX

as qalaptu-qw uma a-ngqw tiimay-wis-ni
 IMPOT get-SUBR you REF-from watch-PREGR-FUT
 well DS PL dance PL

'And therefore you come to watch the dance at that time when Tawvaya may be well again.'

- (2) *mori-'uyis-ngaqw nimà-n-tikive-t a-qw=haqa-mi*
 bean-planting-from go-n-dance-ACC it-to=INDEF-to
 time home EX

tii-tikive-ni-ngwu
 RDP-dance-NEX-HAB

- (1) *ya-ngqa-qw pay um na'sas-law-ni*
 here-INDEF-from ASSR you prepare-CONT-FUT
 'Start getting things ready from about now on [i.e., ahead of time and not at the last minute].'

- (2) *um ya-ngqa-qw pay ko-k-'o-'oy-ni*
 you here-INDEF-from ASSR RDP-wood-RDP-put-FUT
 PL
 OBJ

taq tömö-l-mi-q su-ptu-ngwu
 because winter-to-EX quick-arrive-HAB

'Gather wood from now on because winter comes fast.'

1.3.3.6.2 *angqaqw* 'from him somewhere/from there somewhere'
 Modulated *angqaqw* is formed on the neutral referent base *a-*. In time expressions that feature *angqaqw* adverbially, it generally conveys the sense 'from way back in the past/since the beginning of time' (1-2). When the general context does not clarify the temporal reference, a specific event will be introduced to serve as reference point (3).

- (1) *a-ngqa-qw pi naat qa himu haqa-m*
 REF-INDEF-from FACT still NEG some somewhere-at
 being

pahaana-ni-ngwu
 white-NEX-HAB
 man

'Way back in the beginning there was no white man anywhere yet.'

- (2) *pay a-ngqa-qw kur itam naa-tsik-iw-ta*
 INTR REF-INDEF-from EV we RCPR-tear-STAT-IMPRF

'Since the beginning of time we have been divided [as a people].'

- (3) *nu' ahoy solaawa-vituu-qe a-ngqa-qw nu'*
 I back soldier-arrive-CAUSAL REF-INDEF-from I
 to SS

qa hi-sa-t tuu-tuya
 NEG some-QNT-time RDP-sickness
 be sick

'Since the time I returned home from military service I have not been sick at any time.'

When syntactically operating as postposition (4-5), metaphorical *angqaqw* translates 'all the time since.' The modulated form indicates, of course, that the antecedent time referent is far removed from the present time of the speaker.

- (4) *muuyawu-y qaatsi-ptu-qa-t*⁴¹ *a-ngqa-qw nu' qa*
 moon-ACC lie-R-REL-ACC it-INDEF-from I NEG
haqa-m tumala-y'-ta
 somewhere-at work-POSS-IMPRF

'All the time since the new moon I have not worked on anything [i.e., I was unemployed].'

- (5) *soyalangwu-y a-ngqa-qw nuva-yo-yoki*
 Soyal-ACC it-INDEF-from snow-RDP-rain
 ceremony

'It's been snowing all the time since Soyalangw.'

1.3.3.6.3 *pangqaqw* 'from there somewhere'

As in the case of proximal *yangqaqw*, the deictic nature of modulated *pangqaqw* contributes an emphatic moment to the content of the locator. In spatio-temporal application, the referent point from which the event originated is viewed as one located way back in the past.

- (1) *um pa-ngqa-qw pay i-t tumala-y'-ta?*
 you there-INDEF-from already this-ACC work-POSS-IMPRF

'Have you been working on this from that long ago?'

- (2) *naat itam sus-mòoti naa-mi pitu-t*
 still we SUPER-at RCPR-to arrive-PRIOR
 first SS

pa-ngqa-qw pay naa-kwatsi-m
 there-INDEF-from ASSR RCPR-friend-DL

'Ever since we first met we have been friends.'

- (3) *hopi pi yaw pay pa-ngqa-qw*
 PN FACT QUOT already there-INDEF-from

<i>powa-qa-t</i>	<i>tuwì-y'-ta</i>
transform-REL-ACC	practical-POSS-IMPRF
sorcerer	knowledge

‘Hopis have been familiar with sorcerers [and witches] since that time [in the distant past].’

1.3.3.6.4 *ayangqaqw* ‘from over there somewhere’

By means of extreme-distal *ayangqaqw* the speaker dates the origin of an event or state as far back as his memory will allow him to travel.

(1) *aya-ngqa-qw* *itàa-tsako-qatsi-y* *a-ngqa-qw*
 over-INDEF-from our-child-life-ACC it-INDEF-from
 there

<i>ima</i>	<i>ita-ngu-m</i>	<i>itamu-y</i>	<i>sòoso-k</i>	<i>hiita</i>
these	our-mother-PL	we-ACC	all-ACC	something
			INAN	ACC

<i>qa</i>	<i>a-n-yung-qa-t</i>	<i>meewa-n-wis-ngwu</i>
NEG	REF-way-IMPRF-REL-ACC	warn-n-PROGR-HAB
	right PL	PL

‘Way back, from our childhood on, these mothers of ours warn us not to do things that are not right.’

1.4 *Spatio-temporal metaphors in conjunction with the regular local case suffixes (nonmodulated and modulated)*

1.4.0 *Introduction*

As may be expected, nearly all of the seven regular case suffixes along with their variants are used as temporal metaphors. Table XII on p. 83 lists both the local case markers as well as their shapes when affected by modulation. Forms that are attested in conjunction with temporal bases are marked T. Examples featuring each of the tabulated case endings follow below. While no additional remarks are called for in regard to the presentation of the locative and ablative markers, the destinative markers map temporal distinctions that need to be described in more detail.

1.4.1 Punctive marker *-pe* 'in/on/at'

- (1) *pik-totok-pe puma naangwu-ta*
 piki-totokya-at those argument-CAUS
 day

'They quarreled on Piktotokya [i.e., two days before the dance].'

- (2) *pay sùupan tsu'-totok-pe=haqa-m puma*
 INTR seemingly rattlesnake-totokya-at=INDEF-at those
 ceremony day

ni-nma
 RDP-go
 home

'I thought that they returned home on the day before the Snake dance.'

1.4.2 Punctive marker variant *-ve* 'in/on/at'

- (1) *hopi-hi-n-tsak-pu-ve, mö'öng-hiita-'ewa-kw*
 PN-some-way-do-NR-at wedding-something-like-ACC
 ceremonial doing ACC ADJR

e-p haki-m sino-haq-tota-ngwu
 it-at someone-PL person-need-CAUS-HAB
 PL

'At a Hopi doing [for instance], at something like a wedding, one needs people [i.e., to assist].'

- (2) *pam anga-ktsin-tiki-ve=haqa-m ma-qhi*
 that long-kachina-dance-at=INDEF-at arm-break
 hair

'He broke his arm on the day when the Longhair kachinas were dancing.'

1.4.3 Extreme-punctive marker *-veq* 'in/on/at (EX)'

- (1) *yas tömöl-na-sa-ve-q itaa-'owa-ko*
 last winter-RCPR-QNT-at-EX our-stone-wood
 year middle coal

súlaw-ti
 empty-R

'Last year, in the middle of winter we ran out of coal.'

Table XII

CASE	REGULAR CASE SUFFIXES	MODULATED REGULAR CASE SUFFIXES
PUNCTIVE	-pe T -ve T	-pe=haqam T -ve=haqam T
EXTREME-PUNCTIVE	-peq	-pe=haq
DIFFUSIVE	-pa -va T	-pa=haqe' -va=haqe' T
EXTREME-DIFFUSIVE	-paqe -vaqe	-
DESTINATIVE	-mi T	-mi=haqami T
EXTREME-DESTINATIVE	-miq T	-miq=haqami T
ABLATIVE	-ngaqw T	-ngahaqa-qw T

1.4.4 Diffusive marker *-va* 'in/on/at (DIF)'

- (1) *tuho'os-va momòo-tsam-ti-num-ngwu*
 fall-in bee-take-IMPRF-CIRCUMGR-HAB
 DIF PL
 OBJ

'In fall one takes bees [i.e., honey] out [from the hives in the ground].'

- (2) *ason nu' paamuy-va=haq-e' tuwat i-ti-y*
 later I paamuya-in=INDEF-in in my-child-ACC
 month DIF DIF turn

lööqö-k-na-ni
 marry-k-CAUS-FUT

'Around [the month of] Paamuya it will be my turn to marry my child [i.e., take my daughter to the boy's house to initiate the wedding ritual].'

1.4.5 Destinative marker *-mi* 'to/toward'

When attached to a temporal stem, the regular local case suffix *-mi* is oriented exclusively toward the future. Two different time senses need to be distinguished when the nonextreme marker occurs. First, the suffix may aim exactly at the time goal that is embodied in the stem. This is generally the case with verbs like *tavi* 'he put it off/postponed it to (a point in time)' or *pitu* 'it came to (a point in time).'

- (1) *itam as se'el put e-ngem*
 we IMPOT this that she-for
 morning ACC

tavup-lalwa-ni-qw pay mihi-k-mi tavi
 quilt-CONT-FUT-SUBR ASSR night-k-to put
 PL DS

'We were going to make a quilt for her this morning, but she postponed it until tonight.'

- (2) *sen um taawa-na-sa-mi pitu-ni*
 DUB you sun-RCPR-QNT-to arrive-FUT
 middle

'I wonder if you can make it till noon [with the few cigarettes that you have left].'

In a subgroup of this content of temporal *-mi*, the time goal is considered the ‘beneficiary’ of a given action. Semantically this idea ‘for the benefit of a time point’ is best rendered with the preposition ‘for.’

- (3) *nu’ tiiki-mi nee-ngem puhu-tots-tuy’-ni*⁴²
 I dance-to I-for new-shoe-buy-FUT
 day

‘I’ll buy myself new shoes for the dance day.’

In a second group of examples featuring *-mi* in temporal extension, the contemplated time goal is not identical with that embodied in the stem. The destinative marker rather aims at a time that precedes the time point indicated in the stem. We will translate this temporal value with ‘before’ or ‘toward.’ In (4), therefore, *tapkimi* ‘toward early evening’ points at a time that lies before *tapki*, i.e., the point when it actually ‘gets evening.’ If for the sake of a comparison we assign *tapki* the clock equivalent of 5 p.m., the destinative form will refer to approximately 3 p.m.

- (4) *ason itam tapki-mi piw tu-tuqay-ni*
 later we early-to again RDP-listen-FUT
 evening learn

‘We’ll be learning again before it gets early evening.’

- (5) *nu’ talavay-mi tumala-y’-ta-ngwu*
 I in-to work-POSS-IMPRF-HAB
 morning

‘I generally work until early morning.’

- (6) *pay as tōngva-mi=haqa-mi pà-ng-qaw-t*
 INTR IMPOT midmorning-to=INDEF-to that-way-say-PRIOR
 SS

naat qa pitu
 still NEG arrive

‘He said he would come before midmorning but he has not come yet.’

1.4.6 Extreme-destinative marker *-miq* ‘to/toward (EX)’

In keeping with nonextreme *-mi*, the extreme-destinative case marker *-miq*, too, is future-oriented when used as spatio-temporal metaphor. Just as in strictly spatial contexts the extreme locator may be called for under condi-

tions of either extreme proximity or far distance, the temporal sense in turn may apply to a time goal close or distant in time. (1) and (2) illustrate both possibilities.

- (1) *tsu'-tiki-mi-q* *hàykya-l-ti*
 rattlesnake-dance-to-EX close-PASS-R
 'It got close to the Snake dance.'
- (2) *nu' yas-mi-q* *pas* *kyaa-wuwa-n-ta*
 I next-to-EX very incredible-think-n-IMPRF
 year
 'I'm thinking in terms of big plans for next year.'

The temporal content 'all the time through until' is captured by *-miq* in conjunction with the destinative quantifier term *pàasavo* 'to that length quantity.'

- (3) *talavay-ngahaqa-qw* *tapki-mi-q* *pàa-sa-vo*
 morning-INDEF-from early-to-EX that-QNT-to
 evening

yaw *pam* *pöva-'u-'ta*
 QUOT that wash-RDP-close
 'He's been damming up the wash all the time from morning till early evening.'

The final example presents *-miq* in conjunction with the modulator clitic =*haqami*.

- (4) *pas* *nu'* *tömöng-mi-q=haqa-mi* *paapu* *qa*
 very I winter-to-EX=INDEF-to progressively NEG

sùutaq'ew-a
 willing-PS
 'I definitely have no longing for winter anymore.'

1.4.7 Ablative marker *-ngaqw* 'from'

- (1) *sé'el-ngaqw* *pay* *nu'* *humita*
 early-from ASSR I shell
 morning corn
 'I've been shelling corn since early morning.'

Example (2) presents *-ngaqw* in modulated form *-ngahaqaqw*.

- (2) *powamuy-ngahaqa-qw pay nu' yàyna maalam-ta-qe*
 powamuya-INDEF-from ASSR I start clear-IMPRF-CAUSAL
 month field SS

'At the beginning of the month of Powamuya I started clearing a new field.'

1.5 Spatio-temporal metaphors in conjunction with postpositional suffixes

1.5.0 Introduction

In my analysis of the Hopi spatial orientation system I have assigned to those bound elements that carry the three main local functions of place, goal, and source the status of case inflections. Bound suffixal elements embodying spatial notions other than those just enumerated will be considered postpositional elements. Needless to say, a number of postpositional suffixes are exploited metaphorically to provide for time orientation. All of them occur on some type of pronominal element. Frequently this turns out to be the referent base *a-*, which figures in pronoun copy constructions of the third person singular. Locators featuring postpositional markers rather than case endings are a first subgroup of the nonprimary locator division. A second subgroup consisting of nonpronominal bases and attaching regular or irregular case endings will be presented in 1.6.

1.5.1 The postpositional element *-hoy* 'back'

The semantic value of *-hoy* may relate etymologically to that of the intransitive verb *hoyo* 'he moved.' If this tentative analysis holds, the overall meaning of *ahoy* 'back to' is a combination of the deictically neutral base *a-* 'the referred place there' and the bare stem *-hoy* endowed with the abstract content 'movement to.' Another, perhaps more likely connection, might exist, however, with the body part term *hòota* 'back.' While in a spatial sense the postposition also attaches to the reciprocal prefix *naa-* (see HR 5.9), only the form *ahoy* is used in spatio-temporal extension. Its function is that of a temporal adverb signifying 'back in time' in a directional, not a locative way.⁴³

- (1) *pay itam naat hi-sa-t-hiita a-hoy*
 INTR we still some-QNT-time-something it-back
 ancient ACC to

a-qw tay-wisa
 it-to look-PROGR
 EX PL

'We are still looking back at the old things [in our culture while living our modern lives].'

- (2) *kur um a-hoy wuuwa-ni hi-sa-t*
 EV you REF-back think-FUT which-QNT-time
 to when

sus-mòoti katsìn-ti-qa-y
 SUPER-at kachina-R-REL-ACC
 first

'Think back to when you first became a kachina [i.e., by participating as a masked dancer].'

Example (3) uses verbalized *ahoyya* as plural predicator in a saying that is commonly heard on the day of the winter solstice.

- (3) *tal'angw-mi-q itam á-hoy-ya*
 summer-to-EX we REF-back-PL
 to

'We're [going] back to summer.'

1.5.2 The postpositional element *-kpe* 'in place'

Spatially, the postpositional element *-kpe* approximates the semantic notions 'in place/substitute.' The morpheme *kpe*, which is considered somewhat archaic, combines with all the personal and reciprocal pro-prefixes. Sentences (1) and (2) exemplify aspects of its spatial value.

- (1) *pam yaw itàa-pava-y a-kpe totok-law-ni*
 that QUOT our-older-ACC he-in night-CONT-FUT
 brother place dance

'He will organize a night dance in place of our brother.'

- (2) *naa-na-kpe-tota*
 RDP-RCPR-in-CAUS
 place PL

'They passed it [i.e., clothing] on from one to the other.'

The temporal sense of *-kpe* is generally interpreted ‘before’ if the element occurs with personal pro-bases (3-4). In conjunction with reciprocal *na-* (PL *naana-*) the overall semantic reading is ‘in turns/in succession’ (5-7).

- (3) *pam inu-kpe a-ngk-lawu*
 that I-in REF-after-CONT
 place sponsor night dance

‘He sponsored the [post-Powamuy] night dance before me.’

- (4) *pam as mòoti höq-ni-qe-y wuuwa-n-kyangw*
 that IMPOT at harvest-FUT-REL-ACC think-n-SIMUL
 first SS
- iits uuya; pu’ nu’ a-ngk uy-kyangw pay*
 early plant then I he-after plant-SIMUL ASSR
 SS

a-kpe-ta
 he-in-CAUS
 place

‘Thinking of harvesting first he planted early; but then I who planted after him did it [i.e., harvested] before him.’

- (5) *itam ung na-kpe-ta-ni*
 we you RCPR-in-CAUS-FUT
 ACC place

‘We’ll take turns with you [i.e., to get you to your destination; first one spider woman will guide you and then another].’

- (6) *i-t tuuwaqatsi-t naa-na-kpe e-p*
 this-ACC earth-ACC RDP-RCPR-in it-at
 place

nukpana qatu
 evil live
 person

‘In the [course of the four] succeeding [Hopi] worlds evil people have been living.’

- (7) *puma na-y paasa-yat naa-na-kpe-ti-wisa*
 those father-ACC field-his RDP-RCPR-in-CAUS-PROGR
 ACC place PL

‘They are taking turns doing [i.e., planting] their father’s field.’

1.5.3 The postpositional element *-kw* 'with'

The bound element *-kw* attaches exclusively to the pronominal prefix *a-* and expresses the idea of instrumental 'with.' While this is not exactly a spatial notion, *akw* does occur in contexts of quantification. This abstract concept, which deals with physical entities in space, is evident in the following example:

- (1) A: *ung-ni-qw* *i'* *ye-p* *ko-ho-tövu*
 you-NEX-SUBR this here-at stick-ABS-glowing
ACC DS ashes
 in your opinion match
- suu-mi-nì-qe* *hìi-sa'?* B: *sonqe* *tsange'*
 one-to-NEX-CAUSAL which-QNT probably seven
SS NUM
- together
- A: *qa'é,* *suu-kw* *a-kw* *um* *qa* *sú-'àa-sa'*
 no one-ACC it-with you NEG exact-REF-QNT
NUM
- pà-ng-qawu;* *ná-nal-'u*
 that-way-say RCPR-four-PS
 eight

'In your opinion, how many matches are there together?' 'Probably seven.' 'No, you were off by one, [there are] eight.'

It is this type of context illustrated in (1) which serves as model for the quantification of time. All of my examples have a neologistic ring to them. The Hopi references to time units of minutes and months in (2) and (3) are, of course, products of the ever increasing linguistic acculturation with Anglo society. On the other hand (4) may constitute an indigenous pattern which served as model for analogical extension in (2) and (3).

- (2) *tsivot* *a-kw* *naat* *suu-kw* *qa* *a-qw* *pitu*
 five it-with still one-ACC NEG REF-to arrive
EX
- 'It's five minutes to one (NEO).'
- (3) *uma* *kii-ve-q* *naalõ-q* *muu-muyaw-tu-y* *a-kw*
 you village-at-EX four-ACC RDP-month-PL-ACC it-with
 PL

<i>qa</i>	<i>yàasangw-na-t</i>	<i>pay</i>	<i>waaya</i>
NEG	year-CAUS-PRIOR	ASSR	run
	SS		away

'You spent four months less than a year in the village before you ran off.'

(4) *nu' suu-kw taala-t a-kw kur pumu-y*
 I one-ACC day-ACC it-with EV those-ACC

<i>totokya-yamuy</i>	<i>qa</i>	<i>sú-'à-ng-qawu</i>
totokya-their	NEG	exact-REF-way-say
day	ACC	

'I was one day off in giving the correct date of their Totokya [i.e., the day before the actual ceremony].'

1.5.4 The postpositional element *-nawit* 'along'

On the basis of strictly synchronic data, I cannot comment with any certainty on the elements of the obviously complex formation of bound *-nawit* (see HR 5.17). Its spatial value 'along,' occasionally occurring with the pronominal third person copy *a-*, may, however, draw on the reflexive-reciprocal prefix *na-* and the directional suffix *-wi*⁴⁴ to bring about this content. *-t* may represent an originally oblique suffix that has lost its function in the frozen postposition, similar to the *-t* in the specifier marker *-wat*. Clues to solve the analytical make-up of *-nawit* must come from comparative data of other Uto-Aztecan daughters. Metaphorically, *-nawit* combines with stems constituting time units. It then takes on the meaning 'all through/during/all (time unit) long.' (1) illustrates this semantic force on the stem of a Hopi month, (2) on that of a season.

(1) *nu' paamuy-nawit pay qa nùutu-m-nii-qe*
 I paamuya-along ASSR NEG the-at-NEX-CAUSAL
 month others SS

<i>tuwat</i>	<i>kwew-'api-'iw-ta</i>
in	belt-useful-STAT-IMPRF
turn	

'Through the month of Paamuya I did not do anything with the others, instead I was busy working on belts.'

- (2) *pas pu' tal'angw-nawit a'ni yoo-yoki*
 very now summer-along a RDP-rain
 lot

'All through this summer it's been raining a great deal.'

Depending on the overall context in which the temporal unit distinguished by *-nawit* is embedded, the time stretch of the particular time unit may be interpreted as occurring just once as in (2) or constantly as in (3).

- (3) *nu' tal'angw-nawit sutsep hiita aniwna-ngwu*
 I summer-along always something grow-HAB
 ACC crop

'I always grow things in summer [i.e., every summer].'

Further instances featuring postpositional *-nawit* are listed without clarifying context.

- | | |
|--|--|
| <p>(4) <i>kyaamuy-nawit</i>
 kyaamuya-along
 month
 'through [the month of]
 Kyaamuya'</p> | <p>(5) <i>powamuy-nawit</i>
 powamuya-along
 month
 'through [the month of]
 Powamuya'</p> |
| <p>(6) <i>taawa-nawit</i>
 sun-along
 'all day long'</p> | <p>(7) <i>tookil-nawit</i>
 night-along
 'all through the night'</p> |
| <p>(8) <i>támöng-nawit</i>
 spring-along
 'during spring'</p> | <p>(9) <i>tuho'os-nawit</i>
 fall-along
 'during fall'</p> |
| <p>(10) <i>tömöl-nawit</i>
 winter-along
 'during winter'</p> | |

1.5.5 The postpositional element *-ngk* 'after'

The suffixal element *-ngk* occurs with the whole range of personal pronoun prefixes, the reciprocal component of reflexive-reciprocal *na-* (*naa-na-* for plural reciprocity), and the indefinite pronominal base *nüutu-* 'the others.' The spatial force of *-ngk*, which denotes 'after' in regard to a generally

moving referent, is used metaphorically to describe events or situations in sequence.⁴⁵ Its spatial counternotion ‘before,’ captured by the postpositional element *-pyeve*, also occurs spatio-temporally (see 1.5.8). In both cases, the feature of orientation is on a plane.

1.5.5.1 Pro-base *a-* ‘he/she/it’ and other personal pro-bases

Most prominent among the personal pronoun suffixes occurring with *-ngk* in temporal sense, is, of course, the third person singular pronoun copy *a-*. *Angk* is found in the role of a postposition (1-2) or an adverb (3). In the former it preferably occurs in the company of verbs of motion such as *pitu* ‘he arrived,’ *hàykylti* ‘he got closer,’ *hoyoyòyku* ‘he moved repetitively’ and *ngöyta* ‘he is pursuing it,’ verbs which are frequently used in temporal locutions.

- (1) *noq hi-sa-t yaw kur piw puma put*
 and some-QNT-time QUOT EV also those that
 SI ACC

su-kw a-ngk öki, tuva-pòo-pong-wehe-k-ya
 one-ACC it-after arrive nut-RDP-pick-spill-k-PL
 PL up go in group

yaw puma
 QUOT those

‘And one day they arrived at another such [event], they went on a communal pinyon nut gathering outing.’

- (2) *noq pe-p yaw puma saq-tiva-ni-qa-t*
 and there-at QUOT those ladder-dance-FUT-REL-ACC
 SI PL

a-ngk hàykyla-ya
 it-after get-PL
 closer

‘And there [in that village] they were getting close to the time where the ladder dance was going to take place.’

- (3) *ason tiikive-t qavong-va-qw pàa-sa-t pu’*
 later dance-ACC tomorrow-R-SUBR that-QNT-time then
 DS

suu-s tal-ngwu; qavong-va-qw pu’ löö-s
 one-times day-HAB tomorrow-R-SUBR then two-times
 DS

tal-ngwu; a-ngk pu' payi-s-tal-ngwu
 day-HAB it-after then three-times-day-HAB

'The day after the dance is the first day; the following day is the second day; then [comes] the third day.'

Adjectivalized by means of the specifier *-wa*, *angkwa* conveys the value 'following.'

(4) *powamuy-titso'-q a-ngk-wa-t muuyawu-y e-p*
 Powamuy-finish-SUBR REF-after-SPEC-ACC month-ACC it-at
 ritual dancing DS
 PL

pu' pàa-sa-t a-ngk-lalwa-ngwu
 then that-QNT-time REF-after-CONT-HAB
 PL
 hold night dances PL

'When Powamuya [i.e., the Bean dance] is over, then they hold night dances in the following month.'

Most of the verbal derivatives on the base *angk-* refer to the custom of holding kachina night dances immediately following the sacred Powamuy festivities. Contrary to the evening dances staged in January, which are sponsored by particular societies, those performed after the Bean festival may take place at the desire of any Hopi who is willing to assume certain spiritual and material responsibilities for the event.

(5) *mòoti paamuya pi-ni-qw pu' powamuy-ti-qw*
 at paamuya FACT-NEX-SUBR then powamuya-R-SUBR
 first month DS month DS

pu' a-ngk pu' pàasat ima piw naat
 then it-after then that these again still
 time

katsina-m a-ngk-lalwa-ngwu
 kachina-PL REF-after-CONT-HAB
 PL
 have night dances

'At first it is the month of Paamuya, then it gets to be Powamuya, and after that these kachinas hold night dances again.'

- (6) *pam put tuwat a-ngk-ta*⁴⁶
 that that in he-after-CAUS
 ACC turn put on night dance

‘He, in turn, sponsored a night dance after him.’

- (7) *pu’ pay löö-s a-ngk-ti-wa*
 now ASSR two-times REF-after-CAUS-PASS
 PERF

‘There have been night dances twice now.’

(8) and (9) are examples with *-angk* attaching to other than third person singular pronominal prefixes. Note that *amu-ngk* is used postpositionally with the third person plural copy *amu-*.

- (8) *pam pay inu-ngk pu’ put navoti-y’-va*
 that ASSR I-after then that hear-POSS-INCHO
 ACC know

‘He came to know that after me.’

- (9) *pam pay hi-sa-t-sin-mu-y qatsi-yamuy*
 that ASSR some-QNT-time-person-PL-ACC life-their
 ancient ACC

amu-ngk pu’ yàyn-iwa
 they-after then begin-PASS
 PERF

‘That was begun after the generations of the old people.’

The compound noun *a-ngk-’uyi* (REF-after-plant) ‘later plants’ generally refers to ‘late corn’ and is best understood in contrast to *moti-’uyi* (first-plant), the ‘first’ or ‘early corn.’

1.5.5.2 Pro-base *na-* ‘each other’

The element *-ngk* is temporally also attested with the reciprocal marker *na-* for simple reciprocity and reduplicated *naana-* for multiple reciprocity.

- (1) *pu’ löö-s na-ngk suyan taala*
 now two-times RCPR-after clear day

‘Two days in a row it has been clear now.’

- (2) *itàa-so-m haq na-ngk mooki*
 our-grandmother-DL far RCPR-after die

‘Our grandmothers died far apart [in time].’

- (3) *qa pas haki-m hi-ng-sa-p*
 NEG very someone-PL some-DIF-QNT-interval

naa-na-ngk ti-'o-'oy-ngwu
 RDP-RCPR-after child-RDP-put-HAB
 PL
 OBJ

‘People shouldn’t be having their children too close to each other [i.e., when planning a family].’

A variant of *-ngk* without the voiceless palatal plosive is *-ngw*. It attaches to *na-* with reciprocal force and is encountered solely in conjunction with reduplicated stems of the element *tša* ‘small.’ The semantic sum total of these elements expresses the idea of ‘always smaller/downward gradation.’ (4) demonstrates this sense in a nontemporal context, (5) metaphorically.

- (4) *nu' nà-ngw-tsa-tsa-kw tapàm-pi-t*
 I RCPR-after-RDP-small-size hammer-INSTR-ACC
 ACC

himù-y'-ta
 something-POSS-IMPRF

‘I have hammers, one always shorter than the other.’

- (5) *puma nà-ngw-tsa-tsa-kw-mu-y tí-mu-y'-ta*
 those RCPR-after-RDP-small-size-PL-ACC child-PL-POSS-IMPRF
 ACC

‘They have children one after the other in short intervals.’

1.5.5.3 Pro-base *nùutu-* ‘the others’

The morphemically complex prefix *nùutu-* signifying ‘the others,’ in the sense of all the ones in a social group distinct from the speaker or the person mentioned, is hard to break down analytically. I propose that it contains the element *tu* which functions in Hopi to indicate unspecified arguments. The prefix *tuu-* marks both unspecified human and nonhuman objects in Hopi, with only the former still productive. Among the three unspecified argument prefixes that Langacker reconstructs for Proto-Uto-Aztecan, he also lists **nu-*

with the value of marking unspecified human coreferential subjects (1976: 139). Whether the element *nu-* preceding *tu-* in *nùutu-* is a Hopi relic of this function as unspecified object marker will necessitate more comparative Uto-Aztecan data to clarify convincingly. *Nu-* could possibly also constitute a reflex of reciprocal *na-*. *Nùutu-* would then imply something like ‘to each other-unspecified human objects.’

Nùutu- combines with a number of case markers, among them the locative suffix *-m* (see HR fn. 148) and then translates ‘with the others,’ i.e., literally ‘where the unidentified others are.’ When suffixing *-ngk*, we get the spatial meaning ‘at the end of all the others/at the last one.’ In a temporal framework the adverb commonly translates ‘the last time/last.’ This sense may be used with a specified event (1-2) or in regard to a particular time unit (3-4).

- (1) *nùutu-ngk um yé-pe-q-nii-qe kur um*
 the-after you here-at-EX-NEX-CAUSAL EV you
others SS
 last time

ùu-pako-y sùutoki
 your-cottonwood-ACC forget

‘The last time you were here you forgot your cottonwood.’

- (2) *nùutu-ngk hiita um hi-ng-qaw-qw nu’ put*
 the-after something you some-way-say-SUBR I that
 others ACC DS ACC

a-w qa maa-matsi
 it-to NEG RDP-STEM
 understand

‘The last thing you said I did not understand.’

- (3) *nu’ nùutu-ngk mihi-k-qw-tiki-ve homol’o-ve*
 I the-after night-k-SUBR-dance-at PN-at
 others DS

‘At the last night dance I was in Winslow.’

- (4) *naat nu’ pu’ nùutu-ngk muuyawu-y e-p nee-ngem*
 still I now the-after month-ACC it-at I-for
 others

hovi-navan-tuy’-qw⁴⁷ pay piw tamö-’at poro
buttock-wrapping-buy-SUBR ASSR again knee-its become
 pants DS hole

‘Just last month I bought myself a pair of pants and already there is a hole at the knee again.’

By additionally affixing the superlative prefix *sus-* the form *susnùutungk* comes to mean ‘the very last.’

- (5) *hopi yaw katsina-wu-y sus-nùutu-ngk*
 PN QUOT kachina-ABSTR-ACC SUPER-the-after
 others

so'-tapna-ni
 end-CAUS-FUT

‘They say [i.e., according to a prophecy] the Hopis will cease [performing] their kachina rites as the very last [of all their ceremonies].’

- (6) *taala'=haqa-m nu' i-tupko-y a-w*
 in=INDEF-at I my-younger-ACC he-to
 summer brother

sus-nùutu-ngk yori
 SUPER-the-after see
 others

‘The very last time I saw my younger brother was about summer.’

Both *nùutungk* and *susnùutungk* may append further elements, for instance nominalizing *-qa* following their respective intervening connectives (7-8), the approximatizer clitic *=haqam* (9), or the causative marker *-ta* (10).

- (7) *yaw oovi puma yuku-ya, nùutu-ngk-ya-qa-m*
 QUOT therefore those finish-PL the-after-PL-REL-PL
 others

‘Therefore those that danced last, finished.’

- (8) *sus-nùutu-ngk-nii-qa taawi-'am pas nu-y*
 SUPER-the-after-NEX-REL song-their very I-ACC
 others

hi-n-tsa-na
 some-way-do-CAUS

‘Their last song did something to me [i.e., moved me].’

- (9) *pay pi sonqe tapki-qw nùutu-ngk=haqam*
 well FACT probably become-SUBR the-after=APPROX
 evening DS others

pu' ason uma a-w-ya-ni
 then later you REF-to-PL-FUT
 PL

'You will probably go there in the evening around the end [i.e., of the dance].'

- (10) *sus-nùutu-ngk-ta*
 SUPER-the-after-CAUS
 others

'He came in as the very last [in the race].'

To convey the notion 'at the very end/the very last' Hopi may also resort to the morphological device of reduplication.⁴⁸ While (11) is clearly used in a spatial sense, (12) has temporal implications.

- (11) *itam tiiva-qw nu' nu-nutu-ngk*
 we dance-SUBR I RDP-the-after
 PL DS others

'When we danced I was at the very end [of the line of dancers].'

- (12) *itam okiw pay nu-nutu-ngk wuuvi*
 we COMPASS ASSR RDP-the-after climb
 others up

'We came up [the mesa] as the very last.'

1.5.6 The postpositional element -p 'in/on/at'

Truncated -p is a variant shape of the locative punctual case marker -pe. It is attested in such spatial terms as *iip* 'outside,' *tup* 'at the base,' *hayp* 'close by,' *yaap* 'far away,' etc. While the temporal force of the latter two is illustrated in 1.6.3 and 1.6.13, respectively, the present subchapter is set aside to present the spatio-temporal force of *suup* and *sup*. Of the various case forms that make up the paradigms built on the base elements *suu-* 'one/one and the same' (see HR 6.4.0) and *su-* 'one of two or more' (see HR 6.4.1), only the nonextreme punctual locative forms occur in a temporal sense. Spatial *suup* may convey the two different meanings 'at one place' and 'at the same place,' only the latter, however, is used with temporal thrust. The locator then translates 'at the same time' (1). *Sup* 'at one of two or more places' combines with the semantic force of the specifier -wat and conveys the content 'at another time' (2).

- (1) *wuwtsim-t niqw tsuu-tsu'-t qa suu-p*
 Wuwtsim-PL and RDP-rattlesnake-PL NEG one-at
 initiate DS and
 same

hiita hi-n-tsa-tsk-ya-ngwu, puma pas
 something some-way-RDP-do-PL-HAB those very
 ACC

naa-p qeni-y'-yungwa
 REFL-at space-POSS-IMPRF
 own PL

'The [initiates of the] Wuwtsim and Snake [societies] are not doing anything [i.e., do not perform rituals] at the same time; they have their own time [slots].'

- (2) *pahaana-m pi ye-p-wat yàasangw-lalwa-ngwu*
 white-PL FACT here-at-SPEC year-CONT-HAB
 man PL

pu' hopii-t tuwat su-p-wat
 then PN-PL in one-at-SPEC
 turn of
 two

'White men are celebrating the [new] year at this time, the Hopis do it at another time.'

1.5.7 The postpositional element *-piy* 'away from'

The semantic content of the postpositional element *-piy* approximates the English notion 'away from' (see HR 5.21). It fuses directly with the pronominal base variants *yàa-*, *àa-*, *pàa-*, and *haqàa-*, all of which are distinguished by vowel lengthening and falling tone. With the exception of *haqàapiy*, whose spatial content 'from some indefinite point in space on' had not been encountered by the time HR went to press, the locators *yàapiy* 'from here on,' *àapiy* 'from there (neutral) on,' and *pàapiy* 'from there (distal) on' are all exemplified in HR.

1.5.7.1 *yàapiy* 'from here on'

The temporal sense of *yàapiy* translates 'from now on.' Occurring exclusively in adverbial function, it may either be used absolutely as in (1) or occur together with additional time expressions (2-3).

- (1) *yàa-piy pu' itam pas hi-n-wat-ni*
 here-away now we very some-way-SPEC-FUT
 from different

'From now on we'll do it completely differently.'

- (2) *yàa-piy hapi naalö-s taala-t e-pe-q*
 here-away EMPH four-times day-ACC it-at-EX
 from

nu' oovi tiikive-y'-ta-ni
 I therefore dance-POSS-IMPRF-FUT

'Four days from now I will therefore have a dance.'

- (3) *puma nu-y yàa-piy hi-sa-t songqa*
 those I-ACC here-away some-QNT-time probably
 from

niina-ya-ni
 kill-PL-FUT

'One of these days they will probably kill me.'

In conjunction with a specified day the pro-adverbial approximates the temporal sense 'this coming X/this next X.'

- (4) *ason um yàa-piy totok-pe mihi-k-qw pu'*
 later you here-away totokya-at night-k-SUBR then
 from day DS

um a-ngqw-ni piw-u
 you REF-from-FUT again-PS

'This coming Totokya at night come again!'

- (5) *ay-o'-wat santi-t e-p yaw hotvel-pe*
 over-to-SPEC week-ACC it-at QUOT PN-at
 there

totokya-ni, qa yàa-piy santi-t e-p-e'
 night-FUT NEG here-away week-ACC it-at-PS
 dance from

'There will be night dances in Hotvela next week, not this coming week (NEO).'

1.5.7.2 *àapiy* 'away from it'

Àapiy 'away from the referred place' draws metaphorically on the referent function of the pronominal copy *àa-* in both adverbial and postpositional constructions. English semantic equivalents for adverbial *àapiy* range from 'on/further' (1) and 'from then on' (2) to 'after' if the event alluded to immediately precedes the locator (3).

- (1) *ta-'á-y, àa-piy piw yu'a-'a-táa'*
 okay-P-EXCLM REF-away more talk-RDP-IMPRF
 M from IMP

'Okay, speak on!'

- (2) *àa-piy suu-kw yàasangw-va-qw pu' tuwat*
 REF-away one-ACC year-R-SUBR then in
 from DS turn
- paqap-sino-m naa-p kitsok-tota*
 PN-person-PL REFL-at village-CAUS
 own PL

'A year from then the people of Paaqavi built a village of their own.'

- (3) *pà-n-ti-qw àa-piy yaw qa wuuya-vo-tl-qw*
 that-way-R-SUBR REF-away QUOT NEG long-to-R-SUBR
 DS from DS
- pay puhu-na-wiuti-mu-y ti-'am mooki*
 ASSR new-RCPR-woman-DL-ACC child-their die
 couple

'After that event it didn't take long and the child of the newlywed couple died.'

In conjunction with the causative suffix *-ta* (PL *-tota*), *àapiy* expresses the general notion 'to continue.' The specific action that is to be continued will be apparent from the overall context. Thus, *àapiy. .yu'a'atáa'* in (1) could have been replaced by *àapiytáa'*. Another instance of this derivative is provided in (4).

- (4) *ya pay qa ya-n=haqam hi-n-ta-ni?*
 Q ASSR NEG this-way=APPROX some-way-IMPRF-FUT

sen itam piw àa-piy-ta-ni?
 DUB we again REF-away-CAUS-FUT
 from

‘Won’t this be about all or will we continue [with our work]?’

The final example illustrates *àapiy* in a pronoun copy construction.

(5) *soyalangwu-y àa-piy haki-m ma-maqa-ngwu*
 Soyal-ACC it-away someone-PL RDP-hunt-HAB
 ceremony from

‘After the Soyal ceremony people go on a [communal] hunt.’

1.5.7.3 *pàapiy* ‘from there on’

Pàapiy ‘from there on’ looks to a point in the past from which an event runs its course. Distal *pàa-* clearly adds emphatic coloration to the time reference.

(1) *pàa-sa-t pu’ uma ason pumu-y*
 that-QNT-time then you later those-ACC
 PL

tsöp-katsin-mu-y kiva-y a-qw suu-s-ya-qw
 antelope-kachina-PL-ACC kiva-ACC it-to one-times-PL-SUBR
 EX last time DS

pu’ pàa-piy uma amu-mum-ni
 then there-away you they-with-FUT
 from PL

‘At that time then, when you go into the kiva of those Antelope kachinas for the last time, from then on you will [go] with them.’

(2) *um pa-ngqw pitùu-qe pàa-piy hi-n-tsaki?*
 you there-from arrive-CAUSAL there-away which-way-do
 SS from

‘What were you doing from the time you arrived?’

1.5.7.4 *haqàapiy* ‘from some place on’

The pro-adverbial *haqàapiy*, featuring postpositional *-piy* on the extended indefinite base *haqàa-*, denotes ‘from some uncertain point in space on.’ An example with spatial implications is given in (1).

<i>okiw-hi-n-tsak-ngwu</i>		<i>qa</i>	<i>pas</i>	
COMPASS-some-way-do-HAB		NEG	very	
<i>tuwì-y'-ta-qe</i>		<i>nit</i>	<i>pu'</i>	<i>haqàa-piy</i>
practical-POSS-IMPRF-CAUSAL		and	then	some-away
knowledge	SS	PRIOR		from
<i>nu'</i>	<i>a-w</i>	<i>pavan</i>	<i>maa-mats-qe</i>	<i>pu'</i>
I	REF-to	strongly	RDP-understand-CAUSAL	then
			SS	
<i>pay</i>	<i>ngas'ew</i>	<i>hiita</i>	<i>loma-yuku-ngwu</i>	
now	at	something	beautiful-make-HAB	
	least	ACC		

'When I was first making jewelry I made [things] rather poorly because I didn't have the know-how, but then at some point later I really got the hang of it and now I produce at least some beautiful things.'

- (6) *pay yaw pa-n-kyangw pam a-mum qatu-kyangw*
 well QUOT that-way-SIMUL that he-with live-SIMUL
 SS SS

<i>haqàa-piy</i>	<i>pu'</i>	<i>pay</i>	<i>pas</i>	<i>wuko-vono-y'-va-qe</i>
some-away	then	ASSR	very	big-belly-POSS-INCHO-CAUSAL
from				SS

'In that way living with him from one point [in time] on she got to have a big belly [i.e., she became with child].'

The somewhat redundant expressions *yàapiy haqàapiy* 'from here on forth' and *pàapiy haqàapiy* 'from there on forth' are strongly emphatic.

- (7) *yàa-piy haqàa-piy um hàalay-ni*
 here-away some-away you happy-FUT
 from from

'From here on you be happy!'

- (8) *put pas-ve tsuu'a kuuki-qw pàa-piy*
 that field-at rattlesnake bite-SUBR there-away
 ACC DS from
- | | | | | | |
|------------------|------------|------------|------------|------------|-------------|
| <i>haqàa-piy</i> | <i>pu'</i> | <i>yaw</i> | <i>pay</i> | <i>pam</i> | <i>na-y</i> |
| some-away | then | QUOT | ASSR | that | father-ACC |
| from | | | | | |

qa á-mum-ni-ngwu
NEG he-with-NEX-HAB

‘After the rattlesnake bit him on the field, from that time on he did not go with his father [there any more].’

1.5.7.5 *-piy* in extended shape *-vìipiy*

By means of the intervening connective *-vii-*, the postpositional element *-piy* may extend its metaphorical force also to time locutions proper. Assigning to *-vii-* the noncommittal function of a connective is equivalent to an admission that I have no real clues as to its semantic content. Tentatively, I would posit it to be relatable to the spatial element *-vi* (see HR 5.38) and assign it the gloss ‘place.’ Evidence for this assumption may perhaps be seen in the nominal *piikya* ‘place/area,’ which I segmented as (area-NR) in HR 5.38.5. In compounds the latter occurs as *-viikya*. Due to the paucity of information, this connection with *-vi* must remain speculative. Examples are *taawanasap-vìipiy* ‘from noon on,’ *taavok-vìipiy* ‘from yesterday on,’ *sùutokihag-vìipiy* ‘from midnight on,’ *qaavo-vìipiy* ‘from tomorrow on,’ *löötok-vìipiy* ‘two days from now,’ and *yas-vìipiy* ‘from next year on.’ Contextual samples illustrating these time expressions may be found in connection with the description of the compound elements with which *-vìipiy* occurs.

Depending on the pronominal prefix that it attaches to, the nominalized sequence *-piyniika* (PL *-piyyaqam*) expresses the concept ‘one descended from’ (1-2). A variant of the semantic idea ‘blood offspring’ uses the suffix *-vi* ‘person associated with a certain place’ instead of the nominalizing sequence (3-4).

- | | |
|--|---|
| (1) <i>inùu-piy-nii-qa</i>
I-away-NEX-REL
from

‘my offspring’ | (2) <i>inùu-piy-ya-qa-m</i>
I-away-PL-REL-PL
from

‘my descendants’ |
| (3) <i>inùu-piy-vi</i>
I-away-person
from

‘my blood relative’ | (4) <i>itamùu-piy-vi</i>
we-away-person
from

‘our blood relative’ |

A most unusual and quite infrequent form is the compound expression *pangqwwìipiy*. It appends the extended shape of *-vìipiy* on the deictically distal ablative locator *pangqw*, which, as we saw in 1.2.3.6, may be used

spatio-temporally in the sense of 'from that point in time.' By attracting the redundant value of *-vii-piy* 'away from,' the resulting compound is shaded perhaps by a little more emphasis. Overall, however, the expression *pangqwwii-piy* 'from then on' must be characterized as redundant. Its function may be that of an adverb (5) or a postposition (6).

- (5) *puma pay pa-ngqw-vii-piy teevep*
 those ASSR there-from-place-away all
 (?) from day

töö-töq-ya-ngwu
 RDP-crow-PL-HAB

'From that time on they [i.e., the roosters] crow all day long.'

- (6) *tasap-katsin-titso'-qa-t pa-ngqw-vii-piy*
 Navajo-kachina-finish-REL-ACC there-from-place-away
 dancing (?) from
 PL

pay nu' pas sutsep tasap-mana-t tuumok-law-ngwu
 ASSR I very always Navajo-girl-ACC dream-CONT-HAB

'Since the end of the Navajo kachina dance I have been dreaming constantly of a Navajo girl.'

1.5.8 *The postpositional element -pyeve 'before'*

The element *-pyeve* is morphologically complex. We recognize the locative punctual suffix *-ve*; however, as to the remaining portion I have at this time no further analytic suggestions. Spatially, its semantic content 'before a (moving) object' contrasts with the bound element *-ngk* 'after a (moving) object' (see 1.5.5). Normally all personal pronoun prefixes are attested to combine with *-pyeve* (see HR 5.23); however, in temporal extension of the spatial sense only the third person singular base *a-* is used. While examples (1-3) provide the time sense 'before,' the interaction with a form of *niitungk* 'last' in (4) and (5) establishes the temporal denotation 'last but one.'⁵⁰

- (1) *pam put hihin a-pyeve tii-ti-wa*
 that that somewhat he-before child-CAUS-PASS
 ACC PERF

'He was born a little bit before him.'

- (2) *pu' i' masi-hatiko pam pay hihin*
 then this gray-lima that ASSR somewhat
 bean

a-pyeve piw tukwsi-ngwu
 REF-before also mature-HAB

'And then there is this gray lima bean, that matures a little bit earlier.'

- (3) *i-t kyaamuya-t a-pyeve-nii-qa kyelmuya*
 this-ACC kyaamuya-ACC it-before-NEX-REL kyelmuya
 month month

'The month preceding this Kyaamuya is Kyelmuya.'

- (4) *um niutu-ngk-nii-qa-t a-pyeve=haqa-m*
 you the-after-NEX-REL-ACC REF-before=INDEF-at
others
 last

pee-na-qe sumataq pa-ng-qawu nu'
design-CAUS-CAUSAL CONJECT that-way-say I
 write SS

uu-mi-q-ni-qa-t
 you-to-EX-FUT-REL-ACC

'When you wrote your last but one letter, I think you said that I should come to you.'

- (5) *nu' put niutu-ngk tiikive-t a-pyeve-nii-qa-t*
 I that the-after dance-ACC it-before-NEX-REL-ACC
 ACC others
 last

e-p pas kwangwa-'ew-ta
 it-at very pleasant-ADVR-CAUS

'On that last but one dance I really enjoyed myself.'

1.6 Spatio-temporal metaphors in conjunction with nonprimary locators

1.6.0 Introduction

In 1.2 I defined primary locators as those occurring on strictly pronominal

bases and carrying the fundamental orientational loads of place, goal, and source. In addition to pronominally proximal *ya-*, neutral *a-*, distal *pa-*, and extreme-distal *ayá-*, the Hopi locator inventory contains many forms built on or around nonpronominal bases. These are termed ‘nonprimary’ here because semantically they do not express the basic deictic concepts of ‘here,’ ‘there,’ and ‘over there.’ While still committed to the central space configurations of location, destination, and origin – no locator can escape these reality constraints – they distinguish themselves by catering to spatial orientation details of a more eccentric nature.

In HR 5 I have surveyed most of the nonprimary locators that can be accounted for in the Hopi language of today. As is to be expected, a rather significant portion of them permit their semantic force to be transferred metaphorically. Some of the nonprimary locators were already dealt with in 1.5. Those remaining will be presented in the following subsections. Their respective stems are introduced in alphabetical order. The majority of the stems are morphemically monosyllabic, a few are complex. All of them terminate in case endings that may be assigned to either the regular or the irregular kind.

1.6.1 *The locator element àasu- ‘all the way’*

The stem *àasu-*, tentatively decomposed here as containing the pronominal third person singular prefix *àa-* and the element *su-* ‘direct/straight/just,’ combines with *-poq*, an irregular marker of the extreme-destinative. The overall spatial denotation of *àasupoq* ‘(to) all over an area/as far as the eye can reach’ is used metaphorically in the temporal sense ‘all through a time span.’ Contextual clues will signify how far-reaching this time span is to be conceived. My data reveal that the locator is accompanied in all temporal instances by the intensifier *pas* ‘very.’

- (1) *nu’ tooki pas àasu-po-q puuwi*
 I last very all-to-EX sleep
 night the
 way

‘Last night I slept right through.’

- (2) *pam pay pas àasu-po-q kivàa-pe puu-vuwi*
 that ASSR very all-to-EX kiva-at RDP-sleep
 the
 way

‘He sleeps in the kiva every night [i.e., until the ceremony is over].’

- (3) *ya pay sen i' pas àasu-po-q ya-n-ta-ni?*
 Q ASSR DUB this very all-to-EX this-way-IMPRF-FUT
 the
 way

'Will he be like that forever [i.e., all through his life]?'

1.6.2 The locator element *ha-* 'far'

In HR 4.2.1.1 I have shown that Hopi possesses a petrified locative adverbial *haq* 'at a point far away,' whose likely components are the indefinite base *ha-* and the punctual extreme suffix *-q*. Already in 1.3.0 of this monograph I have argued that the spatial term *haq* cannot be part of the interrogative-indefinite paradigm because a question in regard to the extreme location of a space occupant would prove nonsensical. Only the response to interrogative *haqam* 'where?' or *haqe* 'where (DIF)?,' both of which are noncommittal in respect to extreme conditions, will disclose this information. The same holds for an indefinite statement with *haq* along the lines of 'at some indefinite extreme point or area.' Vagueness about a location in general cannot turn specific in regard to the extreme concept. Although stressed *haq* does not qualify for inclusion in the interrogative-indefinite paradigm, we saw in 1.3.3 and 1.3.3.2 that it does participate in an indefinite locator system if it occurs clitically in the unstressed shape =*haq*. Adverbial *haq*, thus freed of any functional loads within the interrogative-indefinite system, is able to develop spatial sense of its own.

Its temporal extension signifies two quite different notions depending on whether *haq* cooccurs with the negator *qa* or not. In nonnegated sentences like (1) and (2) its temporal denotation is 'at a point far in time.' Note that in both examples *haq* figures as the predicator.

- (1) *naat pay a-qw haq-'a, qa pas*
 still ASSR REF-to far-PS NEG very
 EX

písoq-'iw-ta-'a
 busy-STAT-IMPRF-IMP

'It's still far [i.e., a long time] till then, don't be in such a hurry.'

- (2) *pay pu' pas hii-sa' yàasangwu-y a-ng pas*
 INTR now very some-QNT year-ACC it-at very
 NUM DIF

as haki-m siupan haq-ya-qw piw naat
 IMPOT someone-PL seemingly far-PL-SUBR again still
 DS

nuva-ti-ngwu
 snow-R-HAB

‘For an unspecified number of years it seems we were far [into the warm season] and then there was snow again.’

Syntactically combined in highly idiomatic locutions featuring forms of the intransitive verb *pitu* ‘he arrived,’ *haq* assists in conveying the durational value ‘it takes a long time.’

(3) *tsu-tsku-tu-y amu-mi ná-nakway'-ya-qw haq*
 RDP-clown-PL-ACC they-to RDP-bring-PL-SUBR far
 food DS

pítu-ngwu
 arrive-HAB

‘It takes a long time when they bring food to the clowns [i.e., during a kachina plaza dance].’

(4) *písoq-ti-'i, um haq pi-ptu-qa-t*
 busy-R-IMP you far RDP-arrive-REL-ACC

hi-n-tsak-ngwu
 some-way-do-HAB

‘Hurry, you are always taking a long time doing things!’

Haqti ‘it got to be far’ is a verbal derivative that may also occur with temporal value.

(5) *um hapi pavan nös-ni taq tál-ti-mi-q*
 you EMPH strongly eat-FUT because light-R-to-EX

haq-ti-ni
 far-R-FUT

‘Eat a lot because it will be long till it gets daylight.’

In conjunction with the negator *qa* the locator *haq* seems to have retained more of its original indefinite substratum. *Qa haq* normally translates ‘never ever/never at any time.’ It bears strong emphatic overtones and is relatively rare when compared with the more common locution *qa hisat* ‘never at any time.’

- (6) *nu' qa haq pe-pe-q nùutu-m*
 I NEG far there-at-EX the-at
 others

'Never at any time have I been there with the others.'

- (7) *nu-y qa haq hak naat hi-sa-t*
 I-ACC NEG far someone still some-QNT-time
*amàw-ta*⁵¹
 dance-CAUS
 partner

'Never yet has anyone danced with me as a partner [in a social dance].'

By attaching the connective element *ur*, *haq* may in turn fully participate in the orientational case system (see HR 5.6). With the base inherently indebted to the concept of extreme distance, the pertinent case inflections are accordingly all marked extreme. Sentence (8) exemplifies the directional goal form which seems to be the only one attested in spatio-temporal metaphorization.

- (8) *naat um haq'ur-mi-q qátu-ni oovi um*
 still you far-to-EX sit-FUT therefore you
tuu-vaas-ni
 UNSPEC-careful-FUT
 H
 OBJ

'You will still live long so be nice to everyone.'

1.6.3 The locator element *hay-* 'close'

The morpheme *hay-* denotes 'close by' and has its spatial counterpart in *yaa-* 'far.' Its existing locative case (see HR 5.7), which suffixes punctual *-p*, occurs in metaphorical transference. When nonmodulated, the temporal use of *hayp* seems to be linked with that of accompanying *nangk* (1). In connection with the clitic modulator =*haqam* it conveys the meaning 'recently' (2-3).

- (1) *puma hay-p na-ngk mooki*
 those close-at RCPR-after die

'They died close after one another.'

- (2) *nu' pu' hay-p=haqa-m tokotsi-t a-w yori*
 I now close-at=INDEF-at bobcat-ACC it-to look
 recently

'Recently I saw a bobcat.'

- (3) *pas pu' hay-p=haqa-m ùu-nōma puma pitu*
 very now close-at=INDEF-at your-wife those arrive
 recently your wife and company

'Quite recently your wife and company arrived.'

Nonextreme destinative *hàypo*, too, may submit to metaphorical usage. Sentence (4) is one of the many stock phrases that may be heard when a kachina father attends to the dancers. In (5) *hàypo* is embedded in a syntactically more complex construction in which the compound stem *mokhaypo-* suffixes the realized state marker *-ti*.

- (4) *hày-po pee-ti-y*
 close-to leave-R-EXCLM
 over M

'Only a short time is left [till the end of the ceremony].'

- (5) *pam mok-hay-po-ti*
 that die-close-to-R

'He is close to death.'

1.6.4 The locator element *-kwayngya-* 'behind'

Only in its nonextreme punctual form, whose ending is *-p*, does the element *-kwayngya-* 'in back of /behind' (see HR 5.12) submit to temporal application. Morphemically complex *-kwayngyap* attaches to all personal pronoun prefixes and usually places a certain event into the time period which begins 'after' that with which the person specified in the pro-prefixes is associated. English translations fare best when the temporal force of *-kwayngyap* is collapsed with one event and introduced with the subordinating conjunction 'after.'

- (1) *uma hii-sa-p inùu-kwayngya-p pitu?*
 you which-QNT-interval I-behind-at arrive
 PL

'How long after me did you arrive?'

- (2) *um àa-piy-ni-qw itam ùu-kwayngya-p tuwat*
 you REF-away-NEX-SUBR we you-behind-at in
 from DS turn

tookya
 sleep
 PL

‘After you left we went to bed.’

- (3) *itam pu’ hi-sa-t mop-yaha-to-q*
 we now some-QNT-time yucca-dig-PREGR-SUBR
 recently root up DS

itamùu-kwayngya-p kur hak itaa-ki-y
 we-behind-at EV someone our-house-ACC

a-w pákìi-qe sòoso-k hiita qö-qri⁵²
 it-to enter-CAUSAL all-ACC something RDP-stir
 SS ACC

‘After we recently went to dig up yucca roots, someone entered our house and messed everything up.’

1.6.5 The locator element *naasa-* ‘middle’

The stem *naasa-*, decomposing into the reciprocal constituent *naa-* and the morpheme *sa*, whose semantic content implies ‘amount/quantity’ (abbreviated gloss QNT), signifies ‘middle/half.’ Two locator forms of its inflectional paradigm, the locative and the destinative (see HR 5.15), are used with temporal force. As a rule, the inflected forms of *naasa-* combine with the stems of temporal units. Examples are:

- (1) *taawa-na-sa-mi*
 sun-RCPR-QNT-to
 middle
 ‘toward noon’
- (2) *tal’angw-na-sa-ve=haqa-m*
 summer-RCPR-QNT-at=INDEF-at
 middle
 ‘about the middle of summer’

- (3) *tömöl-na-sa-ve=ha-q*
 winter-RCPR-QNT-at=INDEF-at
 middle EX

'about the middle of winter'

Verbal compounds which contain *naasa-* are *naasaptu* 'it got full moon/middle of the month' and *nasaprüupa* 'it slipped past the half mark (of a time unit).' These two expressions will be presented in the discussion of their keywords *muuyaw* 'moon' (2.4.1) and *rüupa* 'it slipped past it' (1.10.13).

Examples with free case forms of *naasa-* demonstrate both the locative and destinative concept. Notice how the locators behave syntactically like postpositions in pronoun copy constructions. The number of anglicisms which feature the temporal notion 'middle/half' is remarkable (see also 1.10.8 (7)).

- (4) *i-t* *tal'angwu-y* *naa-sa-ve* *yaw* *hoote-m*
 this-ACC summer-ACC RCPR-QNT-at QUOT PN-PL
 middle

tiiva-ni
 dance-FUT
 PL

'They say that Hoote [kachinas] will dance in the middle of this summer.'

- (5) *ösömuya-t* *naa-sa-va=haq-e'* *pu'* *pam* *hapi*
 ösömuya-ACC RCPR-QNT-at=INDEF-at then that EMPH
 month middle DIF DIF

pay *pa-ng-qe'* *támöng-mi* *pítu-ngwu*
 ASSR there-at-INDEF spring-to arrive-HAB
 DIF

'Around the middle of the month of Ösömuya, at that time approximately it comes to springtime.'

- (6) *taawa-t* *naat* *qa* *naa-sa-mi* *pitu-qw*
 sun-ACC still NEG RCPR-QNT-to arrive-SUBR
 middle DS

pay *itam* *noo-nova*
 already we RDP-food
 be eating PL

'It was not noon yet and we were already eating.'

- (7) *nu' i-t pahan-muyawu-y naa-sa-mi-q*
 I this-ACC white-month-ACC RCPR-QNT-to-EX
 man middle

paa-sa-vo tumala-y'-ta-ni
 that-QNT-to work-POSS-IMPRF-FUT

'I will work until the middle of the white [calendar] month.'

- (8) *hi-n pa tal'angwu-y naa-sa-mi-q*
 which-way SPECUL summer-ACC RCPR-QNT-to-EX
 middle

hi-n-ta-ni?
 which-way-IMPRF-FUT

'I wonder what it will be like by the middle of summer.'

1.6.6 The locator element *pe-* 'here'

In HR 1.3.2.3 I pointed out that Whorf erred when he assigned the destinative form *pew* to the primary locator paradigm evolving around the proximal base *ya-* (1946:167). Not aware of the proper destinative form *yuk* (see Table IX), he was misled to fill the gap in the paradigm with *pew*, whose content like that of *yuk* is glossed '(to) here' by most Hopi speakers. Apart from the fact that the base *pe-* phonologically has nothing in common with the primary base *ya-*, there are subtle yet distinctive semantic differences between these two nonextreme destinatives (see HR 1.3.2.3.0). Recall that in 1.2.1.2 I characterized the temporal value of *yuk* as not really indicating the 'now-time' of the speaker. This task, however, is carried out by the destinative locators derived from the base *pe-*. In using nonextreme *pew* '(to) here/now' and its extreme complement *peqw* '(to) here (EX),' the speaker contemplates a time goal which is simultaneous with the time of his utterance. While *pew* is attested metaphorically both with and without modulation, *peqw* always seems to require the modulator clitic. The motivating factor for the indefinite clitic in (2) is the particle *siupan* 'I thought/was under the impression.' In (3) the modulator =*haqami* adds the sense 'all the time till' in a statement which is distinguished by overall vagueness due to the uncertain origin of the action.

- (1) *a-ng-sa-ki-s pe-w tsu'-titso'-qa-t*
REF-DIF-QNT-place-times here-to rattlesnake-finish-REL-ACC
 each time dancing
 PL

a-w pitu-qw itam tootim kwangw-to-toya-ngwu
it-to arrive-SUBR we boys pleasant-RDP-EFF-HAB
DS look forward PL

ngöytiw-ya-ni-k
chase-PL-FUT-COND
SS

'Every time when it comes to the end of the Snake dance, we boys look forward to playing the 'chasing game' [where boys carry a gift which girls in pursuit wrestle from them].'

- (2) *sùupan as nu' pe-w=haqa-mi pay*
seemingly IMPOT I here-to=INDEF-to ASSR

sonqe kii-yuku-ni
probably house-finish-FUT

'I had thought that by now I would probably finish the house.'

- (3) *hopli-t hí-sa-t-ngahaqa-qw uy-lalwa-qw*
PN-PL some-QNT-time-INDEF-from plant-CONT-SUBR
long ago PL DS

pe-qw=haqa-mi qa himu alöng-ti-qw
here-to=INDEF-to NEG something different-R-SUBR
EX DS

naat oovi itam uy-lalwa
still therefore we plant-CONT
PL

'Hopis have been planting since long ago and because nothing has changed until this time we are still planting.'

1.6.7 The locator element *qala-* 'edge/border'

Glosses for the stem *qala-* are 'edge' or 'borderline.' Occasionally Hopi speakers will use this stem to express the temporal notion 'last section.' Of the seven attested space forms that make up the *qala-* paradigm (see HR 5.24) only the extreme-destinative seems to qualify in this time sense.

- (1) *qala-vo-q nu' qa nàayongwa*
edge-to-EX I NEG like

'I didn't like the last part [of the story].'

- (2) *nu' uu-mi qala-vo-q-nii-qa-t su-'a-n*
 I you-to edge-to-EX-NEX-REL-ACC exact-REF-like
a-hoy aa-'awna-ni
 REF-back RDP-tell-FUT
 to

'I will tell you the last part [of the story] once more exactly like it is.'

Examples (1-2) were collected as spontaneous, that is nonelicited utterances. Surprisingly enough, however, many Hopi speakers reject a temporal usage of *qalavoq* and instead prefer the destinative nominal *so'ngwamiq* 'to the end' (see 1.9.3).

1.6.8 The locator element *suts-* 'other place'

The element *suts-*, possibly connected with the numeral base *suu-* 'one' (see HR 6.4.1), carries the approximate meaning 'one of two or more/other.' When linked with the spatial content inherent in the directional suffix *-vo*, the form denotes 'to another place.' Metaphorically *sutsvo* thus comes to mean 'to another time.'

- (1) *itàa-tokila-y kur qa a-w à-n-ti-ni niqw*
 our-time-ACC EV NEG REF-to REF-way-R-FUT and
 limit DS
oovi itam as suts-vo-wat tavi-ya-ni
 therefore we IMPOT other-to-SPEC put-PL-FUT
 place

'Our set date [for the undertaking] won't come about as planned and therefore we'll set it for another time.'

1.6.9 The locator element *-tpi-* 'below'

Locator forms with the nuclear constituent *tpi* may attach to any of the available pronominal prefixes. While nonextreme case markers occurring on the base convey the spatial content 'below,' extremely marked forms carry the value 'under' (see HR 5.32). As in the case of *-ts-* 'above,' its spatial counterpart on a vertical plane (see 1.6.10), the temporal sense of *-tpi-* is only attested in diffuse shape, in this case by attaching the irregular and very rare diffusive case marker *-k*. The morphemes *-ts-* and *-tpi-* are the only Hopi elements that represent a polarization of the vertical dimension for sequencing (before = below, after = above). Example (1) presents the temporal sense

‘ahead of someone/before’ in conjunction with the pro-prefix for the second person singular.

- (1) *pam sutsep inu-tpi-k hiita hi-n-tsak-ma*
 that always I-below-DIF something some-way-do-PROGR
 ACC

‘He always does something before I do it.’

An alternate approach to (1) is presented in (2) where the locator has been integrated into a verb form. Note that the causative marker *-ta* undergoes *i-ablaut* before progressive *-ma*.

- (2) *pam sutsep inu-tpi-k-ti-ma*
 that always I-below-DIF-CAUS-PROGR

‘He always does things before me.’

The remaining examples illustrate the pronominally differentiated sequence *-tpik* in conjunction with the causative marker *-ta*. (3) and (4) relate to the same situation with only the pronominal roles reversed. (5) employs the first person nonsingular pro-prefix.

- (3) *nu' as tooki tuu-tso-tsva-na-ni-qw*
 I IMPOT last UNSPEC-RDP-gather-CAUS-FUT-SUBR
 night H DS
 OBJ

pay pam inu-tpi-k-ta
 ASSR that I-below-DIF-CAUS

‘Last night I was going to get people together for a meeting, however, he beat me to it.’

- (4) *pam as tooki tuu-tso-tsva-na-ni-qw*
 that IMPOT last UNSPEC-RDP-gather-CAUS-FUT-SUBR
 night H DS
 OBJ

pay nu' a-tpi-k-ta
 ASSR I he-below-DIF-CAUS

‘Last night he was going to gather people for a meeting, however, I beat him to it.’

- (5) *itam as leenangw-va-mi qahavi-t*
 we IMPOT flute-spring-to willow-ACC

totok-lawu
 night-CONT
 dance

‘Then after his arrival Honhoya in turn sponsored a night dance.’

1.6.11 The locator element *-tsa-* ‘between’

The spatial content of the morpheme *tsa* is ‘space in between’ (see HR 5.34). Temporally, when prefixing the third person singular pronoun copy *àa-* and suffixing punctual locative *-ve*, *àatsave* refers to a period between two points of time and translates ‘at the time in between.’ It functions exclusively as an adverb in this role (1-2). *Amùutsave*, on the other hand, featuring *amùu-*, the pronominal prefix for third person dual or plural, can only occur postpositionally (3-4).

- (1) *itam haak àa-tsa-ve qa*
 we temporarily REF-between-at NEG

hi-n-tsa-tsk-ya-ni
 some-way-RDP-do-PL-FUT

‘In the in-between time we will temporarily not be doing anything.’

- (2) A: *ya katsina-m tiitso-’e’, ni-nm-e’*
 Q kachina-PL finish-COND RDP-go-COND
 dancing SS home SS
 PL

àa-tsa-ve hi-n-tsa-tsk-ya-ngwu?
 REF-between-at which-way-RDP-do-PL-HAB

B: *tsoo-tsong-ya-ngwu*
 RDP-smoke-PL-HAB

‘What are the kachinas doing in the in-between time, when they are through dancing and have returned home [i.e., have left the plaza to rest at their shrine before the next dance sequence]?’ ‘They smoke.’

- (3) *mori-’uyis nit nimàn-tikive-t amùu-tsa-ve*
 bean-planting and go-dance-ACC they-between-at
 time ACC home

tii-tikive-ni-ngwu
 RDP-dance-NEX-HAB

1.6.14 The locator element *yupqöy-* ‘beyond’

The compound base *yupqöy-* combines the morpheme *qöy*, whose spatial content I have characterized in HR 5.26 as approximating that of ‘separating side/barrier’ (abbreviated gloss: ‘side’), with *yup*, the vowel shortened punctive shape of *yuup* ‘far back in’ (see HR 5.41). The force of the combined elements, which spatially adds up to ‘far back on the other side,’ spatio-temporally comes to signify ‘way back in remote time.’ Inherently indefinite, the punctual locative *yupqöyve* suffixes in temporal reference the modulator clitic =*haqam* as a matter of course (1). By the same token, the ablative form in (2) assumes the modulated shape.

- (1) *pay yaw i' yu-p-qöy-ve=haqa-m*
 INTR QUOT this far-at-side-at=INDEF-at
 back

ya-n-ìw-ti
 this-way-STAT-R

‘This happened way in the remote past.’

- (2) *yu-p-qöy-ngahaqa-qw itàa-kwa-m uy-lalwa*
 far-at-side-INDEF-from our-grandfather-PL plant-CONT
 back PL

‘Our grandfathers have been planting since way back in time.’

1.6.15 The locator element *yuu-* ‘far back (in)’

The spatial content of the element *yuu-* implies ‘far in the rear of an area with three-dimensional contours’ (see HR 5.41). Metaphorically, the punctual locative is used to place an event ‘far back in the past’ (1). The nonextreme destinative, on the other hand, envisages goal time located far in the future (2). While the locators occurring on *yuu-* in (1) and (2) indicate a syntactical preference for postpositional construction, the modulated ablative form in (3) acts as an adverb of time.

- (1) *i' pay itàa-qatsi-y yuu-p ya-n-ìw-ti*
 this ASSR our-life-ACC far-at this-way-STAT-R
 back

‘This happened way before our time.’

- (2) *is uti, kur pi wuu-wuyo-m itàa-qatsi-y*
 oh surprise EV FACT RDP-old-PL our-life-ACC
 EXCLM

yuu-mo hi-n-ta-ni-qa-t pay
 far-to which-way-IMPRF-FUT-REL-ACC already
 back

hi-sa-t navoti-y'-yungwa
 some-QNT-time know-POSS-IMPRF
 long ago PL

'Gee, the old ones evidently had knowledge long ago of what our future life would be like.'

- (3) *i' pay pas yuu-pahaqa-qw*
 this already very far-INDEF-from
 back

yu'a-'a-ti-wa
 talk-RDP-IMPRF-PASS
 PERF

'This has been talked about from way back in the distant past.'

In addition to the temporal use of the 'pure' locator forms just exemplified, the content of the base element of *yuu-* is attested in a time expression based on directional *yuumo* in conjunction with the restrictive clitic =*sa* 'only.' The resulting adverbial expresses the spatial sense 'all along the way/straight on.' In a context which triggers its temporal meaning the adverb signifies 'all along (a period of time).'

- (4) *okiw nu' yuu-mo=sa qa hi-n-kyangw qátu-ni*
 COMPASS I far-to=only NEG some-way-SIMUL sit-FUT
 back healthy SS

'I pray that I may live healthy all my life.'

1.7 Spatio-temporal metaphors in conjunction with the quantifier morpheme *sa*

1.7.0 Introduction

Similar to the refined system of the pronominal locators, Hopi has developed a highly elaborate system of adverbials of which the element *sa* turns out to be the nuclear constituent. On an abstract level the morpheme *sa* embodies the content 'amount/quantity.' In HR 7 I have surveyed the morphological

and semantic ramifications of *sa* in connection with its possible bases and suffixes. With the exception of a few nominal stems and occasional verb stems, the quantifier *sa* occurs almost exclusively on pronominal elements. Three of the four pro-elements that may serve as bases for *sa* are of a deictic nature: proximal *yàa-*, neutral-referential *àa-*, and distal *pàa-*. The fourth pro-form is the interrogative-indefinite base, which takes on the shapes *hi-* and *hii-*. In addition to the third person singular prefix *àa-*, the pronominal base forms of the remaining persons, both in the singular and plural, are also attested occasionally to cooccur with *sa*. With temporal impact we further encounter the base *suu-* ‘one and the same’ as well as morphemically complex *sunàa-* ‘equal.’ Finally, we need to list *su’aw-* which we discussed in 1.2.2.4. It represents the sense of ‘measurable golden mean,’ i.e., a quantity which hangs in balance between the spatial extremes of ‘too little’ and ‘too much.’ Table XIII on p. 128 surveys the base elements (excluded are verbs and nouns) with which the quantifier *sa* is observed in temporal transfer. Note that base forms characterized as I are of a nondistributive nature, those characterized as II are of a distributive nature.

The elements which attach to *sa* suffixally display a variety of semantic domains. Their concepts are of a highly abstract nature – size, two-dimensional area, distance, height, liquid substance, etc. (see HR 7.0.0) – all of which permit some sort of quantification. In addition to the constituent *-t*, which is inherently temporal and signifies the notion ‘time point,’ all of the markers associated with the spatial domain appear, as may be expected, in spatio-temporal metaphors. Familiar to us by now is the irregular destinative marker *-vo* whose temporal value is ‘to a point in time.’ Final glottalization in conjunction with *sa* expresses the notion ‘number.’ Metaphorically, *sa* thus conveys the idea ‘numerical time quantity.’ Next there is the adjectival element *-va* indicating ‘length/stretch of time.’ Adverbial *-p*, which is related to the latter, embodies the temporally abstract notion ‘time interval.’ Finally we encounter adverbial *-q* which metaphorically conveys the idea ‘time extent.’ Table XIV on p. 129 lists the elements that are grafted on *sa* to differentiate various temporally quantifiable notions. The voluminous data pertaining to *sa* and its affixal constituents will be examined in the following subsections. Logistically we will proceed so that each marker which qualifies to denote time relationships in connection with *sa* will be exemplified with all the base elements that are attested to cooccur with *sa*. Our presentation will begin with glottalized *sa*’.

Table XIII

BASE TYPE	SEMANTIC FORCE	BASE I	GLOSS	BASE II	GLOSS
DEMONSTRATIVE PRO-BASES	PROXIMAL	<i>yàa-</i>	this	<i>yà-ng-</i> ⁵⁵	this-DIF
	REFERENTIAL/NEUTRAL	<i>àa-</i>	REF	<i>a-ng-</i>	REF-DIF
	DISTAL	<i>pàa-</i>	'that	<i>pà-ng-</i>	that-DIF
INTERROGATIVE- INDEFINITE PRO-BASES	INTERROGATIVE	<i>hii-/hi-</i>	which?	<i>hi-ng-</i>	which-DIF
	INDEFINITE	<i>hii-/hi-</i>	some/any	<i>hi-ng-</i>	some-DIF
PERSONAL PRO- BASES	FIRST PERSON SG	<i>inuu-</i>	I	<i>inu-ng-</i>	I-DIF
	SECOND PERSON SG	<i>uu-</i>	you	<i>u-ng-</i>	you-DIF
	THIRD PERSON SG	<i>àa-</i>	he/she/it	<i>a-ng-</i>	he/she/it-DIF
	FIRST PERSON PL	<i>itamuu-</i>	we	<i>itamu-ng-</i>	we-DIF
	SECOND PERSON PL	<i>umuu-</i>	you: PL	<i>umu-ng-</i>	you: PL-DIF
	THIRD PERSON PL	<i>amuu-</i>	they	<i>amu-ng-</i>	they-DIF
OTHER	'same'	<i>suu-</i>	one/same	<i>su-ng-</i>	same-DIF
	'equal/half'	<i>sí-nàa-</i>	same-RCPR	<i>su-nà-ng-</i>	same-RCPR-DIF
	'mean/good average'	<i>su-'a-w-</i>	just-REF-to	-	-

Table XIV

QUANTIFIER MORPHEME	GLOSS	SUFFIX	CONCEPT	GLOSS
<i>sa</i>	QNT	-'	number	NUM
<i>sa</i>	QNT	- <i>va</i>	length	length
<i>sa</i>	QNT	- <i>vo</i>	goal	to
<i>sa</i>	QNT	- <i>p</i>	interval	interval
<i>sa</i>	QNT	- <i>q</i>	extent	extent
<i>sa</i>	QNT	- <i>t</i>	time	time
<i>sa</i>	QNT	- <i>y</i>	size (3-DIM)	size

1.7.1 *The morpheme sequence -sa-'quantity-number'*⁵⁶

Whenever the idea 'quantity' is to be expressed without any of the differentiating morphemes capturing certain segments of spatial reality, the quantifier morpheme *sa* is realized phonetically with a postposed glottal stop. This glottal feature is retained in the presence of further attachments, such as the nexus element, clitics, etc. The spatial content of *sa* may be transferred directly to the temporal domain in the sense of 'amount of time.' The phonetic observation about final glottalization of *sa* holds, of course, also in the metaphorical framework. The following bases occur:

1.7.1.1 Referent base *àa-* 'REF/he/she/it'

The function of the referent base *àa-* is to relate a quantity alluded to in *sa*' to some other quantity which may either be deduced from the situational circumstances or may have an antecedent in the general context. The quantifier *àasa*' under such conditions translates as 'same/corresponding/proper quantity of time.'

- (1) *pam yaw piw put àa-sa' yàasangwu-y a-ng*
 that QUOT also that REF-QNT year-ACC it-at
 ACC NUM DIF
- qa tii-ta*
 NEG child-CAUS

'She, too, bore no children in the same amount of years.'

- (2) *po-pwamuy-t tokila-y qa àa-sa' a-qw-ya-qw*
 RDP-Powamuy-PL time-ACC NEG REF-QNT REF-to-PL-SUBR
 initiate limit NUM EX DS
 appropriate

sino-m put e-p mowa-wà-yku
 person-PL that it-on discuss-RDP-DISCONT
 ACC

'Because the [initiates] of the Powamuy [society] did not go the appropriate [i.e., full] length of their ceremonial time, people were talking about this.'

- (3) *hotvel-pe-q yaw löö-tok totokya-ni; ason*
 PN-at-EX QUOT two-night totokya-FUT later
 day

àa-sa' tal-qw pu' ítam-ni
 REF-QNT day-SUBR then we-FUT
 NUM DS

'In two days it will be Totokya [i.e., the day before a dance] in Hotvela; in the same amount of days we will [go].'

1.7.1.2 Distal base *pàa-* 'that'

Deictically distal *pàa-* retains its emphatic overtones when combining with the element *sa'*. *Pàasa'* thus points at an amount of time with which it syntactically stands in attributive construction.

- (1) *pàa-sa' taala-t a-ng ima wii-wimkya-m⁵⁷*
 that-QNT day-ACC it-at these RDP-society-PL
 NUM DIF initiate
ya-n ye-p kiva-y e-p tsova-l-ti-ni
 this-way here-at kiva-ACC it-at gather-PASS-R-FUT
 PL

'In that many days these society initiates will gather like this in their kiva here.'

- (2) *pàa-sa' taala-t a-qw um pas*
 that-QNT day-ACC it-to you very
 NUM EX

<i>qa</i>	<i>naa-tusi-ta-ni</i>	<i>qalaptu-ni-qa-y</i>
NEG	REFL-careful-CAUS-FUT	get-FUT-REL-ACC
exert oneself		well

'Give it a hard effort to get well by [the end of] that many days.'

1.7.1.3 Interrogative-indefinite base *hii-* 'which?/some'

Of the examples cited, (1) shows the base in interrogative function with the temporal value 'how much time?', (2-3) exemplify it in indefinite role with the content 'some time.' Note that indefinite quantities marked by *sa* are frequently to be interpreted as 'small/little.'

- (1) *pam hii-sa' taala-t a-ng*
 that which-QNT day-ACC it-at
 NUM DIF

na-pwal-kuy-va-ni?
 REFL-purify-emerge-R-FUT
 fast

'In how many days will he end his fasting [i.e., purification rites]?'

- (2) *hii-sa' yàasangwu-y e-p=haqa-m ura nu'*
 some-QNT year-ACC it-at=INDEF-at MEMO I
 NUM

peep mooki
 almost die

'A few years ago I almost died, as you may recall.'

Hopi H-questions cooccurring with the particle *pi* express ignorance on the part of the speaker. Note that unstressed =*haqam* adds a note of approximation to the quantifier.

- (3) *hii-sa'=haqa-m pi yàasangwu-y a-ng nu'*
 some-QNT=INDEF-at IGNOR year-ACC it-at I
 NUM DIF

tsoo-tsongo
 RDP-smoke

'I don't know how many years I have been smoking.'

1.7.2 The morpheme sequence *-sa-va* ‘quantity-length’

The spatial ingredients of the morpheme sequence *-sava* are ‘quantity’ and ‘length.’ Quantification of length may metaphorically be applied to time units or utterances that are either spoken or sung. The following bases are observed:

1.7.2.1 Proximal base *yàa-* ‘this’

- (1) *i’ puw-vits-tawi⁵⁸ yàa-sa-va*
 this sleep-get-song this-QNT-length

‘This lullaby is this long.’

- (2) *honàn-katsin-mu-y taawi-’am sutsep*
 badger-kachina-PL-ACC song-their always

ya-ng-sa-va-ni-ngwu
 this-DIF-QNT-length-NEX-HAB

‘The songs of the Badger kachinas are always this long.’

1.7.2.2 Referent base *àa-* ‘REF/he/she/it’

- (1) *i’ taawi mòoti-wa-t-nìi-qa-t qa àa-sa-va*
 this song first-SPEC-ACC-NEX-REL-ACC NEG it-QNT-length

‘This song is not as long as the first one.’

The plural referent base is *amùu-* if the antecedent is animate as in the following example.

- (2) *pay kya qa hìitu-wa-t honàn-katsin-mu-y*
 INTR maybe NEG being-SPEC-PL badger-kachina-PL-ACC
PL
 kachinas

amùu-sa-va-t taawi-y-’yungwu
 they-QNT-length-ACC song-POSS-IMPRF
 PL
 HAB

‘I do not think any kachinas have songs as long as those of the Badger kachinas.’

1.7.2.3 Distal base *pàa-* ‘that’

- (1) *pay qa hi-sa-t nu’ pàa-sa-va-t*
 INTR NEG any-QNT-time I that-QNT-length-ACC

haki-y *tùu-tuwuts-qa-t* *a-w* *tuuqay-ta*
 someone-ACC RDP-story-REL-ACC he-to listen-IMPRF
 narrate

‘I’ve never heard anyone telling such a long story.’

- (2) *pam* *pay* *pas* *sutsep* *pa-ng-sa-va-t*
 that ASSR very always that-DIF-QNT-length-ACC

yeewa-ta-ngwu
 new-CAUS-HAB
 song

‘He always composes songs of that length.’

1.7.2.4 Indefinite base *hii-* ‘some’

Indefinite *hìisava* is interpreted as ‘short.’ The corresponding plural form *hingsava* shows the diffuse pluralizer infix *ng*.

- (1) *pay* *nu’* *umu-mi* *hii-sa-va-t* *lavà-y-ti-ni*
 INTR I you-to some-QNT-length-ACC speech-do-FUT
 PL short

‘I’ll tell you something short [i.e., I’ll address you briefly].’

- (2) *um* *pay* *hii-ta* *hi-ng-sa-va-t*
 you ASSR something some-DIF-QNT-length-ACC
 ACC short PL

taw-law-ni
 song-CONT-FUT

‘Sing a few short songs.’

- (3) *pàa-sa-t* *hapi* *pu’* *pam* *meh* *i’* *taawa*
 that-QNT-time EMPH then that ATTENT this sun

hii-sa-va-ni-ngwu
 some-QNT-length-NEX-HAB
 short

‘At that time then, mind you, the sun [i.e., the days] is short.’

When appending the realized state marker *-ti*, stem final *-va* changes into *-p*.

- (4) *pu' i' taawa tuwat tōmō' hii-sa-p-ti-ngwu*
 then this sun in in some-QNT-length-R-HAB
 turn winter short

'In winter then the days [lit. the sun] get short again.'

The adjectival quantifier forms ending in *-va* can attach the diminutive suffix *-wya*. 'Diminutively short' in the sense of 'tiny' is illustrated in (5).

- (5) *i' tuuwutsi⁵⁹ pay hii-sa-va-wya*
 this story ASSR some-QNT-length-DIM
 short

'This story is extremely short.'

1.7.2.5 Base *sunàa-* 'equal'

The semantic total of the morpheme sequence *sunàa-* amounts to 'equal.' In combination with *-sava* 'quantity length' two objects are characterized as 'equally long/of the same length.'

- (1) *ima tuuwutsi-t pay qa su-nàa-sa-va-t*
 these story-DL ASSR NEG just-RCPR-QNT-length-DL
 equal

'These two stories are not equally long.'

1.7.2.6 Base *suu-* 'one/same'

Forms of *sa* combining with the base *suu-* express plural quantities only. *-sa* may either attach directly to *suu-* (1) or after 'pluralization' of the base by means of the diffuse marker *ng* (2).

- (1) *taala'-ni-qw tōmō' taawa qa suu-sa-va*
 in- NEX-SUBR in sun NEG same-QNT-length
 summer DS winter
 and

'The days [lit. the sun] are not of the same length in summer and in winter.'

- (2) *tuu-tuwutsi pay qa su-ng-sa-va-ni-ngwu*
 RDP-story ASSR NEG same-DIF-QNT-length-NEX-HAB

'Stories are not equally long.'

1.7.3 The morpheme sequence *-sa-vo* ‘quantity-goal’

The irregular destinative case ending *-vo* aims at the endpoint of a spatial or temporal dimension. Almost all prefixable bases listed in Table XIII are attested with the morpheme sequence *-savo*.

1.7.3.1 Proximal base *yàa-* ‘this’

- (1) *yàa-sa-vo um i-ki-y a-qw pa-pki-ni*
 this-QNT-to you my-house-ACC it-to RDP-enter-FUT
 EX

‘To this time you enter my house [i.e., don’t come into my house any more].’

- (2) *pay pi nu’ yu-k=haqa-mi tokil-ta*
 well FACT I here-to=INDEF-to time-CAUS
 limit

yàa-sa-vo-ni-qa-y
 this-QNT-to-FUT-REL-ACC

‘I set myself a deadline to do it until this time [and no longer].’

1.7.3.2 Referent base *àa-* ‘REF/he/she/it’

The referent base *àa-* alludes in *àsavo* to the end point of a time quantum that is considered ‘appropriate’ or ‘adequate’ for a certain action. (1) illustrates this sense for a single occurrence, (2) for many.

- (1) *nu’ qa àa-sa-vo puw-qe oovi qa*
 I NEG REF-QNT-to sleep-CAUSAL therefore NEG
 SS

puw-’öyi
 sleep-become
 satiated

‘Because I didn’t sleep for an adequate length of time I didn’t sleep my fill.’

- (2) *sùytsepngwat itam qa a-ng-sa-vo tumala-y’-yungwu*
 gradually we. NEG REF-DIF-QNT-to work-POSS-IMPRF
 PL
 HAB

‘Each time we work shorter hours.’

In reference to a third person, the adverb *àasavo* takes on the meaning ‘temporally ahead of someone/before someone.’ The same meaning holds in conjunction with the remaining personal pro-prefixes of which three are illustrated following the example in (3).

- (3) A: *ya naat ita-na qa pitu?* B: *qa'é*
 Q still our-father NEG arrive no
- A: *tuma tur pay àa-sa-vo-'o; ason*
 EXHRT PROPOS ASSR he-QNT-to-PS later
 IP
 NSG
- pit-e' itamu-ngk-ni*
 arrive-COND we-after-FUT
 SS

‘Hasn’t our father arrived yet?’ ‘No.’ ‘Well then, let’s [go] ahead of him; when he comes he can follow us.’

- (4) *pay pi uma inùu-sa-vo a-w-ni noq nu'*
 INTR FACT you I-QNT-to REF-to-FUT and I
 PL SI
- tuwat m̀doti tùm-tsok-ni*
 in at piki-place-FUT
 turn first stone on
 top

‘You [go] there ahead of me; I in turn will first go and make piki.’

- (5) *nu' pay ùu-sa-vo oovi itàa-sikwi-tpe-y*
 I ASSR you-QNT-to therefore our-meat-roast-ACC
- yaaha-ni*
 dig-FUT
 out

‘I will therefore dig out our meat roast [from the ground pit] ahead of you [i.e., while you do something else in the meantime].’

- (6) *oovi um pay itamùu-sa-vo a-hoy a-w-ni*
 therefore you right we-QNT-to REF-back REF-to-FUT
 now to

‘[Go] back there right now ahead of us.’

1.7.3.3 Distal base *pàa-* ‘that’

In examples (1-3) the demonstrative pro-adverbial *pàasavo* alludes to the endpoint of a time phase which can be determined from the overall context in which the sentence is uttered.

- (1) *son pi pas nu' pàa-sa-vo=haqam pe-pe-q*
 NEG FACT very I that-QNT-to=APPROX there-at-EX
 probably not

qátu-ni
 sit-FUT

‘I probably cannot stay there that long.’

- (2) *pàa-sa-vo pa-k-mu-muya-'a⁶⁰*
 that-QNT-to water-(?)-RDP-go-IMP
 weep

‘Don’t cry any longer! [lit. That far you cry!]

- (3) *nukpana mooky-e' pàa-sa-vo-ni-ngwu*
 evil die-COND that-QNT-to-NEX-HAB
 person SS

‘If an evil person [i.e., a witch] dies, [then] it is that long [that he lives, i.e., there is no afterlife expectation].’

The time span whose end point is envisaged may immediately precede *pàasavo*. Syntactically, *pàasavo* will then act as a postposition which entails marking the referent clause for accusative (4). An alternative syntactic pattern marks the referent action with the causal subordinator *-qe* for identical subject (5), which is replaced by the subordinating suffix *-qw* in case of nonidentical subjects (6).

- (4) *hi-sa-t uma sunat-ta-ni-qa-t pàa-sa-vo*
 which-QNT-time you twenty-CAUS-FUT-REL-ACC that-QNT-to
 when PL

nu' umu-mum ye-pe-q qátu-ni
 I you-with here-at-EX stay-FUT
 PL

‘Until you have completed your twenty days [i.e., mother and child during the puerperal period] I’ll stay here with you.’

- (5) *puma naa-qōy-ta pas sòosokmu-y qō-qya-qe*
 those RCPR-kill-IMPRF very all-ACC RDP-kill-CAUSAL
 PL AN PL SS
 OBJ OBJ
 engage in warfare

pàa-sa-vo-ya
 that-QNT-to-PL

‘They were warring until they had killed everybody.’

- (6) *pam teevep tihu-lawu pas put ma-mlatsi-'at*
 that all kachina-CONT very that RDP-finger-his
 day doll ACC

tuy-va-ya-qw pam pàa-sa-vo
 hurt-R-PL-SUBR that that-QNT-to
 DS

‘He carves all day until his fingers hurt.’

In case agreement with a time locution in the destinative *pàasavo* translates ‘until.’

- (7) *pay yaw pam taawa-na-sa-mi pàa-sa-vo*
 INTR QUOT that sun-RCPR-QNT-to that-QNT-to
 middle

maq-numa
 hunt-CIRCUMGR

‘He hunted around until noon.’

- (8) *tapki-mi-q pàa-sa-vo*
 early-to-EX that-QNT-to
 evening

‘until early evening’

- (9) *qavo-mi pàa-sa-vo*
 tomorrow-to that-QNT-to

‘until tomorrow’

- (10) *powamuy-mi pàa-sa-vo*
 Powamuy-to that-QNT-to
 ceremony

‘until Powamuya [i.e., the Bean dance ceremony]’

- (11) *yu-kyi-q paa-sa-vo*
 here-to-EX that-QNT-to

‘until this time’

According to Whorf one of the alternatives that Hopi uses to express the temporal notion ‘they stayed ten days’ is ‘they stayed until the eleventh day’ (Carroll 1956:140). As we will see in 7.2, a Hopi speaker has no difficulty in tabulating aggregates of time. The circumlocutory phrase suggested by Whorf, however, makes use of the distal adverbial *paa-sa-vo* as may be gathered from the final example.

- (12) *puma pakwt suu-kw siikya-y'-ta-qa-t*
 those ten one-ACC plus-POSS-IMPRF-REL-ACC
a-qw paa-sa-vo maqaptsi-y'-yungwa
 it-to that-QNT-to wait-POSS-IMPRF
 EX PL

‘They waited until the eleventh day.’

1.7.3.4 Interrogative-indefinite base *hii-* ‘which?/some’

The interrogative side of *hii-sa-vo* means ‘how long?’ (1-2), the indefinite aspect corresponds to our temporal locution ‘for some time/for a short time’ (3-4).

- (1) *pam hii-sa-vo pe-p ho-honaqa?*
 that which-QNT-to there-at RDP-STEM
 play

‘How long has he been playing there?’

The realized state suffix *-ti* may attach to interrogative *hii-sa-vo* without any intermediary connective.

- (2) *ya hii-sa-vo-ti nu' ye-pe-q qatu-qw?*
 Q which-QNT-to-R I here-at-EX stay-SUBR
 DS

‘How long has it been that I have been staying here?’

- (3) *pas pu' hii-sa-vo kwaa-kwangqat*
 very now some-QNT-to RDP-pleasantly
 warm

‘For some time now it’s been nice and warm.’

- (4) *nu'* *pay-ni-qa-t*⁶¹ *a-qw* *hii-sa-vo*
 I immediately-FUT-REL-ACC REF-to some-QNT-to
 go EX

pee-ti
 leave-R
 over

'Only a short time is left until my departure.'

Following the connective *-ni-* the priority suffix *-t* may occur.

- (5) *pam* *hii-sa-vo-ni-t* *pay* *aa-piy*
 that some-QNT-to-NEX-PRIOR ASSR REF-away
 SS from

'He stayed a little while and then left.'

Additional *naap* emphasizes the indefiniteness of the time phrase.

- (6) *pay* *naa-p* *hii-sa-vo* *puma* *pàytsin-tota-ngwu*⁶²
 INTR REFL-at some-QNT-to those clean-CAUS-HAB
 any spring PL

'They are cleaning the spring for whatever time [it may take].'

Hingsavo pluralizes both the indefinite (7) and interrogative (8) notion of *hii-savo*.

- (7) *pas* *katsina-m* *qa* *hi-ng-sa-vo* *ö-'ki*
 very kachina-PL NEG some-DIF-QNT-to RDP-arrive
 PL

'Kachinas are coming in short intervals [i.e., the intermissions between the dance performances are brief].'

- (8) *sen* *hisat-sino-m* *hi-ng-sa-vo=haqa-mi*
 DUB ancient-person-PL which-DIF-QNT-to=INDEF-to

yes-ngwu?
 live-HAB

'I wonder how long the ancient people used to live [i.e., what their life expectancy was].'

Using indefinite *hii-savo* as stem, various suffixes may attach to convey the idea 'in a little while.' Substantially all Hopi expressions with this content

constitute frozen temporal adverbial clauses distinguished by the different subject marker *-qw*. While (9) is straightforward, (10) and (11) contain intrusive elements for which I cannot offer any synchronic explanation. Older speakers prefer the form with intrusive *l* and characterize the phrase with *n* as *tsakolavayi*, i.e., ‘childish word.’ Younger generation speakers in turn label the term with *l* archaic.

- (9) *nu’ hii-sa-vo-ni-qw songqa puw-va-ni*
 I some-QNT-to-NEX-SUBR probably sleep-R-FUT
 DS

‘I will probably fall asleep in a little while.’

- (10) *hii-sa-vo-l-ti-qw itam noo-nova-ni*
 some-QNT-to-l-R-SUBR we RDP-food-FUT
 DS eat PL

‘We’ll be eating in a little while.’

- (11) *hii-sa-vo-n-ti-qw pu’ itam-ni*
 some-QNT-to-n-R-SUBR then we-FUT
 DS

‘We’ll [go] in a little while.’

Pronominal destinative forms with *-savo* may also attach the diminutive suffix *-wya*. As the diphthong **ow* is phonologically not permitted in the Third Mesa dialect, the initial glide of *-wya* is deleted and falling tone added to the final vowel in *-savo* in its stead. Note that the attenuation renders the forms adjectival, which in turn enables it to affix the accusative marker *-t* as in (12). Semantically, diminutive *hiisavòoya*, which is presented here spatio-metaphorically, implies shorter duration than nonattenuated *hiisavo*.

- (12) *is uti, um a-w nu’an hii-sa-vòo-ya-t*
 oh surprise you REF-to IRREV some-QNT-to-DIM-ACC
 EXCLM

tumàl-ta-t pay yuku
 work-CAUS-PRIOR already finish
 SS

‘Gee, you just worked on it for a little while and are finished already.’

1.7.3.5 Base *súnàa*- ‘equal’

In conjunction with the morpheme sequence *-savo*, base *súnàa*- brings about

the semantic interpretation ‘to the same length of time’ (1). This notion is also pluralizable (2).

- (1) *itam sú-nàa-sa-vo tumala-y'-ta*
 we exact-RCPR-QNT-to work-POSS-IMPRF

‘We are working for exactly the same length of time.’

- (2) *itam taavok sú-na-ng-sa-vo tiiva*
 we yesterday exact-RCPR-DIF-QNT-to dance
 PL

‘We danced yesterday for exactly the same length of time.’

1.7.3.6 Base *suu-* ‘one/same’

- (1) *puma suu-sa-vo tumala-y'-yungwa*
 those same-QNT-to work-POSS-IMPRF
 PL

‘They have been working for the same length of time.’

- (2) *itam löö-tok su-ng-sa-vo tookya*
 we two-night same-DIF-QNT-to sleep
 PL

‘Two days ago we slept for the same length of time.’

1.7.3.7 Base *su'aw-* ‘mean’

The temporal meaning of *su'awsavo* may be rendered ‘to a good length of time.’

- (1) *pay nu' su-'a-w-sa-vo nùutay-ta-qw*
 INTR I just-REF-to-QNT-to wait-IMPRF-SUBR
 mean DS

pu' pitu
 then arrive

‘After I had been waiting for a good while he arrived.’

- (2) *pay yaw oovi su-'a-w-sa-vo-ti-qw*
 INTR QUOT therefore just-REF-to-QNT-to-R-SUBR
 mean DS

pay yaw pas ho-tski waya-yà-yku
 INTR QUOT very juniper-tree shake-RDP-DISCONT

‘When a good stretch of time had passed, the juniper tree started shaking.’

1.7.3.8 Verbal stems

Occasionally the morpheme sequence *-savo* will attach directly to a verbal stem. Note that all the stems are marked for future time.

- (1) *yupá, kur a-w-’ii’, pay puw-va-ni-sa-vo-ti*
 go EV REF-to-IMP already sleep-R-FUT-QNT-to-R
 on
 EXCLM

‘Go on, why don’t you go there, he should have fallen asleep by now.’

- (2) *pay pítu-ni-sa-vo-ti*
 already arrive-FUT-QNT-to-R

‘It got time for him to come.’

- (3) *um talavay-mi taalaw-va-ni-sa-vo pàa-sa-vo*
 you morning-to daylight-R-FUT-QNT-to that-QNT-to
wuni-ma-ni
stand-PROGR-FUT
 dance

‘Dance till the morning when it gets daylight.’

1.7.4 The morpheme sequence *-sa-p* ‘quantity-interval’

The content of the element *-p* is closely related to that of *-va*. Both markers deal with the spatial phenomenon of length. However, while we characterized *-va* as adjectival, *-p* is intrinsically adverbial. Rather than referring directly to the length of an object it focuses on the interval between two points in space (see HR 7.4). The same holds metaphorically. According to my data, no other base except *hii-* is attested with *-p* in both interrogative and indefinite role (1-2). Pluralization of *hii-sap* also occurs spatio-temporally.

- (1) A: *uma hii-sa-p inüu-kwayngya-p pitu?*
 you which-QNT-interval I-behind-at arrive
 PL

B: *pay pas hii-sa-p'o*
 INTR very some-QNT-interval-PS
 short

'In what interval [i.e., how much later] did you arrive behind me?' 'In a very short interval.'

(2) *puma pay hii-sa-p itamu-ngk öki*
 those ASSR some-QNT-interval we-after arrive
 small PL

'They arrived a little while after us.'

(3) *pu' itam hopii-t pas hi-ng-sa-p*
 now we PN-PL very some-DIF-QNT-interval
naa-na-ngk tiikive-y'-yungwu
 RDP-RCPR-after dance-POSS-IMPRF
 PL
 HAB

'Nowadays we Hopis have dances following each other in short intervals.'

1.7.5 The morpheme sequence *-sa-q* 'quantity-extent'

Spatial *-saq*, signifying 'nonmanipulable area/extent' (see HR 7.2) takes on a temporal sense that may be described as 'time amount.' From a functional point of view, *-saq* stands in the same relationship with *-saqa* as does *-sap* with *-sava*: the former are used adverbially, the latter adjectivally. Since all of the bases occurring with the morpheme sequence *-saq* contain the initial element *su-* 'one and the same,' the overall temporal meaning can be rendered as 'simultaneously.' This 'same-time' experience is restricted to animate subjects.

1.7.5.1 Personal pronoun bases

(1) *pam sü-'inüu-sa-q nakwsu*
 that same-I-QNT-extent start
 out

'He started out at the same time I did.'

- (2) *nu' put sú-'àa-sa-q yama*
 I that same-he-QNT-extent go
 ACC out

'I went out at the same time he did.'

This sentence is pluralized in (3).

- (3) *itam pumu-y sú-'amìu-sa-q nōnga*
 we those-ACC same-they-QNT-extent go
 out
 PL

'We went out at the same time as they.'

1.7.5.2 Base *súnàa*- 'equal'

- (1) *itam sú-nàa-sa-q mùnqa-ngaqw nima*
 we same-RCPR-QNT-extent PN-from go
 home

'We returned home from Munqapi at the same time.'

- (2) *itam sú-na-ng-sa-q noonova-ni*
 we same-RCPR-DIF-QNT-extent eat-FUT
 PL

'We will eat simultaneously.'

1.7.5.3 Base *suu*- 'one/same'

- (1) *itam suu-sa-q yu'a-'à-yku-ya*⁶³
 we same-QNT-extent talk-RDP-DISCONT-PL

'We started talking simultaneously.'

- (2) *uma paapu su-ng-sa-q yùutu-k-ni*
 you ADMON same-DIF-QNT-extent run-k-FUT
 PL PL

'Be sure you run off at the same time.'

1.7.6 The morpheme sequence *-sa-t* 'quantity-time'

Of all the suffixal elements listed in Table XIV, *-t* alone lacks a specifically spatial substratum. Its temporal force embodies the notion 'time point' which will simply be glossed 'time' here. The morpheme sequence *-sat* combines

with the third person singular pronoun bases *yàa-*, *àa-*, *pàa-*, the interrogative-indefinite base *hi-*, and occasionally with verb stems. Generating time adverbials, expressions featuring *-sat* occur with great frequency, not only as free forms but also as stems for numerous derivatives.

1.7.6.1 Proximal base *yàa-* ‘this’

Yàasat ‘at this time’ relates to events that typically take place at the time of the speaker’s utterance. Notice that the respective verb forms are marked by the habitual suffix *-ngwu* in (1-2).

- (1) *nu’ yàa-sa-t puw-to-ngwu*
I this-QNT-time sleep-PREGR-HAB

‘I usually go to bed at this time.’

- (2) *nu’ sutsep talavay sòo-so-vi-k uuyi-t*
I always in RDP-STEM-place-DIF plant-ACC
morning everywhere

màakwa-ngwu; pa-n-ni-qw oovi
sprinkle-HAB that-way-NEX-SUBR therefore
DS
for that reason

yàa-sa-t su-’its talavay uuyi-t a-ng
this-QNT-time direct-early in plant-ACC it-on
morning DIF

paa-tsöpölö-w-yungwu
water-ball-STAT-IMPRF
up PL
dew drop HAB

‘I always sprinkle the plants [with water] in the morning, wherever [they may be]; for that reason there is dew on the plants at this time, really early in the morning.’

Additional modulation of *yàasat* with the punctual indefinite clitic =*haqam* renders the time expression approximate.

- (3) *taavok yàa-sa-t=haqam pay nu’ tsöng-moki*
yesterday this-QNT-time=APPROX ASSR I hunger-die

‘Yesterday at about this time I got really hungry.’

Both modulated and nonmodulated forms may occur with the realized state suffix *-ti*.

- (4) *itam hàalay-kyàa-kyangw tapki-na-wis-ní-y;*
 we happy-RDP-SIMUL early-CAUS-PREGR-FUT-EXCLM
 SS evening PL M
- tsangaw pay yàa-sa-t=haqam-tí-y*
 glad already this-QNT-time=APPROX-R-EXCLM
 M

'We will be going towards evening [with] happy [hearts]; I am glad that it is already about this time of the day [i.e., this late].'

In conjunction with the suffixal sequence *-iwma* the inceptive phase of the temporal state 'at this time' is conveyed.

- (5) *ya pay piw yàa-sa-t-'iw-ma?*
 Q already again this-QNT-time-STAT-PROGR
- 'Is it getting this time [of the day] again?'

Adverbial *yàasat* also qualifies as a candidate for inflection with the regular destinative case ending *-mi*.

- (6) *suu-kw ya-n-ta-qa-t nu' tsoo-tsong-ngwu;*
 one-ACC this-way-STAT-REL-ACC I RDP-pipe-HAB
 smoke
- yàa-sa-t nu' a-qw hōta-qw qaavo*
 this-QNT-time I REF-to open-SUBR tomorrow
 EX DS
- yàa-sa-t-mi pay súlaw-ti-ngwu*
 this-QNT-time-to already empty-R-HAB

'One [pack] like this I usually smoke; when I open it at this time, it is generally empty by this time tomorrow.'

While the temporal content of *yàasat* applies to a time slot that is valid on a general, every day scale, *yàasatniqw*, a petrified adverbial clause, is restricted to the time frame of a specific day.

- (7) *nu' qa yàa-sa-t-ni-qw=haqa-m ung*
 I NEG this-QNT-time-NEX-SUBR=INDEF-at you
 DS ACC

tu-tuqay-na-t *way-num-to-ni*
RDP-listen-CAUS-PRIOR walk-CIRCUMGR-PREGR-FUT
teach SS

‘Instead of teaching you at this [odd] time I will go for a walk.’

An interesting derivative is *yàasattapna* which appends the bimorphemic causative marker *-tapna*. The resulting content is ‘he reached this time point.’

(8) *is uti, pas as um sé’el=haqa-m put*
oh surprise very IMPOT you this=INDEF-at that
 EXCLM morning ACC

a-w hi-n-tsak-t naat qa yuku-t
it-to some-way-do-PRIOR still NEG finish-PRIOR
 SS SS

nuwu yàa-sa-t-tapna
meanwhile this-QNT-time-CAUS

‘Gee, you were working on that early this morning, have not finished it and reached this time meanwhile.’

(9) *nu’ kur a’ni tuusu-y’-ta-qe oovi*
I EV a grass-POSS-IMPRF-CAUSAL therefore
 lot SS

pas yàa-sa-t-tapna
very this-QNT-time-CAUS

‘Because I have a lot of grass [i.e., to hoe], I made it to this time [i.e., had to work this long].’

1.7.6.2 Referent base *àa-* ‘REF/it’

Several semantic nuances are expressed when *-sat* attaches to the neutral demonstrative base *àa-*. First, the referential function of *àa-* in *àasat* may signify ‘at the same time as’ when an event is compared with a similar event in regard to its temporal occurrence. The event in question may be located in the past or the future.

(1) *pay nu’ àa-sa-t piw taa-tayi*
INTR I REF-QNT-time again RDP-STEM
 wake up

‘I woke up at the same time again.’

Note how the pronominal reference function of *àa-* forces the antecedent clause in (2) to be nominalized for the pronoun copy construction.

- (2) *ya wàl-pe-q pas mihi-k-qw-ya-ngwu sen pay*
 Q PN-at-EX very night-k-SUBR-PL-HAB DUB ASSR
 DS

hotvel-pe-nii-qa-t àa-sa-t-ya-ngwu?
 PN-at-NEX-REL-ACC it-QNT-time-PL-HAB

‘Do they do their night dances late at night in Walpi or at the same time as in Hotvela?’

Àasat may also be used to express a speaker’s subjective impression that time is at a standstill.

- (3) *pay sùupan naat àa-sa-t*
 INTR seemingly still REF-QNT-time

‘It seems to be still the same time.’

Another sense of *àasat* may be circumscribed as ‘at the proper/appropriate time.’

- (4) *pay itam pas sú-’àa-sa-t pitu*
 INTR we very just-REF-QNT-time arrive

‘We arrived just at the proper time.’

- (5) *ta’á-y, pay kya àa-sa-t=haqa-m-ti*
 okay-EXCLM ASSR maybe REF-QNT-time=INDEF-at-R
 M

‘Okay, I guess it’s about time [for the event to take place].’

In addition to the modulation clitic =*haqam* as in (5), the realized state suffix *-ti* (6-7), and the inchoative state sequence *-’iwma* (8) are found to attach to the adverbial.

- (6) *uma tok-wis-ni-qa-t àa-sa-t-ti*
 you sleep-PREGR-FUT-REL-ACC REF-QNT-time-R
 PL PL PL

‘It’s time for you to go to bed.’

- (7) *àa-sa-t-ti, tuma qe'-ti*
REF-QNT-time-R EXHRT NEG-R
IP stop
NSG

'Time is up, let's stop.'

- (8) *itam noonova-ni-qa-t àa-sa-t-'iw-ma*
we eat-FUT-REL-ACC it-QNT-time-STAT-PROGR
PL

'It's getting time for us to eat.'

When reference is made to a specific time of the day, *àasat* occurs in the petrified adverbial clause construction *àasatniqw*.

- (9) *pay nu' se'el piw àa-sa-t-ni-qw*
well I this again REF-QNT-time-NEX-SUBR
morning DS

taa-tayi taavok hi'-sa-t-ni-qw
RDP-STEM yesterday which-QNT-time-NEX-SUBR
awake DS

taa-tay-qa-y
RDP-STEM-REL-ACC
awake

'This morning I woke up again at the same time as I woke up yesterday.'

1.7.6.3 Distal base *pàa-* 'that'

The meaning of deictically distal *pàasat* 'at that time' is not restricted to the past (1) but may also point to the future (2).

- (1) *inu-mi pà-ng-qawu nu' itàa-ki-y a-w*
I-to that-way-say I our-house-ACC it-to
tsaqapta-yat kwis-to-ni-qa-t; pay nu'
dish-his fetch-PREGR-FUT-REL-ACC INTR I
ACC

pàa-sa-t a-w-'i
that-QNT-time REF-to-PS

'He told me to get his pottery dish at our house; so I [went] there at that time.'

- (2) *um qaavo ason qa ngas'ew suu-s*
 you tomorrow later NEG at one-times
 least
- tiimay-t pu' pàa-sa-t-ni*
 see-PRIOR then that-QNT-time-FUT
 dance SS

'You should see the dance tomorrow at least once and then [go].'

Prefixed *sùu-* 'exactly/just' emphasizes the cooccurrence of two events.

- (3) *pam aa-'as-qw sùu-pàa-sa-t kur*
 that RDP-wash-SUBR exact-that-QNT-time EV
 hair DS
- hak put s'ikisve-yat uu-'uyi*
 someone that car-his RDP-STEM
 ACC ACC steal

'Just when he was washing his hair, someone evidently stole his car.'

In narratives *pàasat* is frequently accompanied by the temporal particle *pu'* 'then.' It may either precede or follow the temporal adverb.

- (4) *pàa-sa-t pu' naa-löyö-m ma-man-t*
 that-QNT-time then RCPR-two-PL RDP-girl-PL
 four
- naa-nan'i'-vaqw*⁶⁴ *a-qw hong-va-ngwu; pu'*
 RCPR-two-from REF-to stand-R-HAB then
 sides EX PL
- pàa-sa-t taava-ngqw m'òoti a-qw maana*
 that-QNT-time west-from at REF-to girl
 first EX
- sami-t tuuva-ngwu*
 sweet-ACC throw-HAB
 corn

'At that time then four girls position themselves at the edge [of the ground oven] on all four sides; then the girl on the western edge is the first to throw sweet corn into [the pit].'

Derivatives using *pàasat* as stem occur with the realized state suffix *-ti* (5),

-*iwma* indicating the initial phase of a state (6), the destinative ending *-mi* (7), as well as with *-niqw* when the temporal force of *pàasat* is restricted to a specific ‘time of the day’ (8).

- (5) A: *ya hí-sa-t-ni-qw?* B: *pay taawa paki*
 Q which-QNT-time-NEX-SUBR INTR sun enter
 DS

A: *is uti, ya pay piw pàa-sa-t-ti?*
 oh surprise Q already again that-QNT-time-R
 EXCLM

‘What time is it?’ ‘The sun has set.’ ‘Gee, is it already that time again?’

- (6) *ya pay piw pàa-sa-t-iw-ma?*
 Q already again that-QNT-time-STAT-PROGR

‘Is it already getting that time again?’

- (7) *ngas'ew itam pàa-sa-t-mi pàa-sa-vo*
 at we that-QNT-time-to that-QNT-to
 least

nùutay-ta-ni
 wait-IMPRF-FUT

‘Let’s wait at least until that time.’

- (8) *pu' pa-ngqw pàa-sa-t-ni-qw=haqam*
 then there-from that-QNT-time-NEX-SUBR=APPROX
 DS

pay nakwsu, nuvatukya 'o-mi'
 ASSR start PN-to
 out

‘Then at approximately that time [of day] he started out toward Flagstaff.’

The final example presents *pàasat* in its pausal shape which attaches *u* preceded by a glottal stop.

- (9) *puma pay tu-nös-vongya-lalwa pàa-sa-t-'u*
 those ASSR UNSPEC-eat- spread-CONT that-QNT-time-PS
 OBJ meal out PL
 food

‘They were placing the food [on the ground] at that time.’

1.7.6.4 Interrogative-indefinite base *hi-* ‘which?/some’

The interrogative-indefinite base *hii-* loses both its length and tone features when combining prefixally with *-sat*. Both the interrogative and the indefinite force of the base are exploited temporally. In the role of an interrogative adverb, *hisat* translates ‘at what time?/when?’ and may inquire about past (1) or future events (2).

- (1) *um hi-sa-t tii-ti-wa?*
 you which-QNT-time child-CAUS-PASS
 PERF

‘When were you born?’

- (2) *um hi-sa-t pik-ta-ni?*
 you which-QNT-time piki-IMPRF-FUT

‘When will you make piki?’

Sentence (3) embeds an H-question. The adverbial introduces an interrogative clause which functions as the object of the main clause.

- (3) *pay nu' oovi kur hi-n pas*
 INTR I therefore EV some-way very
 cannot

sú-'à-ng-qaw-ni hi-sa-t itam
 exact-REF-way-say-FUT which-QNT-time we

sus-nùutu-ngk sipal-nö-nösa-qa-t
 SUPER-the-after peach-RDP-eat-REL-ACC
others meal
 last time

‘Therefore I cannot tell you exactly when we ate peaches the very last time.’

‘About/approximately when?’ is the value of the modulated form.

- (4) *hi-sa-t=haqa-m hak put nepna-to-ngwu?*
 which-QNT-time=INDEF-at someone that pick-PREGR-HAB
 ACC greens

‘About when does one go to pick those greens?’

With *hisat* becoming part of the petrified adverbial clause *hisatniqw*, the temporal nuance ‘what time of the day?’ is brought about.

(5) A: *uma qaavo piw a-ngqw-ni*
 you tomorrow again REF-from-FUT
 PL

B: *hi-sa-t-ni-qw-'ö?* A: *taawa-na-sa-ve-'e*
 which-QNT-time-NEX-SUBR-PS sun-RCPR-QNT-at-PS
 DS middle

'Come back again tomorrow.' 'What time?' 'At noon.'

The following dialogue excerpt exemplifies very nicely the contrastive implications of *hisat* 'when (at any time)?' and *hisatniqw* 'when (at the time of the same day)?'

(6) A: *um hi-sa-t a-ngqw-ni?*
 you which-QNT-time REF-from-FUT

B: *qaavo=haqa-m*
 tomorrow=INDEF-at

A: *hi-sa-t-ni-qw, taalö' sen mihi-k-qw?*
 which-QNT-time-NEX-SUBR during DUB night-k-SUBR
 DS daytime DS

'When will you come?' 'Sometime tomorrow.' 'At what time? During the day or at night?'

In the role of an indefinite adverb, the temporal implication of *hisat* again may relate to past time (7) or future time (8).

(7) *itam yaw hi-sa-t pe-pe=ha-q*
 we QUOT some-QNT-time there-at=INDEF-at
 EX

nönga-k-qw yaw itamu-mi i' hak màasaw
 come-k-SUBR QUOT we-to this someone PN
 out DS
 PL

pitu
 arrive

'Long ago when we emerged there at that place [from the underworld], someone [by the name of] Maasaw came to us.'

(8) *inu-mi pà-ng-qawu nu' yaw naat hi-sa-t*
 I-to that-way-say I QUOT still some-QNT-time

kya-hak-taqa-ni-w-ti-ni-qa-t
incredible-someone-man-CAUS-STAT-R-FUT-REL-ACC
 rich change into

'He told me that one day I would still become a rich man.'

In conjunction with durative verb forms *hisat* is to be interpreted 'a long time.'

(9) *nu' pay hi-sa-t tsoo-tsong-ngwu*
 I ASSR some-QNT-time RDP-pipe-HAB
 smoke

'I've been smoking for a long time.'

With additional =*haqam* the indefiniteness of the adverbial increases even further.

(10) *hi-sa-t=haqa-m naat sòo-so-ya-m oray-ve*
 some-QNT-time=INDEF-at still RDP-STEM-size-PL PN-at
 all AN

yes-ngwu-ni-qw qa ya-n qátsi-ni-ngwu
 sit-HAB-NEX-SUBR NEG this-way life-NEX-HAB
 PL DS

'Long ago when everyone was still living in Orayvi, life was not like this.'

In the following example *hisat* is modulated by =*haq*, the extreme pendant to =*haqam*. This form is extremely rare.

(11) *hi-sa-t=ha-q pam pe-p tsomo*
 some-QNT-time=INDEF-at that there-at hill
 EX

'That hill [has existed] there since long ago.'

The English semantic equivalent of negated *hisat* is 'never at any time.' Notice the factual negator *qa* in (12) which lacks the modal coloration of negative *son* 'cannot' in (13).

(12) *um hapi qa hi-sa-t pa-ngso-ni*
 you EMPH NEG some-QNT-time there-to-FUT

'By all means, don't ever [go] there.'

- (13) *son yaw oovi pam paapu hi-sa-t*
 NEG QUOT therefore that progressively some-QNT-time
puuya-l-ti-ni
 fly-PASS-R-FUT

'He was never ever going to be able to fly again.'

When paired with *naap* 'any/whatever you like,' the semantic thrust of the sentence conveys a possibility or probability with the temporal implications repressed. *Naap hisat* then translates the modal notion 'may' or 'might.' Finite verbs in such constructions are either marked for future or habitual aspect.

- (14) *sumats qaavo pam wüuti piw naat*
 good tomorrow that woman again still
 chance
tövu-kuy-to-ni, naap hi-sa-t
 glowing-water-PREG-FUT any some-QNT-time
coals might
 kerosene
nu-y qa yé-pe-q-ni-ni-qw
 I-ACC NEG here-at-EX-NEX-FUT-SUBR
 DS

'There is a good chance that that woman will come again tomorrow to get kerosene, but I might not be here.'

- (15) *pu' yaw naap hi-sa-t haki-y piw*
 then QUOT any some-QNT-time someone-ACC also
 might
yoo-yoyangwk-t mu'a-ya-ngwu
 RDP-rain-PL strike-PL-HAB

'The rains [i.e., lightning] might also strike someone.'

If the indefinite temporal notion is to prevail, reduplicated *naanap* 'just any/no matter what' is called for.

- (16) *hano-ki-ve-q pay naa-nap hi-sa-t*
 PN-house-at-EX ASSR RDP-any some-QNT-time

katsina pítu-ngwu
kachina arrive-HAB

‘At Hano a kachina may come just any time [of the year].’

The pausal ending of *hisat* is *o*.

(17) A: *um hi-sa-t put a-w sus-niutu-ngk*
you which-QNT-time that he-to SUPER-the-after
ACC others
last time

yorì? B: pay hí-sa-t-o
see INTR some-QNT-time-PS
long ago

‘When did you see him the very last time?’ ‘Long ago.’

In the following example *hisat* suffixes *-ti* to indicate the realization of a state.

(18) *pas hí-sa-t-ti-qw itam uu-mi qa yori*
very some-QNT-time-R-SUBR we you-to NEG see
DS

‘It’s a long time that we haven’t seen you.’

Indefinite *hisat* may also be inflected for destinative goal time. The regular extreme marker *-miq* may point both into the past (19) and into the future (20).

(19) *itaa-kwa-m hí-sa-t-mi-q=haqa-mi*
our-grandfather-PL some-QNT-time-to-EX=INDEF-to
hiita u’ni-y’-yungwu
something remember-POSS-IMPRF
ACC PL
HAB

‘Our grandfathers remember things long ago in the past.’

(20) *itaa-kwa-m hí-sa-t-mi-q pay*
our-grandfather-PL some-QNT-time-to-EX already

A reduplicated form of *hisat* is also attested. It carries the sense ‘in the old way/according to ancient custom.’

- (23) A: *itam pas⁶⁶ hi-hi-sa-t-ya-ni* B: *hiita?*
 we very RDP-some-QNT-time-PL-FUT what
 ACC
 A: *itam tutskwa-ve nöö-nösa-ni*
 we earth-at RDP-eat-FUT
 meal

‘We will do it in the really old style.’ ‘What?’ ‘We will eat on the floor [i.e., no tables and chairs will be used].’

In addition to the destinative suffix, the ablative in its regular shape occurs. As a rule it is modulated (25), but the nonmodulated variant is also attested.

- (24) *pay hí-sa-t-ngaqw i-t yu'a-'a-tota-ngwu*
 INTR some-QNT-time-from this-ACC talk-RDP-IMPRF-HAB
 PL
tseemoni yaw hopi-t a-n tuuqay-kyangw
 PN QUOT PN-ACC he-like speak-SIMUL
 SS
pe-w yáma-k-ni
 here-to come-k-FUT
 out

‘They have been talking about this since long ago that a German will come here [across the ocean] speaking like a Hopi.’

- (25) *itam hopii-t hí-sa-t-ngahaqa-qw paa-ngaqw*
 we PN-PL some-QNT-time-INDEF-from spring-from
kuy-'o-'oya-ya-ngwu
 water-RDP-place-PL-HAB
 PL
 OBJ

‘We Hopis have been carrying water from springs from time immemorial.’

By means of the specificator suffix *-wa* ‘one’ *hisat* may be adjectivalized. It then denotes ‘old/ancient’ and is generally said about inanimate things. Sentence (26) illustrates *hisatwa* in predicate position, (27) in attributive function.

(26) *sòo-so-y* *i'* *tuu-tuwutsi* *pas* *hí-sa-t-wa*
RDP-STEM-size this RDP-story very some-QNT-time-SPEC
all INAN ancient

'All these stories are very old.'

(27) *nu'* *hí-sa-t-wa-t* *mori-vosi-t* *pay*
I some-QNT-time-SPEC-ACC bean-seed-ACC ASSR
ancient

naa-p *suts-vo-q-wat* *tanga-ta*
REFL-at separate-to-EX-SPEC put-CAUS
place PL
OBJ
in

'I put the old beans in a separate [container].'

A similar meaning as that of *hisatwa* adheres to the form *hisatwavu* which differs from the former by attaching an additional nominalizer. Its semantic scope seems to be limited to things that can age.

(28) *nu'* *hí-sa-t-wa-vu-t* *humita-t* *tuwa*
I some-QNT-time-SPEC-NR-ACC corn-ACC find
kernel

'I found some old corn kernels.'

As the first element of compounds, *hisat-* meaning 'old/ancient' may combine with both animate (29-30) and inanimate nouns (31-35).

(29) *hi-sa-t-katsina*
some-QNT-time-kachina
'an old [type] kachina'

(30) *hi-sa-t-sino-m*⁶⁷
some-QNT-time-person-PL
'the old people [of long ago]'

(31) *hi-sa-t-himu*
some-QNT-time-something
'old things'

(32) *hi-sa-t-'itàa-ki*
some-QNT-time-our-house
'our old house'

(33) *hi-sa-t-kitsoki*
some-QNT-time-village
'an old village'

(34) *hi-sa-t-'orayep-lavayi*⁶⁸
some-QNT-time-PN-speech
'old Orayvi talk'

- (35) *hi-sa-t-tuwi*
 some-QNT-time-knowledge
 ‘old teachings’

1.7.6.5 Verb stems

The morpheme sequence *-sat* may attach directly to verb stems. The majority of my data illustrating this case reveals that *-sat* is then also followed by the realized state suffix *-ti*. Semantically, *-satti* establishes the content ‘the time is realized/has come.’ This notion applies, of course, to the event specified in the verb stem.

- (1) *pu’ antsa pay qavong-va-qw pay su-’its*
 then really ASSR tomorrow-R-SUBR ASSR direct-early
 DS
- talavay kuyva-n-sa-t pàa-sa-t=ha-m⁶⁹ pu’*
 in speak-n-QNT-time that-QNT-time=INDEF-at then
 morning morning
 prayer
- pam piw maana-y taa-tay-na*
 that again girl-ACC RDP-STEM-CAUS
 wake up

‘And then, indeed, the following day, very early in the morning at the time when one prays [to the sun], at that time then he woke up his daughter again.’

- (2) *huvam qe’ti, no-nop-sa-t-ti*
 EXHRT stop RDP-food-QNT-time-R
 2P eat PL
 NSG

‘Let’s quit, it’s time to eat.’

- (3) *pay ason hong-va-ni-sa-t-ti-qw pu’ nu’*
 well later stand-R-FUT-QNT-time-R-SUBR then I
 PL DS

kiva-mi-ni
 kiva-to-FUT

‘When it gets time to get into standing position [i.e., practice for the dance] I’ll go to the kiva.’

1.7.7 The morpheme sequence *-sa-y* 'quantity-size'

The spatial content of the element *-y* may be defined as 'three-dimensional size.' The morpheme sequence *-say* is attested to combine with all the prefix forms of the personal pronouns as well as with a number of verbal stems. In addition to the personal pro-prefixes listed in Table XIII, the vowel-shortened variant bases of these prefixes occur with the diffuse element *ng* which embodies the plural notion 'many.' In paradigmatic sequence the following bases are attested, with X representing the semantic content of *-say* 'big/old:': *inung-* 'many (subjects) as X as I,' *ung-* 'many (subjects) as X as you,' *ang-* 'many (subjects) as X as he/she/it,' *itamung-* 'many (subjects) as X as we,' *umung-* 'many (subjects) as X as you: PL,' *amung-* 'many (subjects) as X as they.'

Metaphorically, the spatial dimension 'size' takes on the temporal dimension 'age.' Table XV on p. 163 paradigmatically lists the existing forms in conjunction with the third person pronoun bases *a-* and *àa-*. Those marked [+AN] occur with the meaning 'age.'

1.7.7.1 Spatial usage of *-say*

Since *-say* was not included in HR a few examples may be called for to demonstrate its spatial value.

- (1) A: *pam yaw ung a'ni hi-n-tsa-n-ni*
 that QUOT you a some-way-do-CAUS-FUT
 ACC lot

B: *son pi-ni, pi qa inùu-sa-y taaqa*
 NEG FACT-FUT FACT NEG I-QNT-size man

'He said he was going to give it to you [i.e., beat you up].' 'Probably not, he [is] not a man of my size.'

- (2) *ya pay sú-'ùu-sa-y?*
 Q ASSR exact-you-QNT-size

'[Is] it just your size?'

- (3) *wàlpi hotvela-t qa àa-sa-y kitsoki*
 PN PN-ACC NEG it-QNT-size village

'As a village Walpi [is] not as big as Hotvela.'

Table XV

NUMBER	NOMINATIVE	MEANING	ACCUSATIVE
SG [± AN]	<i>àa-sa-y</i> REF-QNT-size	1. 'as big as he/she/it' 2. 'as old as he/she/it'	<i>àa-sa-kw</i> REF-QNT-size ACC
DL [+ AN]	<i>àa-sa-yo-m</i> REF-QNT-size-DL	'two (subjects) as old as he/she/it'	<i>àa-sa-kw-mu-y</i> REF-QNT-size-DL-ACC ACC
PL [- AN]	<i>a-ng-sa-y</i> REF-DIF-QNT-size	'many (subjects) as big as he/she/it'	<i>a-ng-sa-kw</i> REF-DIF-QNT-size ACC
PL [+ AN]	<i>a-ng-sa-yo-m</i> REF-DIF-QNT-size-PL	'many (subjects) as old as he/she/it'	<i>a-ng-sa-kw-mu-y</i> REF-DIF-QNT-size-PL-ACC ACC

- (4) *sòsoy i' napna sú-'inu-ng-sa-y*
 all this shirt exact-I-DIF-QNT-size
 INAN

'All these shirts [are] just my size.'

- (5) *nu' pumu-y amu-ngem yuwsit tu'i-qw*
 I those-ACC they-for clothes-ACC buy-SUBR
 DS

pay yaw amu-ng-sa-y
 well QUOT they-DIF-QNT-size

'I bought some clothes for them and they [were] the right size for them.'

1.7.7.2 Temporal usage of *-say* in conjunction with personal pronoun prefixes

- (1) *pam inìu-sa-y-'o*
 that I-QNT-size-PS

'He [is] as old as I.'

- (2) *puma inìu-sa-yo-m-'u*
 those I-QNT-size-DL-PS

'They [are] as old as I.'

- (3) *ya puma u-mum ho-honaq-qa-m ùu-sa-yo-m?*
 Q those you-with RDP-play-REL-DL you-QNT-size-DL

'[Are] those that are playing with you your age?'

- (4) *ya pay sòsoyam u-ng-sa-yo-m*
 Q well all you-DIF-QNT-size-PL
 AN

yungyap-tuwi-y'-yungwa?
 wicker-knowledge-POSS-IMPRF
 basket PL

'Do all [the women] that [are] your age know how to weave wicker baskets?'

- (7) *tii-ta-ni-sa-y-ti*
 child-CAUS-FUT-QNT-size-R
 ‘She’s old enough to bear children.’

1.8 *Spatio-temporal metaphors in conjunction with the quantifier morphemes *tsaa-* ‘small’ and *wuu-* ‘big’*

1.8.0 *Introduction*

The two antithetical notions contained in the Hopi morphemes *tsaa*⁷¹ and *wuu* can be said to express at their most abstract level the semantic values of ‘small/little amount’ and ‘big/large amount.’ For convenience’s sake the terms ‘small’ and ‘big’ will be employed in the interlinear glossing process. Both concepts are, of course, part of our spatial reality inventory. According to the dimension to be quantified, such contrastively paired notions as ‘long’ and ‘short,’ ‘high’ and ‘low,’ ‘heavy’ and ‘light,’ etc., are all indebted to the abstract denominator of ‘large’ and ‘little amount.’ While English provides individual stems for these distinct concepts, Hopi derives many of them from the quantifier elements *tsaa* and *wuu*. And just as English conceptualization of time owes many expressions to the quantifier lexemes, Hopi, too, displays considerable overlap of spatial and temporal terms stemming from this domain. Table XVI on p. 167 lists and defines all of the dimensional suffixes which occur with the two bases *tsaa* and *wuu* as well as their extended or shortened variants. Lexemes originating from the morphological combination of these elements may assume various syntactical roles. Those functioning as adjectives are listed with their respective accusative shapes. Forms that permit metaphorical extension in the time domain are marked T.

1.8.1 *The quantifier base *tsaa* ‘small’*

1.8.1.1 Suffix *-y* ‘size (3-DIM)’

In conjunction with the suffixal element *-y*, which denotes ‘three-dimensional size,’ base *tsaa-* and its vowel-shortened variant *tša-* produce forms that translate ‘small’ in spatial contexts. Metaphorically in reference to animate nouns, they capture the age concept ‘young/child.’ Table XVII summarizes the existing nominative and accusative forms for all three numbers. Those characterized [+ AN] will occur with the temporal content just noted.

Table XVI

STEM	SUFFIX	SUFFIX MEANING	LEXEME & MEANING	ACCUSATIVE FORM	COMPOUND STEM
<i>tsaa</i> - 'small'	-'	number	<i>tsaa</i> 'a small number'	<i>tsaa</i> '	-
<i>tsa</i> -/ <i>tsaa</i> -	-y T	size (3-DIM)	<i>tsay</i> 'small/young'	<i>tsaakw</i>	<i>tsako</i> -
<i>tsaa</i> -	-va T	length	<i>tsaava</i> 'short'	<i>tsaavat</i>	<i>tsava</i> -/ <i>tsaap</i> -
<i>tsaa</i> -	-qa	flat area (MANIP)	<i>tsaaqa</i> 'small'	<i>tsaaqat</i>	-
<i>tsaa</i> -	-q	flat area (NMANIP)	<i>tsaaq</i> 'small'	<i>tsaaq</i>	-
<i>tsaa</i> -	-q	liquid amount	<i>tsaaq</i> 'a little amount'	<i>tsaaq</i>	-
<i>tsaa</i> -	-vo T	goal	<i>tsaavo</i> 'for a short distance/time'	-	-
<i>wuuha</i> - 'large'	-q	amount	<i>wuuhaq</i> 'a large number'	<i>wuuhaq</i>	-
<i>wu</i> -/ <i>wuu</i> -	-y T	size (3-DIM)	<i>wuy</i> 'old'	<i>wuukw</i>	<i>wuyo</i> -
<i>wuu</i> -	-pa T	length	<i>wuupa</i> 'long'	<i>wuupat</i>	<i>wupa</i> -/ <i>wup</i> -
<i>wuuya</i> -	-qa	flat area (MANIP)	<i>wuuyaaqa</i> 'large'	<i>wuuyaaqat</i>	-
<i>wuuya</i> -	-q	flat area (NMANIP)	<i>wuuyaq</i> 'large'	<i>wuuyaq</i>	-
<i>wuuyo</i> -	-q T	amount	<i>wuuyooq</i> 'a large amount/ rather old'	<i>wuukoq</i>	<i>wuko</i> -
<i>wuuya</i> -	-vo T	goal	<i>wuuyavo</i> 'for a long distance/time'	-	-

Table XVII

NUMBER	NOMINATIVE	ACCUSATIVE
SG [± AN]	<i>tsa-y</i> small-size	<i>tsaa-kw</i> small-size ACC
DL [+ AN]	<i>tsaa-yo-m</i> ⁷² small-size-DL	<i>tsaa-kw-mu-y</i> small-size-DL-ACC ACC
DL [- AN]	<i>tsaa-tsa-y</i> RDP-small-size	<i>tsaa-tsa-kw</i> RDP-small-size ACC
PL [+ AN]	<i>tsaa-tsa-yo-m</i> RDP-small-size-PL	<i>tsaa-tsa-kw-mu-y</i> RDP-small-size-PL-ACC ACC

- (1) *hak put a-w pitu; hak wùuti nööma-yat*
 someone that he-to arrive someone woman wife-his
 ACC ACC

aa-pe tsa-y, piw aa-pe loma-wùuti
 she-on small-size also she-on beautiful-woman

‘Someone came towards him; it [was] a woman, younger than his wife and also more beautiful.’

- (2) *nu' hi-sa-t tsa-y-nii-qe sutsep*
 I some-QNT-time small-size-NEX-CAUSAL always
 SS

kyaamuy-va qötsvi-t qömà-y'-num-ngwu
 kyaamuya-in ashes-ACC face-POSS-CIRCUMGR-HAB
 month DIF paint

‘Long ago, when I was a young child, I always had ashes on my face when I walked about during the month of Kyaamuya.’

The form *tsayhoya*, featuring the diminutive marker *-hoya*, comes to mean ‘little child/baby.’ (3) demonstrates the term in accusative construction.

- (3) *hak tsaa-kw-hoya-t qàasi-y a-ng*
 someone small-size-DIM-ACC thigh-ACC it-on
 ACC DIF

síro-k-na-ngwu
slide-k-CAUS-HAB

'One [i.e., the aunt] slides the little baby along one's thigh [i.e., immediately after birth as a sign of the close child-aunt relationship].'

The notion 'from childhood' can be expressed by drawing on the stem *tsay-* and attaching the regular ablative suffix both in modulated and non-modulated form. (4) exemplifies the modulated option.

- (4) *nu' pay tsa-y-ngahaqa-qw ya-n yu'a-'a-ta*
I ASSR small-size-INDEF-from this-way talk-RDP-IMPRF

'I've been talking like this from childhood.'

The derivative stem *tsako-* permits *tsay* 'young/child' to enter compounds.

- | | |
|---|--|
| (5) <i>tsako-lavayi</i>
small-word

'a childish word' | (6) <i>tsako-qatsi</i>
small-life

'childhood' |
| (7) <i>i-tsako-kwatsi</i>
my-small-friend

'my childhood friend' | (8) <i>tsako-tawi</i>
small-song

'childrens' song' |
| (9) <i>tsako-son-iwa</i>
small-look-IMPRS
like

'He looks young.' | |

A rare nominal use of *tssaako* is attested in the following examples:

- (10) *itamuy hópiì-tu-y-ni-qw pas hak wuyòo-t-e'*
we-ACC PN-PL-ACC-NEX-SUBR very someone old-R-COND
 DS SS
 opinion
- yaw hak a-hoy tsaako-y a-qw pítu-ngwu*
QUOT someone REF-back small-ACC it-to arrive-HAB
 to EX

'According to the opinion of us Hopis a person gets back to his childhood when he gets very old.'

- (11) *nu' tsaako-y'-ta*
 I small-POSS-IMPRF

'I have a child.'

1.8.1.2 Suffix *-va* 'length'

Examples illustrating free forms of adjectival *tsaava* 'short' in its temporal sense are rare. (1) characterizes a sung utterance as short, (2) describes a short life.

- (1) *um pay hiita tsaa-va-t taw-law-ni*
 you ASSR something small-length-ACC sing-CONT-FUT
 ACC short

'Sing something short.'

- (2) *pam kur tsaava-t qatsi-mk-iwa-y'-ta*
 that EV short-ACC life-give-ABSTR-POSS-IMPRF

'Evidently he had been given a short life [i.e., he died as a young person].'

More frequently attested is the compound stem *tsaap-* in time locutions.

- (3) *tso-tsong-hòoya-m naa-p qatsi-y tsaa-p-lalwa*
RDP-pipe-person-PL REFL-at life-ACC small-length-CONT
 smoke PL

'Smokers are shortening their lives on their own.'

Length expressions relating to *taawa* 'sun' are all to be understood metaphorically. Both *tsava-* and *tsaap-* occur as compound stems.

- (4) *tsa-va-tawa*
 small-length-sun

'short sun [i.e., short day]'

- (5) *taawa tsaa-p-'iw-ma*
 sun small-length-STAT-PROGR

'The days [lit. the sun] are getting shorter.'

- (6) A: *ya haq-e' taawa qala-w-ma?*
 Q where-at sun edge-STAT-PROGR
 DIF

B: *pay pu' tsaa-p-ti*
 INTR now small-length-R

‘Where is the sun on its course now?’ ‘It has become short [i.e., it is fall or winter].’

1.8.1.3 Suffix *-vo* ‘goal’

The only temporal use of *tsaavo* ‘to a short length destination’ is attested in the absolute adverbial construction *tsaavoniqw*. Translating ‘in a little while,’ it is constrained to occur in past time contexts only. In future contexts the form *hüsavoniq* ‘in a little while’ is used (see 1.7.3.4).

- (1) *pay yaw tsaa-vo-ni-qw pay yaw*
 INTR QUOT small-to-NEX-SUBR INTR QUOT
 DS

yung-ti-va
 enter-IMPRF-INCHO
 PL

‘A little while [later] they started entering.’

- (2) *nu' se'el i-nöma-y a-w yu'a-'à-yku;*
 I this my-wife-ACC she-to talk-RDP-DISCONT
 morning

tsaa-vo-ni-qw pay tuwat inu-mi yu'a-'à-yku
 small-to-NEX-SUBR ASSR in I-to talk-RDP-DISCONT
 DS turn

‘I talked to my wife [on the phone] this morning; a short while later she called me too.’

1.8.2 The quantifier base *wuu-* ‘big’

1.8.2.1 Suffix *-y* ‘size’

All forms belonging to the paradigm of *wuy* carry the temporal sense ‘old.’ An actual spatial meaning is not attested for them. Table XVIII lists the existing nominative and accusative forms for all three numbers.

Table XVIII

NUMBER	NOMINATIVE	ACCUSATIVE
SG [+AN]	<i>wu-y</i> <u>big-size</u> old	<i>wuu-kw</i> big-size ACC
DL [+AN]	<i>wuu-yo-m</i> <u>big-size-DL</u> old	<i>wuu-kw-mu-y</i> big-size-DL-ACC ACC
PL [+AN]	<i>wuu-wu-yo-m</i> RDP- <u>big-size-PL</u> old	<i>wuu-wu-kw-mu-y</i> RDP- <u>big-size-PL-ACC</u> ACC

- (1) *nu' qa wu-y-'o*
I NEG big-size-PS
old

'I'm not old.'

- (2) *wuy-ni-qw qa nukngwa*
old-NEX-SUBR NEG good
DS

'When one is old it's not very pleasant.'

- (3) *pas tiiki-ve wuu-wuyo-m kyaas-ta*
very dance-at RDP-old-PL incredibly-IMPRF
many

'There were many old people at the dance.'

Derivatives and compounds relating to *wuy-* 'old' use the extended stem *wuyo-*. However, *wukw-*, the accusative shape of *wuy-*, is also attested in compounds (7-9).

- (4) *wuyo-mana*
old-girl

'old maid'

- (5) *wuyo-na-wiuti-m*
old-RCPR-woman-DL
couple

'old couple'

- (2) *wuu-pa-t* *qatsi-t* *itam* *yes-ni-qe-y*
big-length-ACC life-ACC we live-FUT-REL-ACC
PL

put *itam* *naawa-ki-n-wisa*
that we STEM-ki-CAUS-PROGR
ACC pray PL

‘We pray [i.e., as we go along in time] that we may live a long life.’

- (3) *pee-hu* *pi* *wuu-wu-pa*
some-ABS FACT RDP-big-length
INAN

‘Some [i.e., stories] are long.’

In derivatives and compounds the stem of *wuupa* shows up in the two shapes of shortened *wupa-* and contracted *wup-*.

- (4) *wu-pa-tawa*
big-length-sun

‘long sun [i.e., long days]’

- (5) *naalö-q* *yàasangwu-y* *e-p=haqa-m* *pas* *tis*
four-ACC year-ACC it-at=INDEF-at very even

ura *wu-pa-tömö*
MEMO big-length-winter

‘Four years ago it was even a longer winter [than this year].’

- (6) *pay* *pu*’ *a-hoy* *taawa* *wu-p-ti*
INTR now REF-back sun big-length-R
to

‘The days [lit. the sun] have become longer again.’

1.8.2.3 Suffix *-q* ‘amount’

The element *-q*, embodying the notion of ‘amount,’ occurs on the extended stem *wuuyo-*. Metaphorically, the form *wuuyoq* translates ‘quite old/older.’

(1) shows the singular, (2) the dual form in predicative position.

- (1) *nu*’ *put* *àa-pe* *wuuyo-q-’a*
I that he-at big-amount-PS
ACC older

‘I’m older than he.’

- (2) *itam wuuyo-qa-m-u*
 we big-amount-DL-PS
 older

‘We’re older.’

With the positive degree of ‘old’ presented in 1.8.2.1 (1), and (1-2) above exemplifying the comparative degree, (3) illustrates the superlative.

- (3) *pam sus-wuyo-q-’a*
 that SUPER-big-amount-PS
 older

‘He’s the oldest.’

Reduplicated *wuuyoq* in conjunction with the animate plural suffix *-m* means ‘old ones/elders.’

- (4) *uma as wuu-wuyo-qa-m-nii-kyàa-kyangw*
 you IMPOT RDP-big-amount-PL-NEX-RDP-SIMUL
 PL older SS

naat tsako-so-sn-iwa
 still small-RDP-look-IMPRS
 like

‘You are old but you still look young.’

- (5) *ya-n i-t wuu-wuyo-qa-m yu’a-’a-tota-ngwu*
 this-way this-ACC RDP-big-amount-PL talk-RDP-IMPRF-HAB
 older PL

‘This is how the elders used to talk about this.’

Wuuyoq may also suffix the morpheme sequence *-’iwma* signalling a state in motion.

- (6) *nu’ sùytsepngwat wuuyo-q-’iw-ma*
 I gradually big-amount-STAT-PROGR
 older

‘I’m continuously aging.’

The compound term *wuuyoqhoya*, featuring the nominalizing suffix *-hoya* ‘person,’ conveys the idea ‘grown-up child’ in the sense that the child is no longer an infant.

The spatial content of *wuuyoq* ‘large amount’ may be strung together with

temporal lexemes. Its compound shape is then *wuko-*. Renditions of the metaphoric value of *wuko-* may be gathered from the following examples:

- (7) *wuko-töng-va*
big-midmorning-R
'It's past midmorning.'
- (8) *wuko-'uyis-ti*
big-planting-R
season
'It became the height of the planting season.'
- (9) *wuko-tala'-ti*
big-summer-R
'It's midsummer.'

1.8.2.4 Suffix *-vo* 'goal'

The irregular destinative ending *-vo* attaches to the extended base *wuuya-*. The spatial content of *wuuyavo* 'to/for a long distance' is metaphorically applied to the sense of 'to/for a long stretch of time.'

- (1) *pas nu' timay-valki-w-ta, pas nu' wuuya-vo*
very I see-long-STAT-IMPRF very I big-to
dance
- qa tiimay-qe oovi-'o*
NEG see-CAUSAL therefore-PS
dance SS

'I long to watch a dance, because I haven't seen one for a very long time.'

- (2) *kuuyi qa háqa-m-ni-qw son himu*
water NEG somewhere-at-NEX-SUBR NEG someone
DS
- tay-ta-qa wuuya-vo qátu-ni*
alive-STAT-REL big-to sit-FUT

'When there is no water, a living being cannot live long.'

Wuuyavo in conjunction with the realized state marker *-ti* calls for translation with locutions such as 'it took/lasted a long time.'

with Hopi time is the term ‘objectification.’ He claims that in the habitual thought of SAE people awareness of time, which is basically a mental, i.e., subjective experience, is “objectified, or imaginary, because it is patterned on the outer world” (Carroll 1956:139). As I have already demonstrated extensively, speakers of Hopi are inextricably committed to using spatial imagery when it comes to coping with temporal matters. While spatial metaphors presented in the previous chapters primarily belong to the form classes of adverbials, postpositions, and adjectives, the present chapter will be devoted to nouns occurring spatio-temporally.

In the process of taking linguistic stock of our reality and environment, we tend to hypostatize many of its phenomena; that is, ‘thingness’ appears to be created where there is actually none. Coupled with this inherent tendency in SAE languages to objectify and spatialize where there are in fact only nonspatial existents, is the treatment of hypostatized concepts as nouns. To quote Whorf again: “It is part of our whole scheme of OBJECTIFYING – imaginatively spatializing qualities and potentials that are quite nonspatial. . . Noun-meaning. . . proceeds from physical bodies to referents of far other sort” (Carroll 1956:145).

In view of our thing-oriented mentality, finding evidence that Hopi, too, uses space nouns in a temporal sense should therefore be considered as an important factor in qualifying the Hopi language as a mechanism for creating spatio-temporal metaphors. Without attributing any exaggerated significance to this fact, it is, nonetheless, gratifying to be able to cite such proof. Hopi does, indeed, use nouns metaphorically to capture temporal reality. The nouns involved are (in alphabetical order) *qatsi* ‘life,’ *qeni* ‘space,’ *so’ngwa* ‘end,’ *tuwani* ‘measure,’ and *yà’ngwa* ‘beginning.’ All of them are space nouns except *qatsi* whose nonmetaphorical sense cannot be termed spatial.

1.9.1 *qatsi* ‘life’

Nonmetaphorically the abstract noun *qatsi*⁷⁶ denotes ‘life’ in the sense of the condition which is characteristic for a living organism. A sample of this content occurs in (1).

- (1) *um wuyo-mi-q=haqa-mi qatsi-mk-iwa-y’ta*
 you old-to-EX=INDEF-to life-give-ABSTR-POSS-IMPRF

‘You have been given to live until old age.’

In metaphorical extension both nontemporal and temporal values are attested for the term. Examples of the former are (2) with the reading ‘lively place’ and (3) in the sense of ‘existence.’

- (2) *itam pas qatsi-t e-pe-q kì-y'-yungwu*
 we very life-ACC it-at-EX house-POSS-IMPRF
 PL
 HAB

'We used to live at a very lively place [i.e., with a lot of action].'

- (3) *pay kya as itam haqa-m piw*
 INTR maybe IMPOT we some-where again
qatsi-tu-twa-ni
 life-RDP-find-FUT

'We may find another existence somewhere [and settle down there].'

With emphasis on the temporal aspect of *qatsi* a variety of meanings are triggered of which 'life span,' 'period of life,' 'generation,' 'time segment,' etc., are possible renditions. The Hopi term *qatsi* thus conveys semantic ingredients that are part of our concept 'time.' Such expressions as 'the beginning' (4) or 'end of time' (1.9.3 (7)) refer to a temporal scope of gigantic dimension.

- (4) *qatsi-yànyngwa-ngaqw sino-m yaw as*
 life-beginning-from person-PL QUOT IMPOT
loma-yes-ngwu
 beautiful-sit-HAB
 PL

'In the beginning of time people lived in harmony.'

While (5) portrays a time frame that encompasses that of several generations, (6) alludes to a time period which antedates that of the advent of the white man.

- (5) *hi-sa-t-wu-wu-kw-mu-y qatsi-yamuy*
 some-QNT-time-RDP-old-size-PL-ACC life-their
 ancient ACC ACC
e-p=haqa-m kastiila-m pe-qw öki
 it-at=INDEF-at PN-PL here-to arrive
 EX PL

'During the times of our forefathers the Spaniards came here.'

- (6) *pay pi hí-sa-t=haqa-m qatsi-t e-p*
 well FACT some-QNT-time=INDEF-at life-ACC it-at

qa pas haqa-m pahaana-ni-ngwu
 NEG very somewhere-at white-NEX-HAB
 man

‘Long ago, at that time there were no whites anywhere yet.’

On a smaller scale the time scope of *qatsi* can match the life span of an individual. It is this type of context that also suggests the translation ‘generation.’

(7) *suu-s i-qatsi-y e-p õng-mok-wis-qw*
 one-times my-life-ACC it-in salt-bag-PREGR-SUBR
 PL DS

nu' navoti-y'ta
 I know-POSS-IMPRF

‘I know that once in my life time they went on a salt expedition.’

(8) *i-t qatsi-t e-p hii-hiimu hi-n-ti*
 this-ACC life-ACC it-in RDP-something some-way-R

‘All sorts of things happened in this generation.’

Compound nouns with *qatsi* as head noun and nominal determiners referring to certain developmental stages in a person’s life select time segments only. Among the typical expressions encountered in this connection are *tsako-qatsi* (young-life) ‘childhood’ and *i-tiyo-qatsi* (my-boy-life) ‘my boyhood.’ *Imàn-qatsi* ‘my girlhood’ and *nõmaqtsi* ‘married life’ are contextually illustrated in (9-10).

(9) *hi-n-t-e' as nu' i-màn-qatsi-y*
 which-way-do-COND IMPOT I my-girl-life-ACC
 SS

a-hoy a-ng-ni?
 it-back it-in-FUT
 to DIF
 through

‘What can I do to [go] back through [i.e., relive] my girlhood?’

(10) *pas nu' i-kwatsi-y nõma-qtsi-yat a-w*
 very I my-friend-ACC wife-life-his it-to
 ACC

kwangwày'tuswa, sùupan pam kwangwa-qtu
 covet seemingly that pleasant-sit

'I wishfully regard my friend's married life, he seems to live harmoniously.'

With adjectival (*iyoho* 'cold') and adverbial (*kwangwa'ew* 'pleasantly,' *taala* 'in summer,' *tömö* 'in winter') adjuncts the compound terms displaying *qatsi* convey the temporal value 'period of time.'

- (11) *ura itam hi-sa-t totim-hòoya-m-nü-qe*
MEMO we some-QNT-time boys-DIM-PL-NEX-CAUSAL
SS

kwangwa-'ew-qatsi-y'-yungwu
pleasant-ADVR-life-POSS-IMPRF
PL
HAB

'Long ago when we were little boys we had good times.'

- (12) *itam iyo-ho'-qatsi-y'-yungwa*
we cold-ABS-life-POSS-IMPRF
PL

'We have cold times [i.e., winter].'

- (13) *pas tömö'-qatsi wuu-pa*
very winter-life big-length

'Winter time is really long.'

Finally, mention must be made of the nominal *qatsivaptsi*. Derived from the verb *qatsivaptu*, which decomposes into the elements *qatsi* 'lively activity/life' and the pro-verb *paptu* 'it became his turn,' it conveys the notions 'his turn to sponsor a lively activity such as a race, a hunt, or a dance' (14) and 'his turn to live/generation' (15).

- (14) *qatsi-va-pts-i-y e-p yok-na*
life-that-arrive-NR-ACC it-at rain-CAUS
become his turn

'When it was his turn to sponsor a lively event he made it rain [i.e., in this case as a result of the religious dance].'

- (15) *í-so-mu-y qatsi-va-pts-i-yamuy*
my-grandmother-PL-ACC life-that-arrive-NR- their
become his turn ACC

e-p pa-n-ta
it-at that-way-IMPRF

'It was like that in the generation of my grandmothers.'

1.9.2 *qeni* 'space'

Most important of the nominal space notions used in temporal extension is the term *qeni*. In HR 8 I suggested that the form may be broken down into a root constituent *qe* with the value 'not' and the nominalizing marker *-ni*. 'Not-NR' translating as 'place where nothing is' thus yields the English counterpart 'free area/space.'⁷⁷ While various uses of *qeni* were exemplified in HR (examples 1375-1378), I will use this occasion also to mention its role in rendering the English equivalent of 'instead.'

- (1) *ùu-qeni-y e-p nu' qa'ömana-t wik-ni*
your-space-ACC it-at I PN-ACC take-FUT
along

'Instead of you I will take along Qa'ömana.'

- (2) *umùu-qeni-y e-p nu' hotvel-hoy-mu-y tsam-ni*
you-space-ACC it-at I PN-person-PL-ACC take-FUT
PL PL
OBJ
along

'Instead of you I will take the Hotvela people along.'

In direct metaphorical application of its sense 'space,' *qeni* takes on the abstract meaning 'time' in the sense of 'free time to pursue a certain activity.' It is thus in keeping with spatial *qeni* which intrinsically denotes 'an area void of physical objects.'⁷⁸ By ascribing *qeni* this abstract semantic content, Hopi creates a formless item 'time' and operates with it in a fashion similar if not identical to other mass nouns. The following samples not only convincingly puncture Whorf's contention that the Hopi language has no word for 'time' but also invalidate his case of denying objectification to Hopi phase terms. Although it is a noun, *qeni* syntactically never occurs as the subject of a sentence. (3) exemplifies the term in connection with the accusative shape of the third person singular possessive marker.

- (3) *noq oovi pay hak hiita-wa-t antsa*
and therefore ASSR someone something-SPEC-ACC really
SI ACC

A possessive locution featuring the nominative marker of the third person singular possessor stands in copular construction in (7).

- (7) *ya-n mihi-k-qw pay hak ki-y*
 this-way night-k-SUBR ASSR someone house-ACC
 DS

e-p-ni-ngwu; yaw yàa-sa-t nukpana-t
 it-at-NEX-HAB QUOT this-QNT-time evil-ACC
 person

qeni-'at-ni-ngwu
 space-his-NEX-HAB

'When it's nighttime like now one should be at home; at this time is the time of an evil person.'

Due to subject change in the following example, the switch reference marker *-qw* is affixed to *qeni* by means of the intermediary connective *-ni-*.

- (8) *sutsep inùu-pe qéni-ni-qw nu' pas-mi-ni-ngwu*
 always I-on space-NEX-SUBR I field-to-NEX-HAB
 DS

'Whenever I have time I [go] to the field.'

The term *qeni* may also append local case markers in a temporal sense. Punctive *-ve* is illustrated in (9), destinative *-vo* in (10).

- (9) *pam pay qeni-ve kuy-va-ngwu*
 that ASSR space-in emerge-R-HAB

'He usually finishes [his ceremony] in time [i.e., before the moon has completely disappeared].'

- (10) *um ùu-totokya-y haqa-mi qeni-vo tavi-qw*
 you your-totokya-ACC somewhere-to space-to place-SUBR
 day DS

itam qa haki-mu-y amùu-sa-q-ya-ni
 we NEG someone-PL-ACC they-QNT-extent-PL-FUT

'If you move your Totokya [i.e., the day before the scheduled dance] to an empty time slot [i.e., when nothing else is scheduled], we won't have it at the same time as they [who already arranged for their dance to be staged at that date].'

In the next sentences *qeni* features the possessive suffix *-y'* which translates 'have.'

- (11) *ason nu' qeni-y'-t-e' pu' a-w peena-ni*
 later I space-POSS-IMPRF-COND then he-to write-FUT
 SS

'When I have time, I will write to him.'

- (12) *sòosoy himu hapi qeni-y'-yungwa*
 all thing EMPH space-POSS-IMPRF
 INAN PL

'All things [i.e., plants] have their time [i.e., are planted at a specific time within the planting season].'

In the expression *qeniti*, which contains the realized state marker *-ti*, the semantic result is the intransitive notion 'there got to be time now/there is time now.'

- (13) *pay kya as qaavo sen qeni-ti-ni*
 well maybe IMPOT tomorrow DUB space-R-FUT

'Maybe there will be time tomorrow [to do that].'

Effective *-toyna* verbalizes *qeni* with transitive force.

- (14) *pam yaw pay naat qa pay hõq-ni-qe*
 that QUOT ASSR still NEG now harvest-FUT-CAUSAL
 SS

oovi itamu-y qeni-toyna
 therefore we-ACC space-EFF

'Because he won't harvest now, he gave us time [to do something else].'

A final example lists *qeni* as first element in a verbal compound.

- (15) *taawa yu-k pitu-qw i' wuwtsim ye-p*
 sun here-to arrive-SUBR this Wuwtsim here-at
 DS ceremony

qeni-ptsi-w-ta-ngwu
 space-arrive-STAT-IMPRF-HAB

'When [the sun] comes to this [hole in the wall], then this is the time for the Wuwtsim ceremony.'

1.9.3 *so'ngwa* 'end'

From a spatial point of view the noun *so'ngwa*, decomposable into the root *so'* 'end' and the abstract nominalizer *-ngwa*, which is no longer productive, signifies 'end piece/end point.' Spatially, the term may for instance be applied to a ball of twine as in (1) or to a Hopi belt as in (2).

- (1) *ya haqa-m so'ngwa-'at?*
Q where-at end-ABSTR-its

'Where is its end?'

- (2) *nu' i-kwewa-y so'ngwa-yat pay a-qw*
I my-belt-ACC end-its ASSR it-to
ACC EX

pitu-kyangw pu' navota nu' kur su-p-wat
arrive-SIMUL then notice I EV one-at-SPEC
SS

qa su-'a-n pööqa
NEG exact-REF-way weave

'When I arrived at the end of my belt, I noticed that I had not woven it properly in one place.'

Metaphorically, the meaning 'end' refers to entities which display a clear starting and ending point such as songs, stories, etc., or to time units proper, such as a life span, seasons, etc. Note that the noun *so'ngwa* affixes only extreme case forms since the notion 'end' constitutes an extreme phenomenon itself.

- (3) *so'ngwa-ve-q puma so'a*
end-at-EX those die
PL

'In the end they die.'

- (4) *i' taawi so'ngwa-mi-q pay qa hiita la-lvaya*
this song end-to-EX ASSR NEG something RDP-say
ACC

'This song doesn't say anything at the end [i.e., there are only nonsense syllables].'

- (5) *na'am so'ngwa-mi-q pu' pay amu-mi*
father-their end-to-EX then ASSR they-to

so'ngwa-y'-va-ngwu
end-POSS-INCHO-HAB

'By that time and in this fashion the announced ceremonial time span [of generally sixteen days] comes to a conclusion then.'

- (10) *ya sen nu' i-t taawi-t hi-n*
Q DUB I this-ACC song-ACC which-way ·

so'ngwa-toyna-ni?
end-EFF-FUT

'I wonder how I can end this song?'

1.9.4 *tuwani* 'measure'

The noun *tuwani* is closely related to the perfective verbal *tuwanta* 'he measured it/tried it' and is deverbally coined on the stem *tuwan-* by adding the nominalizing suffix *-i*. The spatial usage of the term is most obvious in the expressions *malatstuwani* 'finger measure (from thumb to the tip of the middle finger)' and *kuktuwani* 'foot measure/stride.' These measuring terms are autochthonous and existed before the contact with Anglo technology. Other measuring terms like *pututuwani* 'weight,' were, of course, coined in analogy with *malatstuwani* and *kuktuwani* when need arose after the white contact. In metaphorical extension *tuwani* comes to denote 'allotted measure of time.' It constitutes a limited time span that is projected for the completion of a given task. Compared with nonmetaphorical *tokila* (see 9.1.6), which has a similar meaning in both ceremonial and secular contexts, the time stretch involved in *tuwani* is generally of a much shorter duration and usually does not exceed that of one day. The occurrence of *tuwani* in nominal shape is as a rule tied to fixed locutions with verbals such as *pitu* 'he arrived,' *hàkyal'iwma* 'he is approaching,' *rùupa* 'it slipped past,' etc.

- (1) *pay itàa-tuwani-y kur a-qw pitu, pay*
well our-measure-ACC EV it-to arrive well
EX

oovi haak ya-n-ta-ni
therefore temporarily this-way-IMPRF-FUT

'Our time limit is up, it will therefore be like this for the time being.'

- (2) *itàa-tuwani-y a-qw hàykyał-'iw-ma*
 our-measure-ACC it-to approach-STAT-PROGR

EX

'Our time limit is approaching.'

- (3) *kipo-k-katsin-mu-y tuwani-yamuy pay a-qw*
 raid-k-kachina-PL-ACC measure-their ASSR it-to
 ACC EX

hàykya-w-ma

close-STAT-PROGR

'It's getting closer to the time where the Raider kachinas [perform].'

- (4) *ita-na-y tuwani-yat àa-piy riuupa*
 our-father-ACC measure-his it-away slip
 ACC from past

'It's past the time limit that our father set himself.'

The following example constitutes most likely an anglicism.

- (5) *um tuwani-y'-ta hii-sa-vo*
 you measure-POSS-IMPRF which-QNT-to

yé-pe-q-ni-qa-y?

here-at-EX-FUT-REL-ACC

'How long is the time that you can stay here?'

In conjunction with the effective suffix *-toyna* or its more archaic forerunner *-toya*, the semantic reading 'give/allot someone a certain length of time' is arrived at.

- (6) *nu-y tapki-mi-q tuwan-toyna*
 I-ACC early-to-EX measure-EFF
 evening

'He set me a time limit until the evening.'

- (7) *nu' ung taawa-na-sa-mi pàa-sa-vo*
 I you sun-RCPR-QNT-to that-QNT-to
 ACC middle

tuwan-toyni-y'-ta

measure-EFF-POSS-IMPRF

'I have given you until noon.'

1.9.5 *yànyngwa* ‘beginning’

Consisting of the root *yày-* ‘begin,’ which is reminiscent of the deictically proximal base *ya-*, and the nominalizer element *-ngwa*, *yànyngwa* ‘starting point/beginning’ refers to both spatial and temporal situations. (1) illustrates the spatial usage in connection with a piece of string.

- (1) *i’ haqa-qw yànyngwa-y’-ta?*
 this where-from beginning-POSS-IMPRF

‘Where does this [string] have its beginning?’

The remaining examples relate metaphorically to an initial phase in time. While (2) shows the noun *yànyngwa* with the possessive third person element *-’at*, (3) and (4) illustrate the form in conjunction with local case markers. Again, as in the case of *so’ngwa* ‘end,’ due to the intrinsically extreme nature of the semantic content of the term, locative and destinative case suffixes are attested only in their extreme shapes.

- (2) *qatsi-t yànyngwa-’at*
 life-ACC beginning-its

‘the beginning of life’

- (3) *pas hak hiita yànyngwa-mi-q a-hoy*
 very someone something beginning-to-EX REF-back
 ACC to

wuw-e’ pas hak kyaa-tay-ta-ngwu
 think-COND very someone incredible-look-IMPRF-HAB
 SS

‘When one thinks back to the beginning of a thing, one can only look at it in an awesome way.’

- (4) *i’ hapi pas yànyngwa-ve-q pay enang*
 this EMPH very beginning-at-EX already inclusive
yuki-l-ti, hak hiita qa à-n-t-e’
 make-PASS-R someone something NEG REF-way-do-COND
 ACC do wrong SS

nawus e-p si-svi-manta-ni
 must it-on RDP-pay-HAB-FUT

‘This [rule] was already made at the very beginning, that someone will have to pay if he does something wrong.’

(5) exemplifies the nominal *yàyngwa* in the ablative. Note the postpositional construction of the ablative noun with its antecedent.

(5) *ya itam sen ye-p i-t kitsoki-t*
 Q we DUB here-at this-ACC village-ACC
yàyngwa-ngaqw hi-n yeese?
 beginning-from which-way sit
 PL

‘I wonder how we were living here at the beginning of this village.’

1.10 *Spatio-temporal metaphors in conjunction with verbs*

1.10.0 *Introduction*

The metaphorical approach which the Hopi language employs in describing nonspatial, temporal matters, has been amply substantiated with data in the preceding chapters. The part-of-speech category ‘verb,’ of course, is not excluded from the spatio-temporal mechanism so pervasive in the language. While we had occasion to cite numerous verb forms with temporal content before, they were nearly always either verbalized or derived from nonverbal constituents. Those listed in the following subsections are verbal lexemes which are semantically devoted to dealing primarily with physical reality. Although intrinsically space terms, they perform, nonetheless, functions in secondary, metaphorical situations where no real space is involved. Once more it will be evident how far off target Whorf was linguistically when he concluded that “the Hopi thought-world has no imaginary space” and “that it may not locate thought dealing with real space anywhere but in real space” (Carroll 1956:150). The verbs in question will be introduced in alphabetical sequence. Their presentation will include the temporal scope of the items heading the individual subsections as well as closely related forms that may differ aspectually from the ones selected as key words.

1.10.1 *hayingwna* ‘he approached it’

The various verbals sampled under *hayingwna* all revolve about the nuclear element *hay* ‘close’ (see 1.6.3). Most of them are rather rare and are occasionally termed archaic. The spatial value of perfective *hayingwna* ‘he came near/approached him’ is illustrated in (1). Its spatio-temporal transfer is evident from (2).

- (1) *nu' put a-ngk hayingw-na*
 I that he-after approach-CAUS
 ACC

'I got close behind him.'

- (2) *nùutungk talöng-va-ni-qa-t a-qw hayingw-na-ya*
 last daylight-R-FUT-REL-ACC it-to approach-CAUS-PL
 EX

'They approached the last day.'

Durative *hahayingwna* 'he is approaching a goal' permits the metaphorical interpretation of 'getting closer to a point in time.'

- (3) *taawa-na-sa-mi ha-hayingw-na*
 sun-RCPR-QNT-to RDP-approach-CAUS
 middle

'It's getting closer to noon.'

The content of (3) may be expressed equally well by the morphologically optional construction in (4). Notice the nonreduplicated verb stem which now suffixes the inceptive state sequence -'iwma.

- (4) *taawa-na-sa-p-hayingw-'iw-ma*
 sun-RCPR-QNT-at-approach-STAT-PROGR
 middle

'Noontime is approaching.'

Nonreduplicated perfective *hayìngwti*, featuring the realized state marker -*ti*, conveys the sense 'the time is near.'

- (5) *tal'angw-mi hayìngw-ti*
 summer-to approach-R

'It has gotten close to summer.'

The stative form *hahayingwa* is temporally only attested in the following compound.

- (6) *tal-ha-hayingwa*
 light-RDP-approach

'It's close to daylight.'

hàykya-w-ta

close-STAT-IMPRF

'I guess, here in Pivanhonkyapi they used to perform the ladder dance;
and for this [event] the time was near again.'

To express the inchoative aspect of the stative notion both older *hàykyawma*
and newer *hàykyal'iwma* are attested.

- (5) *nimà-n-totok-mi-q* *hàykya-w-ma*
go-n-totokya-to-EX close-STAT-PROGR
home day

'It's getting close to the day before the Home dance.'

1.10.3 *hoyo* 'he made a move'

Hoyo is a *k*-class verb whose intransitive content may be rendered 'he made a
move/moved.' Time is, of course, a prime ingredient of any kind of move-
ment.

- (1) *pay* *e-p=haqa-m* *suu-s* *pàytsin-tota-qw*
INTR REF-at=INDEF-at one-times clean-IMPRF-SUBR
occasionally spring PL DS
- pay* *yàasangw-ti-ngwu*; *pu'* *e-p=haqa-m* *pay*
ASSR year-R-HAB then REF-at=INDEF-at ASSR
occasionally
- tis* *hóyo-k-ngwu*
even move-k-HAB

'Sometimes they clean the spring once a year; once in a while even
more [than a year] may pass [before the work is undertaken].'

The causative derivative *hóyokna* 'he moved it' takes on the temporal
meaning 'he put it off/postponed it.'

- (2) *itam* *nawus* *apòoni-mi-q-ni-qa-y* *hóyo-k-na-ni*;
wè must PN-to-EX-FUT-REL-ACC move-k-CAUS-FUT
- i-nöma* *yaw* *se'el* *tii-ta-qw* *oovi*
my-wife QUOT this child-CAUS-SUBR therefore
morning DS

nu' kur hi-n a-qw-ni
 I EV some-way it-to-FUT
 cannot EX

'We'll have to postpone our going to Apoonivi; I heard my wife gave birth to a child this morning and so I simply cannot go there.'

In conjunction with postpositional *aw* the phrase *aw h́oyokna* takes on the sense 'to add time.'

(3) *itam ye-p q́atu-ni-qa-y naalö-s taala-t*
 we here-at sit-FUT-REL-ACC four-times day-ACC
a-w h́oyo-k-na-ni
 REF-to move-k-CAUS-FUT

'We'll add four more days to our stay here.'

Moving toward a time goal is rendered with the intransitive rapid-iterative *hoyoyota*.⁸⁰

(4) *tömölangwu-y a-qw itam h́oyo-yo-ta*
 winter-ACC it-to we move-RDP-IMPRF
 EX

'We're moving towards winter.'

Such subjective impressions as 'time is standing still' (5) or 'time is passing rapidly' (6) may be expressed in Hopi with intransitive durative *hòyta* when it is applied to *taawa* 'sun/time.'

(5) *pas sùupan taawa qa hòy-ta*
 very seemingly sun NEG move-IMPRF

'It seems that time is standing still.'

(6) *is uti, taawa a'ni hòy-ta*
 oh surprise sun a move-IMPRF
 EXCLM lot

'Gee, the time is going fast.'

Alternative expressions capturing the notion of time may draw on the rapid-iterative form *hoyoyota* (7) or the stative *h́oyokiwta* (8).

(7) *pas taawa sùupan hihin h́oyo-yo-ta*
 very sun seemingly somewhat move-RDP-IMPRF

'It seems that the time is going very slowly.'

- (8) *pay taawa a'ni hóyo-k-iw-ta-qw nu'*
 INTR sun a move-k-STAT-IMPRF-SUBR I
 lot DS
ya-ngqw nakwsu
 here-from start
 out

'The sun was already well on its way [i.e., it was about late morning] when I started out from here.'

1.10.4 *kuyva* 'it came through/emerged'

Intransitive *kuyva* (PL *kuukuyva*) denotes 'it emerged/appeared/came into sight.' Aspectually perfective due to the element *-va* which carries the semantic force of manifestation or realized state, the verb form intrinsically implies transitory motion from one state into another. It is this aspect of *kuyva* that lends itself to temporal exploitation. *Kuyva* may also be constructed with the destinative; its meaning then shifts to 'he peeped/looked at.' Examples (1-3) illustrate the nontemporal readings of *kuyva*. (3) shows the plural form *kuukuyva* featuring stem-initial reduplication.

- (1) *pu' pi yok-va-qw son tuusaqa qa kuy-va-ni*
 now FACT rain-R-SUBR NEG grass NEG emerge-R-FUT
 DS
 'Now that it has rained the grass is bound to come up.'
- (2) *kur ii-po-q kuy-va-'a*
 EV outside-to-EX look-R-IMP
 '[I suggest you] look outside.'
- (3) *tùm-paqw kuu-kuy-va*
 mesa-from RDP-emerge-R
 edge

'They appeared [in sight] at the mesa edge.'

In metaphorical usage *kuyva* portrays situations in which a person 'emerges from' or 'goes through' a fixed period of time. Semantically adequate renditions of this content are 'end/complete/conclude.' Both Whorf and Voegelin list glosses for plural *kuukuyva* which suggest that the temporal sense is restricted to ceremonial circumstances: "(it, a ceremony, i.e., they) is carried out, performed, held" (cf. Whorf in Stephen 1936:1238) and "ceremony

concludes, completes its appearances” (Voegelin – Voegelin 1957:36). While it is true that the plural form frequently applies to a group which is engaged ceremonially, the form conveys the same meaning in secular situations. Nor is singular *kuyva* excluded from appearing in the ceremonial context. Example (4) shows *kuyva* in reference to the termination of the period of fasting and continence which is customary for cult members for four consecutive days after participation in a ritual. (5) refers to the completion of a lengthy period of time and (6) illustrates the form in regard to the end of a person’s life.

- (4) *kwakwhá, nu’ na-pwal-kuy-va*
 thanks I REFL-purify-emerge-R
 fast

‘Thanks, I’m through with my fasting.’

- (5) *noq pàykomu-y yàasangwu-y a-ng kuy-va-qw*
 and three-ACC year-ACC it-in emerge-R-SUBR
 SI DIF DS
pu’ puma ni-nma
 then those RDP-go
 home

‘And when they had completed three years they went home.’

- (6) *pam okiw kur qatsi-kuy-va*
 that COMPASS EV life-emerge-R

‘His life evidently came to an end.’

Plural *kuukuyva* projects its metaphorical content to the time span of the puerperal period in (7), a dance sequence in (8), and a complete ceremony in (9).

- (7) *sunat taala-t e-pe-q kuu-kuy-va-ni*
 twenty day-ACC it-at-EX RDP-emerge-R-FUT

‘[They] will be through in twenty days.’

- (8) *pay yaw puma paas pe-p put a-ng*
 INTR QUOT those completely there-at that it-at
 ACC DIF
kuu-kuy-va-kyangw pu’ yuku-ya-qw pu’ yaw
 RDP-emerge-R-SIMUL then finish-PL-SUBR then QUOT
 SS DS

na-'am amu-mi pà-ng-qawu
 father-their they-to that-way-say

'When they had completely gone through [their ritual] there and finished, their father said to them: . . .'

- (9) *itam naat pu' löö-tok wuwtsim-ku-kuy-va*
 we still now two-night Wuwtsim-RDP-emerge-R
 ceremony

'Just two days ago we completed the Wuwtsim ritual.'

1.10.5 *ngöyta* 'he is pursuing him'

The semantic content of imperfective *ngöyta* (PL *ngöytota*) is 'he is chasing after/pursuing something.' In addition to the fundamental force of physical pursuit, the metaphorical thrust of *ngöyta* implies 'setting one's mind on obtaining a material or nonmaterial goal.' The two possibilities are illustrated in (1) and (2).

- (1) *pay nu' síkisve-t as pas okiw ngöy-ta*
 well I car-ACC IMPOT very COMPASS pursue-IMPRF

'I'm after a car [i.e., I would like to have one].'

- (2) *nu' tsuku-law-ni-qe-y pas nu' ngöy-ta*
 I clown-CONT-FUT-REL-ACC very I pursue-IMPRF

'I very much pursue clowning [i.e., I really wish to clown during a dance].'

The nonmaterial goal may, of course, turn out to be of a temporal nature. A person will then focus on reaching a certain date, ceremonial event, etc.

- (3) *pàa-piy pu' yaw pam tiyo put naalö-s*
 there-away then QUOT that boy that four-times
 from ACC

taala-t ngöy-ta
 day-ACC pursue-IMPRF

'From that time on the boy was pursuing [the end of] those four days.'

- (4) *itam naat qöö-qöqlö-mu-y totok-ngöy-ta*
 we still RDP-PN-PL-ACC totokya-pursue-IMPRF
 day

'We're still pursuing the eve of the Qööqöqlö [kachina ceremony].'

pee-ti?
some-R
 remain

‘I wonder how much time is left until I give birth to this child?’

- (2) *pay qa pas wuuya-vo peeti tiitso'-ni-qa-t*
 INTR NEG very big-to remain finish-FUT-REL-ACC
 dancing
 PL

a-qw-a'
 REF-to-PS

‘There is not much time left until the end of the dance.’

- (3) *pay yaw qatsi-so'ngwa-mi-q hii-sa-vo peeti*
 INTR QUOT life-end-to-EX some-QNT-to remain

‘[Only] a short time remains until the end of all life.’

- (4) *pu' yaw oovi naalö-s taala a-qw*
 then QUOT therefore four-times day REF-to
 EX

peeti-qw pe-p pu' yaw na-'at i-t
 remain-SUBR there-at then QUOT father-his this-ACC
 DS

pöhö-moki-y haw-na
 feather-bag-ACC go-CAUS
 down

‘When there were four days left until that time, his father took his feather container down.’

1.10.7 *pelvota* ‘he reduced it’

The causative verbal *pelvota* contains the spatial constituents *pela* ‘area’ (see HR 5.37) and the irregular destinative suffix *-vo* ‘to.’ While the free form *pelvo* seems to be obsolete, *pelvoq*, marked for extreme position or distance, is used in the figurative sense ‘downhill/deteriorating’ in regard to a person’s health (1).

- (1) *ita-na pay pel-vo-q=sa hòy-ta*
 our-father ASSR area-to-EX=only move-IMPRF
 downhill

‘Our father is nearing death.’

In a nontemporal sense the causative *pelvota* is used primarily to convey the notion ‘he reduced a quantity.’ In analogy, a period of time can be ‘shortened.’

- (2) *tii-qats-wùuti as pay sunat a-qw*
 child-lie-woman IMPOT ASSR twenty it-to
 EX
- tokil-ta-t tsivot a-ngqw pay pelvo-ta*
 time-CAUS-PRIOR five it-from ASSR downhill-CAUS
 limit

‘The ‘lying-in woman’ had set the deadline at twenty days [to be sheltered from the sun with her child], but then she shortened [the time span] by five days.’

- (3) *um tso-tsong-hoya-nii-qe iuu-qatsi-y*
 you RDP-pipe-person-NEX-CAUSAL your-life-ACC
 smoke SS

pelvo-lawu
 downhill-CONT

‘Because you are a smoker you are shortening your life.’

1.10.8 *pitu* ‘he arrived’

Examples showing *pitu* and derivatives have already been amply cited in conjunction with the primary locators *aw* (1.2.2.4) and *aqw* (1.2.2.5). ‘Arriving at/reaching a point in time’ is, however, not limited to postpositional phrases. Some time expressions may directly suffix the destinative case endings. While *aw* and *aqw pitu* constructions were generally impersonal, the following examples with *pitu* involve personal subjects.

- (1) *hak naa-p nukpana-nen qa wuyo-mi-q pitu-ngwu*
 someone REFL-at evil-COND NEG old-to-EX arrive-HAB
 SS

‘If someone is evil of his own accord, he will not reach old age.’

‘When we reach the end of time, white men will be there [as plentiful] as rain; we will wake up surrounded by them.’

The final example renders an acculturated time expression.

- (7) *pahan-tawa* *navay* *naa-sa-mi-q*
 white-sun six REFL-QNT-to-EX
man middle
 clock
- pitsi-w-ta-qw* *nu’* *i-t* *yu-yku-ni*
 arrive-STAT-IMPRF-SUBR I this-ACC RDP-make-FUT
 DS

‘When it’s half past six I will be doing this (NEO).’

1.10.9 *pölö* ‘it is ball-shaped’

Although intrinsically a nominal, I include *pölö* in this subchapter since its temporal usage is exclusively restricted to copular position. A derived verbal is not part of the Third Mesa dialect inventory. *Pölö* refers to objects that can be classified as being ‘roundish/lump-shaped/ball-like’ or representing ‘a ball/lump/stump/hump,’ etc. The latter meaning is also an integral part of the kachina name *koo-ko-pölö* (RDP-stick-hump) which is often equated with the Hunchbacked Fluteplayer figure. The spatial value of *pölö* may be summed up as ‘three-dimensional roundness’ and is illustrated in (1-4).

- (1) *pam* *i-pölö*
 that my-ball
 ‘That’s my ball [e.g., of wool/dough/hair, etc.]’
- (2) *hokya-plö*
 leg-ball
 ‘person with an amputated leg’
- (3) *suru-plö*
 tail-ball
 ‘[animal with a] cut-off tail end’
- (4) *yu-kyi-q* *pölö*
 here-to-EX ball
 ‘Here ends my finger [lit.: here it is rounded off].’

As spatio-temporal metaphor the term *pöLö* is encountered in only one idiomatic phrase. It figures in the formulaic ending with which Third Mesa folklore narrators typically conclude their stories.

- (5) *pay* *yu-k* *pöLö*
 well here-to ball

‘Here [the story] ends.’

Instead of *pöLö* the stative verbal *pöLöwta* may also be heard occasionally (7). Its spatial sense is demonstrated in (6).

- (6) *i-soki* *pöLö-w-yungwa*
 my-fingernail ball-STAT-IMPRF
 PL

‘My fingernails are worn round.’

- (7) *pay* *yu-k=haqa-mi* *pöLö-w-ta*
 well here-to=INDEF-to ball-STAT-IMPRF

‘Here [the story] ends.’

PöLöwta is generally considered to be the Second Mesa variant of the Third Mesa story closing term.⁸¹ One of my informants suggested that the locution *pay yuk pöLö* may have originated from a weaving expression. The spinning of wool and rolling it up in a ball once constituted a typical kiva pastime in winter which seems to have been associated with storytelling.

1.10.10 *qalawma* ‘he is edging along’

Unlike *qalavoq*, whose temporal usage is not readily accepted by all Hopi speakers (see 1.6.7), no misgivings are voiced about the metaphorical appropriateness of *qalawma*, a verbal derivative from the locator base *qala-* ‘edge.’ In conjunction with the progressive state sequence *-wma*, the base conveys the spatial content ‘he is edging along/is at a certain place along a path.’ (1) exemplifies this meaning.

- (1) A: *ya* *wári-k-to-qa* *haq-e’* *pu’*
 Q run-k-PREGR-REL where-at now
 DIF

qala-w-ma?
 edge-STAT-PROGR

B: *ayá-ng*⁸² *kwini-ngye'* *pavatya-t* *paasa-yat* *a-ng*
 over- at north-at PN-ACC field-his it-at
 there DIF DIF ACC DIF

puu-'u
 now-PS

'Where is the runner now on his course?' 'Over there along the north, along Pavatya's field he is now [running].'

Metaphorically, the verbal implies 'he is edging/moving along a course of time.' Usually the idea 'time' is explicitly alluded to in the term *taawa* 'sun/time' (2). However, this is not necessary, as (3) clearly shows. For a range of possible replies to the idiomatic time question in (2) see 2.1.3.

(2) A: *ya haq-e'* *pu'* *taawa* *qala-w-ma?*
 Q where-at now sun edge-STAT-PROGR
 DIF

B: *pas pay* *taawa-na-sa-p-ti-ni*
 very immediately sun-RCPR-QNT-at-R-FUT
 middle

'What time is it now?' 'It's almost noon.'

(3) A: *ya itam haq-e'* *qala-w-wisa?*
 Q we where-at edge-STAT-PROGR
 DIF PL

B: *wuko-mori-'uyis-'u*
 big-bean-planting-PS
 time

'Where are we timewise?' 'It's the height of the bean planting [season].'

Whether the metaphorical time imagery of *qalawma* is linked to the Hopi custom of observing the course of the rising and setting sun along the eastern and western horizons (see the term *tuuwaqalalni* 'horizon' in Chapter 3) is difficult to decide here. While it may have originated in this fashion, the locution is completely lexicalized now, as example (4) indicates. For an additional illustration of the term see Chapter 3 (47) and 2.1.3 (2).

(4) *ya haq-e'* *tookila* *qala-w-ma?*
 Q where-at night edge-STAT-PROGR
 DIF

'Where is the night now?' or: 'What time of the night is it?'

In accordance with the nominal derivation pattern typical for *k*-class verbs, Hopi has also coined the compound noun *taawaqõniki* which conveys the idea ‘hour.’

- (4) *itam lõõ-q taawa-qõni-k-i-t a-ng níma-ni*
 we two-ACC clock-turn-k-NR-ACC it-in go-FUT
 DIF home

‘We’ll go home in two hours (NEO).’

Reduplicated *qõqõni* ‘it is circling/turning around’ does not follow the *k*-class pattern, as the plural form *qõqõn-ya* indicates. Its transitive companion *qõqõnna* ‘he made it turn/go around’ is attested metaphorically.

- (5) *ima wuu-wuyo-m i-t sòo-so-k*
 these RDP-old-PL this-ACC RDP-all-size
 ACC
- wii-wimi-t yàasangwu-y a-ng a-qw su-n*
 RDP-ceremony-ACC year-ACC it-in REF-to same-way
 DIF EX
- o-’ya-qe pu’ put yàasangwu-y a-ng*
 RDP-place-CAUSAL then that year-ACC it-in
 PL SS ACC DIF
 OBJ

qõ-qõn-na-ya
 RDP-turn-CAUS-PL

‘The old ones placed all these ceremonies in sequence throughout the year and then they went through them [i.e., performed them] year after year.’

- (6) *hopii-t i-t níman-iwu-y kiva-y a-ng*
 PN-PL this-ACC go-ABSTR-ACC kiva-ACC it-in
 home _____ DIF
 Home dance

qõ-qõn-na-ya-ngwu
 RDP-turn-CAUS-PL-HAB

‘The Hopi rotate the Home dance from kiva to kiva [i.e., each year a new kiva takes on the sponsorship for this ceremony].’

A curious neologism that should be mentioned in the context of this

- (5) *ason muuyawu-y na-sa-p-rìupa-k-qw pu' itam*
 later moon-ACC RCPR-QNT-at-slide-k-SUBR then we
 middle DS

öng-mok-wis-ni
 salt-bag-PREGR-FUT
 PL

'After full moon we'll go on a salt expedition.'

- (6) *ason pay tsange'-nasa-ptu-qw⁸³ rìupa-k-qw*
 later ASSR seven-middle-reach-SUBR slip-k-SUBR
 first moon quarter DS past DS

pu' nu' tokil-ta-ni
 then I time-CAUS-FUT
 limit

'When it's past the first moon quarter I'll set the date [for the ceremony].'

- (7) *noq oovi pa-nso hapi pay i' hii-hiimu*
 and therefore there-to EMPH ASSR this RDP-something
 SI

iyo-ho' pi pay suyan rìupa-k-ngwu
 cold-ABS FACT ASSR clearly slip-k-HAB
 past

'And therefore by that time these cold things [i.e., snow, sleet, cold wind, etc.] are over for sure.'

- (8) *pay taawa-na-sa-p-ti-kyangw àa-piy tsivot rìupa*
 INTR sun-RCPR-QNT-at-R-SIMUL REF-away five slide
 middle SS from

'It's five minutes after twelve (NEO).'

- (9) *ason itam na-vay rìupa-k-qw pu'-yü-ni*
 later we RCPR-three slide-k-SUBR then-PL-FUT
 six DS

'We'll go after six o'clock (NEO).'

1.10.14 *so'ta* 'it is at an end'

The imperfective verb form *so'ta* is constructed on the same element *so'* as

the noun *so'ngwa* 'end,' which was discussed in 1.9.3. Combining here with the imperfective state suffix *-ta*, it conveys the sense 'it is terminated/is at an end.' Examples (1) and (2) cite the term in spatial situations.

- (1) *pe-w kuk-'at so'-ta*
 here-to track-his end-IMPRF

'His tracks end here [where I am].'

- (2) *i' tuuwa-qatsi-t àa-piy pam pay pas qa*
 this sand-life-ACC it-away that ASSR very NEG
 earth from

haqa-mi so'-ta-qa pam hapi tokpela
 somewhere-to end-IMPRF-REL that EMPH sky

'This [portion] leading away from the earth without end, that is the sky.'

The temporal value of *so'ta* is evident in reference to time units.

- (3) *mas-ki-ve-q qatsi yaw qa so'-ta*
 dead-house-at-EX life QUOT NEG end-IMPRF

'Life in the realm of the dead [i.e., the underworld] is eternal.'

(4) is a Hopi reference to the eternal existence of the soul.

- (4) *hikwsi qa so'-ta-ni-qa*
 breath NEG end-IMPRF-FUT-REL

'the soul [lit.: the breath that will not end]'

If the ingressive phase of the stative verbal *so'ta* is to be expressed, the suffix sequence *-wma* has the effect of ablauting the final vowel of imperfective *-ta* to *i*.

- (5) *wuwtsim-wi-wimi sòo-ti-w-ma*⁸⁴
 Wuwtsim-RDP-ceremony end-IMPRF-STAT-PROGR

'All the Wuwtsim ceremonies are coming to an end [i.e., are becoming extinct].'

So'ti with the realized state marker carries the semantic content 'the end has come.' This sense is illustrated in (6), a Hopi prophecy.

- (6) *manà-wya hapi tii-ta-qw qatsi so'-ti-ni*
 girl-DIM EMPH child-CAUS-SUBR life end-R-FUT
 DS

‘When a little girl gives birth to a child, [all] life will come to an end.’

Transitivization of the stem *so'* is accomplished by attaching the morphemically complex causative marker *-tapna*. (7-8) illustrate *so'tapna* in the physical sense of ‘ending something,’ (9) attests the verbal with temporal force.

- (7) *nu' pay i-yungyapu-y so'-tapna-ni*
 I ASSR my-wicker-ACC end-CAUS-FUT
 plaque

‘I will end my wicker plaque.’

- (8) *nu' i-t a-qw so'-tapni-y'-ma*
 I this-ACC it-to end-CAUS-POSS-PROGR
 EX

‘I’m about to end this [i.e., belt] here.’

- (9) *nu' tooki i-tuwutsi-y qa so'-tapna*
 I last my-story-ACC NEG end-CAUS
 night

‘I did not end my story last night.’

1.10.15 *sòosoko* ‘he used it all up’

The verbal *sòosoko* (PL *sòosokya*) is derived from the accusative shape *sòosok*,⁸⁵ a quantifier whose nominative *sòosoy* means ‘all:INAN.’ The element *-o* constitutes a pausal ending. In transitive constructions it conveys the sense ‘he used everything up.’

- (1) A: *ùu-kuyi* B: *nu' pu' sòoso-k-o*
 your-water I just all-ACC-PS
 INAN

‘Your water [i.e., let me have your water/beer]!’ ‘I just drank it all up.’

- (2) *itam itàa-siva-y sòoso-k-ya*
 we our-money-ACC all-ACC-PL
 INAN

‘We spent all our money.’

Temporal force in the sense of ‘stop’ is clearly implied in the expressions shown in (3) and (4).

- (3) *pay i-'uyi wungw-sòoso-k-ya*
 INTR my-plant grow-all-ACC-PL
 INAN

‘My plants have ceased growing.’

- (4) *itam hapi son ye-p qa naa-sòoso-k-ya-ni*
 we EMPH NEG here-at NEG REFL-all-ACC-PL-FUT
 INAN

‘We will certainly bring ourselves to extinction here [i.e., we will die out].’

1.10.16 *súlawti* ‘it became empty’

Súlawti, which is derived from stative *sulaw* denoting ‘not there/all gone/empty,’ indicates through its marker *-ti* that a state or condition of non-existence has come about. The above-mentioned glosses presuppose, of course, the existence of measurable quantities in space. By analogy, time can be viewed as a quantity which may decrease if perceived as a measurable unit. Nonneologicistic Hopi phrases with *súlawti* refer metaphorically to the moon or month (1-2). Example (3) is an anglicism.

- (1) *itam ason kwiyamuya-t súlaw-ti-qw kalapooni-t*
 we later kwiyamuya-ACC empty-R-SUBR PN-ACC
 month DS

a-qw-ya-ni
 it-to-PL-FUT
 EX

‘We’ll travel to California when [the month] Kwiyamuya is over.’

- (2) *pay kur pu' muuyaw tsange'-sulaw-ti*⁸⁶
 INTR EV now moon seven-empty-R

‘The third moon quarter is gone.’

- (3) *pahan-muyaw súlaw-'iw-ma*
 white-month empty-STAT-PROGR
 man

‘The white man’s month [i.e., the calendar month] is coming to an end (NEO).’

1.10.17 *tavi* 'he placed one object to'

Tavi 'he put/placed one object to' implies that an object is moved from one location to another. Metaphorically, *tavi* shifts a fixed point in time to another; the resulting sense is 'he put off/postponed.'

- (1) *nu' as pu' uy-to-ni niikyangw pay*
 I IMPOT today plant-PREGR-FUT and ASSR
 SIMUL
- nu' qavo-mi tavi*
 I tomorrow-to put

'I was going to go planting today but I postponed it until tomorrow.'

- (2) *itam as pu' wakas-ven-ta-wis-ni noq*
 we IMPOT today cow-mark-IMPRF-PREGR-FUT and
 PL SI
- pay naat naalō-tok-mi tavi*
 ASSR still four-night-to put

'We were going to go brand cattle today but he put it off until four days [from now].'

1.10.18 *wiiki* 'he caught up with'

Transitive *wiiki* (PL *wiikiya*) is aspectually perfective. It translates 'he caught up with someone' if its object is animate as in (1).

- (1) *pam nu-y qa wiiki*
 that I-ACC NEG catch
 up

'He didn't catch up with me.'

However, the object of the verbal can also be inanimate. *Naat qa wiiki* in conjunction with a river trip implies that the agent has not reached his destination, the mouth of the river. (2) similarly illustrates *wiiki* in conjunction with an excavation project requiring a certain depth.

- (2) *a'ni huru, ówa-nii-qe, niikyangw taavok*
 a hard stone-NEX-CAUSAL and yesterday
 lot SS SIMUL
- nu' atkya-mi-q hii-sa-vo hōtsi-ni-qa-t*
 I down-to-EX which-QNT-to hole-FUT-REL-ACC

nu' *wiiki*
I catch
up

'It [i.e., the ground] is very hard because it consists of rocks, but yesterday I got down to the level that the hole is to have.'

It is this latter value of *wiiki*, which may be glossed 'he reached the end of an inanimate object or action,' that is used in temporal transfer. The inanimate temporal objects that regularly surface with *wiiki*, are *totokya* 'day before' (3) and *tokila* 'deadline/end of allotted time' (4), which occasionally also assumes the meaning 'end of allotted life span' as in (5).

- (3) *puma yaw hootetotokya-y wiiki-ya*
those QUOT PN-totokya-ACC catch-PL
day up

'They reached their Hootetotokya [i.e., the day before the public Hootetotokya dance].'

- (4) *hak tokila-y wiiky-e', mongvas-t-e'*
someone time-ACC catch-COND complete-R-COND
limit up SS SS

tsúya-k-ngwu
rejoice-k-HAB

'If someone comes to the end of his [project] and gets it all done he usually is exceedingly glad.'

- (5) *oovi i' ya-n-ta: hak*
therefore this this-way-IMPRF someone
háq-e'-nii-kyangw tokila-y wiiky-e' pay
somewhere-at-NEX-SIMUL time-ACC catch-COND ASSR
DIF SS limit up SS

tuuwa-qatsi-t a-w a-hoy páki-ngwu
sand-life-ACC it-to it-back enter-HAB
earth to

'Therefore it is like this: if someone reaches at some time the end of his life he goes back into the earth.'

1.10.19 *yama* 'he crossed over'

The spatial content of the intransitive *k*-class verb *yama* describes on a semantically abstract level the transition of an object from one place to another. Depending on whether the overall spatial configurations that *yama* (PL *nōnga*) applies to are two- or three-dimensional, this content may be interpreted as 'go over/go across/go out/go through,' etc. Sentences (1-5) illustrate some of these various notions.

- (1) *yáma-ku-'u*
go-ku-IMP
out

'Go out!'

- (2) *puma pa-ng ki-skya-va yáma-k-ngwu*
those there-in house-valley-in go-k-HAB
DIF passage DIF through

'They usually come through the passage between the houses.'

- (3) *nu' pas-va yama*
I field-at cross
DIF over

'I crossed the field.'

- (4) *muuyaw yama*
moon traverse

'The moon has risen [i.e., over the horizon].'

- (5) *kwakwhá, itam qa pas tsōng-so-'t ay-ó'*
thanks we NEG very hunger-die-PRIOR over-to
PL SS there

nōnga
go
across
PL

'We're grateful that we didn't die of starvation but survived.'

It is particular constructions like the one cited under (5) involving a goal in the destinative, that serve as model for metaphorically applied locutions. (6) is a spatio-temporal case of singular *yama*, (7) exemplifies its plural pend-

ant *nōnga*. Both clauses contain a temporal goal in the destinative case which are governed by the motion verbs *yama* and *nōnga*: the nominal *tal'angwmi* in (6) and the adverbial *ayó'* in (7).

- (6) *pay as i-tupko naat pu' inu-ngem*
 INTR IMPOT my-younger still now I-for
 brother
- owak-'oy-q⁸⁷ pay kya nu' as oovi*
 coal-put-SUBR INTR maybe I IMPOT therefore
 PL DS
 OBJ
- hi-n put a-kw tal'angw-mi yáma-k-ni*
 some-way that it-with summer-to cross-k-FUT
 ACC over

'Because my younger brother just brought coal for me, I might get through until summer with it.'

- (7) *itam tōmō' ngasta kò-y'-kyàa-kyangw piw*
 we in NEG wood-POSS-RDP-SIMUL again
 winter POSS SS
- hi-n a-ng ay-ó' nōnga*
 some-way REF-through over-to cross
 there over
 PL

'Although we had no wood in winter we somehow got through it to another time [i.e., the warm season].'

1.10.20 *yuku* 'he made it'

The nonmetaphorical value of *yuku* 'he made it/fabricated it' is illustrated in (1).

- (1) *ya kuwanhoynaya put yuku?*
 Q PN that make
 ACC

'Did Kuwanhoynaya make that?'

The passive derivative *yukilti* 'it got made' alludes to the completion of the fabrication process.

- (2) *i-tihu* *yuki-l-ti*
my-kachina make-PASS-R
doll

'My kachina doll is finished.'

In temporal application the semantically associated values 'complete/finish/be through' come to the fore. The activity that is terminated may either be incorporated into the stem (3-5) or be constructed with the causal subordinator (6-7).

- (3) *nu'* *pen-yuku*
I write-finish

'I finished writing.'

- (4) *puma* *tso-tsong-yuku-ya*
those RDP-pipe-finish-PL
 smoke

'They are through smoking.'

- (5) *pam* *pik-yuku*
that piki-finish

'She is done making piki.'

- (6) *puma* *yaw* *naa-nawakna-qe* *qa* *yuku-ya*
those QUOT RDP-pray-CAUSAL NEG finish-PL
 SS

'They have not finished praying.'

- (7) *yàapa* *taw-law-qe* *yuku*
mockingbird song-CONT-CAUSAL finish
 SS

'The mockingbird finished singing.'

- (8) *hotò-m-qa-mu-y* *nônga-k-qw* *itam* *yuku-ya*
string-MULTI-REL-PL-ACC go-k-SUBR we finish-PL
up out DS
Orion PL

'When Orion rose we were done.'

The final illustration of active *yuku* is in reference to the termination of a specific ceremony.

- (9) *haki-m powamuya-t yuku-ya-qw ösömu-y-t-e'*
 someone-PL Powamuy-ACC finish-PL-SUBR ösömu-y-R-COND
 ceremony DS month SS
pam pi pay pa-ngso-q támöng-mi-q pítu-ngwu
 that FACT ASSR there-to-EX spring-to-EX arrive-HAB

'When people have completed the Bean dance ritual and it gets the month of Ösömuya, then [the time] comes to the warmer period of spring.'

Temporal extension of the passive verbal *yukìl-ti* is used in reference to activities (10), time units (11), or ceremonial events (12). Note that sentence (12) is culturally hybrid in that it applies the term *yukìl-ti* to the acculturated festivity of Thanksgiving which is rendered *kiving* in its Hopi phonological shape.

- (10) *itam tso-tšval-yukì-l-ti-qw pu' pas-mi*
 we RDP-gather-finish-PASS-R-SUBR then field-to
 DS

'At the end of the meeting we [went] to the field.'

- (11) *kur um kyaamuya-t yukì-l-ti-qw*
 EV you kyaamuya-ACC finish-PASS-R-SUBR
 month DS
tuu-tuwuts-qw kya ung songqa tsuu'a
 RDP-story-SUBR maybe you probably rattlesnake
 narrate DS ACC

kuuki-ni
 bite-FUT

'If you tell stories after the month of Kyaamuya is over, the rattlesnake will most likely bite you.'

- (12) *kur kiving-yukì-l-ti-qw àa-piy hi-kis*
 EV Thanksgiving-finish-PASS-R-SUBR it-away some-times
 DS from a few
tal-qw pay wuwtsim-t tok-tay'-yungwa
 day-SUBR ASSR Wuwtsim-PL night-awake-IMPRF
 DS initiate PL

'When Thanksgiving is over then a few days later the Wuwtsim initiates

stay up all night [i.e., as a token gesture in remembrance of the one-time manhood ritual, which is extinct now in the Third Mesa villages].’

1.11 Miscellaneous metaphorical time locutions

1.11.0 Introduction

This section, which concludes the chapter on the device of the spatio-temporal metaphor, is devoted to an array of miscellaneous items that occur metaphorically in temporal contexts but are not as easily associated with ‘pure’ spatial concepts in nontemporal situations. Among them are a number of adverbials, two affixal elements, two clitics, and several pro-forms. For each of the items presented, a few sentences will first delineate its function in the nontemporal realm of reality before its metaphorical usage with reference to time is exemplified.

1.11.1 Adverbials

1.11.1.1 *a’ni* ‘a lot/a great deal’

The intensifying adverbial *a’ni*, whose counterpart in female speech is *hin’ur*, is basically a quantifier. Its value ‘a lot/a great deal’ may also take on the force ‘very’ in some metaphorical contexts and even translate ‘loud/fast/excellent’ in conjunction with specific verbs. (1-3) demonstrate the basic content of *a’ni*, (4-6) show the only examples in relation to a time locution that I have been able to record.

- (1) *itàa-sipal-tsoki a’ni himù-y’-ta*
 our-peach-tree a something-POSS-IMPRF
 lot

‘Our peach tree is bearing a lot [of fruit].’

- (2) *qa pas a’ni nuva-yo-yoki*
 NEG very a snow-RDP-rain
 lot

‘It did not snow a lot.’

- (3) *pay hapi nu’ uu-ngaqw a’ni hiita*
 well EMPH I you-from a something
 lot ACC

tuwì-y'-va

knowledge-POSS-INCHO

‘I’ve really learned a great deal from you.’

- (4) *ason itam qaavo pu' kó-mok-to-ni;*
 later we tomorrow then wood-bag-PREGR-FUT
 gather wood

pàasat inu-ngem a'ni qeni
 that I-for a space
 time lot

‘We’ll go gather wood tomorrow; then I’ll have plenty of time.’

- (5) *ùu-tokila a'ni hòy-ta*
 your-time a move-IMPRF
 limit lot

‘Your time limit [i.e., deadline or end of available time] is coming rapidly.’

- (6) *taawa a'ni hòy-ta*
 sun a move-IMPRF
 lot

‘The sun [i.e., time] is moving fast.’

1.11.1.2 *hihin* ‘a little/somewhat’

The quantifier adverbial *hihin*, a reduplicated version of the indefinite pro-adverb *hi-n* (some-way) ‘somehow’ basically functions as a “downtoner” or “diminisher” (Quirk 1972:435). However, in connection with other quantifiers, especially also spatial terms, it assists in bringing about the comparative sense ‘more.’ In highly specific contexts it may even translate ‘slow/in a low voice/gentle,’ etc. (1-4) illustrate *hihin* with nontemporal value, (5-12) show its temporal role.

- (1) *hihin nu' a-w wìitse-k-na-qw a'ni pakmumuya*
 a I he-to splash-k-CAUS-SUBR a cry
 little DS lot

‘Because I splashed a little bit [of water] on him, he was crying loud.’

- (2) *um hihin qōlō-ta-ni*
 you a hole-CAUS-FUT
 little

‘Make a little hole.’

- (3) *um hihin yaa-p wunu-ptu-ni*
 you a far-at stand-R-FUT
 little

‘Stand a little further.’

- (4) *hihin sumala*
 a breeze
 little

‘There is a slight breeze.’

- (5) *naat itam hihin tal-qw pay tuumoy-ta*
 still we a light-SUBR already eat-IMPRF
 little DS

‘It was barely daylight and we were eating already.’

- (6) *nu’ hihin wuuyoq-ti*
 I a old-R
 little

‘I’ve grown a little older.’

- (7) *nu’ hihin qa iits kii-yamuy a-qw-ni-qw*
 I a NEG early house-their it-to-NEX-SUBR
 little ACC EX DS

pay kur puma nānkwusa
 already EV those leave
 PL

‘Because I went a little late to their house, they had started out already.’

- (8) *ason um hihin hīi-sa-vo-ni-qw piw a-qw*
 later you a some-QNT-to-NEX-SUBR again REF-to
 little DS EX

tsoyla-ni
 poke-FUT

‘Poke [the fire] again in a little while.’

In conjunction with specific time locutions *hihin* frequently implies 'somewhat later' or 'somewhat earlier,' depending on a past time or present time context. This 'minimal' temporal quantification is not always easy to translate, as for instance in (8) above, where *hiisavo* itself already conveys the notion 'in a little while.' All of the following examples use *hihin* in this role.

- (9) *pas as um hihin taavok pit-e'*
 very IMPOT you a yesterday arrive-COND
 little SS

songqe as iuu-kwa-y a-mum
 probably IMPOT your-grandfather-ACC he-with
maq-to-ni
 hunt-PREGR-FUT

'If you had come somewhat sooner, i.e., yesterday, you could probably have gone hunting with your grandfather.'

- (10) *ason pay nu' hihin qaavo pu'*
 later ASSR I a tomorrow then
 little

sipal-yuku-to-ni
 peach-fetch-PREGR-FUT

'I'll go get peaches a little bit later, i.e., tomorrow.'

- (11) *ason pay nu' hihin tapki-mi pu' pas-mi-ni*
 later ASSR I a early-to then field-to-FUT
 little evening

'I'll go a little later than early evening to the field.'

- (12) *ason hihin taala'-ti-qw pu' nu' haak*
 later a summer-R-SUBR then I temporarily
 little DS

pay i-yawi'oyi-y maatap-ni
 ASSR my-loom-ACC let-FUT
 go

'When it gets a little into summer, I will put my loom aside for some time.'

1.11.1.3 *pas* 'very/extremely'

Among the degree intensifiers, *pas* can be assigned to the subclass of "maximizers, which can denote the upper extreme of the scale" (Quirk 1972:444). The adverbial translates in a multitude of ways and is occasionally simply rendered by a more forceful intonation. A few nontemporal examples are given in (1-5); the remainder display a selection of temporal contexts.

- (1) *pas nu' tsöng-moki-w-ta*
 very I hunger-die-STAT-IMPRF

'I am very hungry.'

- (2) *pas yaw put siwa-'at loma-mana*
 very QUOT that older-his beautiful-girl
 ACC sister

'His older sister is a very beautiful girl.'

- (3) *pas a'ni sikiya-ni-ngwu*
 very a bitter-NEX-HAB
 lot

'It's extremely bitter.'

- (4) *hak pas üu-kwatsi?*
 who very your-friend

'Who is a very good friend of yours?'

- (5) *pam pas qa atsa-t piw hay-p-'u*
 that very NEG lie-ACC again close-at-PS
 truly

'He is really too close again.'

- (6) *pu' yaw piw antsa pitu, pas mihi-k-qw*
 then QUOT again indeed arrive very night-k-SUBR
 DS

'Then, indeed, he came again, when it was really late.'

- (7) *pas pay löö-q santi-t a-ng pu' nuva-yo-yoki*
 very ASSR two-ACC week-ACC it-in now snow-RDP-rain
 DIF

'It has been snowing now for two whole weeks.'

naa-nawakna-ngwu
RDP-want-HAB

‘Almost everybody wants straight [pieces of] cottonwood root [for carving kachina dolls].’

- (2) *peep sòsoyam i-kwatsi-m yaa-vo-q tutuqay-wisa*
almost all my-friend-PL far-to-EX learn-PREGR
AN PL

‘Almost all my friends go to school to a place far away.’

The following sentences illustrate *peep* in reference to time units or temporal events.

- (3) *nu' hisat maq-ma, peep kya suu-kw*
I long hunt-POSTGR almost maybe one-ACC
ago

muuyawu-y e-p=haqa-m
month-ACC it-at=INDEF-at

‘I was hunting a while back, almost one month ago.’

- (4) *peep pas yàasangwu-y a-ng nu' i-t a-w*
almost very year-ACC it-in I this-ACC it-to
DIF

pððqa-n-ta
weave-n-IMPRF

‘I’ve been weaving on this for almost a year.’

- (5) *pay peep pas naat tal'angw-va-qw nu' piw*
well almost very still summer-R-SUBR I again
DS

*owakw-yaha-ma*⁸⁸
coal-dig-POSTGR
up

‘It was nearly summer when I went to dig up coal again.’

- (6) *taawa-t peep paki-qw nu' kwini-ngya ngōla-pto*
sun-ACC almost enter-SUBR I north-at wheel-burst
DS

‘The sun had almost set when I got a flat tire in the north [end of the village].’

1.11.2 Affixes

1.11.2.1 The intensifier prefix *su-* ‘direct/exact’

The basic force of the prefixal element *su-* and its allomorph *sùu-* is that of an intensifier. It is part of many idiomatic locutions and translates in a number of ways, depending on the lexeme to which it is prefixed. Common renditions in a nontemporal context are ‘exactly/directly/right/just/really/the very,’ etc.

- (1) *nu’ sùu-pööpa-ve siva-mok-tukpu-t tuwa*
I direct-road-at money-wrap-bag-ACC find

‘Right on the highway I found a purse.’

- (2) *sú-’i-pono-y a-kw munu*
direct-my-stomach-ACC it-with fall

‘I fell right on my stomach.’

- (3) *is uti, kur pi nu’ sùu-put wuuwa*
oh surprise EV FACT I exact-that think
EXCLM ACC

‘Gee, I evidently thought of the very same thing.’

- (4) *pas piw⁸⁹ sú-’u-mi taavi*
very ADMIR direct-you-to sunshine

‘The sun is shining directly on you.’

- (5) *ùu-tama-y su-’e-p*
your-tooth-ACC direct-it-on

‘It’s just right on your tooth [i.e., tender].’

In conjunction with time locutions, the prefix *su-/sùu-* is also encountered with the force of ‘exact/right/just/same/very,’ etc., as is attested in many temporal compound expressions throughout this monograph: *sú’ephaqam* ‘just at that time,’ *sùupàasat* ‘just then,’ *sú’àasat* ‘at the right time,’ *sú’amùusaq* ‘at the same time as they,’ *su’its* ‘very early,’ *sùutawansave* ‘right at noon,’ *sùutala* ‘exactly in summer,’ etc. In reference to verbals, the intensifier prefix conveys the values “speed” and “promptness,” as was already

pointed out by Whorf (1946:172). Appropriate renditions are then ‘quickly/right away/at once/suddenly,’ etc. Sentences (6-12) illustrate these time senses of the prefix.

- (6) *noq yaw puma naa-wiuti-m pay kur*
 and QUOT those RCPR-woman-DL ASSR EV
 SI couple

sìu-puw-va
 quickly-sleep-R

‘And that couple [i.e., man and wife] fell asleep right away.’

- (7) *kur nu' i-'uyi-y a-w sùu-pòota*
 EV I my-plant-ACC it-to quickly-check

‘Let me take a quick look at my plants.’

- (8) *sìu-qe'ti*
 quickly-stop

‘He stopped suddenly.’

- (9) *noq pay pi tuuwutsi-t e-p pi sù-wuyoq-ti-ngwu*
 and ASSR FACT story-ACC it-in FACT quickly-old-R-HAB
 SI

‘And in a story one gets older quickly, of course.’

- (10) *sìu-tapki-ngwu*
 quickly-early-HAB
 evening

‘It gets evening right away.’

- (11) *pas i' muuyaw sù-moki*
 very this month quickly-die

‘This month was over very quickly.’

- (12) *sù-yàasangw-va*
 quickly-year-R

‘It got to be a year in no time.’

1.11.2.2 The diminutive suffix *-hoya*

The diminutive suffix *-hoya*, which also occurs in the shape *-wya*, allows its

value ‘small’ to be applied metaphorically with the temporal content ‘young.’

- (1) *tiyòo-ya*
boy-DIM
‘a little/young boy’
- (2) *manà-wya*⁹⁰
girl-DIM
‘a little/young girl’
- (3) *wuti-wya*
woman-DIM
‘a young wife’
- (4) *na-wuti-wya-m*
RCPR-wife-DIM-DL
couple
‘a newly-married couple’
- (5) *wimkya-hoya*
initiate-DIM
‘a young initiate’

1.11.3 Clitics

1.11.3.1 The approximation clitic =*haqam* ‘approximately’

In nontemporal usage the approximatory clitic =*haqam* ‘about/around/and so’ is limited to cooccurring with numerals and quantifiers. It is glossed APPROX for ‘approximately.’

- (1) *pay pàa-sa-p=haqam inu-qla-p wunu-w-ta*
well that-QNT-interval=APPROX I-next-at stand-STAT-IMPRF
to
‘He was standing about that far beside me.’
- (2) *pay siùupan pàa-sa’=haqam yu’a-’à-yku*
INTR apparently that-QNT=APPROX talk-RDP-DISCONT
‘He apparently spoke about that much.’
- (3) *pu’ yaw pay piw pam àa-sa-va-t=haqam*
then QUOT ASSR again that REF-QNT-length-ACC=APPROX

angà-y'-ta
long-POSS-IMPRF
hair

'Again she had hair about the same length [as the other girl].'

- (4) *pay pi hak naamahin suu-kw=haqam*
well FACT someone although one-ACC=APPROX

hómi-ky-e' hàalay-ti-ngwu
grab-ky-COND happy-R-HAB
SS

'If one grabs just one or two [things during a Basket dance] one gets happy.'

In temporal situations, the approximator clitic is widely used. For its usage in connection with the set of indefinite modulator clitics see 1.3.3. Other highly idiomatic expressions featuring =*haqam*, such as *suushaqam* 'once in a while,' *puunathaqam* 'recently,' etc., are treated separately under their respective stems. The examples listed below illustrate the clitic in conjunction with numerals and certain verbal locutions. Nontemporal verb locutions may not append the clitic =*haqam*.

- (5) *pay nu' suu-kw muuyawu-y=haqam a-ng qátu-ni*
well I one-ACC month-ACC=APPROX it-at stay-FUT
DIF

'I'll stay about one month.'

- (6) *pam tsivot yàasangw-ni-y'-ta-qw=haqam*
that five year-CAUS-POSS-IMPRF-SUBR=APPROX
DS

ye-pe-q sus-niutungk wuwtsim-yungya
here-at-EX SUPER-last Wuwtsim-enter
time ritual PL

'He was about five years old when they had a Wuwtsim initiation here for the very last time.'

- (7) *pay yaw naalö-s=haqam amu-mi so'-tapna-qw*
well QUOT four-times=APPROX they-to end-CAUS-SUBR
DS

pay yaw taawi-y'-va
already QUOT song-POSS-INCHO

‘He had finished it [i.e., sung through the song] about four times for them when they had learned the song already.’

- (8) *itam maq-t-e' taawa-t páki-qw=haqam*
we hunt-PREGR-COND sun-ACC enter-SUBR=APPROX
SS DS

pítu-ni
arrive-FUT

‘If we go hunting, we’ll come home around sundown.’

- (9) *pam muuyawu-y ya-yma-k-qw=haqam pitu*
that moon-ACC RDP-cross-k-SUBR=APPROX arrive
DS

‘He arrived just about when the moon was rising.’

1.11.3.2 The exclusive clitic =*sa* ‘only’

By means of the exclusive clitic =*sa* Hopi focuses on something that is exclusively restricted. The restriction can apply to nontemporal (1-4) as well as temporal items (5-8).

- (1) *pay pi hópi-tu-y a-ngqw manà-wya=sa tihu-t*
well FACT PN-PL-ACC REF-from girl-DIM=only doll-ACC

mak-ìw-ngwu qa tiyòo-ya
give-PASS-HAB NEG boy-DIM
PERF

‘Among the Hopis, only a little girl, not a little boy, is given a kachina doll.’

- (2) *i-pako tori-m-vu=sa akwsingwa*
my-cottonwood twisted-MULTI-PERF=only remain
root PRTC

‘Only crooked cottonwood roots of mine are left over.’

- (3) *nu' pay sutsep put pas i-ma-y a-kw=sa*
I ASSR always that very my-hand-ACC it-with=only
ACC

hóro-k-na-ngwu
take-k-CAUS-HAB
out

‘I always take that out with my hand only.’

- (4) *pay puma mòoti put=sa-ya-ngwu*
well those at that=only-PL-HAB
first ACC

‘At first they do only that.’

- (5) *pay pe-p=sa pam oovi ya-n-tsaki*
INTR there-at=only that therefore this-way-do

‘Therefore he is doing this only at that time.’

- (6) *pam hìntoq sen pas talavay=sa murikho-y*
that why DUB very in=only stick-ACC
morning

tsuku-to-toyna-ngwu?
point-RDP-EFF-HAB

‘I wonder why he is sharpening his stick only in the morning.’

- (7) *haki-m powamuy-ve=sa haru-kwivi-t nöö-nösa-ngwu*
someone-PL Powamuy-at=only bean-cooked-ACC RDP-eat-HAB
ceremony sprouts meal

‘People eat cooked bean sprouts only at the time of the Powamuy festival.’

- (8) *itam pay pas yàa-sa-t=sa noo-nova-ngwu*
we ASSR very this-QNT-time=only RDP-food-HAB
eat PL

‘We are only eating at this time.’

1.11.4 Pro-forms

1.11.4.1 The pro-adverbs *an* ‘like it/in the right way,’ *yan* ‘like this,’ and *ayán* ‘like that over there’

The simulative suffix *-n* ‘like’ appends to a number of pronoun bases (personal, demonstrative, reflexive) and the intensifier element *su-* ‘one/same/exact’ (see 9.1.5). Attested metaphorically in temporal situations we find

three of the four demonstrative pro-bases: *an* 'like it/in the appropriate manner' which features the spatially neutral, third person singular reference base *a-*; deictically proximal *yan* 'like this' and extreme-distal *ayán* 'like that over there.' *An* is exemplified in (1-2), with (2) displaying the pro-form in a compound verb. By employing *yan* the speaker likens a particular time reference to his own present time situation (3-6); *ayán* he uses to allude comparatively to a distant time point or period with which he is temporally not associated (7-8).

- (1) *i-t muuyawu-y e-p sutsep oo-'om-q*
 this-ACC month-ACC it-in always RDP-cloud-SUBR
 _____DS
 be cloudy
- itam put qa tuwà-y'-yung-qe itàa-totokya-y*
 we that NEG see-POSS-IMPRF-CAUSAL our-totokya-ACC
 ACC PL SS day
- qa a-n õki*
 NEG REF-like arrive
 PL

'Because this month it was always cloudy we did not see it [i.e., the moon] and so we did not reach our Totokya at the appropriate time.'

- (2) *pas nu' i-tokila-y a-qw sú-'a-n-ma*
 very I my-time-ACC it-to exact-REF-like-PROGR
 limit EX

'I'm progressing toward my deadline [i.e., end of my available time] exactly on time.'

- (3) *ya-n taalaw-va-qw pu' puma naama*
 this-like daylight-R-SUBR then those together
 DS

hotvel-mo-q nakwsu
 PN-to-EX start
 out

'When it got daylight like now they started out towards Hotvela.'

- (4) *su'aw yaw ya-n taawa-nasa-ve yaw puma*
 exactly QUOT like-this sun-middle-at QUOT those

haqa-mi paa-mi pitu
 somewhere-to spring-to arrive

‘Exactly at noon like now they came to some spring.’

- (5) *niikyangw pu’ ya-n tal’angw-va-qw hii-hiimu*
 and then this-like summer-R-SUBR RDP-something
 SIMUL DS

si-y’-va
 flower-POSS-INCHO

‘But when it then gets summer like now all sorts of things begin to bloom.’

- (6) *ya-n tömö’ ye-p nuvatukya’o-ve pay pas*
 this-like in here-at PN-at ASSR very
 winter

songqe nuva-ti-ngwu
 probably snow-R-HAB

‘When it’s winter like now here in Flagstaff it is very likely to get white with snow.’

- (7) *noq yaw pam ayá-n taala’ ayà-ng-qe*
 and QUOT that over-like in over-DIF-EX
 SI there summer there

ki-ts’o-va-qe yaw puw-ngwu
 house-on-up-DIF-EX QUOT sleep-HAB
top
 roof

‘And when it was summer like that [in those days] he used to sleep over there on top of the roof.’

- (8) *pu’ ayá-n wuwtsimu-y e-p kur*
 then over-like Wuwtsim-ACC it-at EV
 there ceremony

natnga-y’-yungw-ni-ni-qw haki-m
 initiation-POSS-IMPRF-FUT-NEX-SUBR someone-PL
 PL DS

<i>as-totok-pe</i>	<i>suts-vo-q-wat</i>	<i>watqa-ngwu</i>
wash-totokya-at	separate-to-EX-SPEC	run-HAB
hair day	place	PL

‘Then at the time of Wuwtsim in those days, when they were going to have an initiation, people used to run to the other side [of the village] on Astotokya [because on this day the dead were expected to return and visit the vacant part of the village].’

1.11.4.2 The pronoun *hiita* ‘something:ACC’

Hiita, the accusative form of interrogative/indefinite *himu* ‘what?/something,’ is employed metaphorically in the temporal sense ‘at what date?’ Its occurrence seems to be restricted to a phrase with postpositional *ep*. Although *hiita ep* may be replaced by the pro-adverb *hisat* ‘at what time?/when?,’ the two locutions are not exactly synonymous. *Hiita ep* refers to something more concrete and may also translate ‘at what occasion?/at what event?’

- (1) A: *hiita e-p um kwúsu-ni-qe-y wuuwa-n-ta?*
 what it-at you marry-FUT-REL-ACC think-n-IMPRF
 ACC M
- B: *pay ason sòsoyam höq-yuku-ya-qw-ö*
 well later all harvest-finish-PL-SUBR-PS
 AN DS

‘At what time were you thinking to have the wedding?’ ‘When all are through harvesting.’

- (2) A: *ya hiita e-p nimàn-tingap-ya-ngwu?*
 Q what it-at go- announce-PL-HAB
 ACC home ceremony
- B: *soyal-nalö-s-tal-qa-t e-p-’e*
 Soyal-four-times-day-REL-ACC it-at-PS
 ceremony

‘At what time do they usually announce the Home dance?’ ‘On the fourth day [after] Soyalangw.’

1.11.4.3 The pro-verb *hinwisa* ‘they are moving along in some way’

The plural pro-verb *hinwisa*, whose associated singular shape is *hinma*, may be used in its indefinite force to express the temporal notion ‘they are moving along in time.’ The pro-form is simply a less concrete term than, for instance, the more specific verbals *hòyta* or *hoyoyota*.

- (1) *nu'* *pay* *muuyawu-y* *a-w* *qa* *tunatya-l-ti-qw*
 I ASSR moon-ACC it-to NEG attention-PASS-R-SUBR
 DS
- haq-e'* *pi* *oovi* *itam* *hi-n-wisa*
 somewhere-at IGNOR therefore we some-way-PROGR
 DIF PL

'Since I didn't pay attention to the moon, I have no idea where we are timewise.'

2 Units of time

2.0 Introduction

When scanning the lexical scope of temporal reality in our western societies, it is the hierarchically structured system of time units that takes on a most prominent role in temporal orientation. These units of calendar time run the gamut from the momentary segment of a second to the longterm periods of century and millenium with such intermediate intervals as hour, day, month, year, etc. They form an elaborate temporal taxonomy which is the cultural product of a historical process that is as old as western civilization itself. Since the matrix of time in which man orients himself is part of his cultural heritage, it is of course to be expected that temporal reference frames will vary considerably from one society to another. An idiosyncratic instance is reported by Radcliff-Brown:

The Andamanese have adopted an original method of marking the different periods of the year by means of the odoriferous flowers that are in bloom at different times. Their calendar is a calendar of scents (Hallowell 1937:652).

Some of the most widely shared experiences which have molded man's perception of time are such basic occurrences as the movement of the sun with periodically recurring phases of light and darkness, the regular phenomena of the moon's phases, distinct seasonal patterning according to climatic changes in the course of the year, etc. Their impact on the linguistic segmentation of time is noticeable in nearly every society with refinements varying, of course, in response to local constraints or necessities.

The calendar units that figure most prominently in the Hopi language are the day, the month, and the seasons. Important, but receiving considerably less attention, are the night and the year, with the latter gaining ground under the influence of English acculturation. The smaller units of second, minute, and hour were never part of Hopi time-reckoning. Expressions for the concept

'hour' became fashionable after intensive social mingling with the Anglo world (see 1.10.11). The same holds for the grouping of days in the higher order unit 'week,' which most likely originated under missionary influence. Individually named units of time measurement going beyond the limit of 'year' were likewise never part of the aboriginal cultural pattern of Hopi time calculation.

Several of the above-mentioned units permit, as is to be expected, further subgrouping. Such subdividing terms will be described in conjunction with the analytic treatment of the major entities. In addition, derivatives and all relevant information, whether significant from a cultural, morphological, or semantic perspective, will be presented in conjunction with the time units listed in the succeeding subchapters. We will begin our investigation with the time measurement 'day.'

2.1 *The day*

The basis for recognizing the time segment 'day' is astronomical and owes its existence to the sun. According to Hopi mythology, the sun is a deity that is generally depicted as a young man of great handsomeness. He leaves his house in the east every morning, travels westward above the earth, of which Hopi land constitutes the center, and retires to his house in the west at night. After a meal which is followed by a bath in the ocean, Sun climbs down through a hatch in the house altar to a subterranean house. When he ventures forth from that, he brings daylight to the people in the underworld. While traveling eastward beneath the surface land, darkness reigns in the upper world until he climbs up again to his surface abode in the east. Thereupon the cycle starts anew.⁹¹

It is not difficult to conceive why 'day' and 'night' would come to be considered the simplest and most obvious units of time. Both are relatively short. Both also constitute temporal units which are flanked by the regular events of the rising and setting sun. The day, while associated with light and wakefulness, contrasts directly with the night. It in turn combines the penetrating experience of darkness and sleep which justify a unit of their own.

Hopi has developed several lexemes to express the concept 'day.' The one most commonly used is the nominal *taala*. It will be described in the following subchapter.

2.1.1 Day reckoning by *taala* 'light'

2.1.1.1 Etymology and syntax of *taala*

In striking similarity to the English etymology of 'day,' which can be traced back via Anglo-Saxon *dæg* to the Indo-European root **dheg* 'burn'⁹² – thus marking the time of the burning sun – the term *taala* is built on the same root element as *taawa*, the native word for 'sun.' Signifying something like 'brightness/light,' this meaning of *taala* is still transparent in dozens of compounds and derivatives featuring the stems *tala-* and *tal-*.⁹³ In a secondary application *taala* is then identified with the diurnal period distinguished by light and takes on the value 'day.' While at first probably applying only to the actual phase of daylight, the referent range of *taala* was later extended according to the *pars pro toto* principle to comprise the full span of twenty-four hours. This principle, so important in the development of time reckoning, shows, as Nilsson puts it, "how the original time-indication is discontinuously related to a concrete phenomenon, and only slowly and at a later period develops into a continuous numerical unit of time" (1920:11).

Syntactically, the Janus-headed behavior of *taala* is quite remarkable. The term seems to be endowed with both nominal and verbal characteristics. A great number of constructions involving the time unit *taala* clearly assign it to the part of speech class noun. Obligatorily singular,⁹⁴ it very seldom figures as the subject of a sentence. A rare example is (1).

- (1) *löö-s taala a-qw pee-ti*
 two-times day REF-to leave-R
 EX over

'Two days are left until that [event].'

More frequently, *taala* is governed as the direct object of a verb phrase.

- (2) *suu-kw taala-t pam a-w hóyo-k-na*
 one-ACC day-ACC that REF-to move-k-CAUS

'He added one day to it.'

- (3) *nu-y panis paayi-s taala-t tokil-toyna*
 I-ACC only three-times day-ACC time-EFF
 limit

'He gave me a time limit of only three days.'

The inherent nominal valence is, of course, also evident in postpositional phrases employing *taala* as object. The following examples show the noun in

pronoun copy situations with all the postpositions that may occur in connection with *taala* except *akw* (see 1.5.3). Note the accusative marker *-t* which is invariably affixed to *taala*.

- (4) *paayi-s taala-t e-p nu' ung ùu-ki-y*
 three-times day-ACC it-on I you your-house-ACC
 ACC

a-w wik-ni
 it-to take-FUT
 along

'In three days I will take you to your house.'

- (5) *tsivot taala-t e-pe-q pu' itam hotvel-mo-q-ya*
 five day-ACC it-on-EX then we PN-to-EX-PL

'On the fifth day we went to Hotvela.'

- (6) *pam nawus sunat taala-t a-ng qa hiita*
 that must twenty day-ACC it-in NEG something
 DIF ACC

suhu-t tuumoy-ta-ngwu
 salty-ACC eat-IMPRF-HAB

'For twenty days she must not eat anything salty.'

- (7) *paayi-s taala-t a-w pàa-sa-vo itam qa*
 three-times day-ACC it-to that-QNT-to we NEG

naa-tusi-tota-ni
 REFL-considerate-CAUS-FUT
 PL

'Until the third day we won't spare ourselves [i.e., we won't let up in our effort].'

- (8) *puma naalö-s taala-t a-qw kwangw-to-toya*
 those four-times day-ACC it-to pleasant-RDP-EFF
 EX look forward to PL

'They are looking forward to the fourth day.'

- (9) *suu-kw taala-t a-ngqw yàyna-ngwu*
 one-ACC day-ACC it-from start-HAB

'One starts [to count] from one day [i.e., the first day].'

ceremonially, it will be glossed ‘totokya:day.’ However, the term is also applied in a nonceremonial context and may for instance pinpoint the day before a person sets out on a journey. Our gloss will then be ‘day:before.’ Since night dances in the months of January and March are usually held on *totokya*, with the option of one of the participating kachina groups staging a public performance the following day on *tiikive* or ‘dance day,’ *totokya* also takes on the sense of ‘night dance day.’

To complicate matters, the four days after the dance day *tiikive* are counted once more according to the pattern *suus taala*, *löö’s taala*, *payistala*, and *nalöstala*. Moreover, in the case of an extended sixteen-day ceremony, three sets of four days with each set using the same nomenclature will be counted before *suus qa himu* is reached (Dorsey–Voth 1902:173). Needless to say, this repetition of identical day designations is not exactly favorable to associating a given event with a particular day. As a rule, however, only the immediate pre-ceremonial and post-ceremonial days are referred to in everyday speech to date a particular happening.

The examples that follow illustrate the syntactic behavior of the eight possible day designations that Hopi resorts to in a ceremonial context. Day terms with *taala* or *-tala* allow a remarkable variety of morphological operations which stem from the basically hybrid nature of the stem. We observe evidence for verbal characteristics in conjunction with the nominalizer *-qa*, the causative suffix *-na*, and the different subject indicator *-qw*. A nominal classification of the stem, however, is appropriate when the case marker *-miq* is appended, or when the accusative ending *-t* is attached in pronoun copy constructions.

2.1.1.2.1 *suus taala* ‘first day’

- (1) *qaavo* *suu-s* *tal-ni*
tomorrow one-times day-FUT

‘Tomorrow will be the first day.’

- (2) *suu-s* *täl-qa-t* *e-p* *iyo-ho’-ti*
one-times day-REL-ACC it-on cold-ABS-R

‘On the first day it got cold.’

2.1.1.2.2 *löö’s taala* ‘second day’

- (1) *pu’* *pi* *supawla-ve* *löö-s* *taala*
today FACT PN-at two-times day

‘Today is the second day in Supawlavi.’

- (2) *ason löö-s tal-qw pu' nu' homol'o-mi-ni*
 later two-times day-SUBR then I PN-to-FUT
 DS

'I will go to Winslow on the second day.'

2.1.1.2.3 *payistala* 'third day'

- (1) *payi-s-tal-qa-t e-p puma yaw aa-'as-lalwa*
 three-times-day-REL-ACC it-on they QUOT RDP-wash-CONT
 hair PL

'On the third day they were washing their hair.'

- (2) *nu' payi-s-tal-mi-q kwangw-toya*
 I three-times-day-to-EX pleasant-EFF
 look forward

'I'm looking forward to the third day.'

2.1.1.2.4 *nalöstala* 'fourth day'

- (1) *nalö-s-tala, son oovi qa yok-va-ni*
 four-times-day NEG therefore NEG rain-R-FUT

'It's the fourth day, therefore it's bound to rain.'

- (2) *pam nalö-s-tal-qa-t a-ngqa-qw kiva-mi*
 that four-times-day-REL-ACC it-INDEF-from kiva-to

qa sa-sqa
 NEG RDP-STEM
 keep going

'From the fourth day on he hasn't been going to the kiva.'

- (3) *pu' hapi àa-piy itamu-y soyàl-ku-kuy-va-qa*
 then EMPH REF-away we-ACC Soyal-RDP-emerge-R-CAUSAL
 from ceremony SS

pu' nalö-s-tal-na-ya-qw pu' itam àa-piy
 then four-times-day-CAUS-PL-SUBR then we REF-away
 DS from

pi piw yeese
 FACT again sit
 PL

‘Then when we have finished the Soyol ritual and have reached the fourth day [following it], then we live [our ordinary lives] again.’

2.1.1.2.5 *suus qa himu* ‘once nothing’

- (1) *qaavo hapi songòopa-ve suu-s qa himu-ni*
 tomorrow EMPH PN-at one-times NEG something-FUT
 day

‘Tomorrow will be Suus qa himu in Songoopavi [i.e., the third last day before the public dance].’

- (2) *hotvel-pe suu-s qa himu-ni-qw*
 PN-at one-times NEG something-NEX-SUBR
 day DS

i-pono-mi-q hõta-ya
 my-stomach-to-EX open-PL

‘When it was Suus qa himu in Hotvela they opened my stomach [i.e., I had a stomach operation].’

Example (3) illustrates the day locution in an accusative construction motivated by postpositional *ep*.

- (3) *suu-s qa hiita e-p pam múnqa-mi-q*
 one-times NEG something it-at that PN-to-EX
ACC
 day
sami-yuku-to
 fresh-fetch-PREGR
 corn

‘On the day Suus qa himu he went to Munqapi to get fresh corn.’

Unlike the pre- and postceremonial application of the four-day set just illustrated, the day count beginning with Suus qa himu is only applicable preceremonially. Unlike the noun phrase *suus qa himu*, the remaining terms of this series constitute nominals which may take the regular case endings.

2.1.1.2.6 *piktotokya* ‘piki totokya’

- (1) *pik-totok-pe puma naangwu-ta*
 piki-totokya-on those argument-CAUS
 day

‘They quarreled on Piktotokya.’

- (3) *totok-pe mihi-k-qw ima tsu-tsku-t pay*
 totokya-at dark-k-SUBR these RDP-clown-PL ASSR
 day night DS
- katsin-mu-y qa amu-n tok-tay'-yungwu*⁹⁶
 kachina-PL-ACC NEG they-like night-awake-IMPRF
 PL
 HAB

'On Totokya night [i.e., the night preceding the dance] the clowns do not stay up all night as the kachinas do.'

- (4) *haki-m totok-mi písoq-ya-ngwu*
 someone-PL totokya-to busy-PL-HAB
 day

'People are busy the time before Totokya.'

- (5) *totok-ngaqw nu' itsivu-'iw-ta*
 totokya-from I angry-STAT-IMPRF
 day

'I've been angry since Totokya.'

The term *totokya*, designating in a narrow sense the penultimate day before any big event (see for example the sequence of ideally twenty days in 5.2), occasionally comes to be identified with the overall ceremony that is at hand. (See for example (1) in 1.3.3.4.3 and (4) in 1.10.5). More frequently, however, it occurs with the value 'night dance.' The reason for naming an evening dance *totokya* stems from the traditional option that is available to a Hopi of singling out one kachina night dance group that was particularly appealing to him and requesting it to perform the following day on the public plaza (see also 5.1.5). The cultural circumstances as well as the overall linguistic context will, of course, be instrumental in disambiguating the respective semantic forces of *totokya*. This is evidenced in the 'minimal pair sentences' (6) and (7).

- (6) *hotvel-pe pu' totokya; itam qaavo tiimay-wis-ni*
 PN-at today totokya we tomorrow witness-PREGR-FUT
 day dance PL

'Today is Totokya in Hotvela; we'll go watch the dance tomorrow.'

- (7) *hotvel-pe pu' totokya; itam oovi mihi-k-qw*
 PN-at today night we therefore dark-k-SUBR
 dance night DS

tiimay-wis-ni
 witness-PREGR-FUT
 dance PL

'Today there is a night dance in Hotvela; we'll therefore go watch the dance tonight.'

As the following examples show, the semantic notion conveyed by *totokya* may go one way or the other.

- (8) *sen haqawa totok-wuwa-n-ta*
 DUB someone night-think-n-IMPRF
 dance

'I wonder whether someone is thinking of [putting on] a night dance.'

- (9) *ya hak totok-lawu?*
 Q who totokya-CONT
 day

'Who is sponsoring the night dance?'

- (10) *totok-lalwa*
 night-CONT
 dance PL

'They are having night dances.'

- (11) *paaqavi-t e-p pu' totokya-y'-yungwa*
 PN-ACC it-at today totokya-POSS-IMPRF
 day PL

'At Paaqavi they are having Totokya today [i.e., the day before the plaza dance, if said in summer, or the day of a night dance, if said in winter].'

- (12) *nu' totok-navoti-y'-va*
 I night-know-POSS-INCHO
 dance

'I arrived with the knowledge of a night dance.'

- (13) *hotvel-pe totok-ti; oovi kooyemsi-t pitu*
 PN-at night-do therefore PN-DL arrive
 dance

‘At Hotvela they [i.e., the two Kooyemsi] announced a night dance; that’s why the two Kooyemsi [kachinas] came [who go from kiva to kiva].’

- (14) *yaw totok-ti-wa*
 QUOT totokya-CAUS-PASS
 day PERF

‘A day [or night] dance has been held.’

- (15) *naat pu’ hotvel-pi-t totok-tota-t pay*
 still now PN-person-PL night-CAUS-PRIOR well
 dance PL SS

piw yàa-piy piw-ya-ni
 again here-away more-PL-FUT
 from

‘The Hotvela people just held night dances and they are going to have more.’

2.1.1.2.9 *tiikive* ‘dance day/dance’

The term *tiikive* is used to refer to both ‘dance’ and ‘dance day’ by Hopi speakers. With the latter meaning its morphemic component *-ve* is still active and the overall form is interpreted as a locative in spatio-temporal extension.

- (1) *nu’ tiiki-ve teevep saavu-lawu*
 I dance-on all chopped-CONT
 day day wood

‘I was chopping wood all day long on dance day.’

Other case endings, too, are frequently attested with the stem *tiiki*. (2) presents it in destinative shape, (3) in modulated ablative form.

- (2) *nu’ tiiki-mi pàa-sa-vo tumala-y’-ta-ni*
 I dance-to that-QNT-to work-POSS-IMPRF-FUT
 day

‘I’ll be working till dance day.’

- (3) *nu’ tiiki-ngahaqa-qw ita-ngu-y a-mum qatu*
 I dance-INDEF-from our-mother-ACC she-with sit
 day

‘Since about dance day I’ve been staying with our mother.’

In the sense ‘dance’ the locative sense of *tiikive* is suppressed and the form is treated like a regular noun. Evidence for this reanalysis is (6) in 2.1.7.3.3, where *tiikive* attaches an accusative marker before a temporal lexeme that behaves like a postposition. The semantic shift between ‘dance’ and ‘dance day’ is further illustrated in sentence (4) below, a question which is properly asked at the time of an ongoing night dance⁹⁷, and (5) which presents the pluralized shape of *tiikive*.

- (4) *sen qa tiikive-ni?*
DUB NEG dance-FUT

‘I wonder if there isn’t going to be a [day] dance.’

- (5) *ye-pe-q tii-tikive pay yuki-l-ti*
here-at-EX RDP-dance already finish-PASS-R

‘Here [in this village] the [kachina] dances are already over [for the season].’

2.1.1.3 Derivatives from the stem *tal-* ‘day’

When one surveys the syntactic behavior of expressions that display the free element *taala* or the compound shape *-tala*, it becomes readily obvious that the two elements share both nominal and verbal qualities. The intrinsic noun quality of *taala* was clearly demonstrated in postpositional phrases and in predicative functions listed in 2.1.1.1. Verbal interpretation was appropriate when the stem *tal-* was observed in conjunction with the switch reference marker *-qw* or the nominalizing relativizer *-qa* in the same chapter. Both morphological devices are constrained from attaching to nominal stems without an intervening connective. This fluctuation of *taala* between nominal and verbal qualities is also apparent in a number of derivational processes in which the element participates. Causative *-na* as in *talna* ‘he spent a day’ plainly occurs on the nominal variant of *tal-*.

- (1) *pu’ puma suu-s tal-na*
today those one-times day-CAUS

‘Today they [i.e., mother and child] spent the first day [of the twenty that they have to be shielded from sunlight after the birth of the child].’

The analysis of *talniy’ta* ‘he has (spent) a day/is a day old,’ on the other hand, allows two possible interpretations. The element *ni* may be regarded as a marker for nominalization, in which case *tal-* would represent a verbal stem.

However, *talni* may also constitute the ablauted stem of *talna* before the possessive marker *-y'*. I personally lean towards the latter option, but nominalized *-talni* is attested in reflexive possessive constructions before the accusative suffix *-y* as may be seen in (2).

- (2) *nalö-s-tal-ni-y e-p pam kiva-ngaqw yama*
 four-times-day-NR-ACC it-on that kiva-from leave

'On his fourth day he left the kiva.'

The verbal *talniy'ta* with stative *-ta* is illustrated in (3) and (4); it is followed by *talniy'ma*, featuring progressive *-ma*.

- (3) *pam pu' paa-p-tsivot tal-ni-y'-ta*
 that today three-at-five day-CAUS-POSS-IMPRF
 fifteen

'Today he is fifteen days old.'

- (4) *tsoon pu' pakwt naalö-q siikya-y'-ta-qa-t*
 June then ten four-ACC plus-POSS-IMPRF-REL-ACC
tal-ni-y'-ta
 day-CAUS-POSS-IMPRF

'June 14 (NEO)'

- (5) *pam naalö-s tal-ni-y'-ma-kyangw pay*
 that four-times day-CAUS-POSS-PROGR-SIMUL ASSR
 SS

qa pitu
 NEG arrive

'Although he is already spending his fourth day [here], he has not come by [to visit].'

2.1.1.4 Day count during the puerperal period of twenty days

As mentioned above, the special day designations that distinguish the pre-ceremonial time period and provide an orientational framework within which both esoteric as well as secular obligations can be structured temporally, are also used during occasions of less ceremonial significance. We are aware, of course, that the dichotomy between ceremonial and nonceremonial performances is rather a product of the Anglo view of things and not necessarily a reflection of the Hopi perspective. Religious or ceremonial elements are very much integral to the overall and everyday Hopi fabric of life.

Stephen, for example, cites a special day count series following a girl's first menstruation (1936:142). The four days preceding the hair washing ritual on the final day are termed *suus taala* 'first day,' *löös taala* 'second day,' *totokya* 'day before [the final event],' and *kuyva* 'she came out/finished [her special day sequence].' (The orthographic rendition is mine).

Another such occasion arises toward the end of the twenty-day period which a mother and her newborn child spend in seclusion from the sunlight immediately following the baby's birth. The days prior to the naming feast are identified in the same manner as those preceding a public dance. The complex calendrical tabulation that is required during this event should be apparent from the ensuing text.

- (1a) *ye-pe-q wüuti tii-t-e' sunat taala-t*
 here-at-EX woman child-CAUS-COND twenty day-ACC
 SS

a-qw tii-qats-ngwu;
 it-to child-lie-HAB
 EX incubate

'When a woman gives birth to a child [out] here, she lies on it [i.e. hatches it] for twenty days.'

- (1b) *paa-sa-vo pam qa suhu-t pu' qa hiita*
 that-QNT-to that NEG salty-ACC then NEG something
 ACC

wi-hu-wsa-t tuumoy-ta-ngwu;
 grease-ABS-ADJR-ACC eat-IMPRF-HAB

'For that length of time she does not eat anything salty or greasy.'

- (1c) *pu' itam put pòotoyla-n-wis-ngwu, taala-yat;*
 then we that count-n-PROGR-HAB day-her
 ACC PL ACC

'Then we go along counting her days.'

- (1d) *suu-kw taala-t a-ngqw yàyna-ngwu;*
 one-ACC day-ACC it-from start-HAB

'They [i.e., mother and child] start from day one.'

- (1e) *tsivot taala-t e-pe-q sus-mòoti puma as-ngwu;*
 five day-ACC it-on-EX SUPER-first those wash-HAB
 hair

'On the fifth day they wash their hair for the first time.'

- (3) *naat suu-s puma aasi*
 still one-times those wash
 hair

‘So far they’ve washed their hair once.’

This locution, which may also be rendered ‘They washed their hair for the first time,’ indicates that the fifth day has been reached. The hairwashing ritual takes place every five days and helps to structure the temporal orientation. Reference to the sixth day is as follows:

- (4) *taavok puma naat pu’ suu-s as-qe*
 yesterday those still now one-times wash-CAUSAL
 hair SS

pu’ suu-s piw tal-ni-y’-ta
 today one-times also day-CAUS-POSS-IMPRF

‘Yesterday they washed their hair for the first time and today they spent another day.’

Upon reaching the tenth day, the appropriate phrase is:

- (5) *pu’ puma pakw-ta se’el as-qe*
 today those ten-CAUS this wash-CAUSAL
 morning hair SS

‘This morning they made ten [days] by washing their hair.’

Once the fifteenth day is reached, which is marked by another act of hairwashing, all attention is focused on Totokya, the eve of the naming feast. Accordingly, one says:

- (6) *pu’ paayi-s as-qe yàa-piy totok-mi-q*
 today three-times wash-CAUSAL here-away totokya-to-EX
 hair SS from day
hòy-ta
 move-IMPRF

‘Because they washed their hair today for the third time they are moving towards Totokya.’

The term for the third day before *tiikive* ‘dance day’ is *suus qa himu*; it is identical with the third day prior to the naming event. To meet the morphological requirements of the possessive locution employed in (7), the day designation needs to be transformed into the objective case.

- (7) *pu' suu-s qa hiita-y'-ta*
 today one-times NEG something-POSS-IMPRF
 ACC
 day

'Today they have [reached] Suus qa himu.'

The eighteenth and nineteenth day are constructed likewise:

- (8) *pu' pik-totokya-y'-ta*
 today piki-totokya-POSS-IMPRF
 day

'Today they have [reached] Piktotokya.'

- (9) *pu' totokya-y'-ta*
 today totokya-POSS-IMPRF
 day

'Today they have [reached] Totokya.'

Reference to the conclusion of the puerperal period of twenty days is patterned on the causative verbal used for the tenth day. *Sunat* 'twenty,' of course, now replaces the numeral *pakwt* 'ten.'

- (10) *se'el puma súnat-ta*
 this those twenty-CAUS
 morning

'This morning they made [i.e., completed] twenty [days].'

2.1.2 Day reckoning by *-tok* 'black'

In addition to the day counting system based on the elapsing phases of sun light, Hopi provides an alternative method that reckons by 'night.' More accurately, we should say that reckoning is done in 'darks' or 'blacks,' for this is the etymological background involved in the suffixal element *-tok*. Miller, in his compilation of Uto-Aztecan cognate sets, lists the starred form **tuk* as the reconstructed proto candidate for 'night,' adding that it in turn relates to the proto color elements **tu/*tuhu* 'black' (1967:21).

Modern Hopi retains a number of reflexes of Proto-Uto-Aztecan (PUA) **tuk*. Besides nonfree *-tok*, the element is found in the noun *tookila* 'night,' the temporal adverbs *tookyep* 'all night' and *tooki* 'last night,' as well as the verbal compound *tok-tay'-ta* (night-awake-IMPRF) 'he stays up all night/spends the night without sleep.' The element is probably also involved in

the intransitive verbals *took* 'the light went out' and *sawitoki* 'he blacked out/ became unconscious' as well as transitive *tookya* 'he put out the light.' A further reflex of the proto meaning may perhaps be seen in *tokpela* 'sky,' a term which is never used for the blue sky of the day but rather seems to be reserved for the 'black sky of the night.' The proto form **tuhu* is still attested in the noun *toho* 'black shale,' a mineral which was crushed and used as a black pigment.

The color term 'black' thus turns out to be the prime semantic ingredient of the element *-tok*. It is only a small step then to equate 'blackness' with the time of darkness and sleep and thereby develop a system of reckoning in 'nights.' Interestingly enough, the old Hopi method of measuring distance was also done by counting the number of 'sleeps,' that is 'nights' rather than 'days,' to indicate the time that was necessary to reach a certain destination. PUA **tuk* 'night' is still reflected in *tookya* 'they are asleep,' suppletive plural form of *puuwi* 'he is asleep.' Evidence for this distance measuring technique is shown in example (1) in a general sense and in (2) in a specific one. The latter represents a formula to elicit information about an unfamiliar destination far away. Example (3) involves a verbal expression, referring to the practice of traveling and sleeping in an alternate succession.

- (1) *hak löö-s puw-t pu' a-w pítu-ngwu*
 someone two-times sleep-PRIOR then REF-to arrive-HAB
 SS

'Having slept twice one arrives there.'

- (2) *ya hii-sa-ki-s haki-m tok-t*
 Q which-QNT-place-times someone-PL sleep-PRIOR
 PL SS

a-qw öki-ngwu?
 REF-to arrive-HAB
 EX PL

'How many times do people sleep to get there?'

- (3) *itaa-so inu-mi la-lvay-ngwu-ni-qw yaw*
 our-grandmother I-to RDP-speak-HAB-NEX-SUBR QUOT
 DS

hi-sa-t puma pas tok-tap-ti-wis-kyaa-kyangw
 some-QNT-time those very night-CAUS-IMPRF-PROGR-RDP-SIMUL
 long ago PL SS

<i>pu'</i>	<i>nuvatukya'o-mi</i>	<i>ókí-ngwu</i>
then	PN-to	arrive-HAB
		PL

'Our grandmother told me that in the old days they spent several nights until they arrived in Flagstaff.'

Counting the days from the periods of darkness, i.e., nights, is, of course, not peculiar to Hopi culture. It was for instance a widely established custom among the ancient Indo-Europeans. Caesar reports this for the Celtic inhabitants of Gaul,⁹⁸ and Tacitus' observation that the ancient Germans did not count the number of days but of nights⁹⁹ still holds if one considers the English terms *fortnight* or archaic *sennight* and the German time words *Fastnacht* or *Weihnacht*.

Unlike *taala* 'day,' which still occurs in the underlying meaning of 'light,' the etymological substratum of *-tok* as delineated above is no longer as readily understood by present day Hopi speakers. If anything, they will gloss the element 'day' in the sense of a time interval that stretches from sun-up to sun-up, thus comprising the full span of twenty-four hours. This semantic shift is indebted to the *pars pro toto* principle again.

Closer to its original denotation and generally glossed 'night,' the element *-tok*, on the other hand, still survives in the time locutions *hukyaltok* 'the night before last' (4-6) and *payuhukyaltok* 'three nights ago' (7).

(4)	<i>pay</i>	<i>hukyaltok</i>	<i>qa</i>	<i>pas</i>	<i>suyan</i>	<i>kwangwa-hi-n-ta;</i>
	well	night	NEG	very	clearly	pleasant-some-way-IMPRF
		before				
		last				

<i>hi-n</i>	<i>pi</i>	<i>pu'</i>	<i>hi-n-ta</i>
some-way	IGNOR	today	some-way-IMPRF

'The night before last he was clearly not feeling well at all; I don't know how he is doing today.'

An approximate indication of the time point is achieved by adding the enclitic approximatizer *=haqam*.

(5)	<i>hukyaltok=haqam</i>	<i>nu'</i>	<i>put</i>	<i>sowa</i>
	night=APPROX	I	that	eat
	before		ACC	up
	last			

'I ate that up about the night before last.'

The pausal ending attested for the temporal adverb is *-’u*.

(6) A: *um hi-sa-t put a-w yori?*
 you which-QNT-time that it-to look
 ACC

B: *pay hukyaltok-’u*
 well night-PS
 before
 last

‘When did you see him?’ ‘Well, the night before last.’

The compound term *payuhukyaltok* extends its time span to three nights as is indicated by the element *payu-* ‘three.’

(7) *payu-hukyaltok itàa-ki-y e-p nös-ma*
 three-night our-house-ACC it-at eat-POSTGR
 before meal
 last

‘Three nights ago he was at our house to eat.’

In contrast to the two adverbials just mentioned, whose temporal content will only apply to past time, the compound forms consisting of cardinal number stems and *-tok* may refer to both past and future time. Compared to the *taala* system, the *-tok* approach is less elaborate, that is, its range of usage is more restricted. The attested series begins with the numeral base for ‘two’ *löö-* and is usually not carried further than ten. No term exists for the notion ‘one day.’ Functionally adverbs, *-tok* compounds translate ‘in X days’ or ‘X days ago’ according to the overall context. My Hopi language corpus contains the following items, with the cardinal numerals listed in parentheses: *löötok* (*lööyö* ‘two’), *pàytok* (*paayo* ‘three’), *naalötok* (*naalöyö* ‘four’), *tsivotok* (*tsivot* ‘five’), *navàytok* (*navay* ‘six’), *tsange’tok* (*tsange* ‘seven’), *nanàltok* (*nanal* ‘eight’), *peve’tok* (*pept* ‘nine’), and *pakwutstok* (*pakwt* ‘ten’). Examples (8-10) illustrate future time reference, (11-12) exemplify reference to past time.¹⁰⁰

(8) *itam qa löö-tok-ni-t tis qaavo-ni*
 we NEG two-night-NEX-PRIOR even tomorrow-FUT
 SS

‘We won’t go in two days, rather tomorrow.’

- (9) *naalö-tok tiikive-ni*
four-night dance-FUT

‘In four days there will be a dance.’

- (10) *nanàl-tok owaqö-l-yung-ni*
eight-night Owaqöl-enter-FUT
society PL

‘The [members of the] Owaqöl [society] will go into [the kiva to begin their ceremony] in eight days.’

- (11) *löö-tok nu' paa-ve-q*
two-night I spring-at-EX

‘Two days ago I was at the spring.’

- (12) *naat nu' pu' naalö-tok sivi-yama*
still I now four-night atone-go
out

‘Just four days ago I got out of jail.’

Day counting terms with *-tok* may also attach additional elements. (13) features the modulator =*haqam* with approximative value.

- (13) *pày-tok=haqam talavay nu' taa-tay-qe*
three-night=APPROX in I RDP-STEM-CAUSAL
morning wake up SS

pas qa ahoy puw-va
very NEG back sleep-R
to

‘About three days ago I woke up in the morning and didn’t go back to sleep.’

The past time reading ‘about X days ago’ shifts to the interpretation ‘since X days/for X days’ if the predicate is marked for imperfective aspect. The following sentence pair demonstrates this semantic contrast.

- (14) *löö-tok=haqam nu' tamàa-tuy-va*
two-night=APPROX I tooth-hurt-R

‘Two days ago I had a toothache.’

- (15) *pas nu' löö-tok=haqam pay tamàa-tu-tuya*
 very I two-night=APPROX ASSR tooth-RDP-sickness
 be sick

'For two days I've been having a toothache.'

With enclitic =*haq* taking the place of =*haqam*, the same value is established in connection with durative verbs.

- (16) *löö-tok=haq nu' i-t a-w hi-n-tsak-t*
 two-night=APPROX I this-ACC it-to some-way-do-PRIOR
 EX SS

naat qa a-w yuku
 still NEG REF-to finish

'I've been working on this for two days and still I haven't finished.'

The temporal notion 'since' may also be handled with the modulated ablative -*ngahaqaqw*.

- (17) *nu' naalö-tok-ngahaqa-qw pas-lawu*
 I four-night-INDEF-from field-CONT
 hoe

'I've been hoeing [weeds on] the field for four days.'

The sense 'from X days on' is conveyed by the complex postpositional element -*vüpiy* (see 1.5.7.5).

- (18) *löö-tok-vii-piy nu' maalam-va-ni*
 two-night-place-away I clear-INCHO-FUT
 (?) from field

'Two days from now I'll start clearing a field.'

Example (19) shows a time expression with -*tok* in conjunction with the destinative marker -*mi*.

- (19) *nu' pay naat pày-tok-mi*
 I ASSR still three-night-to
uy-'aya-y'-ta-ni-qe-y tavi
 plant-party-POSS-IMPRF-FUT-REL-ACC put

'I put the planting party off for three days.'

Morphologically rare is the attested case of a day counting term with *-tok* appending the realized state marker *-ti*.

(20) *noq e-p löö-tok-ti-qa-t e-p hapi po-pwaq-t*
 and REF-at two-night-R-REL-ACC it-at EMPH RDP-sorcerer-PL
 SI

pumu-y qö-qya-ni-qa-t e-p mihi-k-qw
 those-ACC RDP-kill-FUT-REL-ACC REF-at night-k-SUBR
 PL DS
 OBJ

pu' yaw pam piw so-y a-w-'i
 then QUOT that again grandmother-ACC she-to-PS

'And on that second day on which the sorcerers were going to kill them, that day at night he went to his grandmother again.'

2.1.3 Day reckoning by *taawa* 'sun'

To capture the time notion 'day' Hopi also calculates in 'suns.' This method is based on the equation of one daylight period with the astronomical phenomenon of the sun, which is responsible for it in the first place. How far Hopi thinking is actually abstracted from the concrete sense of *taawa* 'sun,' is hard to judge. Most of my data seems to indicate that it is still very much the light part that is envisaged and not the period of twenty-four hours. On the other hand, *taawa* is used occasionally to convey the highly abstract denotation of 'time,' as may be gathered from expressions with *hòyta* (see 1.10.3) as well as from the following idiom which implies that it became evening before one even realized it and comes close to the English phrase 'time just flew.'

(1) *uti, taawa qa hímu-ni-w-ti*
 surprise sun NEG something-CAUS-STAT-R
 EXCLM transform

'Gee, the sun [i.e., time] turned into nothing.'

The idiomatically appropriate question to elicit the time of day (2) also makes use of the nominal *taawa* 'sun' in the sense of 'time.' However, in this case the phrasing with *qalawma* strongly suggests that the semantic value of *taawa* is still taken at face value. Sentences (3-5) constitute representative responses to the question in (2). (For the identically phrased enquiry concerning the time of year see Chapter 3 (47)).

- (2) *ya haq-e' taawa qala-w-ma?*
 Q where-at sun edge-STAT-PROGR
 DIF

'Where is the sun edging along?' or: 'What time [of day] is it?'

- (3) *pay naat pu' taawa-nasap-roya*
 INTR still now sun-middle-turn
 noon

'It just turned after noon.'

- (4) *pay kya pu' tapki-w-ma*
 INTR maybe now early-STAT-PROGR
 evening

'I guess it is now getting to be early evening.'

- (5) *pay tapki, nimáa'*
 INTR early go
 evening home
 IMP

'It got to be early evening, go home!'

Some examples pertaining to the topic in question, that is, the degree of metaphorical progression from 'sun' to 'day,' already were cited in connection with the spatio-temporal use of *tasaava* 'short' (1.8.1.2) and *wuupa* 'long' (1.8.2.2). The meaning 'day' is close to that of 'sunlight period.'

- (6) *taala' wupa-tawa-ni-ngwu*
 in long-sun-NEX-HAB
 summer

'The days are long in summer.'

As a rule, temporal units of *taawa* do not exceed the limit of one day when counted. Counting is done by means of the cardinal number only.

- (7) *suukya taawa nu'an qa himu*
 one sun IRREV NEG something
uy-law-ni-ni-qw
 plant-CONT-FUT-NEX-SUBR
 DS

'One day is simply nothing [i.e., not enough time] if you want to plant.'

tookila-t a-ng piw e-pe-q qatu
 night-ACC it-in also there-at-EX stay
 DIF

‘Thereupon he stayed there for forty days and just as many nights.’

The adverbial time locution is countable by multiplicatives and may occur with *teevep* ‘all day’ in the same sentence.

(13) *puma teevep taawa-nawit tiiva-ngwu*
 those all sun-along dance-HAB
 day PL

‘They dance all day long, as long as there is daylight.’

(14) *nu’ wuuha-ki-s taawa-nawit tumala-y’-ta*
 I many-place-times sun-along work-POSS-IMPRF
 (?)

‘I worked for many days.’

2.1.4 Day reckoning by *teevep* ‘all day’

The precise etymological background of *teevep* is still obscure. Any analytic attempt to unravel its elements must remain speculative at this point. We recognize the root constituent *tee-*, which represents most likely *taa-* ‘light.’ It occurs here with the vowel change *a > e* which is frequently observed in Hopi. Any comment beyond this point can only be guesswork. Overall, *teevep* may perhaps be the corrupted result of a one-time loose pronoun copy construction **taawat ep* ‘in a sun’ which consequently shifted to the meaning ‘in a day/all day.’ However, I can cite no evidence for this hypothesis.

Teevep in the sense ‘all day’ is rarely used without additional multiplicatives. Our first example shows the adverb in utterance final position, which is responsible for the affixation of the pausal vowel *-o*. Note that in an interrogative context pausal *-o* is not preceded by a glottal stop.

- (1) A: *um hi-sa-vo saavu-lawu?* B: *teevep-o*
 you which-QNT-to chopped-CONT all-PS
 wood day
- A: *teevep-o? hintoq¹⁰² oovi?* B: *nu’*
 all-PS why therefore I
 day

The value 'all day' is further preserved in verbal derivatives which draw on vowel-shortened *tevep-* as stem. (7) exemplifies causative *-ta*, (8) the durative pendant *-lawu*. The resulting forms translate 'spend all day.'

- (7) *uti, um ùu-sikisve-y a-w yu-yku-qe*
 surprise you your-car-ACC it-to RDP-make-CAUSAL
 EXCLM SS

tevep-ta
 all-CAUS
 day

'Gee, you spent all day to repair your car.'

- (8) A: *um naat qa nima?* B: *qa'é, nu' pas*
 you still NEG go no I very
 home

yúku-ni-qe oovi nu' pas tevep-lawu
 finish-FUT-CAUSAL therefore I very all-CONT
 SS day

'Aren't you going home yet?' 'No, I want to get done [i.e., with planting] and therefore I'm spending all day.'

Based on the original meaning 'all day,' *teevep* develops the secondary sense 'all the time' which is no longer restricted to the whole of the daylight period. The meaning shift can probably be explained in terms of a hyperbolic statement used as a figure of speech.¹⁰⁴ The following examples illustrate this exaggerating usage. Note that verbals associated with *teevep* occur in durative shape only.

- (9) *pam teevep tàapam-ta*
 that all hammer-IMPRF
 day

'He is hammering all the time.'

- (10) *hak teevep tso-tso'-law-e' a'ni*
 someone all RDP-jump-CONT-COND a
 day SS lot

hokya-tuy-va-ngwu
 leg-hurt-R-HAB

'If someone keeps jumping all day long his legs start to ache.'

Evidence that *teevep* no longer needs to refer to the full length of the day becomes quite clear, when it occurs in juxtaposition with additional temporal expressions whose time span is inherently shorter than that of the adverbial.

- (11) *nu' se'el teevep kuy-'o-'oya*
 I this all water-RDP-place
 morning day PL
 OBJ

'This morning I was carrying water all the time.'

- (12) *nu' taavok teevep tapki-qw puuwi*
 I yesterday all early-SUBR sleep
 day evening DS

'I slept all evening yesterday.'

The hyperbolic force of *teevep* is also apparent in derivatives with the verbal realized state suffix *-ti*. The form usually translates 'much time has passed.'

- (13) *pas as teevep-ti; pay su-ptu-ni-qa-y*
 very IMPOT all-R well quickly-arrive-FUT-REL-ACC
 day

as pà-ng-qawu
 IMPOT that-way-say

'It's been quite some time now; he said he'd be right back.'

- (14) *um hìntoq pas teevep-ti-qw pu' pitu?*
 you why very all-R-SUBR then arrive
 day DS

'Why did it take you so long to come?'

2.1.5 Day reckoning by multiplicatives

In certain contexts the simple use of the multiplicatives will be sufficient to convey the time concept 'day.' The temporal thrust of multiplicatives in the role of day expressions is always that of duration, 'X days;' thus simple multiplicatives cannot be employed in constructions alluding to a day as a point, goal, or source in time.

- (1) *nu' suu-s piw ye-p-ni-t pu' áhoy-ni*
 I one-times more here-at-NEX-PRIOR then back-FUT
 SS to

'After one more day here again I'll go back.'

- (2) *nu' löö-s oray-ve qatu*
 I two-times PN-at stay

'I stayed two days in Orayvi.'

- (3) *nu' paayi-s sen naalö-s=haqam pas*
 I three-times DUB four-times=APPROX very

kwangwa-qtu-ni
 pleasant-stay-FUT

'I'll take it easy for three or four days.'

- (4) *naalö-s pu' huu-hukya*
 four-times now RDP-blow

'It's been blowing for four days now.'

Multiplicatives may attach the causative marker *-ta* and the realized state suffix *-ti*. The respective meanings are then 'spend X days' and 'it is X days now.'

- (5) *nu' múnqa-pe-q pas-qatüu-qe naalö-s-ta*
 I PN-at-EX field-stay-CAUSAL four-times-CAUS
 SS

'I stayed four days at Munqapi farming.'

- (6) *nu' wuuwa-qw itam pay löö-s taala-t*
 I think-SUBR we ASSR two-times day-ACC
 DS

a-ng höq-yuku-ya-ni-qw nuwu
 it-in harvest-finish-PL-FUT-SUBR meanwhile
 DIF DS

pay naalö-s-ti
 already four-times-R

'I thought that we would finish harvesting in two days, but already it has become four days.'

The multiplicative frequently attracts the temporal adverb *teevep* with the content 'all day.' Since we had occasion to cite some examples already in 2.1.4, one example will suffice here.

- (7) *nu-y tsaa-kw-ni-ngwu-ni-qw haki-m löö-s*
 I-ACC small-ACC-NEX-HAB-NEX-SUBR someone-PL two-times
 DS
teevep-ya-t pu' nuvatukya'o-mi öki-ngwu
 all-PL-PRIOR then PN-to arrive-HAB
 day SS PL

'When I was a child it took people two days to reach Flagstaff.'

2.1.6 The day and its subdivisions

The full range of expressions that Hopi utilizes to organize the temporal reality of the course of one day is overwhelming. Many of the reference points for the division of the day are based on the light phenomenon occurring during the transitional phases from night to day and day to night. A second group of locutions refers to the observation of the sun along its path from sunrise to sundown. Thirdly, a number of lexicalized items indicate the major diurnal periods. When meshing with each other, a highly elaborated nomenclature emerges for the times of the day. Excluded from our presentation will be the segment of the night for which a separate chapter is reserved (see 2.2). As it is impracticable to describe all the relevant day terms in chronological order, I will deal with the pertinent data within the framework of the three major divisions staked out above. All attested forms, whether primary or derived, will be presented in conjunction with the respective stem.

2.1.6.1 Light phenomena as discrete orientation points

2.1.6.1.1 *talhahayingwa* 'daylight is approaching'

The phases of the day which receive detailed linguistic attention according to the amount of light discernable, are centered around the time preceding sunrise and succeeding sundown. A first distinction is made by terms built on the morpheme *hay* 'close.' They relate to the period that is approaching daylight. Example (1), with initially reduplicated stem, is imperfective and refers to the process of approaching light; (2) talks about the realization of the condition.

- (1) *yaw taa-tay-qw pay yaw kur tal-ha-hayingwa*
 QUOT RDP-STEM-SUBR well QUOT EV light-RDP-approach
 wake up DS

'When he woke up daylight was already approaching.'

The final example shows the realized verbal in a nominalized construction.

- (5) *itam qöyangwnu-ptu-qa-t a-w pàa-sa-vo*
 we grayish-arrive-REL-ACC it-to that-QNT-to
 dawn

wá'ö-k-iw-ta-ni
 lie-k-STAT-IMPRF-FUT

'We'll lie [awake] till it gets gray dawn.'

2.1.6.1.3 *sikyangwnu* 'yellow dawn'

With the color of dawn shifting to yellow, the term *sikyangwnu* 'yellow dawn' is called for. As in the case of *qöyangwnu* 'gray dawn,' both the inchoative phase (1) and the realized phenomenon (2) are differentiated in addition to stative *sikyangwnu* (3).

- (1) *su-'a-w sikyangwnu-ptsi-w-ma-qw itàa-qöhi*
 exact-REF-to yellow-arrive-STAT-PROGR-SUBR our-fire
 dawn DS

tookì
 become
 extinguished

'Just when it was getting yellow dawn our fire went out.'

- (2) *itam orayvi-y tu-po-q pitu-qw sikyangwnu-ptu*
 we PN-ACC base-to-EX arrive-SUBR yellow-arrive
 DS dawn

'When we came to the foot of Orayvi it got yellow dawn.'

- (3) *sikyangwnu, noova-lawíuu'*
 yellow food-CONT
 dawn IMP

'It is yellow dawn, prepare [some] food!'

2.1.6.1.4 *taalawva* 'it got to be daylight'

The most frequently used light term in the morning is *taalawva*. The form, marked by the realized state suffix *-va*, is only applicable before the rising of the sun. Without discriminating individual color shades of the breaking day, it summarily states that 'it got to be daylight.' The stem *taalaw-*, which is attested in a number of derivations, obviously contains the element *taala*

'light.' Examples for *taalawva* without the additional switch reference marker *-qw* are rare.

- (1) *naat qa taala-w-va*
still NEG light-STAT-R

'It is not daylight yet.'

- (2) *sùu-tala-w-va-ngwu*
quickly-light-STAT-R-HAB

'It gets to be daylight right away.'

The subsequent example comes close to rendering the English saying 'Tomorrow is another day.'

- (3) *pay naat piw qaavo taala-w-va-ni*
well still again tomorrow light-STAT-R-FUT

'It will get to be daylight again tomorrow.'

Taalawvaqw constitutes a semi-frozen temporal adverbial clause. Repetitive occurrences of *taalawvaqw* are countable by ordinals, and such phrases come close to the ancient Greek method of counting days from 'dawns.'

- (4) *pas yaw navay-sikis taalaw-va-qw pu' puma*
very QUOT six-times light-R-SUBR then those
DS

a-ngqw ahoy ko-mok-nima
there-from back wood-bag-return
to home

'When it had gotten to be daylight six times, they returned home from gathering wood.'

- (5) *pay taalaw-va-qw pu' puuw-iw kwàngw-ti-ngwu*
ASSR light-R-SUBR then sleep-ABSTR pleasant-R-HAB
DS

'When it gets to be daylight, sleep becomes pleasant [i.e., because of the prospect of having to rise soon].'

The slow process of becoming daylight is expressed with the suffix sequence *-'iwma* attaching to the stem *taalaw-*.

- (6) *nu' taalaw-'iw-ma-qw pitu*
 I light-STAT-PROGR-SUBR arrive
 DS

'I arrived when it was beginning to get to be daylight.'

Phrases with *taalawvaqw* and *taalaw'iwmaq* displaying the negator *qa* are understood in the sense of *qa taala* 'there is no light/it is dark.' They thus apply to the opposite pole of the day, the period of increasing darkness after sundown.¹⁰⁵

- (7) *qa taalaw-'iw-ma, um n'ima-ni*
 NEG light-STAT-PROGR you go-FUT
 home

'Go home, it's getting dark.'

- (8) *ason itam mihi-k-qw qa taalaw-va-qw pu'-ni*
 later we dark-k-SUBR NEG light-R-SUBR then-FUT
 night DS DS

'We'll [do] it at night when it has gotten dark.'

A verbal derivative featuring the causative marker *-na* is *taalawna*. Its approximate meaning is 'he reached daybreak.'

- (9) *nu' tooki hotvel-mo tiimay-to-t pas*
 I last PN-to witness-PREGR-PRIOR very
 night dance SS

e-p taalaw-na
 there-at light-CAUS

'Having gone to Hotvela last night to see the dance, I stayed there till morning.'

- (10) *nu' su-'a-w k'oonin-ki-mi-q taalaw-na*
 I exact-REF-to PN-house-to-EX light-CAUS

'I reached the village of the Koonina¹⁰⁶ just at daybreak.'

- (11) *kwakwhá-y, itam taalaw-na-ya*
 thanks-EXCLM we light-CAUS-PL
 M

'Thanks, we made it to daybreak.' [Said by the kachina impersonators having spent the night before the dance day without sleep.]

An extremely rare expression is the nominal *taalawuy*, which only seems to be attested in accusative shape. It is not generally known and was rejected by several of the Hopi informants that I consulted. Its semantic force is something like ‘early daylight phase.’

- (12) *taalaw-sohu, pam pay pas taalaw-va-qw*
 daylight-star that ASSR very daylight-R-SUBR
 DS

yáma-k-ngwu, taalawu-y hihin tàl-q-ö
 go-k-HAB daylight-ACC somewhat light-SUBR-PS
 across DS

‘The morning star rises at the very point of daybreak when the daylight is barely visible.’

2.1.6.1.5 *tàlti* ‘it got light’

A variant form of *taalawva* considered archaic today, is *tàlti* ‘it got light.’ Featuring the stem *tàl-* the realized state verbal occurs with both destinative markers. The extreme-destinative form is usually accompanied by the modulator clitic *=haqami*.

- (1) *tàl-ti-mi nu’ qa puw-va*
 light-R-to I NEG sleep-R

‘Towards daylight I didn’t fall asleep [any more].’

- (2) *pam pas tàl-ti-mi-q=haqa-mi puuwi*
 that very light-R-to-EX=INDEF-to sleep

‘He slept all the way until daylight.’

The stem *tal-* is also attested to suffix the perfect participle nominalizer *-pu*. As a result, the extended stem can append case markers. In conjunction with motion verbs one generally encounters the diffuse locative *-va*. While *tàlpuva* then designates ‘through the [early] light phase [of the new day]’ (3), the negated locution refers to the dark phase at the onset of night (4).

- (3) *yaw taalaw-va-qw pu’ puma pàa-sa-t*
 QUOT daylight-R-SUBR then those that-QNT-time
 DS

tàl-pu-va yaw piw kii-nawit nakwsu
 light-NR-in QUOT again house-along start
 DIF out

The verb follows the *k*-class pattern, which becomes obvious when it attaches additional suffixes. We recognize the color stem *masi-* ‘gray’ as part of the form. Note the ending *-hi* which also occurs in *mihi* ‘it got night.’

- (1) *pay masiphi, nimáa'*
well become go
dusk home
IMP

‘Well, it’s dusk, go home.’

- (2) *masiphi-k-qw nu' tu-tumay-to-ni*
become-k-SUBR I RDP-clandestine-PREGR-FUT
dusk DS courting

‘I’ll go to have a secret rendezvous at dusk.’

- (3) *nu' taavok masiphi-k-iw-ta-qw naat tusqenta*
I yesterday become-k-STAT-IMPRF-SUBR still pick
dusk DS out
seeds

‘It was [already] dusk yesterday and I was still picking seeds [out of cotton].’

Through the intervention of the nominalizing connective *-pu*, *masiphi* may attach case suffixes.

- (4) *itam masiphi-k-pu-va oray-ngaqw naap wayma*
we dusk-k-NR-in PN-from on walk
DIF foot

‘We came on foot through the dusk from Orayvi.’

- (5) *nu' ngas'ew masiphi-k-pu-mi pööqa-n-ta-ni*
I at dusk-k-NR-to weave-n-IMPRF-FUT
least

‘I’ll be weaving at least until dusk.’

- (6) *itam masiphi-k-pu-ngaqw naa-hep-num-ya*
we dusk-k-NR-from RCPR-see-CIRCUMGR-PL

‘From dusk on we were playing hide and seek.’

2.1.6.2 Observation of the sun in the course of a day

The sun turns out to be the most important chronometer in Hopi time, not

only on an annual scale but also on the diurnal level. The temporal refinement that is conveyed in locutions concerning the rising and setting of the sun as well as its movement and altitude in the intervening span is most impressive. Sunrise and sunset are, of course, very prominent divisions of the day, and just as light phenomena at the borderlines of day and night were elaborately lexicalized, the positions of the sun in the morning and evening are marked in a more refined fashion. One must keep in mind, however, that these fine distinctions are not pinpointed on an absolute scale, that there is no standardization of time segments, and that the intervals bracketed by the diurnal reference points will vary considerably in the annual course of the sun. A first temporal reference point can already be indicated before the sun emerges into full view. This is achieved by simple negation in conjunction with the temporal particle *naat* ‘still/yet.’

- (1) *um qaavo piw a-ngqw-ni naat taawa-t qa*
 you tomorrow again there-from-FUT still sun-ACC NEG
yáma-k-q-ö
 go-k-SUBR-PS
 out DS

‘Come back again tomorrow before sunrise.’

The initial phase of the actual sunrise sets in with the sun peeking, i.e., appearing over the horizon.

- (2) *taawa a-ngqw kuy-va*
 sun REF-from peek-R

‘The sun peeked from [the horizon].’

With the emphasis shifting from the realization of the event to the process of the sun disc inching up on the horizon, perfective *kuyva* changes into imperfective *kukuyi*.

- (3) *nu' naat pu' pas-mi pitu-qw taawa a-ngqw*
 I still now field-to arrive-SUBR sun REF-from
 DS

ku-kuyi
 RDP-emerge

‘I had just gotten to the field when the sun was peeking up from [the horizon].’

When the sun is partially out and reference is made to that state, the following expression is appropriate:

- (4) *taawa a-ngqw hihin kuy-ta*
 sun REF-from somewhat peek-STAT

'The sun is a little bit up over [the horizon].'

The event of the ensuing rising of the sun is captured by two imperfective verbals that relate to the perfective stem *yama* 'he went out/crossed over.' Both *yayma*, showing reduplication, and *yamakto*, marked for pregressive aspect, refer to the sun leaving the zone behind the horizon and establishing itself above this landmark.

- (5) *pay yaw oovi su-'a-w taawa ya-yma-k-qw*
 well QUOT therefore exact-REF-to sun RDP-go-k-SUBR
 out DS

pay yaw e-pe-q ma-man-t öki-w-ta
 ASSR QUOT there-at-EX RDP-girl-PL arrive-STAT-IMPRF
 PL

'Just when the sun was rising the girls were arriving there.'

- (6) *su-'a-w taawa yáma-k-to-q itam pitu*
 exact-REF-to sun go-k-PREGR-SUBR we arrive
 out DS

'The sun was just coming up when we arrived.'

Nondurative *yama* in turn can only be used after sunrise.

- (7) *nu' pay taawa-t yama-k-qw pu' pas-mi*
 I already sun-ACC go-k-SUBR then field-to
 out DS

'The sun had already risen when I [went] to the field.'

As the sun begins its journey across the sky, the temporal intervals marked off linguistically become increasingly cruder. Attention now shifts from motion to altitude. Around midmorning the sun is said to be *oove* 'high.'

- (8) *pu' yaw ason pas taalaw-va-qw, taawa yama-k-qw*
 then QUOT later very light-R-SUBR sun go-k-SUBR
 DS out DS

pas ason oo-ve-ti-qw pàa-sa-t pu' um
 very later up-at-R-SUBR that-QNT-time then you
 DS

a-qw hǒta-ni
 REF-to open-FUT
 EX

'Later then when it gets daylight and the sun has risen and gets [to a point] up in the sky [that is about midmorning], at that time then you can open it.'

An alternative locution that roughly approximates that of the sun's position of *oove* 'up (in the sky)' makes use of the spatial morpheme *yaa-* 'far away,' which appears in the verbal derivative featuring *-ti* 'got/became' with the extended base *yaap-*.

(9) *nungwu pay taawa yaap-ti-qw pas pam*
 meanwhile already sun far-R-SUBR very that
 away DS

naat qa taa-tayi
 still NEG RDP-STEM
 wake up

'In the meantime the sun is far [on its daily journey] already and he still has not woken up.'

A similar spatial expression is *haq'iwta*. By drawing on the base *haq-* 'far' it is said to locate the sun 'way along' its diurnal path. Although there seems to be no consensus as to the approximate position of the sun in regard to this locution, the majority of my consultants interpreted it as 'afternoonish.'

(10) *i' taawa haq-'iw-ta-qw itam ye-p umu-mi*
 this sun far-STAT-IMPRF-SUBR we here-at you-to
 DS PL

ōki
 arrive
 PL

'The sun was already far [into the day] when we came to you here.'

Having reached the midday point *taawanasave* (see 2.1.6.3.5), the terminology changes to expressions reflecting the downward trend of the sun's journey.

The subsequent verbs of motion describe the sun's downward course towards the western horizon:

- (17) *taawa pay ahoy haw-to*
 sun INTR back descend-PREGR
 to

'The sun is going back down.'

- (18) *pay taawa síro-k-iw-ta-qw¹⁰⁷ pu' itam tuwat*
 well sun slide-k-STAT-IMPRF-SUBR then we in
 DS turn

pas-mi
 field-to

'When the sun was sliding downward we [were going] to the field.'

The final stage of the sun's traverse across the sky is once again an important orientation point. The appropriate term contrasting with *yama* 'went out/rose' is *paki* 'went in/set.' Specific syntactic constructions can help in fine-tuning the description of this event. For example stressed *pay* in conjunction with a future verb expresses immediate future.

- (19) *pas pay yaw taawa páki-ni-ni-qw puma*
 very immediately QUOT sun go-FUT-NEX-SUBR they
 in DS

pas-ti-yuku¹⁰⁸
 field-CAUS-finish

'The sun was about to set when they finished [hoeing] the field.'

Progressive *-to* on a verb of motion underlines the process.

- (20) *taawa-t paki-to-q itam noonova*
 sun-ACC go-PREGR-SUBR we eat
 in DS PL

'The sun was setting when we were eating [supper].'

The final example is a reference to the state of the completed event.

- (21) *pay yaw taawa-t paki-w-ta-qw pam*
 well QUOT sun-ACC go-STAT-IMPRF-SUBR that
 in DS

The idea of ‘broad daylight’ is conveyed with the prefix *sùu-* ‘just/direct.’

- (2) *itam sùu-talö’ naama wá’ö-k-ìw-ta*
 we direct-during together lie-k-STAT-IMPRF
 daytime

‘We were lying together in broad daylight.’

The temporal counternotion of *taalö’* is ‘nighttime.’ Sentence (3) combines the two concepts.

- (3) *niqw oovi pam taaqa kur hi-n*
 and therefore that man EV some-way
 DS cannot
- navoti-y’-ta-ni sen taalö’-ni-qw sen*
 know-POSS-IMPRF-FUT DUB during-NEX-SUBR DUB
 daytime DS

míhi-k-ìw-ta-q-ö’
 dark-k-STAT-IMPRF-SUBR-PS
 night DS

‘That man, therefore, had no way of knowing whether it was daylight or dark night.’

When combined in an expression with a pluralized notion of night, *taalö’*, too, may imply a sequence of daylight phases.

- (4) *nu’ taalö’ nit pu’ mi-mhi-k-pu-va*
 I during and then RDP-dark-k-NR-in
 daytime ACC night DIF

tumala-y’-ta-ngwu
 work-POSS-IMPRF-HAB

‘I work days and nights.’

Two concluding examples show *taalö’* as first element of compounds. (5) exemplifies the idiomatically correct phrases for ‘day dancing’ and ‘night dancing,’ (6) is the expression for ‘daydreaming.’

- (5) *uma talö’-tiva sen uma yungyi-w-ma?*
 you during-dance DUB you enter-STAT-PROGR
 PL daytime PL PL PL

‘Did you dance during the day or did you [dance at night] by entering [one kiva after another]?’

- (6) *pam talö'-tumok-lawu*
 that during-dream-CONT
 daytime

'He is daydreaming.'

2.1.6.3.1.1 Derivatives from *taalö'*

An important derivative that features the realized state suffix *-va* is *talöngva*, occurring on the stem *talöng-*. Unlike *taalawva* 'it got daylight,' whose content is devoted to the initial light phenomenon of the breaking day, the semantic scope of *talöngva* is intrinsically more time oriented since it really includes a great portion of the day if not the whole phase. It is best rendered 'it got day/the day is there.' This meaning is illustrated in (1-3).

- (1) *noq yaw kur tömö'-ti-qe yaw hisat*
 and QUOT EV winter-R-CAUSAL QUOT some
 SI SS time

nuva-'iw-kyangw talöng-va
 snow-STAT-SIMUL daytime-R
 SS

'It had turned winter and once it got day with snow [on the ground].'

- (2) *tum haak qe'ti; pay pi naat qaavo*
 EXHRT temporarily stop well FACT still tomorrow
 IP
 NSG

piw talöng-va-ni
 again daytime-R-FUT

'Let's quit for the time being; after all, tomorrow will be another day.'

- (3) *hi-n-kyangw pa qaavo talöng-va-ni?*
 which-way-SIMUL SPECUL tomorrow daytime-R-FUT
 SS

'I ask myself what kind of day it will be tomorrow.'

When combining with the modifier stem *loma-* 'nice/beautiful' (or the equivalent form for female speakers *nukwangw-*), the verb content of *talöngva* is foremost a statement about 'the nice weather of the new day.'

- (4) *noq yaw hisat talavay loma-talöng-va*
 and QUOT some during nice-daytime-R
 SI time morning

‘And one morning it was a beautiful day.’

- (5) *pas pi pu'-nii-kyangw loma-talöngw-iw-ta¹⁰⁹*
 very FACT today-NEX-SIMUL nice-daytime-STAT-IMPRF
 SS

qa huu-hukya
 NEG RDP-blow

‘But today is a nice day, it’s not windy.’

Talöngva can be nominalized with the relativizer *-qa*. With support from multiplicatives the nominal phrase then takes on the denotation ‘day.’ Example (6) contains a Hopi prophecy. The expression *naat suus* ‘last’ may equally be conveyed by *nüutungk* ‘last.’

- (6) *naat suu-s talöng-va-qa-t e-pe-q pu' yaw*
still one-times daytime-R-REL-ACC it-at-EX then QUOT
 last

itamuy qötö-maw-tota-ni
 we-ACC head-pick-IMPRF-FUT
 PL

‘On the last day [of this world] they will take off our heads.’

- (7) *navay-sikis talöng-va-qa-t a-ng nu' i-kaway-vòoko-y*
 six-times daytime-R-REL-ACC it-in I my-horse-pet-ACC
 DIF

kwakwha-law-ni
 tame-CONT-FUT

‘For six days I’ll be taming my horse.’

The nominalization may also affect the durativized stem of *talöngva*.

- (8) *mi-mhi-k-pu-va pu' talöng-va-n-ta-qa-t¹¹⁰ a-ng*
 RDP-dark-k-NR-in then daytime-R-n-IMPRF-REL-ACC it-in
 night DIF DIF

- (13) *puma pakwut-sikis talōng-na-ya-t pu' pay*
 those ten-times daytime-CAUS-PL-PRIOR then ASSR
 SS

ni-nma
 RDP-go
 home

'They spent ten days and then they went home.'

The imperfective form of *talōngna* is *talōngwinta*.

- (14) *nu' naa-qavo qa puw-öyi-w-kyangw*
 I RCPR-tomorrow NEG sleep-full-STAT-SIMUL
 SS

talōngwi-n-ta
 daytime-n-IMPRF

'Day after day I spend my nights not sleeping enough.'

The possessive marker *-y'* is also attested attached to *talōngna*. Note the resulting ablaut in causative *-na*.

- (15) *ya üu-nōma hii-sa-kis pu' pongsik-ve-q*
 Q your-wife which-QNT-times now PN-at-EX

talōng-ni-y'-ma?
 daytime-CAUS-POSS-PROGR

'How many days has your wife been spending in Keams Canyon now?'

- (16) *uma hàalay-kyàa-kyangw talōng-ni-y'-wis-ni*
 you happy-RDP-SIMUL daytime-CAUS-POSS-PROGR-FUT
 PL SS PL

'Go happily towards the morning.'

- (17) *pu' huukyangw pe-pe-q naalö-s*
 then wind there-at-EX four-times

talōng-ni-y'-ma-qw pu' pevè-l-ti-ni
 daytime-CAUS-POSS-PROGR-SUBR then abate-PASS-R-FUT
 DS

'The wind having spent four days there [blowing] will then abate.'

2.1.6.3.2 *talavay* ‘in the morning’

The first significant division of the solar day is the morning. The Hopi lexeme for this notion is adverbial *talavay*, which can be approximately rendered ‘in the morning.’ Unlike *se’el* (see 2.1.6.3.3) it may temporally be applied to the day ‘identical’ with the speaker’s temporal location.

- (1) *powamuy-ve katsina-m talavay haaru-y*
 Powamuy-at kachina-PL in bean-ACC
 ceremony morning sprout

oo-'oy-ti-num-ya-ngwu
 RDP-put-CONN-CIRCUMGR-PL-HAB
 PL
OBJ
 distribute

‘At Powamuya [i.e., the Bean dance ceremony] kachinas distribute bean sprouts in the morning.’

When accompanied by the approximator clitic =*haqam*, the temporal connotation of ‘somewhere around morning’ actually implies an earlier daylight phase than is conveyed by simple *talavay*.

- (2) *talavay=haqam itam öki*
 in=APPROX we arrive
 morning PL

‘We arrived in the early morning.’

In situations that permit pausal markers, *-u* with or without preceding glottal stop is the appropriate termination.

- (3) A: *pam hisat pitu?* B: *su-'its talavay-'u*
 that when arrive direct-early in-PS
 morning
- C: *su-'its talavay-u?* B: *òo, pas nu' piw qa*
 direct-early in-PS yes very I also NEG
 morning

tuptsiwa
 believe

‘When did he arrive?’ ‘Early in the morning.’ ‘Early in the morning?’
 ‘Yes, I don’t believe it either.’

In addition to modifying *su'its* 'very early,' the diurnal phase 'in the morning' can co-occur with other temporal expressions as may be gathered from the following sentences.

- (4) *ura itam pu' talavay naayawva-ni*
MEMO we today in fight-FUT
morning

'Remember, we were to fight this morning.'

- (5) *ason nu' qaavo talavay pu'*
later I tomorrow in then
morning

tuu-va-hom-to-ni

UNSPEC-water-sprinkle-PREGR-FUT

OBJ

'Tomorrow I will go to do the laundry.'

- (6) *tiiki-ve talavay nu' mòoti wari-k-t pu' tiimayi*
dance-at in I at run-k-PRIOR then witness
day morning first SS dance

'On the morning of the dance day I ran first and then I went to see the dance.'

- (7) *naalõ-s ngúma-n-ta-qa-t e-p talavay*
four-times grind-n-IMPRF-REL-ACC REF-at in
corn the
morning

pu' yaw na-'at piw kó-mok-to
then QUOT father-his again wood-bag-PREGR
gather wood

'On the morning of the fourth day that she was grinding corn her father went gathering wood again.'

- (8) *nu' pu'-hi-sa-t talavay i-pu-vuw-pi-y*
I now-some-QNT-time in my-RDP-sleep-place-ACC
recently morning bed

a-ngqw pòosi
it-from fall
down

'Quite recently in the morning I fell out of my bed.'

- (9) *noq yaw hisat talavay pay as loma-talöng-va*
 and QUOT some in ASSR IMPOT nice-daytime-R
 SI time morning
 ago

‘One morning some time ago the day started out beautifully.’

The adverbial time unit *talavay* answers to ‘time when’ in the sense of designating the period of time ‘in/during the morning;’ it thus is intrinsically locative. References singling out this day phase as temporal goal or origin correspondingly affix the respective local case markers. (10) and (11) exemplify the nonextreme and extreme destinative markers, (12) and (13) both nonmodulated and modulated ablative forms.

- (10) *itam talavay-mi paa-sa-vo lee-len-ni*
 we morning-to that-QNT-to RDP-flute-FUT
 play music

‘We’ll play [radio] music until the morning.’

- (11) *nu’ pas talavay-mi-q=haqa-mi nukur-tumok-lawu*
 I very morning-to-EX=INDEF-to bad-dream-CONT

‘I had bad dreams until morning.’

- (12) *talavay-ngaqw tapki-mi-q itamu-y-ni-qw pay*
 morning-from early-to-EX we-ACC-NEX-SUBR ASSR
 evening DS
 in our opinion

suu-s tal-ngwu
 one-times day-HAB

‘From morning until evening is one day according to our opinion.’

- (13) *su-’its talavay-ngahaqa-qw pay nu’ kuy-’o-’oya*
 direct-early morning-INDEF-from ASSR I water-RDP-place
 PL
 OBJ

‘From very early in the morning I’ve been hauling water.’

Compound expressions with *talavay-* as first element capture the idea of ‘breakfasting.’ Several aspects – perfective (14), imperfective (15), progressive (16), and postgressive (17) – are attested.

- (14) *pam talavay-nōsa*
that morning-eat
meal

‘He ate breakfast.’

- (15) *pam talavay-tumoy-ta*
that morning-eat-IMPRF

‘He’s eating breakfast.’

- (16) *pam talavay-nōs-to*
that morning-eat-PREGR
meal

‘He goes to eat breakfast.’

- (17) *pam talavay-nōs-ma*
that morning-eat-POSTGR
meal

‘He has been to eat breakfast.’

One of the supernatural spirits in the kachina pantheon is identified as *talavaykatsina* ‘Morning kachina.’ When impersonated, the kachina usually comes as a pair.

- (18) *powamuy-ve e-p=haqa-m talavay-katsina-t pítu-ngwu*
Powamuy-at REF-at=INDEF-at morning-kachina-DL arrive-HAB
ceremony occasionally

‘Once in a while two Morning kachinas come at Powamuya.’

2.1.6.3.3 *se’el* ‘this morning’

As the deictic element in the rendition of *se’el* already indicates, the adverbial is only compatible with a context in which the speaker refers back to the morning of the same day. Unlike *talavay*, *se’el* cannot be projected to the early morning phase of another day.

- (1) *nu’ pay as se’el tay-kyangw pay pas qa*
I ASSR IMPOT this awake-SIMUL well very NEG
morning SS

qatuptu

get

up

‘Although I was awake early this morning I didn’t get up.’

- (2) *itàa-ti se'el teevep pakmumuya*
 our-child this all cry
 morning day

'Our child was crying all the time this morning.'

Additional modulation with the indefinite clitic =*haqam* emphasizes the extreme or unusual earliness of a situation.

- (3) *nu' sé'el=haqam taa-tay-qw yoo-yoki*
 I this=APPROX RDP-awake-SUBR RDP-rain
 morning DS

'Quite early this morning when I woke up it was raining.'

The pausal shape of *se'el* is *sé'ele*. Its occurrence may be gathered from the dialogue excerpt in (4).

- (4) A: *hisat put na-'at mooki?* B: *sé'el=haqam*
 when that father-his die this=APPROX
 ACC morning

A: *sé'el-e?*
 this-PS
 morning

'When did his father die?' 'Some time this morning.' 'Early this morning?'

Near synonymous with *sé'elhaqam* is the ancient form *sé'elnen*, which time-wise points back to a stage earlier than what is conveyed by *se'el*.

- (5) *sé'el-nen pumu-y amu-mi hùita tuuving-tota*
 this-before those-ACC they-to something ask-CAUS
 morning ACC PL

'They asked them something quite early this morning.'

- (6) *ura uma sé'el-nen=haqam itamu-mi ye-p*
 MEMO you this-before=APPROX we-to here-at
 PL morning

öki-qw itam hàalay-toti
 arrive-SUBR we happy-R
 PL DS PL

'Remember, when you came here to us some time quite early this morning we got happy.'

The adverbial may, of course, participate in nominalized or verbalized constructions. The former possibility is reflected in the conversation presented in (7), the latter in a text excerpt listed under (8).

- (7) A: *um hiiita hii-hiko?* B: *kaphe-t-'a¹¹¹* A: *um*
 you what RDP-drink coffee-ACC-PS you
 ACC
- a-w kaphe-ta?* B: *qa'é, i' pay sé'el-nii-qa;*
 REF-to coffee-CAUS no this ASSR this-NEX-REL
 morning
- nu' i-t a-w muki-na*
 I this-ACC it-to hot-CAUS

'What are you drinking?' 'Coffee.' 'Did you make coffee?' 'No, this is from this morning; I [simply] warmed it up.'

- (8) *pe-p um tsōqa-vō-ve sé'el-ni-qw put*
 there-at you mud-path-at this-NEX-SUBR that
 earth dam morning DS ACC
- kwini-ngya nu' pas-lawu*
 north-at I field-CONT
 hoe

'There at the dam where you were this morning, just north of that [place], I was hoeing [weeds].'

To indicate that an action has been going on 'since early this morning,' Hopi attaches the indefinite ablative modulator *-ngahaqaqw* which permits metaphorical extension from the domain of place to the domain of time.

- (9) *itam sé'el-ngahaqa-qw mú'a-lawu*
 we this-INDEF-from hit-CONT
 morning talk about opposite sex

'We've been talking about women since early this morning.'

2.1.6.3.4 *tōngva* 'it got to be midmorning'

Tōngva is a perfective verb form featuring the realized state suffix *-va*. Hopi speakers interpret its semantic content as nearly synonymous with that of the solar altitude expression *taawa ooveti* 'the sun is up high' (see 2.1.6.2). Its temporal reference thus concerns the time period between sunrise and noon. *Tōngva* may, therefore, best be glossed as 'it got to be late morning/mid-morning.'

- (1) *pas sùu-töng-va-ngwu*
 very quickly-midmorning-R-HAB
 ‘It becomes midmorning right away.’

- (2) *ason itam pay qaavo töng-va-qw*
 later we ASSR tomorrow midmorning-R-SUBR
 DS
pü’ laa-lay-to-ni
 then RDP-herd-PREGR-FUT
 ‘We’ll go herding [sheep] tomorrow at midmorning.’

In conjunction with the compound stem *wuko-* ‘big’ the diurnal phase *töngva* ‘midmorning’ is considered to be past its height.

- (3) *pay pas wuko-töng-va-qw pu’ itam ya-ngqw*
 well very big-midmorning-R-SUBR then we here-from
 DS
nakwsu
 start
 out

‘It was already past midmorning when we started out from here.’

Temporal orientation ‘toward’ or ‘from’ the midmorning point is made possible by nominalizing *töngva* with the marker zero and attaching the regular destinative (4-5) and ablative (6) suffixes.

- (4) *e-p töng-va-mi nu’ as kii-mi-ni-kyangw*
 REF-at midmorning-R-to I IMPOT house-to-FUT-SIMUL
 SS
kur hi-n-ni
 EV some-way-FUT
 cannot

‘That day towards midmorning I wanted [to go] to the village but wasn’t able to.’

- (5) *qa pas hak töng-va-mi-q=haqa-mi*
 NEG very someone midmorning-R-to-EX=INDEF-to
wá’ö-k-iw-ta-ngwu
 lie-k-STAT-IMPRF-HAB
 ‘One doesn’t lie [in bed] until midmorning.’

- (6) *nu' tōng-va-ngaqw pòöqa-n-ta*
 I midmorning-R-from weave-n-IMPRF

'I've been weaving since midmorning.'

An attested derivative is *tōngvana*, featuring the causative marker *-na*; it translates 'he stayed until midmorning.'

- (7) *nu' se'el itàa-ki-y e-p pas tōng-va-na*
 I this our-house-ACC it-at very midmorning-R-CAUS
 morning

'This morning I remained in our house until midmorning.'

The stative idea that 'it is the time of midmorning' is expressed with the imperfective morpheme sequence *-w-ta*. When attached to the causative stem *tōngvana*- it causes *i*-ablaut of the final stem vowel.

- (8) *pay tōng-va-ni-w-ta-qw mö'wi pitu*
 well midmorning-R-CAUS-STAT-IMPRF-SUBR female arrive
 DS in-law

'It was midmorning when the female in-law arrived.'

2.1.6.3.5 *taawanasave* 'at noon'

Noon, the important midway mark along the daylight orientation spectrum, is rendered *taawanasave* in Hopi nomenclature. The term, which owes its existence to the daily course of the sun, is a locative case form, literally translating 'at sun middle.' The spatial notion 'middle/center' is a product of the morpheme sequence *nasa-*, which combines the reciprocal element *na-* with the constituent *sa* embodying the semantic value 'quantity' (see HR 5.15). As English 'midday,' the Hopi term thus pays attention to the fixed point which indicates the division of the day into two parts. When projected on the twenty-four hour scale, Hopi locate their 'midday' one hour later than our twelve o'clock 'noon.' A Hopi version pointing out this difference is rendered in (1).

- (1) *pahaana pi pay su-'its taawa-nsap-ta-ngwu;*
 white FACT ASSR very-early sun-middle-CAUS-HAB
 man

pu' itamu-y-ni-qw ason piw suu-s à-ng-qe
 then we-ACC-NEX-SUBR later again one-times REF-at-DIF
 DS
 in our opinion

*taawa qöni-k-qw pe-p pu' tuwat hopi*¹¹²
 sun turn-k-SUBR there-at then in PN
 DS turn

taawa-nsap-ta-ngwu
 sun-middle-CAUS-HAB

'The white man makes his midday quite early; in our opinion [the hand of] the clock will turn one more time, and it is at that time then that a Hopi in turn makes noon.'

A practical method to determine the Hopi noon, i.e., the time when the sun reaches its highest point in the sky, is described in (2). Generally, it is only practiced in summer and involves a technique in which a person facing south aligns his flat hand along the ridge of his nose. When no shadow is cast on either eye, the sun is at its midday mark.

(2a) *hak hi-n süu-tawanasap-ti-qw*
 someone which-way exact-noon-R-SUBR
 DS

navot-ni-ni-k hak taat-ö-q tay-kyangw
 know-FUT-NEX-COND someone south-to-EX look-SIMUL
 SS SS

pu' taawa-t su-'a-qw taa-tay-ngwu;
 then sun-ACC exact-it-to RDP-look-HAB
 EX

'If someone wants to find out when it gets exactly noon, he faces south and then looks directly at the sun.'

(2b) *nit pu' hak ma-y yaqa-y a-w*
 and then someone hand-ACC nose-ACC it-to
 PRIOR

yà-n-ti-ngwu;
 this-way-do-HAB

'Then one puts [i.e., aligns] one's hand to one's nose like this.'

(2c) *pu' pàasat haqa-mi-wat haki-y maa-'at*
 then at somewhere-to-SPEC someone-ACC hand-his
 that
 time

- (4) *ason itam taawa-na-sa-ve=haqam pu'-ni*
 later we sun-RCPR-QNT-at=APPROX then-FUT

'We'll [go] later around noon.'

When not occurring in conjunction with *pàasavo* 'until' (5), the destinative case form refers to a time point preceding the noon period.

- (5) *nu' se'el pay uy-law-qe taawa-na-sa-mi*
 I this ASSR plant-CONT-CAUSAL sun-RCPR-QNT-to
 morning SS

pay yuku
 already finish

'I was planting this morning and was already finished towards noon [i.e., before noon].'

- (6) *pay tunatya-y'-ta-qa taawa-na-sa-mi*
 well intention-POSS-IMPRF-REL sun-RCPR-QNT-to
 sponsor of ceremony

pàa-sa-vo mong-'iw-ta
 that-QNT-time leader-STAT-IMPRF

'The sponsor of the dance is in charge until noon.'

For the regular ablative marker *-ngaqw* 'from,' the postpositional element *-vii-piy* may be substituted without affecting the content (8). When attaching the latter, the stem changes to *taawanasap-*.

- (7) *nu' taawa-na-sa-ngaqw teevep puuwi*
 I sun-RCPR-QNT-from all sleep
 day

'I slept all the time from noon.'

- (8) *taawa-nasap-vii-piy pu' pay katsina-m*
 sun-middle-place-away then ASSR kachina-PL
 (?) from

naa-p-ya-ngwu
 REFL-at-PL-HAB

'From noon on the kachinas are on their own [i.e., they are themselves responsible for the dance; this is only true during the Home dance].'

The same stem *taawanasap-* is the springboard for a number of verbal derivatives. In addition to *-ti*, which indicates the realization of the temporal event (9-10), *-iwta* expresses the state (11) and *-iwma* the inchoation (12). Causative *taawanasapta* means 'he made noon/spent noon' (13).

- (9) *naat qa taawa-nasap-ti-qw pay itam noonova*
 still NEG sun-middle-R-SUBR already we eat
 DS PL

'It had not turned noon yet and we were already eating.'

- (10) *loma-tawa-nasap-ti*
 nice-sun-middle-R

'It got high noon.'

- (11) *itam taawa-nasap-'iw-ta-qw naasungwna*
 we sun-middle-STAT-IMPRF-SUBR rest
 DS

'It was noon when we rested.'

- (12) *taawa-nasap-'iw-ma-qw sino-m wuko-'öki*
 sun-middle-STAT-PROGR-SUBR person-PL big-arrive
 DS PL

'It was getting noon when the people were arriving in large groups.'

- (13) *itam hotvel-pe-q taawa-nasap-ta*
 we PN-at-EX sun-middle-CAUS

'We spent noontime in Hotvela.'

The temporal terminology that Hopi fields to capture the time zones preceding and succeeding the fixed point 'noon' consists entirely of spatial metaphors. In addition to the examples cited under *hayingwna* (1.10.1), the forms *hayìngwti* 'it got close' and *hahayingwa* 'it is getting close' occur in reference to the phase before the midday period.

- (14) *taawa-nasa-mi hayìngw-ti*
 sun-middle-to approach-R

'It got close to noon.'

A variant expression of (14) is the compound in (15).

- (15) *taawa-nasap-hayìngw-ti*
sun-middle-approach-R

‘It got close to noon.’

- (16) *taawa-nasa-mi ha-hayingwa*
sun-middle-to RDP-approach

‘It’s getting close to noon.’

The final example depicts the notion of inchoative state and is handled by a compound form featuring *hàykyawma*, the stative progressive form of perfective *hàykyalti* ‘he got close.’

- (17) *taawa-nasap-hàykya-w-ma-qw* *pu’ yaw pay*
sun-middle-close-STAT-PROGR-SUBR then QUOT ASSR
DS

pam ahoy niman-hòy-ta
that back go-move-IMPRF
to home

‘It was getting close to noontime when he was on his way back home.’

The spatial terms *roya* ‘it turned’ and *riupa* ‘it slid apart’ are used in temporal expressions approximating our notion of ‘afternoon.’ While they are not as firmly established as our term ‘afternoon’ in the sequence ‘morning,’ ‘noon,’ ‘afternoon,’ and ‘evening,’ they do subcategorize the time stretch extending from noon till evening, with temporal emphasis on the phase immediately following the midday point. In addition to the examples listed under 1.10.12 and 1.10.13, the locutions rendered ‘after noon’ may occur in conjunction with other time expressions. An example is (18).

- (18) A: *puma hísat-ni-qw ùy-mok-wis-qe*
those what-NEX-SUBR plant-bag-PREGR-CAUSAL
time DS gather PL SS
greens

öki?
arrive
PL

- B: *taavok taawa-nasap-roya-k-iw-ta-qw-’ö*
yesterday sun-middle-turn-k-STAT-IMPRF-SUBR-PS
DS

‘At what time did they arrive from their trip to get [spruce or juniper] greens [for the kachina ruffs]?’ ‘Yesterday after noon.’

In conjunction with the stem *taawanasaproya-* the two destinative markers *-mi* and *-miq* are attested.

- (19) *itam taawa-nasap-roya-k-mi paa-sa-vo ye-p*
 we sun-middle-turn-k-to that-QNT-to here-at

tusqen-ta-ni
 pick-IMPRF-FUT
 out
 seeds

‘We’ll be picking seeds out [of cotton] until the time after noon.’

- (20) *itam taawa-nasap-roya-k-mi-q qa naatusita-ni*
 we sun-middle-turn-k-to-EX NEG restrain-FUT

‘We’ll try our best until the time after noon.’

2.1.6.3.6 *tapki* ‘it got to be early evening’

The final diurnal division that subcategorizes the temporal unit ‘day,’ is *tapki*. Whorf, in his comments on Stephen’s First Mesa entry “*tabki* sun close to his house, an hour before sunset” (Stephen 1936:1298), attempts to unlock the etymology of *tafki*, his Second Mesa form from Musangnuvi. He interprets the expression as a nominal with the content “sunlight-house” and decomposes it into the elements *taavi* “sunlight/sunshine” and *ki* “house.” The term would thus allude to the location to which the deity Sun retires in the evening according to Hopi mythology. None of my informants were able to verify this morphological breakdown. Syntactically, Third Mesa *tapki* clearly behaves as a verbal, indicating the realization of a state. As a more acceptable interpretation I, therefore, suggest *tapki* to consist of the root element *ta(a)-* ‘light,’ which we encountered in *taawa* ‘sun’ and *taala* ‘light,’ and the contracted intransitive verb form *paki* ‘he went in/entered.’ Below we will see that there is convincing morphological evidence for assigning *tapki* verbal status.¹¹³ As a temporal referent it embraces a time period which commences well before sundown and lasts until the sun disappears below the horizon. Periphrastic expressions which perhaps best sum up the Hopi reality associated with this term are ‘it became late afternoon’ or ‘it got early evening.’ To make glossing less cumbersome, I will assign *tapki* the values ‘become evening,’ ‘early evening,’ or simply ‘evening.’

The frozen adverbial clause *tapkiqw* ‘when it became early evening’ is the Hopi equivalent of English ‘in the evening,’ which is construed as a prepositional phrase. By suffixing the switch reference marker *-qw* without resorting to the connective *-ni-*, which would normally be required if *tapki* were a nominal, our assumption that *tapki* is a verb form is substantiated.

- (5) *kipo-k-katsina-m tsu-tsku-tu-y tapki-qw*
 raid-k-kachina-PL RDP-clown-PL-ACC become-SUBR
 evening DS
taw-toyna-ya-ngwu
 song-EFF-PL-HAB

‘The Raider kachinas have the clowns sing a song in the evening.’

The time locution *tapkiqw* may cooccur with additional adverbs as is exemplified in (6) and (7).

- (6) *nu' sutsep tapki-qw i-'uyi-y a-ng pòota-ngwu*
 I always become-SUBR my-plant-ACC it-on check-HAB
 evening DS DIF

‘I always inspect my [corn] plants in the early evening.’

- (7) *nu' taavok teevep tapki-qw sòöqa-n-ta*
 I yesterday all become-SUBR card-n-IMPRF
 day evening DS wool

‘Yesterday I was carding wool all evening long.’

Pausal endings associated with *tapkiqw* feature the vowel *-ö*, which typically occurs with the subordinator suffix for different subjects.

- (8) A: *pam hisat nima?* B: *löö-tok tapki-qw-ö*
 that when go two-night become-SUBR-PS
 home evening DS
 A: *tapki-q-ö?* *sùupan pi yaw pam*
 become-SUBR-PS seemingly FACT QUOT that
 evening DS

talavay nima-ni
 in go-FUT
 morning home

‘When did he go home?’ ‘Two days ago, in the evening.’ ‘In the evening?’
 I thought he was going to return home in the morning.’

Evidence that *tapkiqw* functions as a petrified adverbial clause, can be derived from the fact that it is attested as first constituent of compound expressions (9-10) and that it permits affixation of further elements. (11) shows *tapkiqw* in conjunction with the plural marker *-ya*, (12) presents the reduplicated plural expression *tatapkiqwya*. It refers to a group of kachina personators who entertain the village community with a sequence of dances on a summer evening without prior public announcement of the event.

- (9) *pam tapkiqw-nösa*
 that in-eat
 the
 evening

‘He ate supper.’

- (10) *tapkiqw-tawi*
 evening-song

‘evening song [i.e., during a daytime kachina dance]’

- (11) *noq pa-nso-q uma tapkiqw-y-é’ uma pe-pe-q*
 and there-to-EX you in-PL-COND you there-at-EX
 SI PL the SS PL
 evening

pumu-y amu-mi inu-ngem naa-'o-'ya-ni
 those-ACC they-to I-for REFL-RDP-put-FUT
 PL
 OBJ
 take revenge PL

‘And if you [go] there in the evening take revenge on them for me.’

- (12) *itam as yàa-piy naalö-s taala-t e-p=haqam*
 we IMPOT here-away four-times day-ACC it-at=APPROX
 from

hü-tu-y akw ta-tapkiqw-ya-ni
 being-PL-ACC with RDP-in-PL-FUT
 kachinas the
 evening

‘In about four days from now we’ll [do] an [unannounced] evening kachina performance.’

By drawing on zero as a marker of nominalization, *tapki* may attach both destinative case suffixes. Nonextreme *-mi* designates a time point which antedates that of *tapkiqw* and may be rendered ‘mid-afternoon’ (13). Modulated *tapkimiq*, on the other hand, implies that an event lasts ‘all the time till evening’ (14).

- (13) *ya um tapki-mi hūta nee-ngem pīsoq-ni?*
 Q you evening-to what REFL-for busy-FUT
 ACC

‘Will you be busy with yourself toward mid-afternoon?’

- (14) *itam pas tapki-mi-q=haqa-mi tu-tuquy-ni*
 we very evening-to-EX=INDEF-to RDP-listen-FUT
 learn

‘We’ll be learning all the time till evening.’

Perfective *tapkina*, displaying causative *-na*, translates ‘he made it to early evening/reached early evening.’

- (15) *mataq pa nu’ tapki-na-ni*
 clearly SPECUL I evening-CAUS-FUT

‘I wonder if I’ll make it till evening.’

- (16) *itam songqa¹¹⁴ homol’o-mi tapki-na-ya-ni*
 we probably PN-to evening-CAUS-PL-FUT

‘We’ll probably get to Winslow by evening.’

The causative verb form is also found with the feature reduplication. Example (17) stems from a ceremonial situation in which the father of the kachinas expresses his gratitude for having reached the evening of the dance day.

- (17) *kwakwhá-y, itam taa-tapki-na-ya*
 thanks-EXCLM we RDP-evening-CAUS-PL
 M

‘Thanks, we reached the evening.’

Imperfective *tapkinta* implies that a person engages in an activity which exceeds the normal day span and requires part of the evening to complete the project. (18) demonstrates the idea ‘work overtime’ for one day, (19) with reduplicated *tatapkinta* for several days.

- (18) *nu' pay pas uy-yuku-ni-qe oovi pas*
 I ASSR very plant-finish-FUT-CAUSAL therefore very
 SS

tapki-n-ta
 evening-CAUS-IMPRF

'I want to finish planting, that's why I'm spending the evening [working overtime].'

- (19) *nu' as pas tiiki-mi i-t kweewa-t*
 I IMPOT very dance-to this-ACC belt-ACC
 day

yúku-ni-qe oovi pas a-w
 finish-FUT-CAUSAL therefore very REF-to
 SS

ta-tapki-n-ta
 RDP-evening-CAUS-IMPRF

'Because I want to finish this belt for the dance I'm spending my evenings [working overtime] on it.'

Durative *kwangwatapkinta* means 'spending pleasant evenings.'

- (20) *pas nu' pu' qa qötö-tu-tuy-ngwu-nii-qe*
 very I now NEG head-RDP-hurt-HAB-NEX-CAUSAL
 SS

kwangwa-tapki-n-ta
 pleasant-evening-CAUS-IMPRF

'Because presently I have no headaches I'm spending nice evenings.'

Tapkina is also attested in conjunction with the possessive marker -y'. (21) is taken from a ceremonial context, (22) refers to a secular situation.

- (21) *itam hàalay-kyàa-kyangw tapki-ni-y'-wis-ni;*
 we happy-RDP-SIMUL early-CAUS-POSS-PREGR-FUT
 SS evening PL

tsangaw pay yàa-sa-t=haqam-ti; pay qa
 glad already this-QNT-time=APPROX-R well NEG

wuuya-vo pee-ti
 long-to leave-R
 over

'We'll be going towards evening happily [while dancing]; I'm glad it's this time of day already; not much time is left now [until the dance is over].'

- (22) *pas nu' kwangwa-tapki-ni-y'-ma;* *pas naat*
 very I pleasant-evening-CAUS-POSS-PROGR very still
i-hot-pa qa piw tuy-va
 my-back-on NEG again hurt-R
 DIF

'I'm really spending a pleasant evening [i.e., I've had a good day]; the pain in my back has not set in again.'

2.1.7 Anterior and posterior orientation in reference to 'today'

Time is universally conceptualized in a tripartite system of past, present, and future. This ternary division will be mirrored in an individual language in a number of ways, morphologically as well as lexically. Thus, when projecting the deictic notion 'now' onto the temporal continuum, 'already' and 'not yet' may be considered to represent the segments preceding and succeeding the present-time excerpt 'now.' On a somewhat larger scale, 'today,' when selected as the present-time focus, attracts the deictic coordinates 'yesterday' and 'tomorrow' in regard to past and future orientation.

Languages vary of course as to the lexical items that they have developed for anterior and posterior orientation sequences in respect to 'today.' While English must resort to extensive periphrasis when alluding to days before the narrow confines of 'yesterday' and 'tomorrow,' German operates with morphemically complex terms such as *vorgestern* 'day before yesterday,' *vorvorgestern* 'two days before yesterday,' and *übermorgen* 'day after tomorrow.' The respective Hopi lexemes available in this field are *pu* 'today,' *taavok* 'yesterday,' and *qaavo* 'tomorrow.' To go beyond the temporal limits of anterior *taavok* and posterior *qaavo*, a Hopi speaker makes use of the day reckoning system featuring the element *-tok*, which allows both past and future interpretation as was pointed out in 2.1.2.

2.1.7.1 *pu* 'today'

The semantic content of the particle *pu* is intrinsically committed to the present-time phase on the one-dimensional time line. As its overall temporal scope may vary according to the contextual situation in which it occurs, *pu* may be rendered in various ways. The English glosses that are proposed by Hopi consultants, range in a hierarchical order from the temporal microseg-

ment 'this instant' to the macrosegment 'this day and age.' Among the intermediate stages such as 'presently,' 'nowadays,' etc., we also encounter the meaning 'today.' Events taking place within the time span of 'today' may either be located in the past (1-2) or be projected into the future (3-4).

- (1) *um hìita pu' tuuqay-va?*
 you what today learn-INCHO
 ACC

'What did you learn today?'

- (2) *nu-y pu' hoona-ya*
 I-ACC today send-PL
 off

'They threw me out today.'

- (3) *nu' pu' i-tihu-y yúku-ni*
 I today my-kachina-ACC finish-FUT
 doll

'I will finish my kachina doll today.'

- (4) *pay pi uma i-siyara-y yaw-ma-ni, pánis=sa*
 well FACT you my-saw-ACC take-PROGR-FUT only=only
 PL

uma ason pay pu' hísat-ni-qw a-ngqw ahoy
 you later ASSR today some-NEX-SUBR REF-from back
 PL time DS to

yaw-ma-ni
 take-PROGR-FUT

'Well, you can take my saw along, only bring it back some time later today.'

For pausal inflection *pu'* lengthens its stem vowel and attaches the ending *-u*.

- (5) *pay um hópi-niwti puu-'u*
 well you PN-transform today-PS

'Well, you have changed into a Hopi today [i.e., by participating in this affair].'

Within the period of time conveyed by *pu'* 'today,' a particular segment may be specified by additional temporal adverbs. While *hisatniqw* 'at some

time of the same day' in (4) was rather vague in this respect, (6) and (7) contain the more definite adverbs *talavay* 'in the morning' and *mihikqw* 'at night.'

- (6) *nu'* *pay* *pu'* *talavay* *hùuya-ma*
 I ASSR today in sell-POSTGR
 the
 morning

'I went to sell [and trade] this morning.'

- (7) *nu'* *pu'* *mihikqw* *mongwu-t* *piw* *pitu-qw*
 I today at owl-ACC again arrive-SUBR
 night DS

mú'a-ni
 shoot-FUT

'If that owl comes tonight again, I'll shoot it.'

The two concluding examples illustrate the particle in morphemically complex constructions. (8) demonstrates *pu'* as constituent of the predicator featuring the subordinating sequential marker *-t*; in (9) the particle provides the stem for a nominalization which is achieved by means of the relativizer *-qa* following the connective element *-nii-*.

- (8) *itam pu'-ni-t pu' qaavo piw-ni*
 we today-NEX-PRIOR then tomorrow again-FUT
 SS

'We [did] it today and we'll [do] it again tomorrow.'

- (9) A: *pe-w tutuveni-t yaw-ma-'a B: hùita-wa-t-a?*¹¹⁵
 here-to paper-ACC take-PROGR-IMP what-SPEC-ACC-PS
taavok-nii-qa-t sen pu'-nii-qa-t?
 yesterday-NEX-REL-ACC DUB today-NEX-REL-ACC

'Bring me the newspaper.' 'Which one? Yesterday's or today's?'

2.1.7.2 *taavok* 'yesterday'

Like *pu'* 'today,' the adverbial *taavok* has a fixed boundary in time. Anterior to 'today,' it translates 'yesterday' in the locative sense of 'on the day before the present day.' Whether etymologically *taavok* embodies a one-time destinate case marker *-k* must remain speculative. Suffice it to mention that both

-vo and *-k* are encountered with destinative force in spatial expressions reflecting an ancient case system which is no longer productive. Of the two elements *-vo* or *-po* are attested quite frequently; *-k*, on the other hand, is represented only in the isolated remnant *yuk* '(to) here.' The counterterm to *taavok* is *qaavo* 'tomorrow,' which also contains the element *-vo*. Sentence (1) exemplifies *taavok* without additional temporal specification.

- (1) *nu' taavok hoo-p i-mori-'uyi-y haq-e'*
 I yesterday east-at my-bean-plant-ACC where-at
DIF
- qa uy-qe-y pa-ng uy-ti-numa*
 NEG plant-REL-ACC there-at plant-CAUS-CIRCUMGR
DIF PL
OBJ

'I was planting beans yesterday in the east [in the places] where I had not planted yet.'

By means of such temporal locutions as *talavay* 'in the morning,' *tõngvaqw* 'at midmorning,' *taawanasaptiqw* 'at noon,' etc., the temporal referent range of *taavok* may of course be delimited. (2) illustrates such a case.¹¹⁶

- (2) *nu' taavok tapkiqw a-w pà-ng-qawu pay*
 I yesterday in he-to that-way-say INTR
the
evening
- itam haak qaavo qe'-ni-qa-t*
 we temporarily tomorrow not-FUT-REL-ACC

'I told him yesterday evening that we won't [be doing] it tomorrow.'

The pausal endings *-o* and *-o* are attested in the following examples:

- (3) A: *haw hisat pà-n-ti?* B: *taavok-'o*
 Q when that-way-do yesterday-PS
INCOMPR

'When did he do that?' 'Yesterday.'

- (4) A: *nu' taavok ùu-pe-q* B: *taavok-o?*
 I yesterday you-at-EX yesterday-PS

'I [was] at your place yesterday.' 'Yesterday?'

In statements that are distinguished by uncertainty on the part of the speaker, *taavok* will attract the enclitic modulator =*haqam*.

- (5) A: *sùupan as pay pam taavok=haqam*
 seemingly IMPOT ASSR that yesterday=APPROX

nima B: qa'é, pam naat pu' se'el nima
 go no that still now this go
 home morning home

'I thought that he went home some time yesterday.' 'No, he went home just this morning.'

To qualify as a noun *taavok* is nominalized, as is shown in (6) and (7).

- (6) *pu' taavok-nii-qa-t àa-pe pas utu-hu-'u*
 today yesterday-NEX-REL-ACC it-on very hot-ABS-PS

'Today was much hotter than yesterday.'

- (7) *nu' pay taavok-nii-qa-t-wa-t piw ahoy*
 I ASSR yesterday-NEX-REL-ACC-SPEC-ACC again back
 to

a-w muki-na
 it-to hot-CAUS

'I warmed up yesterday's [food] again.'

Several morphological options are available to a Hopi speaker if *taavok* is to be used as the point in time from which an event emanates. The first, which attaches the postposition *-vii-piy* to the stem of the adverbial, is presented in (8).

- (8) *taavok-vii-piy pu' itam pas qa öö-'öna*
 yesterday-place-away then we very NEG RDP-without
 (?) from desire

'We have not been indolent from yesterday on.'

The place of *-vii-piy* may also be taken by *-ngahaqaqw*, the modulated form of the regular ablative marker *-ngaqw*.

- (9) *pam taavok-ngahaqa-qw itsivu-'iw-ta*
 that yesterday-INDEF-from angry-STAT-IMPRF

'He's been angry since yesterday.'

Most interesting of the alternative expressions conveying the notion ‘since yesterday’ is the one exemplified in sentences (10) and (11). There the indefinite clitic =*haq* is appended to the adverbial. The clitic, which intrinsically subscribes to the spatial concept of the extreme locative, permits *taavokhaq* to be interpreted as ‘at some point way back yesterday.’

- (10) *pam taavok=ha-q hoo-po=haqa-mi itàa-taha-y*
 that yesterday=INDEF-at east-to=INDEF-to our-uncle-ACC
 EX
a-w-ni-t naat qa pitu
 he-to-NEX-PRIOR still NEG arrive
 SS

‘Sometime yesterday he [went] to our uncle in the east [ern section of the village] but has not come home yet.’

However, when used in conjunction with events which are marked for durative aspect, the overall reading of the sentence allows *taavokhaq* to be interpreted as ‘since yesterday.’

- (11) *uti, um taavok=ha-q put a-w hi-n-tsaki*
 surprise you yesterday=INDEF-at that it-to some-way-do
 EXCLM EX ACC
 ‘Gee, you’ve been working on that since yesterday.’
- (12) *nu’ taavok=ha-q umu-y nùutay-ta*
 I yesterday=INDEF-at you-ACC wait-IMPRF
 EX PL

‘I’ve been waiting for you since yesterday.’

In cases where the temporal content of *taavok* ‘day before the present day’ is to be applied to an event or a time reference in the past, we encounter the phrase *ep tavoknen*. It denotes ‘the day before’ and is illustrated in (13) for a specified date, in (14) for a particular event.

- (13) *katsin-yung-ta-qa-t e-p tavok-nen*
 kachina-enter-IMPRF-REL-ACC it-on yesterday-before
 PL

iyo-ho’o
 cold-ABS-PS

‘On the day before the initiation into the kachina [society] it was cold.’

- (14) A: *pam hisat nima?* B: *höq-ma-ya-qa-t*
 that when go harvest-POSTGR-PL-REL-ACC
 home

e-p tavok-nen
 it-at yesterday-before

‘When did he return home?’ ‘The day before they had gone harvesting.’

2.1.7.3 *qaavo* ‘tomorrow’

2.1.7.3.1 Nonderived forms of *qaavo*

The time adverbial *qaavo* ‘tomorrow’ is locative in character. This is evident from its occurrence in juxtaposition with temporal locutions featuring locative case markers (4) as well as from the fact that it may be used as response to the interrogative *hisat* ‘when?’ Whether or not the \rightarrow is an indication that the form originally constituted a destinative (that is, goal-oriented) concept cannot be decided on the basis of the synchronically available data. The time span embraced by *qaavo* may either be referred to in its totality (1) or portions of it may be pinpointed by additional temporal locutions alluding to the diurnal phases (2-3).

- (1) *ason nu' qaavo umu-y piw nõnga-k-na-ni*
 later I tomorrow you-ACC again come-k-CAUS-FUT
 PL out
 PL

‘Tomorrow I will take you out again [i.e., I as the father of the kachinas will lead you from the kiva to the plaza to dance for another day].’

- (2) *pay ason itam¹¹⁷ qaavo töng-va-qw pu'*
 well later we tomorrow midmorning-R-SUBR then
 DS

a-qw-nen à-ng-qe hángwa-ni
 REF-to-COND REF-DIF-EX dig-FUT
 EX SS

‘We’ll [go] there tomorrow at midmorning and will dig a ditch along there to that place.’

- (3) *qaavo mihikqw pu' um tuwat inu-mi*
 tomorrow at then you in I-to
 night turn

tùu-tuwuts-ni
RDP-story-FUT
tell story

'Tomorrow night it will be your turn to tell me a story.'

That *qaavo* will occasionally also occur in a temporal sequence that is not restricted to being posterior to the speaker's view point of 'today' is evident from (4).

- (4) *niiqe* *puma yaw* *pe-p* *piktotokya-y'-yungwa,*
and those QUOT there-at piktotokya-POSS-IMPRF
CAUSAL day PL
- noq qaavo*¹¹⁸ *totok-pe* *yaw* *pam*
and tomorrow totokya-at QUOT that
SI day
- maq-to-ni-qa-y* *wuuwa-n-ta*
hunt-PREGR-FUT-REL-ACC think-n-IMPRF

'And they were having [the preceremonial day of] Piktotokya there, and the following day on Totokya he was thinking of going hunting.'

The pausal ending of *qaavo*, which regularly ends in '-o', is illustrated in the following example:

- (5) A: *pam hisat a-ngqw-ni?* B: *pay qaavo-'o*
that when REF-from-FUT well tomorrow-PS

'When will he come?' 'Tomorrow.'

Speaker uncertainty about 'tomorrow' as a possible date for a project usually results in *qaavo* attracting the indefinite clitic =*haqam*.

- (6) *nu' wuuwa-n-ta-qe* *itam qaavo=haqam* *piw*
I think-n-IMPRF-CAUSAL we tomorrow=APPROX again
SS
- hisat-ni-qw* *sòsoyam* *tsovà-l-ti-qw* *pu' nu'*
some-NEX-SUBR all gather-PASS-R-SUBR then I
time DS AN PL DS
- umu-y aa'awna-ni*
you-ACC announce-FUT
PL

'I was thinking that I would tell you [about this] sometime tomorrow, when we're gathered again at some time.'

2.1.7.3.2 *qaavo* in conjunction with postpositional elements

A number of postpositional suffixes may be attached to *qaavo*. Time goal in the sense of 'for/till tomorrow' is indicated by the two regular destinative case markers *-mi* (1) and *-miq* (2), time origin in the sense of 'from tomorrow' by the postpositional element *-viipiy* (3).

- (1) *nu' i-t qavo-mi ya-n-tsaki*
I this-ACC tomorrow-to this-way-do

'I'm doing this for tomorrow.'

- (2) *itam ya-ngqw pas qavo-mi-q paa-sa-vo*
we here-from very tomorrow-to-EX that-QNT-to

tumala-y'-ta-ni
work-POSS-IMPRF-FUT

'We'll be working from now until tomorrow.'

- (3) *qaavo-vii-piy pu' um imu-y pas*
tomorrow-place-away then you these-ACC very
(?) from

wuu-wukoq-mu-y oovi kwini-wi-wat pu'-ni
RDP-big-PL-ACC concerning north-to-SPEC then-FUT

'From tomorrow on you [go hunting] for these really big ones [i.e., deer] to a place up north.'

2.1.7.3.3 *qaavotiqw* and *qavongvaqw* 'the following day'

A rare suffix in conjunction with *qaavo* is the realized state marker *-ti*. It is only attested when accompanied by the obviative or switch reference marker *-qw*. The resulting adverbial clause of time constitutes a semi-frozen construction and simply translates 'the day after/the following day.' As in the case of *tavoknen* 'the day before' (see 2.1.7.2), the temporal immediacy to 'today' is now removed and the meaning of 'tomorrow' can be applied to the 'day after' any date or event.

- (1) *qaavo-ti-qw piw hi-n-wat-ti-ngwu*
tomorrow-R-SUBR again some-way-SPEC-R-HAB
DS

'The next day he changes [his mind] again.'

Most Hopi speakers, however, reject the expression *qaavotiqw* as unidiomatic and give preference to the form *qavongvaqw*. Of the two realized state suffixes that Hopi employs, *-va* is the older and has ceased to be productive. *-ti* is the productive one and has started to supplant *-va*. While such expressions as *taala'ti* 'it got summer' for older *tal'angwva*, and *tömö'ti* 'it got winter' for older *tömöngva*, etc., are being accepted by speakers of all age brackets, the transition from *qavongvaqw* to *qaavotiqw* is still being frowned upon by the majority of Hopi. In analyzing *qavongvaqw*, one may segment the stem *qavo-*, clearly related to *qaavo* 'tomorrow,' which is followed by the connective element *-ng(w)*.¹¹⁹ The latter can for instance also be observed in the above cited verbals *tal'angwva* and *tömöngva*. Rarely does one encounter *qavongva* without the switch reference suffix succeeding the realized state marker *-va*. (2) illustrates such a rare example.

- (2) *pu' yaw pàa-sa-t qavo-ng-va; pu' yaw*
 then QUOT that-QNT-time tomorrow-ng-R then QUOT
piw pay naa-mi pà-ng-qawu, "itam kur piw
 again ASSR RCPR-to that-way-say we EV again
a-qw-ni, loma-man-tu-y a-qw-áa"
 REF-to-FUT beautiful-girl-DL-ACC REF-to-PS
 EX EX

'Then it became the next day; then they said to each other again, "We'll [go] to that place again, to the beautiful girls."

As a rule, one finds *qavongvaqw* in the role of a petrified temporal adverbial clause. Voegelin and Voegelin cite the form in two different places and assign it rather varying glosses: "when-day-begins" (1969:196.10) and "from tomorrow on until the next day" (1957:24.A.10.1). Kennard renders the term "next-day" (1963:37.59). My Hopi consultants would only confirm the last mentioned meaning. When sampling the contexts in which *qavongvaqw* occurs, two distinct behavior patterns may be observed. In the first, *qavongvaqw* functions absolutely, much like an ordinary adverbial. (3) exemplifies such a case:

- (3) *kur qavong-va-qw piw-ya-ni-qw pàa-sa-t*
 EV tomorrow-R-SUBR again-PL-FUT-SUBR that-QNT-time
 DS DS
naat pay tsu-tsku-tu-y amu-mi qa kiiipo-k-ya-ngwu
 still ASSR RDP-clown-PL-ACC they-to NEG raid-k-PL-HAB

- (1) *nu' naa-qavo ung hopii-tu-tuqay-na*
 I RCPR-tomorrow you PN-RDP-listen-CAUS
 ACC teach

'I'm teaching you Hopi day after day.'

- (2) *pay nu' naa-qavo-t-e' songqa*
 well I RCPR-tomorrow-CAUS-COND most
 SS likely

sú-'amíu-sa-q yúku-ni
 exact-they-QNT-time finish-FUT

'If I do this day after day, I will most likely finish at the same time as they.'

- (3) *nu' pas-law-qe naa-qavo-y'-ma*
 I field-CONT-CAUSAL RCPR-tomorrow-POSS-PROGR
 hoe SS

'I spend one day after another hoeing [weeds] on the field.'

2.1.8 *Named days of the week*

The grouping of ordinary days into any temporal unit of a higher magnitude was alien to the indigenous Hopi cultural pattern. While specifically named days were well established within the framework of the ceremonial day count as we saw in 2.1.1.2, no cover terms were available to convey the periodicity of a given sequence of days. The concept of 'week' was introduced as a result of growing intimacy with European acculturation (see 2.3). The fact that Sunday in the shape of *santi* became the candidate for 'week' was probably due to missionary influence. The regularly recurring observance of Sunday as a day of worship and rest eventually became associated with the periodic time interval between Sundays and thus came to signify the time unit 'week.' This semantic shift was naturally reinforced by the arrival of additional Anglo imports, in particular the school system and the trading post. Both institutions turned out to be decisive novelties that radically altered the make-up of Hopi life. Obligatory schooling became a traumatic experience for the majority of Hopi and may well have been the reason for not borrowing the English day terms in the beginning. Instead, days were counted according to how many times children had to go to school. As may be observed from the named day sequence below, the circumlocution for 'Saturday' was an expression drawing on the negation of the unaccustomed experience. The subsequent day phrases are constructed with the locative sense 'on.'

- (1) *suu-s* *tu-tuqay-ya-qa-t* *e-p*
 one-times RDP-listen-PL-REL-ACC it-on
 learn

‘on Monday [lit. the day on which they learn the first time]’

- (2) *löö-s* *tutuqay-ya-qa-t* *e-p*
 two-times learn-PL-REL-ACC it-on

‘on Tuesday’

- (3) *paayi-s* *tutuqay-ya-qa-t* *e-p*
 three-times learn-PL-REL-ACC it-on

‘on Wednesday’

- (4) *naalö-s* *tutuqay-ya-qa-t* *e-p*
 four-times learn-PL-REL-ACC it-on

‘on Thursday’

- (5) *suu-s* *tutuqay-ya-ni-qa-t* *e-p*
 one-times learn-PL-FUT-REL-ACC it-on

‘on Friday [lit. on the day on which they will learn one more time]’

- (6) *suu-s* *qa* *tutuqay-ya-qa-t* *e-p*
 one-times not learn-PL-REL-ACC it-on

‘on Saturday [lit. the day on which they do not learn]’

An alternative expression for Saturday was based on the trading post phenomenon. While trading hours were usually from morning till evening, on Saturdays the store was open only until noon. This early closing custom is reflected in the periphrasis for this day.

- (7) *hihin-hiüuya-ya-qa-t* *e-p*
 somewhat-sell-PL-REL-ACC it-on

‘on Saturday [lit. on the day on which they sell little]’

The name for Sunday was the phonologically adapted English term *santi*.

- (8) *santi-t* *e-p*
 Sunday-ACC it-on

‘on Sunday’

An optional approach to capturing the English day designations made use

of the pluralized progressive form *tutuqaywisa* (SG *tutuqayto*) ‘they are going to school’ rather than using durative *tutuqayya* (SG *tutuqayi*) ‘they are learning.’

- (9) *pu’ naat suu-s tutuqay-wisa*
 today still one-times learn-PREGR
 PL

‘Today is Monday [lit. Today they are going to school the first time].’

The two remaining examples offer instances of these periphrastic locutions in actual context.

- (10) A: *ya pu’ hii-sa-kis tutuqay-wisa?*
 Q today which-QNT-times learn-PREGR
 PL

- B: *pu’ löö-s tutuqay-wisa*
 today two-times learn-PREGR
 PL

‘What day is today? [lit. How many times are they going to learn today?].’ ‘Today is Tuesday.’

- (11) *itam suu-s tutuqay-wis-ni-qa-t e-p*
 we one-times learn-PREGR-FUT-REL-ACC it-on
 PL

talavay nima-ni
 in go-FUT
 the home
 morning

‘We’ll go home Friday morning [lit. on the day when they will go to school one more time].’

2.2 The night

Just like the old Indo-Europeans and many other peoples around the globe, the Hopi, too, recognize the night, the period of darkness and sleep, as a decisive reference point in their temporal reality. In 2.1.2 we already had occasion to mention the widespread custom of counting the days from the nights, which is also attested for Hopi. Nilsson believes that “the method of reckon-

ing in nights is merely an outcome of the necessity for a concrete unmistakable time-indication" (1920:17). The day, filled with various activities, did not suggest the same temporal cohesiveness that characterizes night time or sleeping time. Tschirch points out that all Indo-European daughter languages share the root for 'night,' whereas 'day' is attested in many unrelated terms. From this he concludes that the unit 'night' was more important to the Indo-Europeans than the unit 'day.' Responsible for this emphasis on the night, he claims, was their economic reality, which was herdsman-oriented and not farmer-oriented. While the farmer works during the day and sleeps at night, the herdsman's main attentiveness is called for during night time when sheep or cattle are most endangered (1966:31).

2.2.1 *tookila* 'the night'

The Hopi term for the temporal unit 'night' is *tookila*. Derived from the Proto-Uto-Aztecan root **tu* 'black,' it may originally have signified something like 'blackness.' Extinguishing the fire in the evening and going to bed mark the beginning of the night span. Interestingly enough, the Hopi impersonal passive verbal *tookiwa* is commonly rendered 'they are in bed,' but a synonymous form translates 'the fire has been extinguished.' With the appearance of dawn, the phase of darkness and rest terminates. Although sharing the final syllable *-la* with its counternotion 'day,' *tookila* 'night,' contrary to the former, never functions as a verb. Only rarely does it occur in the subject slot.

- (1) *tookila pu' wuupa*
 night now long

'The nights [are] long now.'

More frequently *tookila* is found in predicate position. In expressions with *wupa-* 'long' and *tsava-* 'short' as modifiers, reference is made to long nights in winter and short ones in summer.

- (2) *pas pu' wupa-tokila-ni-ngwu*
 very now long-night-NEX-HAB

'The nights are very long now.'

- (3) *pay pu' tsava-tokila-ni-ngwu*
 well now short-night-NEX-HAB

'The nights are short now.'

When counting nights, Hopi usually resorts to multiplicatives.

- (4) *pam pi hii-sa-kis taala-t a-ng-a' pu'*
 that FACT some-QNT-times day-ACC it-in-PS then
 DIF

hii-sa-kis piw tookila-t a-ng-nii-qe
 some-QNT-times also night-ACC it-in-NEX-CAUSAL
 DIF SS

oovi pam pas haq-ti
 therefore that very far-R
 away

'After he had traveled an indefinite number of days and nights he was very far away.'

The accusative marker *-t* is attested in a periphrastic locution for 'midnight.'

- (5) *tookila-t naa-sa-mi-q pitu*
 night-ACC RCPR-QNT-to-EX arrive
 middle

'It became midnight.'

As a rule, however, the contracted stem *tookil-* combines with a locator form associated with the base *naasa-* 'middle' to express the concept 'midnight.'

- (6) *tookil-nasa-ve=ha-q nu' taa-tayi*
 night-middle-at-INDEF-at I RDP-awake
 EX

'I woke up at midnight.'

- (7) *nu' pu' tookil-nasa-mi-q tihu-law-ni*
 I today night-middle-to-EX kachina-CONT-FUT
 doll

'I'll be carving kachina dolls till midnight.'

A reduplicated form *tootokila* conveying the plural notion 'nights' is listed in Voth's handwritten Hopi-English manuscript dictionary (no date, but approx. 1900). The form is also confirmed by Whorf in Stephen's *Journal*, where he glosses it "many nights" (1936:1306). This is contrary to his contention that "no imaginary plurals" exist in Hopi (Carroll 1956:140). Although rare indeed, and generally not accepted by Third Mesa speakers, an elderly inform-

2.2.3 *tookyep* 'all night long'

Adverbial *tookyep*, carrying the durational value 'all night long,' is reminiscent in form of its counternotion *teevep* 'all day long' (see 2.1.4). For the final element *-ep* I can presently offer no solution. Whether it is identical with the punctual postposition *ep* 'in/on/at,' is difficult to verify synchronically. The possibility of the form constituting a petrified locator should not be ruled out, however. The semantic content of *tookyep* encompasses the whole period of darkness (1-3).

- (1) *nu' tookyep hiita na-nvota*
 I all something RDP-hear
 night ACC

'All night long I kept hearing something.'

- (2) *nu' tookyep namtö-tö-ta*
 I all turn-RDP-IMPRF
 night around

'All night I was tossing and turning.'

- (3) *itam tookyep tuwan-lalwa, pas taalaw-va-qw*
 we all practice-CONT very daylight-R-SUBR
 night PL DS

itam qe'-toti
 we not-R
PL
 stop PL

'We were practicing all night and then close to morning we stopped.'

When counted by means of multiplicatives, the durational span *tookyep* may be rendered 'night.' Contrary to the element *-tok* (see 2.1.2), which according to the *pars pro toto* principle now embraces the value 'twenty-four hour day,' *tookyep* has not undergone this semantic extension.

- (4) *löö-s teevep nit löö-s tookyep yoo-yoki*
 two-times all and two-times all RDP-rain
 day ACC night

'It's been raining for two days and two nights.'

In the next example *tookyep* appends the pausal ending *-u*.

- (5) A: *um hii-sa-vo tihu-lawu?* B: *tookyep*
 you which-QNT-to kachina-CONT all
 doll night

A: *tookyep-'u?*
 all-PS
 night

'How long have you been carving?' 'All night.' 'All night?'

When transitivized with perfective causative *-ta* or imperfective causative *-lawu*, the English equivalents of the resulting verb forms imply 'carry out an activity all night long' and 'do something night after night' respectively.

- (6) *itam pas katistsa-y a-ngqw pe-qw tokyep-ta*
 we very PN-ACC it-from here-to all-CAUS
 EX night

'We [traveled] all night from San Felipe to get here.'

- (7) *puma puunat öki-qw itam àa-piy*
 those recently arrive-SUBR we REF-away
 PL DS from

itàa-yungyapu-y a-w tokyep-lalwa
 our-wicker-ACC it-to all-CONT
 basket night PL

'We've been working on our baskets every night since they arrived recently.'

A rare compound, consisting of the modifier element *susa-* 'only one' and vowel shortened *-tookyep* as head member is *susatokyep* 'all night long.' (8) shows the free adverbial and (9) a causative derivative.

- (8) *su=sa-tookyep yoo-yoki*
 one=only-all RDP-rain
 night

'It's been raining right through the night.'

- (9) *nu' su=sa-tookyep-ta-t mùnqa-mi-q pitu*
 I one=only-all-CAUS-PRIOR PN-to-EX arrive
 night SS

'It took me right through the night [i.e., all night] to get to Munqapi.'

2.2.4 *tooki* 'last evening/last night'

The adverbial *tooki*¹²⁰ may temporally comprise the complete span of 'the previous night' or refer to a much shorter segment in the sense of 'last evening.' Whorf's glosses in Stephen's *Journal* "v. a night elapses, n. a night" (1936:1306) do not meet the syntactic reality of the term as used by Third Mesa speakers.

- (1) *nu' as tooki kiva-mi-q ta-taw-kos-to-t*
 I IMPOT last kiva-to-EX RDP-song-learn-PREGR-PRIOR
 night (?) SS
- qa a-qw pitu*
 NEG it-to arrive
 EX

'Last evening I went to the kiva to learn a song, but I didn't get there.'

- (2) *nu' tooki qa suu-s ta-tayi*
 I last NEG one-times RDP-awake
 night

'Last night I woke up many times.'

The use of *tooki* is, of course, tied to the speaker's perspective of 'today.' Any evening or night prior to 'last night' is rendered with the periphrastic locution *ep tokinen*. The element *-nen* will accordingly be glossed 'before.' While (3) demonstrates such a case, (4-5) refer to 'the night before' a special event. Note that the subjects of clauses in (4) are coreferential while (5) is characterized by nonidentical subjects.

- (3) *tooki mongwi itamu-mi yu'a-'a-ta-qe pay*
 last leader we-to speak-RDP-IMPRF-CAUSAL ASSR
 night SS
- yaw son itamu-ngem kuuyi-t qa*
 QUOT NEG we-for water-ACC NEG
- mak-iw-ni-qa-y pa-ng-qawu; naat as pu'*
 give-PASS-FUT-REL-ACC that-way-say still IMPOT then
 PERF
- e-p toki-nen qa pa-n yu'a-'a-ta-t*
 REF-on last-before NEG that-way speak-RDP-IMPRF-PRIOR
 night SS

'Last night the leader spoke to us and told us that we would definitely be given water [installations]; the night before he had not talked like that.'

- (4) *pam nööma-ta-ni-qa-y e-p toki-nen inu-mi*
 that wife-CAUS-FUT-REL-ACC it-on last-before I-to
 night

pà-ng-qawu pay yaw pam as qa pas
 that-way-say ASSR QUOT that IMPOT NEG very

suyan nööma-ta-ni-qa-y naawakna
 clearly wife-CAUS-FUT-REL-ACC want

'The night before he was going to get married he told me that he wasn't quite sure he wanted to get a wife.'

- (5) *maq-wis-ni-qa-t e-p toki-nen tawvaya*
 hunt-PREGR-FUT-REL-ACC it-on last-before PN
 PL night

awta-y qõhi-k-na
 bow-ACC break-k-CAUS

'The night before they were going to go hunting Tawvaya broke his bow.'

With *took* suffixing the extreme-punctual modulator =*haq*, emphasis is placed on the abnormally long time interval between last night and the present-day event. *Tookihaq* is then best rendered 'late last night.' Embedded in contexts featuring durative verbs, the overall semantic reading of *tookihaq* suggests the interpretation 'since last night.'

- (6) *um tooki=ha-q pu' teevep itàa-ti-y qa*
 you last=INDEF-at then all our-child-ACC NEG
 night EX day

sìu=sa yoo-yong-na-qw,
 one=only RDP-breastfeed-CAUS-SUBR
 DS

tsõng-moki-w-ta-qw nu' kur put
 hunger-die-STAT-IMPRF-SUBR I EV that
 DS ACC

- (2) *ye-p taalaw-va-qw ay-e'-wa-t tutskwa-t*
 here-at daylight-R-SUBR over-DIF-SPEC-ACC land-ACC
 DS there

a-ng mihi-k-ngwu
 it-in get-k-HAB
 DIF night

'While it becomes daylight here, it becomes dark night in that other country over there.'

- (3) *pay pi yaw pàa-sa-t mihi, sòsoyam yaw*
 well FACT QUOT that-QNT-time get all QUOT
 night AN

sino-m pay tookya, noq suyan pi yaw
 person-PL already sleep and clearly FACT QUOT
 PL SI

muy-tala
 moon-light

'It was black night at that time, all the people were asleep and it was clear moonlight.'

Frequently, Hopi consultants will simply render *mihi* by 'late,' as in (4). This value is also triggered in compound expressions with *loma*- 'nice/beautiful' (5), and *su'aw*- 'not too much and not too little/just right' (6). 10 p.m. is an approximate equivalent on our twenty-four scale for these expressions.

- (4) *"nu' puw-ni," yaw maana kita, "pas nu'*
 I sleep-FUT QUOT girl say very I

mangu-'iw-ta, pay pi mihi"
 tired-STAT-IMPRF well FACT get
 night

"'I'll go to bed,'" the girl said, "I'm very tired and it's late."

- (5) *pay loma-mihi, itam tok-ni*
 well nice-get we sleep-FUT
 night PL

'It's quite late, we'll go to bed.'

- (6) *tum* *qe'ti* *taq* *pay* *kur* *su-'a-w-mihi*
 EXHRT quit because already EV exact-REF-to-get
 1P mean night
 NSG

'Let's stop because it is already pretty late.'

The form *mihi* is further attested with a number of verbal suffixes, all of which attach to the extended stem *mihik-*; *k* is, of course, the hallmark classifier of most *k*-class forms which materialized already in (2) before the habitual marker *-ngwu*. The true durative state of night and darkness is conveyed with the suffix sequence *-iwta*. *Mihikiwta* in this role turns out to be the counternotion of *taalö'*, as may be gathered from (3) in 2.1.6.3.1 which combines the two ideas in one sentence. (7) demonstrates the stative verbal in a morphological make-up that combines prefixal modification by *loma-* and suffixal attachment of the different subject marker *-qw*, with the whole locution in turn modulated by the approximator clitic =*haqam*.

- (7) *pay* *yaw* *oovi* *pas* *yàa-sa-t*
 well QUOT therefore very this-QNT-time

loma-mihi-k-iw-ta-qw=haqam *pu'* *yaw*
 nice-night-k-STAT-IMPRF-SUBR=APPROX then QUOT
 DS

a-ngqa-qw *katsina-m-ya*
 REF-INDEF-from kachina-PL-PL

'It was therefore at this very time, pretty late at night, when the kachinas [came] from somewhere.'

With imperfective *-ta* in *-iwta* replaced by progressive *-ma*, the initial phase of the state is expressed.

- (8) *pay* *kur* *míhi-k-iw-ma,* *nu'* *níma-ni*
 well EV night-k-STAT-PROGR I go-FUT
 home

'Well, it's getting night, I'll go home.'

Inchoative state may optionally be conveyed in a construction featuring progressive *-to*. Depending on whether *mihikto* is used after the temporal stage of *tapki* 'it got early evening' or *mihi* 'it got late evening,' it will either translate 'it's getting late' or 'it's getting night.'

- (9) *tuma noo-nova taq nungwu pay*
 EXHRT RDP-food because meanwhile already
 1P eat PL
 NSG
 'mihi-k-to
 night-k-PREGR

'Let's eat because it's getting late.'

The causative derivative *mihikna* 'he made the night' implies 'staying until nightfall/reaching nighttime/spending the night.'

- (10) A: *uma nimàa-qe haqa-mi mihi-k-na?* B: *itam*
 you go-CAUSAL where-to night-k-CAUS we
 PL home SS
peeski-y a-w mihi-k-na
 PN-ACC it-to night-k-CAUS

'Where were you on your way home when you reached night time?' 'In Prescott.'

- (11) *nu' powamuy-ve mihi-k-qw i-tupko-y kii-yat*
 I Powamuya-at get-k-SUBR my-younger-ACC house-his
 ceremony night DS brother ACC
e-p mihi-k-na-t pu' a-ngqw nima
 it-at night-k-CAUS-PRIOR then it-from go
 SS home

'At Powamuya [i.e., the Bean dance] I stayed till late into the night at my younger brother's house and then I went home.'

- (12) *pay naat nu' piw ye-pe-q mihi-k-na-ni*
 well still I again here-at-EX night-k-CAUS-FUT
 'I'll spend another night here.'

A possessive construction involving *mihikna* is listed in (13). Note how the possessive marker -y' umlauts the preceding vowel.

- (13) *pay yaw oovi puma su-'a-w-wuya-vo naa-mi*
 well QUOT therefore those exact-REF-to-long-to RCPR-to
 mean

B: *mihikqw-ö*
 at-PS
 night

‘When will you go to the meeting with the others?’ ‘At night.’

As a rule the petrified adverbial is accompanied by additional temporal reference points as is evident from (15). The following examples represent only a fraction of the combinatory possibilities.

(17) *ye-p nu' u-ngem paas peeni-y'-ta hiita*
 here-at I you-for carefully write-POSS-IMPRF what
 ACC

um pay pu' mihikqw hi-n-ti-ni-qa-t
 you ASSR today at what-way-do-FUT-REL-ACC
 night

‘Here I have carefully written down for you what you are going to do tonight.’

(18) *itam tiitso'-q qavong-va-qw mihikqw pu' nima-ni*
 we finish-SUBR tomorrow-R-SUBR at then go-FUT
 dancing DS DS night home
 PL

‘We’ll go home the day after the dance is over at night.’

(19) *nu' pu' hisat mihikqw mas-hurüu-ti*
 I now some at dead-tight-R
 time night person
 ago experience nightmare

‘Recently at night I had a nightmare.’

(20) *yaw oovi naalö-s taala-t e-p mihikqw*
 QUOT therefore four-times day-ACC it-on at
 night

pu' yaw yàapa i-t kii-yat a-w-i'
 then QUOT mockingbird this-ACC house-his it-to-PS
 ACC

‘On the fourth day at night the mockingbird [went] to his house.’

Semantic fine-tuning of the general time notion is accomplished by

separate particles or modifier elements that are morphemically compounded with the adverb. Among the former we encounter the intensifier *pas* 'very' (21-22), the quantifier *hihin* 'somewhat/slightly' in spatio-temporal role (23), and the deictically proximal simulative *yan* 'like this,' which helps the speaker to compare the *mihikqw* reference of one day with that of another (24).

- (21) *pu' yaw piw antsa pitu, pas mihikqw*
 then QUOT again indeed arrive very at
 night

'And then he came, indeed, again; [it was] very late at night.'

- (22) *ya sa'lako pay pas mihikqw=sani-ngwu*
 Q PN well very at=only-NEX-HAB
 night

'Does the Sa'lako kachina only come at night?'

- (23) *ason itam hihin mihikqw pu'-ni*
 later we somewhat at then-FUT
 night

'We'll go later at night.'

- (24) *qavong-va-qw pu' ya-n mihikqw pu'*
 tomorrow-R-SUBR then this-like at then
 DS night

yaw piw e-p pitu
 QUOT again REF-at arrive

'The next day when it was nighttime like now he arrived there again.'

Among the determiner constituents modifying *mihikqw* we find again the adjectival base *loma-* 'nice/beautiful:M' and the quantifier stem *su'aw-* 'just right.' Their semantic content is near-synonymous in time phrases.

- (25) *pay loma-mihikqw pu' yaw pay a-ngqw piw*
 well nice-at then QUOT ASSR REF-from again
 night

hòy-ta
 move-IMPRF

'When it was well into the night it was coming again.'

The quantifier adverbial *hihin* 'somewhat' may also be incorporated as modi-

fier. When contrasting the phrase *hihin mihikqw* as in (23) with the compound expression *hihinmihikqw*, Hopi informants consider the latter to be located earlier on the time line than the former.

- (26) *hihin-mihikqw pay· itam kiva-mi-ya-ngwu*
 somewhat-at ASSR we kiva-to-PL-HAB
 night

‘Right after dark we usually [go] to the kiva.’

An approximation of *mihikqw* is achieved by the clitic =*haqam*.

- (27) *ason itam mihikqw=haqam a-ngqw-ya-ni*
 later we at=APPROX REF-from-PL-FUT
 night

‘We’ll come around nighttime.’

Mihikqw in turn may function as the determiner element in compound nouns and verbs. The examples cited clearly indicate the petrified nature of the originally adverbial clause construction.

- (28) *pas nu’ hotvel-pe mihikqw-tiki-ve kwangwa-’ew-ta*
 very I PN-at at-dance-at pleasant-ADVR-CAUS
 night

‘I enjoyed myself at the night dance in Hotvela.’

- (29) *itam qa hisat sitsom’o-ve-q mihikqw-timay-ma*
 we NEG long PN-at-EX at- witness-POSTGR
 ago night dance

‘Not long ago we went to see night dances at Sitsom’ovi.’

A zero marker of nominalization needs to be assumed for forms that occur with case markers. Both the nonextreme (30) and extreme-destinative endings (31) are attested.

- (30) *pas nu’ qavo-mi mihi-k-mi kwangwtoya, nu’*
 very I tomorrow-to night-k-to look I
 forward

tiimay-to-ni-qe oovi-’o
 witness-PREGR-FUT-CAUSAL therefore-PS
 dance SS

‘I’m looking forward to tomorrow night because I’m going to go see the dances.’

- (31) *míhi-k-mi-q=haqa-mi nu' naato pik-ta*
 night-k-to-EX=INDEF-to I still piki-IMPRF

'Way into the night I was still making piki.'

While I cannot verify Whorf's assertion that the free form of *míhi* also occurs with nominal force, nominalization is possible both with the stative nominalizer *-pu* and with the relativizer *-qa*. Forms with *-pu* occur solely in connection with the diffuse marker *-va*. (32) shows the singular stem *míhik-*, (33) the reduplicated pendant *mímhik-* with plural value. Note that these case forms now carry the overall sense 'night' just as was the case with the destinative markers in (30-31).

- (32) *míhi-k-pu-va nu' a-ngqw*
 night-k-NR-in I REF-from
 DIF

'I came through the night.'

- (33) *pam mi-mhi-k-pu-va e-'nang tumala-y'-ta-ngwu*
 that RDP-night-k-NR-in RDP-including work-POSS-IMPRF-HAB
 DIF

'He has a habit of working through the nights as well.'

Nominalizations with *-qa* occur in pronoun copy constructions and seem to be restricted to the locative postposition *ep*. In the case of pluralization, the punctual postposition needs to transform to the diffuse shape *ang* 'through' (35).

- (34) *níutungk míhi-k-qa-t e-p pu' pam tukpu-t*
 last night-k-REL-ACC it-at then that bag-ACC
a-qw hōta
 it-to open
 EX

'On the last night he opened the bag.'

- (35) *nu' mi-mhi-k-qa-t a-ng qa puu-vuwi*
 I RDP-night-k-REL-ACC it-at NEG RDP-sleep
 DIF

'Night after night I do not sleep.'

2.2.5.2 *sùutokihaq* ‘at midnight’

The only major time indication during the night in addition to *mihi*, which singled out the onset of nightfall, is *sùutokihaq* ‘at midnight.’ An adverbial of intrinsically locative make-up, as is revealed by the extreme-punctual modulator clitic =*haq*, its remaining constituents are the intensifier prefix *sùu-* ‘exact/direct’ and the root element *toki* ‘black/night.’ In the overall meaning of the term the clitic =*haq* with its associated content of extreme distance adds the notion of ‘extreme lateness.’

- (1) *ason itam sùu-toki=ha-q pu’-ni*
 later we exact-night=INDEF-at then-FUT
 EX

‘We’ll [go] at midnight.’

The notion ‘midnight’ may naturally be qualified by additional time expressions and adverbials. Representative examples are nominal *totokpe* in (2) or adverbial *peep* in (3).

- (2) *totok-pe sùutokihaq puma yaw nōnga-k-ngwu*
 totokya-at at those QUOT go-k-HAB
 day midnight out
 PL

‘They come out on Totokya [i.e., the day before the public plaza dance] at midnight.’

- (3) *peep sùutokihaq yuki-l-ti*
 almost at finish-PASS-R
 midnight

‘[The night dances] were over almost at midnight.’

In clause final position *sùutokihaq* may optionally be marked with the pausal vowel -*a*.

- (4) A: *hísatniqw ùu-pava àa-piy?* B: *kya sùutokihaq-’a*
 what your-older REF-away maybe at-PS
 time brother from midnight

‘What time did your older brother leave?’ ‘I guess at midnight.’

The locative modulator may be replaced by the ablative form *-ngahaqaqw* which in analogy with the nature of the time expression also shows modulation.

- (5) *sùutoki-ngahaqa-qw nu' qa puw-kyangw paysoq*
 midnight-INDEF-from I NEG sleep-SIMUL merely
 SS

wá'ö-k-iw-ta
 lie-k-STAT-IMPRF

'From midnight on I was merely lying in bed without sleeping.'

The same sense 'from midnight' is achieved by means of the postpositional suffix *-vii-piy*, which in this case attaches to the modulated form *sùutokihaq*.

- (6) *sùutokihaq-vii-piy pu' tu-tu'alangwk-t¹²² yakta-ngwu*
 midnight-place-away then RDP-ghost-PL walk-HAB
 (?) from about
 PL

'From midnight on then ghosts are walking about.'

Sùutokihaq may further act as stem for verbalized constructions. The only verbal suffix that is attested is *-ti* with its force of realized state.

- (7) *pay kur sùutokihaq-ti, oovi hotò-m-qa-m*
 well EV midnight-R therefore string-MULTI-REL-PL
 up
 Orion

sú-'a-ng-ya
 exact-REF-DIF-PL

'It's evidently midnight, Orion is in exactly the same position [as the sun at midday.]'

- (8) *puma sùutokihaq-ti-qw naat na-navö'a*
 those midnight-R-SUBR still RDP-gamble
 DS

'It got midnight and they are still gambling.'

In a verbal compound with *rùupa* 'it slipped past,' a Hopi speaker will indicate the notion 'after midnight.'

- (9) A: *tuma nima* B: *ya hísatniq-ö?* A: *pay kur*
 EXHRT go Q what-PS well EV
 1P home time
 NSG

sìutokihag-riupa
 midnight-slip
 past

'Let's go home.' 'What time is it?' 'It's past midnight.'

For synonymous expressions of 'midnight' see 2.2.1 (5-7).

2.3 The week

In the aboriginal Hopi cultural pattern no term existed that would have grouped the days in a unit of higher temporal order. As to the influence of European acculturation, it was not until the coming of the missionaries that *santi*, the Hopi pronunciation of the English 'Sunday,' became the term for the new concept 'week.' Although there are a number of words for material culture items in the Hopi language which are readily identifiable as Spanish, Hopi exposure to Spanish presence in the Southwest seems to have been too weak to allow the borrowing of abstract novelties such as the Spanish term for week, *semana*. The neologism *santi* is still frequently used today by speakers that communicate primarily in Hopi. Younger speakers, whose native Hopi is showing an ever increasing tendency to integrate English loans, usually prefer the English term 'week.'

A few sentences may exemplify the linguistic acculturation of *santi*. In counting the temporal unit we notice that the form does not pluralize. As a rule, a cardinal number will be combined with the singular noun. In a context featuring a realized state as in (4), the ordinal is generally preferred, however.

- (1) *son itam suu-kw santi-t a-ng yúku-ni*
 NEG we one-ACC week-ACC it-in finish-FUT
 DIF

'We won't be finished in one week.'

- (2) A: *nu' ung si'òo-ki-mi wik-kyangw-ni* B: *hísat-o?*
 I you PN-village-to take-SIMUL-FUT when-PS
 ACC SS

A: *ay-o'-wa-t santi-t e-p-'e*
 over-to-SPEC-ACC week-ACC it-at-PS
 there

'I'll take you along to Zuni pueblo.' 'When?' 'Next week.'

- (3) *nu' i-t lōō-q santi-t e-p=haqam yà-n-ti*
 I this-ACC two-ACC week-ACC it-at=APPROX this-way-do
 'I did this about two weeks ago.'
- (4) *pas pay lōō-s santi-ti-ni-qw puma*
 very immediately two-times week-R-FUT-SUBR those
 DS

itamìu-pe-q kuyva-ma-ya
 we-at-EX look-POSTGR-PL
 in

'It's nearly two weeks now that they came to see us.'

- (5) *nu' pay panis pàykomu-y santi-t a-ng qatu-t*
 I ASSR only three-ACC week-ACC it-in stay-PRIOR
 DIF SS
- pay ahoy níma-ni*
 immediately back go-FUT
 to home

'I'll only stay three weeks and then I'll go back home.'

2.4 The month

2.4.0 Introduction

The temporal unit 'month,' which constitutes a convenient temporal orientation segment between the two extremes of the short-term period 'day' and the long-term period 'year,' is intimately associated with the phases of the moon. Due to the moon's regularly recurring cycle, which is amenable to easy structuring on the basis of light availability, variation of shape, position in the sky, time of appearance, etc., it functions as a reliable chronometer.

- (1) *i' muuyaw¹²³ pi pay itamu-y haq-e'*
 this moon FACT ASSR we-ACC where-at
 DIF
- qala-w-wis-qa-t put itamu-y awini-y'-ma*
 edge-STAT-PROGR-REL-ACC that we-ACC tell-POSS-PROGR
 PL ACC

'The moon is telling us where we are going along [timewise].'

As with any extra-linguistic phenomenon, the extent to which it is mirrored in a particular language can be taken as a fair indicator of its importance for a given culture. As far as can be ascertained from the corpus of Hopi recorded folklore and mythology, the moon never achieved a significant status.¹²⁴ Nor does it seem to have figured prominently in Hopi religious thinking, as a brief reference from Curtis implies: “Muuyaw, the Moon, is the Father who guards the people at night. He is not especially worshipped in a ceremony, but any individual in trouble makes pahos for many deities, including the Moon, and deposits them in various unprescribed places” (1922:101). Curtis’ observation is not shared by Third Mesa speakers. They are, however, familiar with the address formula *muuyaw ikwa’a* ‘moon, my grandfather.’¹²⁵ Attested in songs and known only to old-timers is the reference to the moon as *tookil-tawa* (night-sun) ‘sun of the night.’ The descriptive term obviously alludes to its light *muy-tala* (moon-light) ‘moonlight,’ especially at the time of full moon.

The moon’s importance in the context of socio-religious events was of a more indirect nature: its role was primarily that of a determiner and standardizer of the chronological periodicity of certain ceremonial activities as can readily be gathered from the ritualistic nomenclature of a number of Hopi months (see 2.4.3). Both Stephen (1936:136 and 286) and Curtis (1922:156) refer on several occasions to the direct link between ‘moontime’ and a ritual activity. ‘Going by the moon’ (2), ‘looking for the moon’ (3), ‘observing the moon’ (4) are the idiomatic expressions encountered in this respect.

- (2) *wiimi-t* *a-ng* *mo-mngwi-t* *muuyawu-y* *e-p-ya-ngwu*
ceremony-ACC it-in RDP-leader-PL moon-ACC it-on-PL-HAB
DIF

‘The leaders of ceremonies go by the moon [i.e., to determine their respective dates].’

- (3) *soyalangwu-y* *yuki-l-ti-qw* *pu’* *haki-m*
Soyal-ACC finish-PASS-R-SUBR then someone-PL
ceremony DS
- muy-hevi-y’-yungwu;* *put* *haki-m* *tu-twa-qw*
moon-search-POSS-IMPRF that someone-PL RDP-find-SUBR
PL ACC DS
HAB
- pu’* *ma-mraw-t* *paaho-tota-ngwu;* *pa-sa-t* *pu’*
then RDP-Maraw-PL prayer-CAUS-HAB that-QNT-time then
member stick PL

nanal taala-t a-qw totokya-ni-ngwu
 eight day-ACC it-to night-NEX-HAB
 EX dance

'When the Soyal ritual is over, people look for the moon; when they have spotted it, the Maraw [initiates] make prayer sticks; eight days later there are night dances then.'

- (4) *pe-p pu' haki-m muuyawu-y pas a-w*
 there-at then someone-PL moon-ACC very it-to
tunatya-w-wis-ngwu
 observe-STAT-PROGR-HAB
 PL

'At that time then people really pay attention to the moon.'

2.4.1 Temporal orientation within the lunation

When employing the term 'month' in this chapter, I will use it in the sense in which it was understood by the Hopi prior to their exposure to the white man's calendar. The month to them was based on the lunation, the interval between two consecutive new moons. This interval between two new moons comprising on the average 29.53 days is the true lunar month. Generally referred to as synodic month, it alone is of significance to the calendar and will henceforth be understood when the term 'month' occurs. Far from being familiar with the exact astronomical length of a lunation, it meant to the Hopi a period of some 27 to 28 days during which the moon was able to be seen and one to two days in which it was invisible.

That the Hopi closely observed the behavioral patterns of the moon is convincingly reflected in their lunar terminology which is applied to the different phases within a lunation. A few of these, typically employed in non-temporal orientation, are exemplified in (1-6).

- (1) *muuyaw oo-ve-ti*
 moon high-at-R

'The moon is high up now.'

- (2) *muuyaw wuuyoq-ti*
 moon large-R

'The moon got larger.'

- (8) *muuyaw mó-moki*
moon RDP-die

‘The moon is undergoing an eclipse.’

Most of the locutions attributable to the lunar domain were, however, used in temporal orientation. Among the phenomena singled out linguistically are the peripheral phases of the rising and setting moon in the course of the night. Each phase may be described in aspectual terms of incompleteness and completion.

- (9) *muuyaw ya-yma*
moon RDP-go
out

‘The moon is rising.’

- (10) *muuyaw yama*
moon go
out

‘The moon has risen.’

- (11) *muuyaw paki-to*
moon go-PREGR
in

‘The moon is setting.’

- (12) *muuyaw paki*
moon go
in

‘The moon has set.’

An event associated temporally with such a celestial occurrence is portrayed in (13).

- (13) *su-'a-w muuyawu-y ya-yma-qw itam öki*
exact-REF-to moon-ACC RDP-go-SUBR we arrive
out DS PL

‘Just when the moon was rising we arrived.’

Equally significant are the terms for the lunar behavior at the two peripheral ends of a complete lunation. Sentence (14) describes the new moon phase. It needs to be differentiated from the locution *muuyaw maatsi-l-ti* (show-PASS-R) ‘the moon became visible,’ which may be used every day when the moon first appears. Optionally, the adjectival *puhu* ‘new’ may be compounded with *muuyaw* (15).

- (14) *muuyaw qaatsi*
moon lie

‘It is new moon.’

- (15) *puhu-muyaw qaatsi*
new-moon lie

‘It is new moon.’

Example (16) illustrates a temporal reference in conjunction with this event.

- (20) *pay pi muy-qàa-qatsi-ptu-qw hi-n-wat-ti-ngwu*
 well FACT moon-RDP-lie-arrive-SUBR some-way-SPEC-R-HAB
 DS

‘Each time there is a new moon phase the weather changes.’

To describe the end phase of the lunation, Hopi makes metaphorical use of the imagery of ‘dying.’ While (21) and (22) hint at the inevitable result of the waning cycle in imperfective aspect form, (23) states the end of the lunar cycle perfectly. (24) is a representative example in temporal orientation. *Muuyaw súlawti* in (25) is synonymous with *muuyaw mooki* (23), yet less frequently employed.

- (21) *muuyaw mó-moki¹²⁷* (22) *muuyaw mok-to*
 moon RDP-die moon die-PREGR
 ‘The moon is waning.’ ‘The moon is on the wane.’

- (23) *muuyaw mooki*
 moon die
 ‘The moon is gone.’

- (24) *nu’ muuyawu-y mok-to-q pàa-sa-vo ye-pe-q*
 I moon-ACC die-PREGR-SUBR that-QNT-to here-at-EX
 DS

qátu-ni
 stay-FUT

‘I’ll stay here until the moon starts to disappear [i.e., until it is about the end of the month].’

- (25) *naat paamuy-ve ima pamuy-mo-mngwi-t qa*
 still paamuya-at these paamuya-RDP-leader-PL NEG
 month ceremony

a-ng kuu-kuyva-qw pay muuyaw piw súlaw-ti
 REF-in RDP-emerge-SUBR already moon again empty-R
 DIF DS

‘The Paamuya [ceremonial] leaders have not terminated [their ceremonies] in the month of Paamuya yet, and again the moon is gone already.’

In addition to the initial and final phases, the Hopi language reveals further segmentation of the lunation into divisions that equal our ‘quarters.’ The following example makes this quite clear.

- (26) *muuyawu-y haki-m oovi naalö-vo*
 moon-ACC someone-PL therefore four-to
tu-tki-tota-qa-t à-n-toti-ngwu
 RDP-cut-IMPRF-REL-ACC it-like-do-HAB
 PL PL

'They do something which is like cutting the moon into four [segments].'

Of the discrete segmentation points recognized with each lunation, the time of the full moon is of course the most obvious. *Naa-sa-ptu* (reciprocal-quantity-reach), the Hopi term alluding to this event, marks the halfway point of the lunation when the sun and the moon face each other equidistantly on opposite sides of the horizon.¹²⁸ While (27) represents a Hopi definition of the term, (28) illustrates it as a temporal reference point.

- (27) *sú-nàa-sa-q taawa paki-qw pu' muuyawu-y*
 exact-RCPR-QNT-time sun go-SUBR then moon-ACC
 in DS

yama-k-qw naa-sa-ptu-ngwu
 go-k-SUBR RCPR-QNT-arrive-HAB
 out DS

'When the sun sets and the moon rises at the same time, it is full moon.'

- (28) *ason muuyawu-y naa-sa-ptu-qw pu' nu' piw*
 later moon-ACC RCPR-QNT-arrive-SUBR then I again
 DS

owak-yuku-to-ni
 coal-get-PREGR-FUT

'When it's full moon I'll go get coal again.'

That the full moon mark amounts to a decisive temporal orientation point is born out by additional expressions which concern both the days preceding it (29) as well as those following it (30).

- (29) *kur muuyaw naasap-'iw-ma*
 EV moon middle-STAT-PROGR

'It's getting full moon.'

- (30) *ason muuyawu-y nasap-riupa-k-qw pu' itam*
 later moon-ACC middle-slip-k-SUBR then we
 past DS

öng-mok-wis-ni
 salt-bag-PREGR-FUT
 PL

'When it's past full moon, we'll go on a salt expedition.'

Besides this bisection of the month each lunation half was subdivided into two segments which approximate our lunar quarters. The two additional expressions appropriate for this overall quadripartite division of the month are *tsange'nasaptu* and *tsange'sulawti*.¹²⁹ The fact that the cardinal number *tsange* 'seven' is combined with the observable appearance of the successive waxing and waning of the moon, clearly demonstrates that the individual segments within the lunation were conceptualized as periods of temporal duration. While *tsange'nasaptu* refers to the half way mark reached in the waxing phase towards full moon, *tsange'sulawti* alludes to the fact that only seven days remain until the moon is *sulawti*, that is, 'empty/all gone/disappeared.' *Sulawti* is a term generally less frequently applied than *mooki* when reference is made to the end of the month.

- (31) *kur pu' tsange'-na-sa-p-'iw-ta*
 EV now seven-RCPR-QNT-length-STAT-IMPRF
 middle

'Now is the first quarter.'

- (32) *ason tsange'-na-sa-ptu-qw pu' nu' tokil-ta-ni*
 later seven-RCPR-QNT-arrive-SUBR then I time-CAUS-FUT
 middle DS limit

'When the first quarter [of the moon] is reached, I will set the date [for the ceremony].'

- (33) *qaavo pay muuyaw songqe tsange'-sulaw-ti-ni*
 tomorrow ASSR moon most seven-empty-R-FUT
 likely

'Tomorrow the moon will probably be in the third quarter.'

A cover expression for both the stative notion *tsange'nasap'iwta* as well as its variant *tsange'nasaptiwta* 'it is the first quarter' and *tsange'sulaw'iwta* 'it is the third quarter,' is the rare *k*-class form *tsange'-k-iw-ta* (seven-k-STAT-

IMPRF) ‘it is seven/it is a quarter.’ Its temporal usage, which does not reveal whether the moon is waxing or waning, is shown in (34).

- (34) *ason pay nu' muuyawu-y tsánge'-k-iw-ta-qw*
 later ASSR I moon-ACC seven-k-STAT-IMPRF-SUBR
 DS

pu' nu' tokil-ta-ni
 then I time-CAUS-FUT
 limit

‘Later, when the moon is in the quarter phase, I will set the date [for the dance].’

An alternative locution referring to the waning phase of the moon is given in (35). It alludes to the size of the celestial body and is obviously not as precise as *tsange'sulawti*.

- (35) *hak ösömuy-ve naat pay muuyawu-y*
 someone ösömuya-at still ASSR moon-ACC
 month
- wuuyoq-ni-qw a-ngk-law-qw pam pay pas*
 large-NEX-SUBR REF-after-CONT-SUBR that ASSR very
 DS DS

qa lavay-ngwa-y'-ta
 NEG word-ABSTR-POSS-IMPRF

‘If someone holds a night dance in Ösömuya when the moon is still large, then there is no talk about that [i.e., it is not considered controversial].’

The brief period between lunations, when no moon is visible, is commonly referred to in terms stated in (36).

- (36) *qa haqa-m muuyaw*
 NEG somewhere-at moon

‘[There is] no moon anywhere.’

The idiomatically correct orientation question concerning the position of the moon on its monthly course is given in (37). The actual significance of the question amounts to ‘What time of the month is it?’ (38-40) represent a couple of possible answers.

- (37) *ya muuyaw haq-e' qala-w-ma?*
 Q moon where-at edge-STAT-PROGR
 DIF

'Where [on its course] is the moon edging along?'

- (38) *pay mok-hàykya-l-ti*
 well die-approach-PASS-R

'It's close to dying [i.e., it is close to the end of the month].'

- (39) *naat pu' suu-s yama*
 still now one-times go
 out

'It rose for the first time.'

- (40) *pay kur tsange'-nasa-ptu*
 well EV seven-middle-reach

'It's the first quarter.'

2.4.2 *The moon-month equation*

As is true for many cultures, we also find that Hopi equates the cyclic revolution of the moon with the month as a measure of time. Thus *muuyaw*, the term for 'moon,' comes to denote 'month.' With this value the form may be marked for plural. A dual form, which Gipper lists (1972:221), does not seem to be part of spontaneous lunar expressions. What is remarkable about the plural shape *muumuyawt* is that it features initial reduplication as well as the plural suffix *-t*. The latter is restricted to occur with animate nouns only, of which the small group of celestial or stellar entities is a subclass. The fact that *muuyaw* as term for 'month' still retains the animate plural pattern, might induce one to speculate that the counting of months is a relatively recent development suggested by the white man's calendar talk. However, this need not necessarily be so. The same phenomenon is observable with *síkisve*, the newly coined term for 'automobile,' which, due to its *unangwa* 'battery' (lit. 'heart'), is conceived of as an animate noun. When looking at the examples below, one somehow cannot escape the impression, though, that some of them reflect a conceptualization which is no longer in line with indigenous Hopi thinking.

- (1) *löö-q muuyawu-y a-ng nu' si'òo-ki-mi-ni*
 two-ACC month-ACC it-in I PN-village-to-FUT
 DIF

'In two months I will [go] to Zuni pueblo.'

- (2) *nu' pàykomu-y muuyawu-y a-ng qa tumala-y'-ta*
 I three-ACC month-ACC it-in NEG work-POSS-IMPRF
 DIF

'I haven't worked for three months.'

- (3) *naat nu' pu' nùutungk muuyawu-y e-p ung naalö-p*
 still I now last month-ACC it-at you four-at
 ACC

sunat siiva-t maqa-qw pay um piw ngasta
 twenty dollar-ACC give-SUBR now you again NEG
 DS POSS

'Just last month I gave you eighty dollars and now again you have nothing.'

Sentence (4) is definitely an anglicism. The idiomatically proper phrasing of this question is given in (5). Note that the term 'month' does not even occur then.

- (4) *ya-ngqw hii-sa' muu-muyaw-t soyalangwu-y*
 here-from which-QNT RDP-month-PL Soyal-ACC
 NUM ceremony

a-qw pee-ti?
 it-to leave-R
 EX over

'How many months are left till Soyalangw? (NEO)'

- (5) *ya hii-sa-vo soyalangwu-y a-qw pee-ti?*
 Q which-QNT-to Soyal-ACC it-to leave-R
 ceremony EX over

'How much time is left till Soyalangw?'

When counting months, cardinal numbers seem to be used exclusively. While (1) and (2) demonstrate the pattern of cardinal numeral plus singular noun, (6) combines the cardinal with the plural shape of *muuyaw*.

- (6) *tsivot muu-muyaw-tu-y e-p=haqam itaa-so*
 five RDP-month-PL-ACC it-at=APPROX our-grandmother
mooki
 die

‘About five months ago our grandmother died.’

Sentence (7) has a neologistic ring to it.

- (7) *pam aya-ngq-wat muuyawu-y a-ngqa-qw put*
 that over-from-SPEC month-ACC it-INDEF-from that
 there ACC
qeeni-y'-ta
 soak-POSS-IMPRF

‘She’s had that soaking since last month.’

A highly interesting locution exemplified in (8) is *muynina*, literally ‘he killed a moon,’ which means simply ‘he spent a month.’ One need not assume here that the English phrase ‘to kill time’ had something to do with the origin of this idiom. Parallel development of a particular metaphor in different languages is fairly frequent.

- (8) *itam ye-pe-q suu-kw muy-nina-ni*
 we here-at-EX one-ACC moon-kill-FUT

‘We’ll spend one month here.’

2.4.3 Nomenclature of Hopi months

When surveying the existing literature listing the individual Hopi terms for the months of the year, one is struck by one set of lunar designations that show conformity in their nomenclature, while a second series is distinguished by enormous fluctuation. Fewkes is undecided whether to assign twelve, thirteen or fourteen lunar months to the year (1897a:256-57); Forde gives names for a ten-month cycle (1931:388), and Parsons lists twelve months (1933:58-61). Titiev deplores that neither Tawaqwaptiwa, the old Orayvi chief, nor his primary informant Talayesva “can recount the Hopi months in order” (1972:185). In my own endeavor to shed some light on the conflicting reports of lunar counts as well as the terminological discrepancies, I presented lists with the various lunar names to my consultants. I usually encountered unanimity only in regard to the terms for the six lunations extending from *kyelmuya* (approx. November) through *kwiyamuya* (approx. April). A number of

speakers also acknowledge familiarity with a seventh month term *hakitonmu-yaw* (approx. May).

Beaglehole reports the same findings for his work in Second Mesa villages.

My own informants were in close agreement on names for the six lunar months extending from November through to May, a period when major calendrical ceremonial and planting for a new season's crop provides sufficient stimulus to distinguish accurately between a succession of moons. For the names of the remaining moons in the lunar cycle however considerable disagreement appeared to exist . . . The reason why there is no generally accepted list of names for the summer and early autumn months may well lie in the fact that that period of the year devoted to cultivation and harvesting is looked upon as a unit and there is no felt need to break up this functional unit into shorter periods (1937:22).

On the basis of my own observations I tend to conclude that Third Mesa speakers actively operated with six or seven lunar names only and that most additional terms employed to extend this prevalent pattern can be interpreted as attempts to emulate the subdivisions of the white calendar.

2.4.3.1 Established lunar nomenclature

The lunar nomenclature which is current in the Third Mesa villages today, comprises primarily compound terms all of which terminate in *-muya* 'month,' a truncated form of *muuyaw* 'moon.' I will briefly characterize the semantic content of the premodifying segments of each.

The lunar sequence begins with *kyelmuya* (approx. November). Its determining constituent is *kyeele* 'sparrow hawk,' a ceremonial appellation for the new initiate into one of the four tribal manhood societies. Initiation into these groups takes place in this month.

The next month is *kyaamuya* (approx. December); it is held very sacred due to the solemn rites connected with the winter solstice ritual of Soya-langw.¹³⁰ Its distinguishing component is *kyaa-*, an intensifying prefix that is no longer productive in the Third Mesa dialect. Its value is roughly that of 'very much/great/fantastic/awesome.'

The actual meaning of *paa-* in *paamuya* (approx. January) is obscure. Most likely, however, it refers to *paahu* 'water' whose absolute suffix *-hu* is dropped in the composition process. Stephen characterizes the term accordingly 'moisture moon' (1936:1037).

Powamuya (approx. February) is named from the important Powamuy ceremony which is featured during this moon. Powamuya is a great consecration and purification ritual, as is revealed by the semantics of such terms as *powata* 'he cured him,' *powàlti* 'he got purified,' *powatiwa* 'he has been puri-

fied,' etc. The common denominator value of the root element *powa-* is perhaps best glossed 'change/transformation' (see also 5.1.4).

The etymology of *ösömuya* (approx. March), which succeeds *powamuya*, may have to do with *ösösöta*, an onomatopoeic verbal expression for the 'low whistling noise' of the wind. Stephen describes it as "the first faint whistling of moderating cold; winds which contain or convey the first faint whistle of warm breath" (1936:1037).

Kwiyamuya (approx. April), which is next, refers to *kwiya*, the greasewood 'wind break,' a protective device for plants which is found on many Hopi fields.

The final established designation is *hakitonmuya* or *hakitonmuyaw* (approx. May) which incorporates the interjection *haaki* 'let some time pass!/one moment!/wait!' The latter is clearly connected to the indefinite temporal adverb *haak* 'for the time being' (see 8.4). As to the element *-ton-* I have no clue to grasp its significance. According to Curtis, *hakitonmuya* refers to the fact "that some in their haste prepare to plant, while the more cautious advise them to 'wait'" (1922:251). For additional insights into the function of this lunar term see 2.4.5.

2.4.3.2 Nonestablished lunar nomenclature

As outlined above, it is my contention that the nonestablished lunar designations that were recorded by Stephen, Fewkes, Curtis, Forde, Parsons, and Beaglehole for First and Second Mesa villages, are primarily the result of a Hopi endeavor to match the foreign calendar. The fluctuating character of the nomenclature seems to underline this. Just like the traditionally acknowledged terms for the first six months, on which all of the above-mentioned authors agree, the nonestablished neologisms reflect a wide motivational range of origin. Usually they single out a natural occurrence, an agricultural feature, or some ceremonial or sociocultural trait that is predominant in a particular lunar month. The following list itemizes the nonestablished names of the months as gleaned from the available literature. In each case, the semantic element characterizing the month is given and the quoted terms have been adapted orthographically to the transcription used throughout this monograph. Lexically interesting is the observation that the Third Mesa speakers generally suggest the full form *-muyaw* 'month' for the ad hoc names, only rarely the abbreviated shape *-muya*, as used for the established lunar names.

May:

hakiton-muyaw from *haaki* 'wait!' (Curtis 1922:251)

kaway'uy-muyaw from *kaway'uyi* 'watermelon plants' (Beaglehole 1937:24)

pöma'uy-muyaw from *pöma'uyi* 'early corn' (Stephen 1936:1037)

June:

uy-muyaw from *uuya* 'he planted' (Curtis 1922:251)

July:

niman-muyaw from *nimantikive* 'Home dance' (Parsons 1933:61)

August:

nasan-muyaw from *naasana* 'he ate his fill' (Beaglehole 1937:25)

September:

maraw-muyaw from *marawtikive* 'Maraw dance' (Beaglehole 1937:25)

nasan-muyaw from *naasana* 'he ate his fill' (Parsons 1933:61)

October:

lakon-muyaw from *lakontikive* 'Lakon dance' (Beaglehole 1937:25)

höq-muyaw from *hööqö* 'he harvested' (Fewkes 1897a:257)

tuho'os-muyaw from *tuho'os* 'during harvest time' (Parsons 1933:61)

Besides the concept of "named" and "nameless" months, which seems to have been pointed out for Hopi for the first time by Stephen (1936:1038), one also comes across the notion "that the six lunar names would be repeated with the qualifying adjective 'winter' or 'summer' as the case might be" (Beaglehole 1937:22). The only evidence that I can offer in this direction is the term *tala'vamuya*,¹³¹ a label that is applied to the time period that approximates that of our month of August. The compound consists of the adverbial *taala'* 'in summer' and the lunar name *paamuya* (approx. January), which is characterized by social dances and kachina night dances. August marks the beginning of the closed season of the kachina cycle but brings a new round of social dance events as is explained in (2). While this may be one motive for reapplying the 'January' designation, the other may be due to the climatic tendency of this month to bring rain. *Paa-* represents the compound form of *paahu* 'water.'

- (1) *paamuy-ti, ma-man-t tiiva-ni*
paamuya-R RDP-girl-PL dance-FUT
 month PL

'It got Paamuya, the girls will be dancing.'

A verbal construction actually incorporating the element *tala'* is given in (2).

- (4) *niiqe* *oovi* *yaw* *um* *siupan* *August* *pu'*
 and therefore QUOT you seemingly August then
 CAUSAL

qaatsi-ptu-qw=haqam *kya* *yaw* *ahoy*
 lie-arrive-SUBR=APPROX maybe QUOT back
 DS to

pitu-ni-qa-t *pa-ng-qawu*
 arrive-FUT-REL-ACC that-way-say

'So it seems to me that you said you might return again around the beginning of August (NEO).'

- (5) *kyaa-muya* *mooki*
 awesome-month die

'The month of Kyaamuya has ended.'

- (6) *nu'* *powamuya-t* *mok-q* *pa-sa-vo*
 I powamuya-ACC die-SUBR that-QNT-to
 month DS

tumala-y'-ta-ni
 work-POSS-IMPRF-FUT

'I'll be working until the end of Powamuya.'

- (7) *itam* *ason* *kwiya-muya-t* *sulaw-ti-qw* *heemisi-y*
 we later windbreak-month-ACC empty-R-SUBR PN-ACC
 DS

a-qw-ya-ni
 it-to-PL-FUT
 EX

'We'll go to Jemez when Kwiyamuya is over.'

One final expression, which was already dealt with in 1.6.12 (1), needs to be mentioned here once more. In reference to the locution *muuyaw mooki* 'the moon is dead/has ended' Hopi has coined the destinative compound *moktupo* which literally means 'to the dying base.' The spatial idea 'base' is of course to be understood as a metaphorical circumscription for 'end.' The modulated extreme version of *moktupo* functions as postposition in (8).

- (8) *pam yaw pay pas powamuya-t*
 that QUOT ASSR very powamuya-ACC
 month

mok-tu-po-q=haqa-mi pu' tuwat l'öqö-k-ni
 die-base-to-EX=INDEF-to then in marry-k-FUT
 turn

'They say that towards the end of Powamuya she will have her wedding.'

2.4.4.2 Time expressions in conjunction with the calendar months

2.4.4.2.1 Nominal constructions

Both nominative and accusative forms of the lunar designations were already illustrated in 2.4.4.1. Two additional syntactic occurrences are to be added here. (1) shows a month as the predicate member of a copular sentence, (2) uses the name as complement of a postpositional locution.

- (1) *paa-sa-t put mok-q pu' hakiton-muya*
 that-QNT-time that die-SUBR then waiting-month
 ACC DS

'When that [month] is over, it is Hakitonmuya.'

- (2) *ösö-muya-t naasa-va=haq-e' pu' pam hapi*
 whistle-month-ACC middle-at=INDEF-at then that EMPH
 DIF DIF
- pay pa-ng támöng-mi p'itu-ngwu*
 ASSR there-at spring-to arrive-HAB
 DIF

'Around the middle of Ösömuya it then comes to the season of spring.'

Nominal constructions also involve local case suffixes. Of the seven possible case terminations within the regular system, five are exploited. The two missing ones are the extreme shapes of the punctive and the diffusive. All of the attested endings may occur either modulated or nonmodulated.

- (3) *i-t kyaamuy-ve ima nimàn-katsina-m*
 this-ACC kyaamuya-at these go-kachina-PL
 month home

tiingap-ya-ngwu
 announce-PL-HAB
 ceremony

'In this [month of] Kyaamuya the Home dance kachinas announce [their ceremonial dancing in the coming summer].'

- (4) *uma kwiyamuy-ve=sa pítu-ngwu, noo?*¹³⁴
 you kwiyamuya-at=only arrive-HAB QTAG
 PL month

'You come in the month of Kwiyamuya only, don't you?'

- (5) *ima nimàn-katsina-m piw pay kyaamuy-va*
 these go-kachina-PL again ASSR kyaamuya-at
 home month DIF

oovi ni-nma-ngwu
 therefore RDP-go-HAB
 home

'These Niman kachinas go therefore home during the [summer] month of Kyaamuya [i.e., approx. July].'

- (6) *hotvel-pe-q pu' paamuy-va mihikqw-ti-tikive-ni-ngwu*
 PN-at-EX now paamuya-at at-RDP-dance-NEX-HAB
 month DIF night

'In Hotvela there are night dances now in the month of Paamuya.'

- (7) *yas powamuy-va=haq-e' a'ni nuva-ti*
 last powamuya-at=INDEF-at a snow-R
 year month DIF DIF lot

'Last year around Powamuya we had a lot of snow.'

- (8) *pas nu' hakitonmuy-mi kwangwtoya, nu'*
 very I hakitonmuya-to look I
 month forward

masi-hatiko-t uy-ni-qe oovi-'o
 gray-lima-ACC plant-FUT-CAUSAL therefore-PS
 bean SS

'I'm looking forward to Hakitonmuya because I'll be planting gray lima beans.'

- (9) *sipal-'uyi* *ösömuy-mi=haqa-mi* *sì-y'-va-ngwu*
 peach-plant ösömuya-to=INDEF-to flower-POSS-INCHO-HAB
 month

'The peach trees start blossoming by Ösömuya.'

- (10) *itam paamuy-mi-q* *öki-wisa*
 we paamuya-to-EX arrive-PREGR
 month PL PL

'We're arriving at the month of Paamuya.'

- (11) *nu' son naat qa pas* *ösömuy-mi-q=haqa-mi*
 I NEG still NEG very ösömuya-to-EX=INDEF-to
 month

pu' i-t yúku-ni
 then this-ACC finish-FUT

'I will definitely finish this yet by Ösömuya.'

- (12) *kyaamuy-ngahaqa-qw nu' sutsep pòöqa-n-ta*
 kyaamuya-INDEF-from I always weave-n-IMPRF
 month

'I've been weaving all the time since Kyaamuya.'

2.4.4.2.2 Verbal constructions

Among the verbal suffixes that are encountered appended to lunar designations are the realized state marker *-ti* (1-3), the causative marker *-ta* (4) as well as the causative durative suffix *-lawu* (5).

- (1) A: *sen himu-muyaw-'u?* B: *pay pu' kyelmuy-ti*
 DUB which-month-PS well now kyelmuya-R
 month

'I wonder what month it is.' 'Well, it's Kyelmuya.'

- (2) *ösömuy-ti-qw ngöytiw-ya-ngwu*¹³⁵
 ösömuya-R-SUBR play-PL-HAB
 month DS chase

'When it becomes Ösömuya, they play the game of chasing.'

- (3) *kyaamuy-ti-qw haki-m mihikqw qa yakta-ngwu*
 kyaamuya-R-SUBR someone-PL at NEG walk-HAB
 month DS night PL

taq haki-y a-w kyaamuya ungwa-y
 because someone-ACC he-to kyaamuya blood-ACC
 month

tsö'lö-k-na-ngwu
 drip-k-CAUS-HAB

'People don't go about at night in the month of Kyaamuya because Kyaamuya drips his blood on someone.'

- (4) *um haqa-m powamuy-ta?*
 you where-at powamuya-CAUS
 month

'Where did you spend Powamuya?'

- (5) *puma pu' paamuy-lalwa*
 those now paamuya-CONT
 month PL

'They are making Paamuya [i.e., holding night dances in Paamuya] now.'

2.4.5 *The intercalary month*

The moon, as may be gathered from the linguistic evidence accumulated in the preceding chapters, constitutes an important chronometer in the Hopi calendar. Equally significant is, of course, the role of the sun. While its day-time relevance was delineated in 2.1.6, its function as an orientation device during the semi-annual periods extending between the solstice dates will be presented below in Chapter 3.

Due to the intensive practice of observing both the moon and the sun, the Hopi calendar can justifiably be characterized as luni-solar. Solar observation, although hinging critically on the accuracy achieved by the person charged with the duty of determining horizon-based sun time, may be considered absolute as it provides reliable and accurate reference points throughout the year. Lunar orientation, on the other hand, is subject to a great deal of fluctuation. According to the cycle discovered by Meton, it takes 235 synodic months or the equivalent of nearly 19 Julian years for the phases of the moon to reoccur on the same days of the month (Russel 1945:160).

While the astronomical phenomenon of the Metonic cycle is unknown to the Hopi, they do recognize subcycles of approximately three years' duration. During such a three year period solar and lunar observation are first commen-

yàasangwu-y a-qw pas sunat pakwt taala-t
 year-ACC it-to very twenty ten day-ACC

EX

a-kw puma qa naa-wiiki-y'-ma-ngwu;
 it-with those NEG RCPR-catch-POSS-PROGR-HAB

up

'Every year the moon does not catch up with the sun by about ten days, and therefore they do not catch up with each other toward the third year by some thirty days.'

(1b) *put paayi-s yàasangwu-y a-ng i' muuyaw*
 that three-times year-ACC it-in this moon
 ACC DIF

sunat pakwt tsange'-sikis qaatsi-ptu-ngwu
 twenty ten seven-times lie-R-HAB
 become new moon

'In those three years the moon appears as new moon thirty-seven times.'

(1c) *nen e-p paayi-s yàasangw-va-qa-t e-p*
 and REF-at three-times year-R-REL-ACC it-at
 then

oovi haki-m songyawnen suu-kw
 therefore someone-PL quasi one-ACC

hóyo-k-pu-t muuyawu-y'-yungwu
 move-k-PERF-ACC month-POSS-IMPRF
PRTC PL
 additional HAB

'And then in that third year people have one additional month so to speak.'

This astronomical insight just cited provides the basis for what was referred to as the three year cycle above. To unfold the intricacy of this cycle from a Hopi perspective, we need to begin with what might be called a 'normal' solstitial or solar year whose time span extends from one winter solstice to the next. For practical purposes I will assign the three years constituting the observed cycle the Roman numerals I-III. Our 'normal' year is thus distinguished by I. In its course the twelve lunar months fit comfortably into

pu' pay haki-m naa-nàa-pa
 then ASSR someone-PL RDP-RCPR-at

DIF

tuuvingti-num-ya-ngwu, "Ya i' himu pu'
 ask-CIRCUMGR-PL-HAB Q this which now

muuyaw-'u-y?" "I' hapi pu' kyaamuyá-y."
 month-PS-EXCLM this EMPH now kyaamuya-EXCLM
 M month M

"Sùupan as i' pay paamuya."
 apparently IMPOT this ASSR paamuya
 month

"Qa'é-y, pay naato i' qa pam-'i."
 no-EXCLM ASSR still this NEG that-PS
 M

'Then when people get all confused about the moon like that they are asking each other, "What month is this?" "This is Kyaamuya." "It seems as if this is Paamuya." "No, it's not that [month] yet."

The idiomatically appropriate term which refers to the fact that one of the above-mentioned ceremonies overlaps into the following month is the intransitive verbal *mùyqöhi* 'the month got broken.' It is explained in the context below:

- (5) *himu-wa wiimi qa su-'a-n*
 some-SPEC ceremony NEG exact-REF-like
 one of two or more

a-qw pit-e' ay-o'-wa-t hóyo-ky-e'
 REF-to arrive-COND over-to-SPEC:ACC move-ky-COND
 EX SS there SS

pàasat pam pe-p mi-t-wa-t muuyawu-y
 that that there-at that-ACC-SPEC-ACC month-ACC
 time over there

tsaap-ta-ngwu; noq put hapi pay itam
 short-CAUS-HAB and that EMPH ASSR we
 SI ACC

menon] think about it, [then they realize] that they had to break the month there.'

The expression 'breaking the moon/month' must be understood metaphorically, of course. It actually implies a shortening of the full ceremonial period that is usually available to a society as may be gathered from the following passage:

- (7) *puma tokila-y a-ngqw pelvo-tota-qe songyawnen*
 those time-ACC it-from less-CAUS-CAUSAL quasi
 limit PL SS
- muuyawu-y qõhi-k-na-ya*
 moon-ACC break-k-CAUS-PL

'By shortening their [full ceremonial] time they break the moon so to speak.'

Figure 5 presents the sequence of the three year subcycle along with the phenomenon of *muyhonaqtoti* in regard to the consecutive months of Kyelemuya and Kyaamuya. The dates of the new moons are those of the years 1891-1900 (Morrison 1966:25-28). They are computed especially for Northern Arizona, i.e., Mountain Standard Time, by subtracting seven hours from the ephemeris times tabulated by Morrison. The dates of the ceremonial periods (hatched) are based on the premise that the climax of Soyolangw coincides with the actual day of the winter solstice on December 21. Note that in all years except 1892, 1895, and 1898 Soyolangw is celebrated entirely within its appropriate Hopi month of Kyaamuya. In those years where it transgresses into the temporal territory of Paamuya the confusion termed *muyhonaqtoti* results. The four duration dates for Soyolangw recorded by Voth (Dorsey – Voth 1901:14) tend to confirm Titiev's observation that the ceremony was timed to have its climactic eighth day around the day of the winter solstice. Dorsey and Voth admit that they were unable to ascertain what determined the initial day of the ceremony "except that it seems to be the sixteenth day after the appearing of the *Soyalkatcina*" (1901:14). The latter used to arrive one day following the Wuwtsim ceremony. Since the start of Wuwtsim was based on the rising sun reaching the horizon marker *tingappi*, fluctuation of the Soyol dates cited by Voth may actually be due to inaccurate solar observation. The solid horizontal lines indicate the months of Kyaamuya, the broken lines refer to the ceremonial spans of Soyolangw as recorded by Dorsey and Voth, and the dotted lines point to the intercalary months of Angukmuyaw which are interpolated earlier in the years marked III.

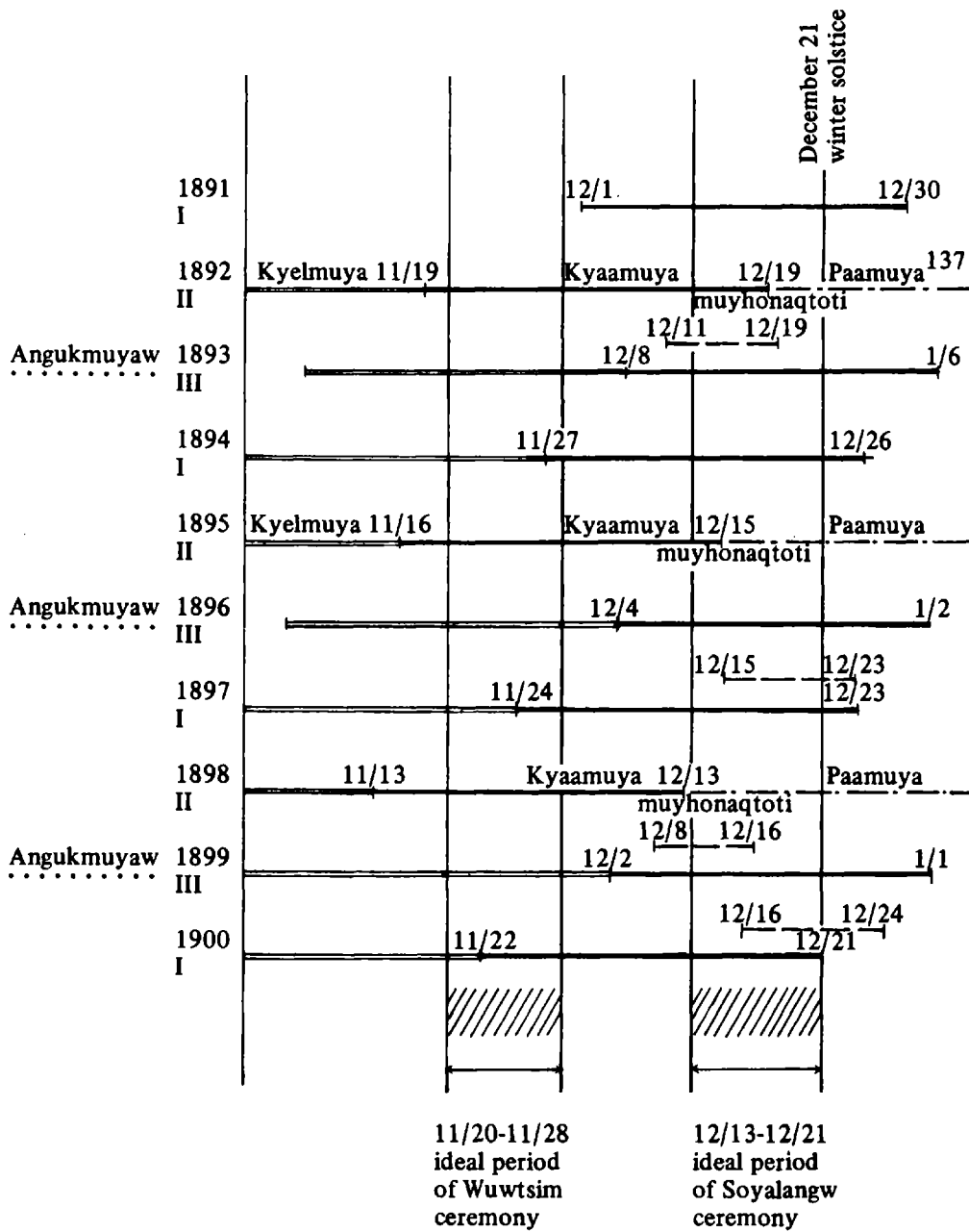


Figure 5

By the time the planting season should get under way in year III the new moons lag almost one month behind the sun. People that have kept track of the months to orient themselves will thus be tempted to start planting too early, nearly one month too soon when compared with the planting stations determined by solar horizon observation.¹³⁸ It is at this time of the year, generally after the expiration of Kwiyamuya, that it becomes necessary to insert the intercalary month.¹³⁹ The Hopi term for this additional month is *anguk-muyaw*¹⁴⁰ (after-month), which most people do not recognize any more. Occasionally one can also hear the pronunciation *angukmuya* without the final labialization. The modifying portion *anguk-* is etymologically related to *angki* ‘after’ (see 1.5.5), with *u* apparently constituting an intrusive vowel. The act of ‘inserting an intercalary month’ is referred to as *anguk-muy-tota* (after-month-CAUS:PL). Example (8) illustrates the term *angukmuyaw*.

- (8) *niiqe* *oovi* *ay-o'* *uyis-mi*
and therefore over-to planting-to
CAUSAL there time
- hayingw-'iw-ta-qw* *haki-m* *naat* *pay* *qa*
close-STAT-IMPRF-SUBR someone-PL still ASSR NEG
DS
- uy-lalwa-ngwu;* *pàasat* *pe-p* *pay* *naat*
plant-CONT-HAB that there-at ASSR still
PL time
- anguk-muy-ni-ngwu;* *pàa-piy* *pu'* *pas* *suyan*
after-month-NEX-HAB that-away then very clearly
from
- kwàngqat-ti-qw* *pu'* *uyis-ti-ngwu*
pleasantly-R-SUBR then planting-R-HAB
warm DS time

‘And therefore when it is close to that planting time people are still not planting; at that time then it is still the ‘after-month’ [i.e., the intercalary month]. From there on, when it gets truly warm, it becomes planting time.’

That the intercalary month is clearly recognized as a corrective is evident from (9) which employs the term *antsatsna* ‘they corrected it.’¹⁴¹

- (9) *pàasat* *pu'* *powamuya-t* *ösömuya-t* *kwiyamuya-t*
that then powamuya-ACC ösömuya-ACC kwiyamuya-ACC
time month month month

‘Although there is still time left until planting time some feel like planting. Then those who know say to them, “Wait, it’s not that time yet, [the days] are still cold.”’

The exclamatory locution *haaki*, in turn, is responsible for the coining of the lunar designation *hakitonmuyaw*, which in the existing literature concerning Hopi lunar nomenclature is usually translated as “waiting moon.” A less frequently attested variant form is *haakmuyaw* featuring the particle *haak* ‘temporarily’ without the pausal ending *-i* (see 8.4). Sentences (11) and (12) both define and explain the term *hakitonmuyaw*. Note the plural verb *haaktota* ‘they delayed something’ in (12), which is derived from the temporal particle *haak* (see also 8.4).

- (11) *nu-y a-w maatsi-y'-ta-ni-ni-qw*
 I-ACC REF-to understand-POSS-IMPRF-FUT-NEX-SUBR
 DS
- i' hakiton-muyaw pay naat qa pas suyan*
 this waiting-month ASSR still NEG very clearly
- kwàngqat-ti-qw pay qats-ngwu; pàasat pay*
 pleasantly-R-SUBR already lie-HAB that ASSR
 warm DS time
- naat pas sú-'its-ni-ngwu uy-law-ni-ni-qw;*
 still very just-early-NEX-HAB plant-CONT-FUT-NEX-SUBR
 DS
- paniqw haki-m pay haaki ki-tota-ngwu;*
 for someone-PL ASSR wait STEM-CAUS-HAB
 that PL
 reason say PL
- ason a-ngk muuyawu-y e-p pas suyan*
 later it-after month-ACC it-at very clearly
- kwàngqat-ti-qw pu' haki-m uy-lalwa-ngwu*
 pleasantly-R-SUBR then someone-PL plant-CONT-HAB
 warm DS PL

‘If I understand it, this waiting month exists when it is not really warm yet. At that time it is still too early to plant. That’s why people say, “Wait!” Later, in the month after it, when it gets truly warm, then people plant.’

- (12) *niiqe* *put* *oovi* *pa-n* *tuwì-y'-yungwu*,
 and that therefore that-way knowledge-POSS-IMPRF
 CAUSAL ACC
 PL
 HAB

hakiton-muyaw; *pàasat* *pi* *naat* *pay*
 waiting-month that FACT still ASSR
 time

iyo-ho'-ni-ngwu-ni-qw *oovi* *pay*
 cold-ABS-NEX-HAB-NEX-SUBR therefore ASSR
 DS

haak-tota-ngwu
 temporarily-CAUS-HAB
 PL

'And that [month] they generally know like that [i.e., under the name] waiting month. At that time it is usually still cold and therefore they delay [their planting].'

Hakitonmuyaw and *angukmuyaw* thus turn out to be more or less synonyms for the same aspect of temporal reality. Of the two, *angukmuyaw* is the older term. Consequently it is characterized as *ewhaqlavayi* 'ancient word.' All of my informants are consistent in pointing out that the two terms are to be considered abstract labels for the problem of lunar intercalation only, they are not to be accepted as appellations for an actual Hopi month. The following quotations attest to this usage.

- (13) *i'* *pu'* *anguk-muyaw* *qaatsi* *qa* *kitota-ngwu*,
 this then after-month lie NEG say-HAB
 PL

pay *panis* *pay* *haaki*
 ASSR only ASSR wait

'That this is the new moon of Angukmuyaw [people] don't say; only [the expression] "wait!" [is used].'

- (14) *pam* *pay* *i'* *hakiton-muyaw* *qa* *haqa-m*
 that ASSR this waiting-month NEG somewhere-at

'That Hakitonmuyaw does not exist [as actual month].'

The concluding Hopi text sums up once more the various stages delineated above. The summary begins with a reference to the harmony in regard to

solar and lunar observation in year I and ends with a justification for interpolating an intercalary month by the middle of year III to reconcile the drift between solar and lunar orientation.

- (15a) *haki-m taawa-t nit muuyawu-y a-w pas*
 someone-PL sun-ACC and moon-ACC it-to very
 ACC
- tunatya-w-wis-qw puma suu-kw yàasangwu-y*
 attention-STAT-PROGR-SUBR those one-ACC year-ACC
 PL DS
- e-p naat pay su-na-n hòy-ta-ngwu;*
 it-at still ASSR exact-RCPR-way move-IMPRF-HAB

'If people watch the sun and the moon [they realize that] in the one year they are still moving in exactly the same way with each other.'

- (15b) *pu' àa-piy pa-n-ma-kyangw piw*
 then REF-away that-way-PROGR-SIMUL again
 from SS
- yàasangw-va-kyangw naasa-mi-q=haqa-mi pitu-qw*
 year-R-SIMUL middle-to-EX=INDEF-to arrive-SUBR
 SS DS
- pe-p pu' pay puma hapi qa*
 there-at then ASSR those EMPH NEG
- naa-wiiki-y'-ma-ngwu;*
 RCPR-catch-POSS-PROGR-HAB
 up

'From there on in this way it gets to be another year and by about the middle [of that year] they definitely do not catch up with each other [i.e., the sun and the moon are out of phase].'

- (15c) *pe-p hapi pu' haki-y pa-n-wat a-w*
 there-at EMPH then someone-ACC that-way-SPEC it-to
- wuuwa-ni-qw puma qôhi-k-iw-ma-ngwu;*
 think-FUT-SUBR those break-k-STAT-PROGR-HAB
 DS

'If at that time someone gives [this phenomenon] some thought like that, [he comes to the conclusion that] they are breaking apart [i.e., drifting apart].'

- (15d) *pu'* *pa-n-ma-kyangw* *puma* *tömöl-mi-q*
 then that-way-PROGR-SIMUL those winter-to-EX
 SS

pay pas haq na-ngk-ni-ngwu;
 ASSR very far RCPR-after-NEX-HAB

pe-p pu' haki-m muy-honaq-toti-ngwu;
 there-at then someone-PL moon-crazy-R-HAB
 PL

'In this fashion then they [i.e., the sun and the moon] reach winter with a large interval between each other. At that point the people become confused about the months.'

- (15e) *pu'* *àa-piy* *haki-m* *tömöl-nawit* *kuu-kuyva-kyangw*
 then REF-away someone-PL winter-along RDP-emerge-SIMUL
 from SS

uyis-mi-q pitu-to-q pe-p pu'
 planting-to-EX arrive-PREGR-SUBR there-at then
 time DS

haki-m i-t hakiton-muyawu-y a-kw a-w
 someone-PL this-ACC waiting-month-ACC it-with REF-to

a-n-tsats-na-ngwu;
 REF-like-do-CAUS-HAB
 PL

correct PL

'From there on then people emerging from winter correct this [situation] with the intercalary month when it comes to planting time.'

- (15f) *pu'* *yàasangw-lalwa-qa-t* *àa-piy* *pu'* *puma*
 then year-CONT-REL-ACC it-away then those
 PL from
 celebrate the year PL

piw naa-wiiki-y'-ma-kyangw su-'a-w
 again RCPR-catch-POSS-PROGR-SIMUL exact-it-to
 up SS

tömöl-mi-q pu' piw pas suyan naa-wiiki-ngwu
 winter-to-EX then again very clearly RCPR-catch-HAB
 up

'After the celebration [of the agricultural] year then they [i.e., the sun and the moon] begin to catch up with each other again and just by winter time they have caught up exactly with each other again [i.e., they are exactly on course again].'

2.5 *The seasons*

In discussing the concept of season time, which plays a significant role in the dating of events when the device of a regular calendar is unknown, we must free ourselves from the fallacy of contemplating only our familiar cyclic phases of spring, summer, fall, and winter as proper seasons. While this quadripartite sequence is comfortably lodged in our western minds, this does not necessarily hold for other cultures. For an investigation of 'seasons' Nilsson postulates the following premise:

Not only the larger divisions of the year are to be understood by the word – those which alone of all the natural epochs of the year are current among us today – but also smaller divisions which might perhaps be called seasonal points (1920:46).

As examples for such seasonal points Nilsson mentions the times of cherry-blossoming and hop-picking. In 2.5.5.3 we will see that the Hopis make use of a whole range of such seasonal points when kachina plaza dances are to be placed temporally within their appropriate annual phase.

The cyclic events or phenomena which mark the demarcation points for a seasonal pattern will depend, of course, on a number of variables such as geographical area, climate, predominant vegetation, subsistence base, primary socio-economic activities, etc. Seasonal divisions that are tied to such natural phenomena are never as rigid as calendar segments; however, in spite of fluctuation in seasonal departure points and temporal elasticity due to transition periods, an established seasonal sequence will usually prevail and function as a useful and reliable system of temporal orientation.

The Hopi seasonal grid focuses in its broader categories on the noticeable changes of temperature. Its two major divisions are *taala'* and *tömö'*, adverbials which for the sake of convenience will be rendered 'summer' and 'winter' here. The season immediately preceding *taala'* is *uyis* 'planting time' whose precursor in turn is *tamöngva* 'a warming-up, spring-like phase.' The transition zone between *taala'*, the period distinguished by hot days and warm nights, and *tömö'*, the cold winter time, is taken up by *tuho'os* 'harvest time.' The short buffer zone between the end of winter and *tamöngva*, the

period when warmer weather begins to prevail again, is called *pasangva* ‘field preparation season.’ We thus observe an interlocking sequence of seasons in which cycles of temperature (warm, hot, cold) alternate with phases marked by typical farming activities (field clearing, planting, harvesting). Obviously, there are substantial durational differences between the macroseasons *taala*’ and *tömö*’ and the remaining seasonal spans which may be termed micro-seasons.

The highest degree of finetuning, by the way, is available during the planting and growing periods, the latter of course comprising most of the summer. The season least differentiated is winter. It interrupts the phase characterized by hard work to provide the life-sustaining subsistence base for the remainder of the year. It is precisely in this period of mid-October through the beginning of March that we notice accurate timekeeping by means of the lunar months. It is also the time when some of the most important ceremonies are staged, which demand a great deal of physical and spiritual involvement on the part of their participants.

Figure 6 on p. 381 summarizes the major seasonal divisions and indicates their approximate extension within the calendar year.

2.5.1 *tömö*’ ‘in winter’

2.5.1.1 Stem *tömö*’-

As Whorf correctly observed, the Hopi phase term ‘winter’ is not a noun but a kind of adverb (Carroll 1956:143). However, the main semantic thrust of the adverbial *tömö*’ is that of a diffuse locative so that a rendering like ‘during/in the cold (period)’ seems more appropriate. Although to date I have been unable to unearth a Hopi morpheme which would help to unlock the etymon of *tömö*’, all semantic evidence points to a value that implies ‘cold temperature or weather.’ The term can be employed practically throughout the year if the appropriate temperature range applies.

- | | | | | | |
|-----|-----------|-------------|-------------|---------------------|-----------------|
| (1) | <i>is</i> | <i>uti,</i> | <i>itam</i> | <i>tömö</i> ’-ni-qw | <i>uy-lalwa</i> |
| | oh | surprise | we | in-NEX-SUBR | plant-CONT |
| | | EXCLM | winter | DS | PL |

‘Gee, we’re planting during the cold season.’

Conversely, the term *taala*’ ‘during the hot season’ will be used in the midst of winter if a hot spell prevails.

SEASON	MONTHS AND APPROXIMATE SEASONAL RANGE											
	Jan.	Feb.	Mar.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.
<i>tämö</i> 'cold season/winter'												
<i>pasangva</i> 'field clearing season'												
<i>támöngva</i> 'warming-up season/spring'												
<i>vyis</i> 'planting season'												
<i>taala</i> 'hot season/summer'												
<i>tuho'os</i> 'harvest season/fall'												

Figure 6

- (2) *is uti, pas naat itam tala'-qatsi-y'-yungwa*
 oh surprise very still we summer-life-POSS-IMPRF
 EXCLM PL

'Gee, we still have hot summer weather [in winter].'

The locative pattern, which Whorf by the way denies to a temporal adverb like *tömö'* (Carroll 1956:143), is clearly evident in (1). It is my contention that *tömö'* constitutes an actual case form featuring, in *-ö'*, the relic of an ancient case system. This hypothesis seems to be borne out by the spatial adverbial *àatö'* 'underneath/underground.' In HR 5.2 I have shown that the latter represents a diffuse locative consisting of the base *àat-* 'under' and the diffuse marker *-ö'*. A few additional sentences are cited below to underline the locative status of *tömö'*. To avoid the awkward circumscription 'during the cold,' I will use the terms 'in winter' or simply 'winter' for all glossing and translating purposes.

- (3) *tömö' taawa¹⁴² su-pki-ngwu*
 in sun quickly-go-HAB
 winter in

'The sun sets quickly in winter [i.e., the days are short].'

- (4) *tömö' iyo-ho'-ti-ngwu*
 in cold-ABS-R-HAB
 winter

'It gets cold in winter.'

The correct pausal ending is stem-final reduplicated - *ö'*.

- (5) *naat tömö'-ö'*
 still winter-PS

'It's still winter.'

That *tömö'* does not really constitute a petrified adverbial clause of time, as Whorf suggests in his glosses for time phrases (Carroll 1956:143) – analogically applied to *tömö'*, this would mean an interpretation like "when conditions are cold/when cold occurs" – is also evident from (6) which integrates the adverbial in a syntactically subordinate construction.

- (6) *um hintoq qa naavan-numa tömö'-ni-qw?*
 you why NEG shirt-CIRCUMGR winter-NEX-SUBR
 DS

'Why don't you wear a shirt when it's wintertime [now]??'

Differentiation between ‘this winter’ and ‘last winter’ is accomplished by means of juxtaposing the particle *pu* ‘now’ with *tömö* in the former case (7) and adding the adverbial *nütungk* ‘last’ in the latter (8).

- (7) *pu*’ *tömö*’ *tse-tsle-t* *qa* *suu-s* *tiiva*
 now in RDP-social-PL NEG one-times dance
 winter dancer several times PL

‘This winter the social dancers danced several times.’

- (8) *pu*’ *nütungk* *tömö*’ *qa* *nuva-ti*
 now last in NEG snow-R
 winter

‘This last winter there was no snow.’

Temporal vagueness about the season is responsible for the modulation of the adverb with the locative enclitic =*haqam*.

- (9) *tömö*’=*haqam* *nu*’ *tuu-tuy-ti*
 in=APPROX I RDP-sickness-R
 winter be sick

‘I go sick some time in winter.’

Sentences (10-11) illustrate the locative adverb as second element in compound locutions. In both cases the compound is found in copular position.

- (10) *à-ng-qe* *yaw* *pas* *wuko-tömö*’
 REF-DIF-EX QUOT very big-winter

‘Around that time it was the height of winter.’

- (11) *naalö-q* *yàasangwu-y* *e-p=haqam* *pas* *tis* *ura*
 four-ACC year-ACC it-at=APPROX very even MEMO
wupa-tömö’
 long-winter

‘Four years ago it was an even longer winter.’

Compounds featuring *tömö*’ as the first element are listed in (12-13).

- (12) *pay* *nu*’ *tömö*’-*qatsi-t* *qa* *naawakna*
 well I winter-life-ACC NEG want

‘I don’t care for wintertime.’

- (13) *pas pay itam tōmō'-ku-kuy-va-ni*
 very immediately we winter-RDP-emerge-R-FUT

'We're about to get out of winter.'

Of the verbal suffixes attested in connection with *tōmō'* we find *-iwma* indicating the beginning of a state and *-ti* referring to the realization of the state.

- (14) *ya sen h̃intiqw oovi pas su-'its*
 Q DUB why therefore very direct-early
tōmō'-iw-ma?
 winter-STAT-PROGR

'I wonder why it is getting winter so early.'

- (15) *kur tōmō'-ti, oovi nuva-to-tots-t ōki*
 EV winter-R therefore snow-RDP-STEM-PL arrive
 snowbirds PL

'It got winter; that's why the snowbirds have arrived.'

A verbal derivative featuring the nonproductive causative marker *-la* is *tōmōla*. This archaic form lacks the final glottal stop and translates 'he spent the winter.'

- (16) *um haqa-m tuwat tōmō-la?*
 you where-at in winter-CAUS
 turn

'Where did you spend the winter?'

2.5.1.2 Stem *tōmōl-*

A series of additional derivations are encountered in conjunction with the stem *tōmōl-*, which must be considered nominal since it attaches both case suffixes and verbal markers. The fact that no locative case ending is attested on this stem constitutes additional evidence for my contention that *tōmō'* is inherently locative in nature.

- (1) *laqana tōmōl-mi tuva-t na'sas-ta*
 rock winter-to nut-ACC prepare-CAUS
 squirrel

'The rock squirrel prepared nuts for the winter.'

- (2) *sino-m angwu tōmōl-mi-q pīsoq-ya*
 person-PL aforeside winter-to-EX busy-PL

‘People are busy [preparing things] for wintertime.’

- (3) *tōmōl-ngahaqa-qw as nu’ ung nūutay-ta*
 winter-INDEF-from IMPOT I you wait-IMPRF
 ACC

‘I’ve been waiting for you since winter.’

A form that semantically comes close to the intrinsically diffusive, that is durative value, of *tōmō*, is *tōmōlnawit* which displays the spatial postposition *-nawit* in metaphorical force (see 1.5.4).

- (4) *pas itam tōmōl-nawit kyaa-na-napta*
 very we winter-along extreme-RDP-STEM
 notice PL

‘All through winter we had a very hard time.’

The temporal concept ‘middle of winter’ is expressed in (5-6).

- (5) *yas tōmōl-nasa-ve=haqam itāa-’owako sūlaw-ti*
 last winter-middle-at=APPROX our-coal empty-R
 year

‘Last year about midwinter our coal was all gone.’

- (6) *pu’ tōmōl-nasa-mi-q pit-e’ pu’ pay piw*
 now winter-middle-to-EX arrive-COND then ASSR again
 SS

à-n-ti-ngwu

REF-like-do-HAB

‘When [the sun] reaches midwinter it does the same thing.’

The only verbal element that can be attached to the stem *tōmōl-* is the causative marker *-na*.

- (7) *itam pas pay tōmōl-na-ya-ni*
 we very immediately winter-CAUS-PL-FUT

‘We’re about to reach winter.’

An extended nominal term is *tōmōlangwuy* which is to be analyzed as the accusative shape of a nonexistent nominative **tōmōlangw*.¹⁴³ It occurs only in direct object function.

- (8) *pay nu' tōmōlangwu-y pas qa hàalay-i; haki-m*
 well I winter-ACC very NEG happy-PS someone-PL

kyaananapta-ngwu
 suffer-HAB
 PL

'I dislike winter extremely; people have a hard time.'

2.5.1.3 Stem *tōmōng-*

Competing with the nominal stem *tōmōl-*, but not nearly as frequently attested, is the stem *tōmōng-*. It primarily occurs with the realization suffix *-va* which has inceptive quality (1). Together with the causative marker *-na* the semantic content 'he reached winter' is conveyed (2).

- (1) *is iyo, tōmōng-va*
 oh cold winter-R
 EXCLM

'It's cold, winter has come.'

- (2) *itam pay sumataq iits pu' tōmōng-na-ya-ni*
 we ASSR CONJECT early now winter-CAUS-PL-FUT

oovi pay pu' pas i-'yo-ho'-ni-ngwu
 therefore ASSR now very RDP-cold-ABS-NEX-HAB

'It looks like we'll have an early winter because the days are cold now.'

2.5.1.4 *iyoho'ti* 'it got cold'

A near-synonymous expression that is occasionally used to refer to the cold season is *iyoho'ti* 'it got cold.' The verbal is a realized state form derived from the adjective *iyoho'* 'cold.' It may also be employed with the seasonal connotation 'winter.'

- (1) *pay naat itam qa pas písoq-ya, pay naat pas*
 well still we NEG very busy-PL well still very

iyoho'-ni-qw
 cold-ABS-NEX-SUBR
 DS

'We're not very busy yet, it's still too cold.'

- (2) *pas pu' hii-sa-vo i-'yo-ho'*
 very now some-QNT-to RDP-cold-ABS

'It's been cold for a few days.'

- (3) *ason naat qa iyo-ho'-ti-qw nu' i-t*
 later still NEG cold-ABS-R-SUBR I this-ACC
 DS

yà-n-ti-ni
 this-way-do-FUT

'I'll do it before it gets cold weather.'

- (4) *iyo-ho'-ti-ni-qa-t a-qw uma pay angwu*
 cold-ABS-R-FUT-REL-ACC it-to you already aforesite
 EX PL

ko-ho-t na'sas-law-ni
 wood-ABS-ACC prepare-CONT-FUT

'Prepare wood for the cold season ahead of time.'

2.5.2 *pásangwva* 'it got to be field clearing season'

Pásangwva is a brief seasonal period commencing soon after the Bean dance ritual in the month of Powamuya. The warming trend which usually sets in at the beginning of Ösömuya (approx. March), permits work on the fields in terms of *maalamta* which refers to the actual clearing of a field or *qenilawu* which involves preparing an already existing plot for planting. The following definition sums up this information in Hopi:

- (1) *haki-m powamuya-t yuku-ya-qw*
 someone-PL Powamuy-ACC finish-PL-SUBR
 ceremony DS
- ösömuy-ti-qw pàa-sa-t pu' támöng-mi-q*
 ösömuya-R-SUBR that-QNT-time then spring-to-EX
 month DS
- pítu-ngwu; pu' haki-m oovi ii-'its pay*
 arrive-HAB then someone-PL therefore RDP-early ASSR
- haq-e' pöma-'u-'uya-ngwu-qe-y pay put*
 somewhere-at early-RDP-plant-HAB-REL-ACC ASSR that
 DIF crop ACC

e-ngem aapiy qeni-lalwa-ngwu; pàa-sa-t
 it-for prematurely space-CONT-HAB that-QNT-time

PL

pu' pàsangw-va-ngwu
 then field-R-HAB
 clearing

'When people have finished the Powamuy ceremony it becomes the month of Òsòmuya, and then it comes to springtime. Then people are already preparing their fields ahead of time in areas where they plant the early crops. At that time then it gets *pasangwva*.'

The term *pàsangwva*, which is verbal in nature, clearly contains the root *paasa* 'field.' The element *-ng(w)* may be considered a connective which is found in several other temporal expressions.¹⁴⁴ The form terminates in the realized state marker *-va* which here refers to the onset of this seasonal point.

(2) *nu' pas-ta-to, pàsangw-va*
 I field-CAUS-PREGR field-R
 clearing

'I'm going to the field, it has gotten to be field clearing season.'

(3) *pu' pàsangw-va-qw pu' haki-m laay-iwu-y*
 then field-R-SUBR then someone-PL herd-ABSTR-ACC
 clearing DS

na-na'kwak-lalwa-ngwu
 RDP-take-CONT-HAB
 turns PL

'When it gets to be field clearing season then people take turns with herding.'

An alternative form, which is also verbal, is *pàsvasangwti*. It features the locative diffuse root *pasva* 'on the field' and terminates either with the realized state suffix *-ti* (4) or its older forerunner *-va* (5).

(4) *naat hii-sa-vo-ni-qw pu' pas pàsvasangw-ti-ni*
 still some-QNT-to-NEX-SUBR then very field-R-FUT
 DS clearing

'In a little while it will be field clearing season.'

- (1) *hak* *támöng-va-qw* *pas-va-nen* *pay* *nawus*
 someone spring-R-SUBR field-at-COND well must
 DS DIF SS

tuulewni-y *maatap-ngwu*
 weaving-ACC let-HAB
 go

‘When it becomes spring and one is on the fields, one has to put away one’s weaving.’

- (2) *hak* *támöng-’iw-ma-qw* *hiita*
 someone spring-STAT-PROGR-SUBR something
 DS ACC

na’sas-law-ngwu
 prepare-CONT-HAB

‘When it gets spring one prepares things.’

- (3) *itam* *pas* *pay* *támöng-na-ya-ni*
 we very immediately spring-CAUS-PL-FUT

‘We are about to reach slightly warmer weather.’

Besides verbal affixation the stem *támöng-* also occurs with destinative case markers, both in its extreme and nonextreme shape. While the latter was already quoted in 2.4.4.2.1 (2), modulation as in (4) adds an ingredient of approximation.

- (4) *támöng-mi=haqa-mi* *hii-hiimu* *si-y’-va-ya-ngwu*
 spring-to=INDEF-to RDP-something flower-POSS-INCHO-PL-HAB

‘By springtime all sorts of things start blossoming.’

- (5) *i-t* *támöng-mi-q* *so’ngwa-yat* *a-qw* *haki-m* *as*
 this-ACC spring-to-EX end-its it-to someone-PL IMPOT
 ACC EX

pay *paas* *pasti-yuku-ya-ngwu*
 ASSR completely clear-finish-PL-HAB
 field

‘By the end of this spring season people should have completely finished clearing their fields.’

2.5.4 *kwàngqatti* ‘it warmed up/became warm season’

The adverbial *kwàngqat* ‘it is pleasantly/moderately warm’ may be used at any time of a given day if the moderate temperature it refers to prevails. However, its value is also exploited in a specifically seasonal sense. In its realized state form, *kwàngqatti* is synonymous with the older term *támöngva* which younger generation speakers are no longer familiar with. The seasonal connotation is usually inferable from a particular cultural activity or event that is clearly associated with this time of the yearly cycle.

- (1) *panis kwàngqat-ti-qw nu' kwaa-hep-to-ni*
 only pleasantly-R-SUBR I eagle-search-PREGR-FUT
 warm DS

‘As soon as it gets warm I’ll go looking for eagles.’

Sentence (2) exemplifies a reduplicated version of the realized state form. It implies multiple occurrence of ‘warm weather,’ that is ‘warm days.’

- (2) *pas as panis kwaa-kwàngqat-ti-qw pay*
 very IMPOT only RDP-pleasantly-R-SUBR ASSR
 warm DS

*peehu*¹⁴⁵ *tuusu kuy-va-ngwu*
 some weed emerge-R-HAB
 INAN

‘As soon as there are some warm days some weeds come up.’

The seasonal context is also apparent in (3) which displays the idiomatically appropriate question for ‘the time of the year.’ In the answer, *kwàngqat* appends morphemically complex *-iwma*, which indicates the initial phase of a state.

- (3) A: *itam haq-e' qala-w-wisa?* B: *pay*
 we where-at edge-STAT-PROGR well
 DIF PL

kwàngqat-iw-ma
 pleasantly-STAT-PROGR
 warm

‘Where are we timewise?’ ‘The warm season is approaching.’

Instead of inchoative *-iwma*, the imperfective state form *-iwta* may be affixed to stative *kwàngqat*.

mö'öng-hi-n-tsa-tsk-ya
wedding-some-way-RDP-do-PL

'We went through the wedding ceremony in the warm weather [season].'

2.5.5 *uyis* 'during planting time'

2.5.5.1 Morphological observations

The phase known as the 'planting season' is *uyis*. The semantic kernel of this form contains the nominal *uuyi* '(corn) plant.' The status of the final *-s* is rather obscure; it may constitute a one-time adverbializer whose productivity has long since ceased. The same element is for instance also observable in the temporal adverb *tuhó'os* 'harvesting time' (see 2.5.7) and possibly *yas* 'last year' (see 2.6.3). The syntactical behavior of *uyis* in (1), where it is preceded by the oblique proximal determiner *it*, suggests that its intrinsic make-up is comparable to that of a locative case form.¹⁴⁶ *Uyis* thus best translates 'at planting time.'

- (1) *pay i-t wuko-mori-'uyis pu' wuko-'uyis*
well this-ACC big-bean-planting then big-planting
time time
- pam=sa pay pas suu-p*
that=only ASSR very one-at

'This big bean planting time and the big planting season are at the same time.'

That the accusative is required of the deictic determiner in such constructions as (1) above is also evidenced in 2.4.4.2.1 (3) where it occurs in conjunction with *kyaamuve*, a punctive locative form. The shape of the adverbial rarely occurs without additional elements. When it does, it usually functions as a predicate as in (2).

- (2) *pu' písàa-pas-va uyis*
now sand-field-on planting
DIF time

'It's planting time on the sand fields now.'

Additional evidence for the status of *uyis* as an adverb can be gleaned from the fact that the form appends a pausal ending in the predicate slot. Singular nouns are generally not permitted to carry pausal endings, the only exceptions being nouns terminating in *-w* or *-ng(w)*.

- (3) *naat uyis-’ú-y*
 still planting-PS-EXCLM
 time M

‘It’s still planting time.’

Proof that *uyis* does not constitute a noun may further be gathered from (4) where the term employs the nominalizer *-ni*.

- (4) *naa-p piw put uyis-ni-y*¹⁴⁷ *a-w pit-e’*
 REFL-at also that planting-NR-ACC it-to arrive-COND
 own ACC time SS

pu’ hùita uy-ni-qa-y put uy-ngwu
 then what plant-FUT-REL-ACC that plant-HAB
 ACC ACC

‘When it gets to his own planting time then, he plants what he wants.’

Among the verbal suffixes that are attested in connection with *uyis* are *-’iwma* ‘beginning to’ (5) and *-ti* ‘got’ (6).

- (5) *pay uyis-’iw-ma, uma poshumi-t*
 well planting-STAT-PROGR you seed-ACC
 time PL corn

na’sas-tota-ni
 prepare-CAUS-FUT
 PL

‘It’s getting planting time, prepare your seed kernels.’

- (6) *naat pay hakiton-muyaw-’u, naat qa uyis-ti*
 still now waiting-month-PS still NEG planting-R
 time

‘It’s still [the time of] Hakitonmuyaw [i.e., the intercalary month], it has not become planting time yet.’

Uyis may further attach the two destiative case markers. Accordingly, one needs to posit zero as a marker of nominalization. Depending on the time interval that separates the speaker from his envisaged temporal goal, either nonextreme *-mi* (7) or extreme *-miq* (8) are required.

- (7) *nu' uyis-mi ööna*
 I planting-to without
 time desire

'I have no real desire for planting time [to come].'

- (8) *pam uyis-mi-q kwangwtoya*
 that planting-to-EX look
 time forward

'He is looking forward to planting time.'

2.5.5.2 Temporal sequence of planting stages

The season referred to by the cover term *uyis* 'planting time' actually constitutes a string of individual planting phases, which, due to their sequential occurrence, provide an excellent reference scheme for temporal orientation. All of the subphases listed below are part of the calendar scope that roughly extends from mid-April until the time of the summer solstice. Although the order of the planting points was fixed, the actual "choice of planting dates at Oraibi was not left entirely to individual fancy, primarily because laymen were supposed to be ignorant of the calendrical system" (Titiev 1944:184). The person responsible for setting the dates was the sun watcher who determined the actual times by means of the 'horizon calendar' (see Chapter 3).

If a farmer owns a particularly protected lot in a warm locality commonly referred to as *yongi-vasa* (warm-field) or *pöma-vasa* (early:corn-field),¹⁴⁸ he will plant a crop of corn in April which, barring a severe frost period, will usually ripen in time to be distributed by the *nimànkatsinam* during the Home dance ceremony in the latter part of July. While generally no temporal reference status is given to the early planting of vegetables in the irrigated terraced garden plots, the planting stages following the early sweet corn are named by the crops that are assigned to them: *kawayvatnga* 'watermelon,' *mori* 'beans,' and *uuyi* 'corn.' *Pöma'uuyi* is the term for 'early corn.' While *kawayvatnga* 'watermelon' and *melooni* 'musk melon' are terms for different crops, their planting phases are identical (6-7). *Sú'its'uuyis*, *pöma'uuyis*, and *mòoti'uuyis* as shown in (2-4) are roughly synonymous. *Hatiko* 'lima bean' is one of the first beans planted during bean planting time as it requires more time to mature. Other kinds of beans are planted later during *wukomori'uuyis* when bean planting reaches its climax.

Semantic differentiation of each major phase is achieved by prefixing the elements *su'its-* 'very early' and *wuko* 'big,' the latter referring to the 'height' of the respective stage. The following nomenclature of subphases is encountered:

- (1) *sú-'its-vōma-'uyis*
direct-early-early-planting
crop time

'earliest planting of early crops'
- (2) *sú-'its-'uyis*
direct-early-planting
time

'earliest planting time'
- (3) *pōma-'uyis*
early-planting
crop time

'early planting time'
- (4) *mōoti-'uyis*
at-planting
first time

'the first planting phase'
- (5) *sú-'its-kaway-'uyis*
direct-early-watermelon-planting
time

'earliest planting point for watermelons'
- (6) *kaway-'uyis*
watermelon-planting
time

'watermelon planting time'
- (7) *melon-'uyis*
musk-planting
melon time

'planting time for musk melons'
- (8) *wuko-kaway-'uyis*
big-watermelon-planting
time

'height of the watermelon planting time'

- (9) *mori-’uyis*
bean-planting
time
‘bean planting time’
- (10) *hatikw-’uyis*
lima-planting
bean time
‘planting stage for lima beans’
- (11) *wuko-mori-’uyis*
big-bean-planting
time
‘height of the bean planting season’
- (12) *uyis*
planting
time
‘planting time’
- (13) *wuko-’uyis*
big-planting
time
‘height of planting time’

The terminal phase of *uyis* is generally reached by the time ‘the sun reaches its house’ (*taawa kiy aqw pitu*) along the horizon calendar, an expression which amounts to the Hopi equivalent for ‘solstice’ (see the example in (16) below). As Titiev points out, “crops which had failed to sprout might be re-planted up to the third week in June, but it was felt that anything put into the ground later than eight days from this time would not have a chance to mature” (1938:42). Among the locutions signalling the end of the planting season we find the following:

- (14) *uy-yuki-l-ti*
plant-finish-PASS-R
‘Planting is over.’

- (15) *uy-mongvas-toti*
 plant-complete-R
 PL

‘They are through planting.’

- (16) *ùy-titso’a hapi; taawa-t ki-y a-qw*
 plant-finish EMPH sun-ACC house-ACC it-to
 PL EX

*pitu-qw*¹⁴⁹ *ùy-titso’ngwu*
 arrive-SUBR plant-finish-HAB
 DS PL

‘Planting is over for sure; when the sun reaches its house [i.e., at the time of the summer solstice], planting has ended.’

In the following collection of samples illustrating some of the planting phases in context, we notice the affixation of the realized state marker *-ti* as well as several case endings. While occasionally the latter may attach directly to the stem *uyis-*, in the majority of cases they are suffixed with an intervening element *pi* or *pu*. The morpheme *pi* is commonly associated with the actual location marking the planting stage along the horizon (see Chapter III). It will therefore be glossed ‘place.’ When used temporally, one may assume that the local content of *-pi* ‘place’ is either no longer recognized or that *-pi* functions spatio-temporally with the value ‘place in time.’ The element *-pu*, on the other hand, seems to play the role of a nominalizer.

- (17) *sú-’its-vöma-’uyis-ti*
 direct-early-early-planting-R
 crop time

‘It got to be the earliest phase of the planting season.’

- (18) *pöma-’uyis-pi-ngaqw nu’ pa-ngso-q pàa-sa-vo*
 early-planting-place-from I there-to-EX that-QNT-to
 plant time

put-ni
 that-FUT
 ACC

‘From the earliest planting time on until that time [i.e., in fall] I will do that.’

wuko-'uyis-mi-q qa pítu-ngwu
big-planting-to-EX NEG arrive-HAB
time

'And therefore at that time it has not come to the height of the planting season yet.'

(25) A: *uma haqa-mi umiùu-totokya-y tavi-ya?*
you where-to your-totokya-ACC place-PL
PL PL day

B: *pay mori-'uyis-pu-mi=haqa-mi-'i*
well bean-planting-NR-to=INDEF-to-PS
time

'To what time did you postpone your Totokya [i.e., dance date]?' 'To bean planting time.'

2.5.5.3 Temporal orientation according to plant growth and other natural phenomena

As we saw in the previous subsection, Hopi makes use of a series of consecutive seasonal dates to locate an event in time. While these establish a reliable time grid within the planting season, additional temporal exactitude is available by reference to the growth or developmental stages of the individual plants.

In years where solar and lunar observation are not in harmony, i.e., years that require the interpolation of an intercalary month (see 2.4.5), the Hopi farmer considers paying attention to a number of natural phenomena a particularly useful aid to check his temporal bearings. Most of the natural time indicators belong to the realm of flora. Hopi generically refers to them as *tuutusaqa* or 'grasses.'

(1) *pu' i-t tuu-tusaqa-t haki-m a-w*
then this-ACC RDP-grass-ACC someone-PL it-to

tunatya-w-yungwu
attention-STAT-IMPRF
PL
HAB

'Then people pay attention to these grasses.'

Usually the grass, plant, or herb in question needs to arrive at a stage where it is 'sprouting' (*tsiyakiwta*) or 'has begun to bloom' (*siy'va*). Planting of lima

beans, for example, tends to coincide with the appearance of the edible herb *möha*, which Whiting identifies as *Lygodesmia grandiflora* (1939:97). The grass *katsin-naqvu* (kachina-ear), which is not listed in Whiting's Ethnobotany, is said to be an equally reliable sign for this seasonal point.

- (2) *hisat möha-t tsiya-k-ngwu-ni-qw nu' pay*
 which möha-ACC sprout-k-HAB-NEX-SUBR I ASSR
 time herb DS

pe-p=sa hatikw-'uy-ngwu
 there-at=only lima-plant-HAB
 bean

'Whenever the *möha* herb sprouts, at that time only do I plant lima beans.'

The proper time for planting beans is said to have come when the flower *tukyamsi* 'larkspur' begins to bloom or when *mooho*, the 'narrow-leaved yucca,' bears buds of a certain size.

- (3) *tukyamsi-t hapi si-y'-va-qw*
 larkspur-ACC EMPH flower-POSS-INCHO-SUBR
 DS

mori-'uyis-ti-ngwu
 bean-planting-R-HAB
 time

'When larkspur begins to bloom it is bean planting time.'

- (4) *moo-ho-t a-ngqw piite-'at hi-ng-sa-kw-hòoya-t¹⁵⁰*
 yucca-ABS-ACC it-from yucca-its some-DIF-QNT-size-DIM-ACC
 bud little PL ACC PL

himù-y'-va-qw haki-m
 something-POSS-INCHO-SUBR someone-PL
 DS

mori-'uy-lalwa-ngwu
 bean-plant-CONT-HAB
 PL

'When the narrow-leaved yucca begins to have tiny buds, people plant beans.'

- (5) *it moo-ho-t si-y'-va-qw pe-p*
 this yucca-ABS-ACC flower-POSS-INCHO-SUBR there-at
 DS

pay pas wuko-'uyis-ti-ni
 ASSR very big-planting-R-FUT
 time

'When this narrow-leaved yucca starts to bloom, it becomes the height of the planting season.'

A fairly reliable indicator from the fauna section of the Hopi environment is the arrival of the 'blackbird' *tokotsqa*. Bradfield considers the term a generic one which subsumes such species as the Brewer's Blackbird, the Yellow-headed and Red-winged Blackbird, and probably also the Brown-headed Cowbird (1974:30). The seasonal return of the blackbirds is considered a signal for the start of the planting season in general.

- (6) *tokotsqa pi ùy-tu-'aw-num-ngwu;*
 blackbird FACT plant-UNSPEC-tell-CIRCUMGR-HAB
 H
 OBJ

mòoti-'uyis-'iw-ma-qw pam pítu-ngwu
 at-planting-STAT-PROGR-SUBR that arrive-HAB
 first time DS

'The blackbird goes around announcing planting to all people; it usually arrives when the first planting phase is getting under way.'

- (7) *tokotsqa-m öki-qw uyis-ti-ngwu-qa-t*
 blackbird-PL arrive-SUBR planting-R-HAB-REL-ACC
 PL DS time

wuu-wuyoqa-m pà-ng-qaqwa-ngwu
 RDP-old-PL that-way-say-HAB
 PL

'The old people used to say that it becomes planting time when the blackbirds arrive.'

The return of this bird is apparently also connected to naming one of the solar horizon stations after it, as may be gathered from (8).

tiiva-ni
dance-FUT
PL

‘When the [corn] plants are in bunches [i.e., before they have to be thinned out], Longhair kachinas will dance in Hotvela.’

- (12) *pam humi-'uyi-t matya-l-toti-qw*
that corn-plant-ACC touch-PASS-R-SUBR
ground PL DS

tiikive-y'-ta-ni-qa-y tokil-ta
dance-POSS-IMPRF-FUT-REL-ACC time-CAUS
limit

‘The time when the cornplants touch the ground [with their leaves] he set as a date to have a dance.’

- (13) A: *umüu-pe hisat tiikive-ni?* B: *pay yaw naat*
you-at when dance-FUT well QUOT still
PL

humi-'uyi-t pas tay-va-qw puu-'u
corn-plant-ACC very alive-INCHO-SUBR then-PS
mature DS

‘When will there be a dance at your [village]?’ ‘Supposedly just when the corn has matured [and is ready to be eaten].’

- (14) *ason uma uuyi-t talàa-kuy-va-qw pu' tiiva-ni*
later you plant-ACC pistil-emerge-R-SUBR then dance-FUT
PL DS PL

‘You will dance when the pistils begin to show on the corn plant.’

- (15) *i-tupko kaway-'uyi-t hotà-m-ti-qw*
my-younger watermelon-plant-ACC stretch-MULTI-R-SUBR
brother DS

tiikive-y'-ta-ni
dance-POSS-IMPRF-FUT

‘When the watermelons stretch [with vines on the ground] my younger brother will have a dance.’

- (16) *ason kaway-'uyi-t mó'o-l-ti-qw pu' tiiva-ni*
 later watermelon-plant-ACC in-PASS-R-SUBR then dance-FUT
 bunch DS PL

'When the watermelons are in little bunches they will dance.'

- (17) *yaw uuyi-t nuva-w-va-qw pu' pam*
 QUOT plant-ACC ripe-STAT-INCHO-SUBR then that
 DS

hewto-mu-y n'onga-k-na-ni
 PN-PL-ACC go-k-CAUS-FUT
 out
 PL

'They say he is going to take out the Hewto kachinas when the corn is ripe.'

2.5.6 *taala* 'in summer'

2.5.6.1 Stem *taala*'

The term *taala*' denotes the aestival period of hot temperature beginning in mid-June, which prevails for approximately two and a half months on the high desert plateau of the Hopi land. Intrinsicly not a noun but an adverb, *taala*' will best be rendered 'in/during summer.' Whorf offers the following comments:

In Hopi . . . all phase terms, like 'summer, morning,' etc., are not nouns but a kind of adverb, to use the nearest SAE analogy. They are a formal part of speech by themselves, distinct from nouns, verbs, and even other Hopi 'adverbs.' Such a word is not a case form or a locative pattern . . . These 'temporals' are not used as subjects or objects, or at all like nouns. One does not say 'it's a hot summer' or 'summer is hot'; summer is not hot, summer is only WHEN conditions are hot, WHEN heat occurs. One does not say 'THIS summer,' but 'summer now' or 'summer recently' (Carroll 1956:143).

Earlier in my description of *tömö*' 'in /during winter' (see 2.5.1), I argued that this phase term is an adverbial which reflects an ancient locative pattern. Although not as obvious as in the case of *tömö*', where it was possible to actually dissect a diffuse morpheme *-ö*' and trace it in a spatial form, *taala*' still retains the final glottal stop which is part of many diffuse locator forms. Contrary to Whorf's contention I will therefore posit the same underlying concept for *taala*' as for *tömö*'. While I cannot cite a case in which the final glottal stop is the only diffuse marker, it still is a typical feature of many

diffuse locatives such as *aye* 'over there,' *atkye* 'below,' *hopkye* 'in the east,' etc. Supportive evidence can also be drawn from the overall morphological and syntactic behavior of *taala*' which runs exactly parallel to that of *tömö*'. Although the primary associations with *taala*' are 'heat' and 'hot weather,' it may etymologically be closer to *taala* 'light' (see 2.1.1) and indicate the time period distinguished by 'bright and long lasting daylight.'

Gipper claims nominal status for *taala*'. In the sentence which he quotes,¹⁵¹ he assigns *taala*' a syntactic role, "die durchaus der eines Subjekts (im Nominativ) indoeuropäischer Sätze entspricht, was Whorf ebenfalls ausdrücklich bestritten hat" (1972:215). If (1) below were the only example to base one's interpretation on, one might be tempted to arrive at Gipper's conclusion that *taala*' constitutes a noun in subject role, because Hopi informants generally do not render the locative ingredient of *taala*' in an English translation.

- (1) *taala'* *utu-hu'-ni-ngwu*
 in hot-ABS-NEX-HAB
 summer

'Summer is hot.'

Consulting additional examples featuring *taala*', it becomes apparent very quickly that the rendition of one sentence does not do justice to the grammatical reality of *taala*'.

- (2) *haki-y* *taala'* *tüu-tuwuts-qw* *haki-y*
 someone-ACC in RDP-story-SUBR someone-ACC
 summer narrate DS

tsuu'a *kuuki-ngwu*
 rattlesnake bite-HAB

'If someone tells stories in summer the rattlesnake bites him.'

- (3) *taala'* *wupa-tawa-ni-ngwu*
 in long-sun-NEX-HAB
 summer

'The days are long in summer.'

All evidence now points to an adverbial nature of the term which seems to be rooted in an underlying locative pattern. In the light of (2) and (3) we can now safely conclude that the proper translation of (1) is not 'Summer is hot' but 'In/during summer it is usually hot.'¹⁵²

While *taala'* in (4) might be considered ambiguous as to its grammatical status and suggest nominal function were it the only existing example, this possibility is ruled out in the light of (5) which presents the form as a predicate terminated by the pausal ending *-a*. Hopi nouns, however, do not normally attract pausal markers in nominative singular role.¹⁵³

- (4) *noq pay yaw i' taaqa pas qa ná'öna,*¹⁵⁴
 and well QUOT this man very NEG lazy
 SI

sutsep yaw pas-mi-ni-ngwu; taala' pi yaw-i'
 always QUOT field-to-NEX-HAB in FACT QUOT-PS
 summer

'And this man [was] not lazy, he [was] always [going] to the field;
 after all, it [was] summer.'

- (5) *taala'-a; um hìntiqw pas wuko-navan-numa?*
 in-PS you why very big-wrapping-CIRCUMGR
 summer jacket

'It's summer; why are you going around in a jacket?'

The inherent locative associations of *taala'* can also be derived from the fact that the modulator clitic =*haqam* may be attached to it.

- (6) *taala'=haqam puma payots-ki-mi-q öki*
 in=APPROX those PN-village-to-EX arrive
 summer PL

'Around summer they came to the villages of the Paiutes.'

Taala' itself may be modified by additional temporal particles (7) or even complete adverbial clauses (8). *Pu' taala'* in (7) is the Hopi equivalent of 'this summer,' which Whorf rendered as 'summer now.' A more accurate translation is 'now during summer.'

- (7) *pas nu' pu' taala' qa hiita sami-t*
 very I now in NEG something fresh-ACC
 summer ACC corn

aniwna; sòsoy huk-laki
 grow all wind-dry
 INAN

'I didn't grow any fresh corn this summer; everything dried up because of the wind.'

- (8) *ason uma taala' uuyi-t matya-l-toti-qw*
 later you in plant-ACC touch-PASS-R-SUBR
 PL summer ground PL DS
- pu' tiiva-ni*
 then dance-FUT
 PL

'Later in summer when the [leaves of the] corn plants touch the ground you will dance.'

The adverbial also figures in compound expressions. Both examples, (9) with *taala'* as first element and (10) with *taala'* as second element, constitute copular clauses.

- (9) *pas tala'-utu-hu-'u*
 very in-hot-ABS-PS
 summer

'It's hot like summer [i.e., when said in winter].'

- (10) *pay pu' pas utu-hu'-tala'*
 well now very hot-ABS-in
 summer

'This is a very hot summer.'

Among the verbal affixes attested with *taala'* we encounter *-ti* 'got/became' (11-12) and *-iwma* 'getting/becoming' (13).

- (11) *taala'-ti-qw utu-hu'-ti-qw peetu-y yaqa-'am*
 summer-R-SUBR hot-ABS-R-SUBR some-ACC nose-their
 DS DS AN

sing-ngwu
 peel-HAB

'In summer when it gets hot some people's noses peel.'

- (12) *wuko-tala'-ti*
 big-summer-R

'It has become the height of summer.'

- (13) A: *taala'-iw-ma* B: *hep owí, is ali,*
 summer-STAT-PROGR CFIRM yes oh delight
 EXCLM

itam uy-lalwa-ni
 we plant-CONT-FUT
 PL

'It's getting summer.' 'Yes, indeed, what a pleasure; we'll be planting corn.'

2.5.6.2 Stem *tal'angw-*

In addition to *taala'*, which as we saw may either occur as free form or as a stem for further derivatives, we also encounter the derived nominal stem *tal'angw-*. It combines with both nominal and verbal suffixes. While a nominative shape **tal'angw* is unattested, the accusative shape does exist. (1) shows it as a direct object, (2) and (3) as object of postpositional constructions.

- (1) *pay puma tal'angwu-y yu'a-'a-tota hisat*
 well those summer-ACC talk-RDP-IMPRF long
 PL ago

hi-n-ta-ngwu-ni-qw
 which-way-IMPRF-HAB-NEX-SUBR
 DS

'They are talking about how summer used to be long ago.'

- (2) *su-'a-w tal'angwu-y pas a-w pitu-qw*
 exact-REF-to summer-ACC very it-to arrive-SUBR
 DS

pam kuu-kuy-va
 that RDP-emerge-R

'Just when it came to summertime they [i.e., the plants] came up.'

- (3) *pu' tal'angw-nasa-ve, pe-p hapi katsina-m*
 then summer-middle-at there-at EMPH kachina-PL
ni-nma-ngwu, wuko-tal'angwu-y naasa-ve
 RDP-go-HAB big-summer-ACC middle-at
 home

'Then in the middle of summer, at that time the kachinas go home, in the middle of the height of summer.'

The following sentences illustrate the nominal stem with local case suffixes.

- (4) *tal'angw-ve=haqam puma kwaa-kwan-t yàasangw-lalwa*
 summer-at=APPROX those RDP-agave-PL year-CONT
 PL

'Sometime in summer those Kwan [i.e., One Horn society initiates] celebrate the [end of the agricultural] year.'

- (5) *nu' tal'angw-mi kwangwtoya, nu' a'ni uy-ni-qa-y*
 I summer-to look I a plant-FUT-REL-ACC
 forward lot
wuuwa-n-ta
 think-n-IMPRF

'I'm looking forward to summer, I'm thinking of planting a lot.'

- (6) *nu' pumu-y tiingava tal'angw-mi-q*
 I those-ACC announce summer-to-EX
 ceremony

'I have announced them for the summer [to perform as kachinas].'

- (7) *nu' pay tal'angw-ngahaqa-qw ye-pe-q qatu*
 I ASSR summer-INDEF-from here-at-EX stay

'I've been staying here since summer.'

The spatial content of the postpositional element *-nawit* 'along' can be combined metaphorically with *tal'angw-* as is evident from (8).

- (8) *pà-n-ti-t pu' pam pàa-sa-t piw*
 that-way-do-PRIOR then that that-QNT-time also
 SS
pumu-y katsin-mu-y aa'awna-ngwu hisat=haqam
 those-ACC kachina-PL-ACC tell-HAB when=APPROX
tiiva-ni-qa-t; pu' pay pi tal'angw-nawit
 dance-FUT-REL-ACC then ASSR FACT summer-along
 PL
hii-hi-n maa-mats-iw-ya-qw oovi pam
 RDP-some-way RDP-call-PASS-PL-SUBR therefore that
 PERF DS

- (11) *um haqa-m tal'angw-na?*
 you where-at summer-CAUS

'Where did you spend the summer?'

- (12) *pu' yaw puma tal'angw-na-ya-qe piw*
 then QUOT those summer-CAUS-PL-CAUSAL again
 SS

uu-'uya-qw pu' yaw piw ahoy
 RDP-plant-SUBR then QUOT again back
 DS to

yoo-yok-ti-va
 RDP-rain-CONN-INCHO

'When they reached summer, they planted again, and then it started raining again as before [the drought].'

Naturally, *tal'angw-*, too, may become part of compound expressions. The combining elements that usually occur are *wuko-* 'big,' *qatsi* 'life,' and case forms of the spatial stem *nasa-* 'middle.'

- (13) *peep pas wuko-tal'angw-va*
 almost very big-summer-R

'It's almost the height of summer.'

- (14) *tal'angw-qatsi*
 summer-life

'summer life'

The form more commonly in vogue, however, is *tala'qatsi*.

- (15) *tala'-qatsi-t a-ng haki-m kwangwa-yes-ngwu*
 summer-life-ACC it-in someone-PL pleasant-sit-HAB
 DIF PL

'In summer people live pleasantly.'

- (16) *nu' tal'angw-nasa-ve=haqam pas-mi yama*
 I summer-middle-at=APPROX field-to go
 out

'Around the middle of summer I moved out to the field.'

As a reminder of how little Whorf grasped of the actual linguistic reality of such a term as *taala*, it may be appropriate to quote his summary conclusion directed at temporal phase terms such as 'summer' at the end of our presentation here:

There is no objectification, as a region, an extent, a quantity, of the subjective duration-feeling. Nothing is suggested about time except the perpetual 'getting later' of it (Carroll 1956:143).

In the light of the evidence presented above, it is understandably rather difficult to go along with Whorf's view of this aspect of Hopi time.

2.5.7 *tuho'os* 'during harvest time'

The seasonal period *tuho'os*, commonly rendered 'fall' or 'harvest time,' may be more readily understood if we take a closer look at its etymon. Formally an adverb, marked by a possible one-time productive adverbializing element -s, which we also observe in *uyis* (see 2.5.5), the root element *ho* most likely alludes to the verb *ho'ta*. *Ho'ta* decomposes into the stem *ho-*, the possessive marker *y'*, of which only the glottal stop is reflected here, and the imperfective suffix *-ta*. Its value is generally glossed 'he has it on his back/wagon/truck.' Since wagons have long since been replaced by pickup trucks, the latter term is generally used nowadays. *Ho'ta* in turn is related to the noun *hòota* 'back.' Long ago, before the introduction of the wagon mode of transportation, burdens had to be hauled on human backs, which is still recognizable in the term for 'carrying basket' *ho'apu*. The transfer from a person's back to the back of a pickup truck is an obvious semantic extension. *Qa''-ho'ta* accordingly refers to the transportation of 'corn' at harvest time, while *tuu-ho'ta*, featuring the unspecified human object prefix *tuu-*, conveys the exclusive value 'he has a load of people on his truck.' This interpretation is understandable because only in reference to unspecified human objects is *tuu-* still productive today. When pertaining to unspecified nonhuman objects *tuu-* is no longer current, nor is it recognized by native speakers as such. However, this prefix must have been productive at some time in the past, as many expressions with petrified *tuu-* or *tu-* reveal. Among them is also the nominal form *tuuho'i* which translates 'something carried in a burden basket.' It is also in this latter sense that the *tu-* in *tuho'os* needs to be interpreted. 'Harvest time' is exactly the season when 'many unspecified things (such as different field products) are brought in from the fields.'

In terms of our calendar, harvesting activities extend from September till November. This is also the time when the Hopi agricultural year completes its annual cycle. The appropriate term for this time is *yàasangwialwa* 'they are

celebrating the year' (see 2.6.1 and 5.1.11). *Tuho'os*, like some of the phase terms described above, will occur both as a free and a bound form. (1) presents the expression in a syntactic construction that tends to suggest nominal status with subject function. However, as in the case of *tömö'* and *taala'*, the inherent value of the seasonal term is that of a locative. We therefore translate 'in/during harvest time/fall.'

- (1) *pas tuho'os iyo-ho'-ti-ngwu*
 very in cold-ABS-R-HAB
 fall

'It gets very cold in fall.'

While (1) might be considered grammatically ambiguous, (2-3) make the function of the adverbial quite clear.

- (2) *yas=haqam tuho'os nu' tuu-tuy-ti*
 last=APPROX in I RDP-sickness-R
 year fall be sick

'Last year I got sick during harvest time.'

Sentence (3) illustrates the temporal in a predicate situation with pausal ending.

- (3) A: *ya pay tömö'-ti?* B: *qa'é, naat tuho'os-'u*
 Q already winter-R no still fall-PS

'Did it get winter already?' 'No, it's still fall.'

Among the local case suffixes attaching to *tuho'os* we encounter the diffuse locative marker *-va* (4) and the destinative markers *-mi* (5) and *-miq* (6). Naturally, modulated forms are attested, too, as may be seen in (7) below.

- (4) *tuho'os-va nu' momòo-tsam-ti-num-ngwu*
 fall-at I bee-take-IMPRF-CIRCUMGR-HAB
 DIF out
 PL
 OBJ

'Around harvest time I go around and take bees [i.e., honey] out [of holes in the ground].'

- (5) *nu' tuho'os-mi tots-law-ni*
 I fall-to moccasin-CONT-FUT

'I'll be making moccasins till fall.'

- (6) *pa-ngso-q ay-ó-q tuho'os-mi-q hii-hiimu*
 that-to-EX over-to-EX fall-to-EX RDP-something
 there
- tuu-tusungw-ti-ni-qa-t a-qw pítu-ngwu*
 RDP-freeze-R-FUT-REL-ACC it-to arrive-HAB
 EX

'By that time late in fall it comes to the time when things will freeze.'

- (7) *masaven-si tuho'os-ngahaqa-qw na'sas-lawu*
 PN-ONOM fall-INDEF-from prepare-CONT
 F

'Masavensi has been getting ready [for her wedding] since about fall.'

The diffuse marker *-va* may be replaced by the postpositional element *-nawit* without a meaning change.

- (8) *itam tuho'os-nawit hi-n-tsak-ni?*
 we fall-along which-way-do-FUT

'What will we be doing all through the fall?'

Among the verbal suffixes that occur with the seasonal term are *-ti* 'got' (9) and *-iwma* 'become' (10).

- (9) *tuho'os-ti-qw huu-huk-ngwu*
 fall-R-SUBR RDP-blow-HAB
 DS

'When it gets to be fall the wind usually blows.'

- (10) *tuho'os-'iw-ma oovi hii-hiita nàapi-'am*
 fall-STAT-PROGR therefore RDP-something leaf-their
 ACC

kuwan-'iw-wisa
 color-STAT-PROGR
 PL

'It's getting fall, so the leaves of all sorts of things are getting colored.'

Compound words with *tuho'os* are *tuho'osmuyaw*, a month designation for the 'harvest month' (see 2.4.3.2) and *tuho'oshuhukya* illustrated in example (11). The latter expression is not employed during the harvest season but at

other times of the year when a biting breeze prevails that is reminiscent of the cold winds of *tuho'os*.

- (11) *pas tuho'os-hu-hukya*
very fall-RDP-blow

‘There is a [cold] fall-type breeze blowing.’

A final example is the compound adverbial *tuho'osvàasat* ‘at the time of the harvest.’ It combines the seasonal point *tuho'os* with the deictically distal pro-adverb *pàasat* ‘at that time.’

- (12) *tuho'os-vàa-sa-t-ti-qw* *humingöy-tiwa*¹⁵⁵ *kareeta-y*
fall-that-QNT-time-R-SUBR PN-ONOM wagon-ACC
DS M

yaw húya-ni
QUOT sell-FUT

‘At harvest time Humingöytiwa will supposedly sell his wagon.’

- (13) *tuho'os-vàa-sa-t=haqam* *itam kii-lalwa*
fall-that-QNT-time=APPROX we house-CONT
PL

‘Around harvest time we were building a house.’

2.6 *yàasangw* ‘year’

2.6.0 Introduction

The conception of the year as a cyclically recurring period of time of definite duration is well anchored in Hopi culture. Although a definite beginning point in terms of a New Year’s Day was unknown, there occurred a terrestrial event in the course of the Hopi year that provided a natural break. This break is the end of the agricultural year. In terms of our calendar, this natural division is reached in the latter part of September. The occasion was marked by a special celebration performed by the *kwaakwant* and *kwaaniy'yungqam*, ‘initiated members of the Kwan society,’ which was generally known as *yàasangwlawu* ‘he is making (i.e., celebrating) the year.’ The relevance of this seasonal demarcation point is explained in Hopi as follows:

- (1) *uuyi-t nuva-w-va-qw haki-m*
 corn-ACC mature-STAT-INCHO-SUBR someone-PL
 plant DS
- hopi-yàasangwu-y a-qw óki-ngwu*
 PN-year-ACC it-to arrive-HAB
 EX PL

'When the corn matures people come to [the end of] the Hopi [agricultural] year.'

- (2) *pu' i' sòosoy himu natwani tukwsi-qw haki-m*
 then this all something crop ripe-SUBR someone-PL
 INAN DS
- sòoso-k hiita tsovala-ya-ni-qa-y a-w óki-qw*
 all-ACC something gather-PL-FUT-REL-ACC it-to arrive-SUBR
 INAN ACC PL DS
- pu' pàa-sa-t yàasangw-law-ngwu*
 then that-QNT-time year-CONT-HAB

'Then when all the crops are ripe and when we come to the time where we gather all our things, at that time then one celebrates the year.'

Some of the more esoteric aspects of this ceremony, which is extinct in the Third Mesa area today, were recorded by Voth in a study entitled 'The Oraibi New Year Ceremony' (1912b:115-119). He saw its prime function as marking the introduction of the New Hopi ceremonial year. Outwardly, the occasion was celebrated by the roasting of corn (*tùutu'tsaya*) at a time when the harvest was not completely in yet. The appropriate term for this point is *yàasangwva* 'it became a year.' Hopi thus stresses the completion of an annual cycle which is distinguished by intensive involvement in both physical and spiritual domains. Its combined effort results in reaping the life-sustaining nourishment which will enable the individual and the community to embark on a new yearly round.

No attempt was ever made by the Hopi to compute the year's duration in days or even months. Also, not much attention seems to have been paid to the discrepancy between lunar reckoning and the solar year, although intensive as well as accurate lunar and solar observation was practiced. Both solstice points, for example, were carefully noted and "attended by a ceremony intended to help it (i.e., the sun) begin its return journey" (Titiev 1944:173). But in spite of their familiarity with the astronomical bipartition of the year,

neither summer nor winter solstice were ever singled out as natural departure points of the annual cycle.

The function of the year as a temporal unit was nevertheless exploited. Thus, the Hopi language displays a number of highly specialized lexemes which allow the accounting of time intervals amounting up to three years (see 2.6.3). As may be expected, the general phenomenon of acculturation has had the effect of broadening the lexical as well as the morphological basis of the 'year domain.' For example, it is fairly common among Hopi today to tell their age in years, which was never customary in pre-contact days. A term like *yàasangwva* 'it became a year' will be applied nowadays to our New Year's Day. Even the loan translation *puhu-yàasangw-ti* (new-year-R) 'it got to be a new year' can be heard today.

2.6.1 The nominal *yàasangw*

The Hopi term for our time unit 'year' is *yàasangw*. Etymologically the time unit may be connected with the deictically proximal quantifier *yàasa* 'this much/this amount.' Nominals ending in *-ngw* such as *huukyangw* 'wind,' *kòokyangw* 'spider,' etc., around the turn of the century still terminated in the vowel *-u*. This is evident from older speakers, who occasionally still sound it out, as well as early Hopi transcriptions by Voth, Epp, Stephen, and others. In addition, the younger speakers of today have all but eliminated the final labialization indicated by *-w*. The element *-ngw*, which seems to approximate the function of a nominalizer, is no longer productive. Other temporal expressions observed with it are *tömölangwuy* (2.5.1), *pasvasangwuy* (2.5.2), and *tal'angwuy* (2.5.6), all of which occur in oblique form only.

Free forms of *yàasangw* are only rarely used. Most of my informants argued that by itself the form does not really mean anything. Some exceptional examples are (1) and (2). However, they are occasionally frowned upon by elderly speakers or stigmatized as anglicisms.

- (1) *pas yàasangw qa himu*
 very year NEG something

'A year [is] nothing [timewise].'

- (2) *pas sùupan i' yàasangw sùu-sulaw-ti*
 very seemingly this year quickly-empty-R

'It seems this year just flew by.'

The accusative shape, which for nouns terminating in *-ngw* typically affixes *-y*, is in frequent use, however. Note the pronunciation intermediary *u* which enables this affixation.

- (3) *löö-q yàasangwu-y e-p=haqa-m hin'ur nuva-ti*
 two-ACC year-ACC it-at=INDEF-at a snow-R
 lot
 F

'Two years ago it snowed a great deal.'

- (4) *nu' pàykomu-y yàasangwu-y a-ng wuuhaq*
 I three-ACC year-ACC it-in big
 DIF amount

i-kanel-vok-mu-y to-tokots-tu-y amu-mi kwahi
 my-sheep-pet-PL-ACC RDP-bobcat-PL-ACC they-to lose

'In the space of three years I lost a lot of my sheep to bobcats.'

- (5) *hii-sa' yàasangwu-y e-p=haqa-m ura nu' peep*
 some-QNT year-ACC it-at=INDEF-at MEMO I almost
 NUM

mooki
 die

'Remember, a few years ago I nearly died.'

In accusative shape, the nominal may also undergo pluralization. In a fixed locution with the diffuse postposition *ang*, both fully reduplicated *yaaya-sangwuy* (6) and partially reduplicated *yaysangwuy* (7) translate 'year after year.'

- (6) *pas pi nu' yaa-yasangwu-y a-ng*
 very FACT I RDP-year-ACC it-in
 DIF

kyaa-na-nvota
 extreme-RDP-experience

'Through the years I have been experiencing great hardships.'

- (7) *ya-ysangwu-y a-ng itam sowi-nōqkwivi-t¹⁵⁶*
 RDP-year-ACC it-in we jack-stew-ACC
 DIF rabbit

nōō-nōsa-ngwu
 RDP-eat-HAB
 meal

'Year after year we eat jack rabbit stew.'

The nominal stem *yàasangw-* occurs with a number of verbal suffixes. The completion of the annual cycle is expressed by the realized state markers *-va* (8-9) and *-ti* (10-11); the latter is the one preferred by the younger speakers of today.

- (8) *pu' löö-s yàasangw-va*
now two-times year-R

'It's two years now.'

- (9) *pu' àa-piy tsivot yàasangw-va-qw pu' yaw pam*
then REF-away five year-R-SUBR then QUOT that
from DS

piw su-kw tii-ta
again one-ACC child-CAUS

'Five years later she gave birth to another child.'

- (10) *nu' ye-pe-q qatu-qw pas pay löö-s*
I here-at-EX stay-SUBR very immediately two-times
DS

yàasangw-ti-ni
year-R-FUT

'It will be almost two years that I'm staying here.'

- (11) *àa-sa-kis yàasangw-ti-qw nu'*
REF-QNT-times year-R-SUBR I
DS

nga-twi-y'-ta-qa-t a-w-ni-ngwu
medicine-knowledge-POSS-IMPRF-REL-ACC he-to-NEX-HAB

'I [go] to a doctor every year.'

A number of derivatives draw on the causative marker *-na*. *Yàasangwna* then takes on the value 'spend one year.' (12) exemplifies a rarely attested nominalized form making use of the imperfective stem of *yàasangwva*. To support the distributive notion 'year after year,' the stem is also affected by initial reduplication.

- (12) *yaa-yasangw-va-n-ti-w-qa-t a-ng tòmö'-ti-ngwu*
RDP-year-R-n-IMPRF-STAT-REL-ACC REF-in winter-R-HAB
DIF

'Year after year it gets winter.'

- (13) *ya um hii-sa-kis ye-pe-q yàasangw-na?*
 Q you which-QNT-times here-at-EX year-CAUS

'How many years did you spend here?'

- (14) *hak hàalay-ti-ngwu qa hi-n-ti-t¹⁵⁷*
 someone happy-R-HAB NEG some-way-R-PRIOR
 get ill SS

yàasangw-n-e'
 year-CAUS-COND
 SS

'One is elated when one spends another year without illness.'

Yàasangwna in turn may append various morpheme sequences that all hinge on the possessive marker *-y'*. In the affixation process the preceding *a* is umlauted to *i*. Among the suffixes following *-y'* we find imperfective *-ta* (PL *-yungwa*), progressive *-ma* (PL *-wisa*), inchoative *-va* (PL *-vaya*), and the subordinator *-kyangw* (PL *kyàakyangw*) expressing simultaneity of events for clauses with identical subjects.

- (15) *puma sú-'itamìu-sa' yàasangw-ni-y'-yungwa*
 those exact-we-QNT year-CAUS-POSS-IMPRF
 NUM PL

'They are as old as we.'

- (16) *pam suu-kw yàasangw-ni-y'-ma*
 that one-ACC year-CAUS-POSS-PROGR

'He is getting one year old.'

- (17) *pay tsaa-tsayo-m löö-q=haqam*
 well RDP-child-PL two-ACC=APPROX

yàasangw-ni-y'-va-y-e' pu' tuuqay-va-ya-ngwu
 year-CAUS-POSS-INCHO-PL-COND then speak-R-PL-HAB
 SS

'When children get about two years old they learn to speak.'

- (18) *nu' pakwt naalö-q sükya-y'-ta-qa-t*
 I ten four-ACC plus-POSS-IMPRF-REL-ACC

yàasangw-ni-y'-kyangw *pu'* *pay* *pas* *taaqa-t* *a-n*
 year-CAUS-POSS-SIMUL then ASSR very man-ACC he-like
 SS

tsoo-tsong-ngwu
 RDP-smoke-HAB

'When I was fourteen years of age I was smoking like a man.'

A nominal derivation featuring the nominalizer element *-ni* occurs only in accusative shape. The derived form undergoes a meaning shift from 'year' to 'age.'

(19) *wuu-wuyo-m* *pay* *yàasangw-ni-y* *qa* *a-w*
 RDP-old-PL ASSR year-NR-ACC NEG it-to

tunatya-w-yungwu
 attention-STAT-IMPRF
 PL
 HAB

'The old people didn't pay attention to their age.'

In a footnote to his observations on Hopi phase terms, Whorf offers a comment on the term 'year.'

'Year' and certain combinations of 'year' with name of season, rarely season names alone, can occur with a locative morpheme 'at,' but this is exceptional. It appears like historical detritus of an earlier different patterning, or the effect of English analogy, or both (Carroll 1956:143).

As usual, no actual Hopi equivalent is cited in reference to the items in question, which rules out any verification attempt. Paradoxically enough, no forms of 'year' with a locative morpheme 'at' is attested, at least not in the dialect area of Third Mesa. On the other hand, the present as well as the previous chapters of this monograph list a number of postpositional constructions, both in conjunction with season terms as well as with the time unit 'year.' They render Whorf's remark of "historical detritus" totally unjustified.

2.6.2 *The adverbial yas*

The form *yas*, which looks like the root element of *yàasangw*, translates 'last year' or 'next year' according to whether it is embedded in a past (1-2) or future context (3). Its adverbial status, which comes close to that of a temporal locative, is explicit in all three sentences.

- (1) *yas i-'uyi sòosoy tsivok-ti*
 last my-corn all alluvium-R
 year plants INAN

'Last year all my corn plants were buried by mud [i.e., due to a flash flood].'

- (2) *um yas hotvel-pe-q owaqöl-timay-ma?*
 you last PN-at-EX Owaqöl-witness-POSTGR
 year ceremony dance

'Did you come to see the Owaqöl dance at Hotvela last year?'

- (3) *pay itam yas piw a-ngqw-ya-ni*
 well we next again REF-from-PL-FUT
 year

'We'll come again next year.'

Sentence (4) illustrates the form in a comparative construction requiring nominalization.

- (4) *pu' ye-pe-q yas-nìi-qa-t àa-pe tii-timay-t*
 now here-at-EX last-NEX-REL-ACC it-on RDP-spectator-PL
 year
- kyaas-ta; ung-ni-qw qee'?*
 incredibly-IMPRF you-NEX-SUBR NEG
 many ACC DS
 in your opinion

'There were more spectators this year than last; don't you think so?'

The modulator clitic =*haqam* renders the time indication approximate.

- (5) *nu' yas=haqam put kwaatsi-y'-va*
 I last=APPROX that friend-POSS-INCHO
 year ACC

'Sometime last year I made friends with him.'

In addition to occurring as free form, *yas* is attested with verbal *-ti* 'got' (6), the extreme destinative case marker *-miq* (7), as well as the postpositional element *-vìipiy* (8).

- (6) *nungwu yas-ti; ya um naat qa yuku?*
 meanwhile year-R Q you still NEG finish

'Meanwhile it's a year; aren't you finished yet?'

- (7) *nu' yas-mi-q pas kyaa-wuwa-n-ta*
 I next-to-EX very fabulous-think-n-IMPRF
 year

'I have great plans for next year.'

- (8) *yas-vii-piy pay uma naa-p uy-lalwa-ni*
 next-place-away ASSR you REFL-at plant-CONT-FUT
 year (?) from PL PL

'From next year on you plant yourselves [i.e., I won't be doing it for you].'

A derived adjectival, featuring the specifier *-wa* and the nominalizing element *-vu*, is *yaswavu*. Its value 'of the last year' usually applies to edible substances.

- (9) *i' piiki pay yas-wa-vu, oovi pay son*
 this piki ASSR last-SPEC-NR therefore ASSR NEG
 year

kwangw-ni
 pleasant-FUT

'This piki is from last year, so it won't taste good.'

- (10) *pam pay yas-wa-vu mori-vosi*
 that ASSR last-SPEC-NR bean-seed
 year

'Those beans are from last year.'

For chronological reckoning that exceeds that of 'last year' or 'next year,' Hopi supplies the special complex forms *löönayis* and *paynayis*. As the numerical roots *löö-* 'two' and *pay-* 'three' indicate, the time span of *yas* may thus be extended to two or three years. Again the adverbials may be used in past or future contexts. They generally attract the approximator clitic =*haqam*.

- (11) *ya puma qa löö-na-yis=haqam ura hootemuy*
 Q those NEG two-(?)-last=APPROX MEMO PN-PL-ACC
 year

tunatya-y'-ta?
attention-POSS-IMPRF

'Didn't they sponsor Hote kachinas about two years ago?'

- (12) *ason pay nu' löö-na-yis=haqam pu' tuwat*
later ASSR I two-(?)-next=APPROX then in
year turn

kii-law-ni
house-CONT-FUT

'In approximately two years it will be my turn to build a house.'

- (13) *pay pu' pam wuuya-vo qa qatu, pay pam*
well now that long-to NEG live well that
- pay-na-yis=haqam súlaw-ti*
three-(?)-last=APPROX empty-R
year die

'He hasn't been around for a long time now, he died about three years ago.'

3 Horizon-based sun time

Hopi astronomical knowledge embraces the sun, the moon, and the stars. By far the most significant of the celestial luminaries is the sun. This is reflected in its religio-mythological status which amounts to that of a deity. *Taawa*, the sun, is anthropomorphized as young man whose face is adorned by the sun disk in the fashion of a mask. A replica of it, the ‘sun shield,’ is kept in the house of the sun clan. The mask constitutes a stylized face whose most prominent feature is the bisecting line across its forehead or *qala’at*¹⁵⁸ (forehead-its). The face itself is completely surrounded with projecting eagle tail feathers which allude to the fact that at the time of the creation (and also every day now) the sun can only rise by means of these feathers.

- (1) *pam taawa mòoti-wat-nii-qe as naala-ni-kyangw*
that sun at-SPEC-NEX-CAUSAL IMPOT along-NEX-SIMUL
first SS SS
- qa naa-kyati; pu’ pàasat pas i-t kwaa-hu-t*
NEG REFL-lift then that very this-ACC eagle-ABS-ACC
time
- suru-yat enang yuwsiqe pàasat pu’ naa-kyati*
tail-its including dress-CAUSAL that then REFL-lift
ACC SS time

‘The very first time when the sun was by itself it did not lift itself; then, when it dressed with eagle tail feathers, it managed to raise itself.’

It is for this reason also that *kwaa-ngyam* or ‘Eagle clan members’ are the only ones who don’t use the formulaic locution *taawa itana* ‘sun, our father’ to begin their morning prayer. This prayer is usually timed with the rising sun. The appropriate expression for this ceremonial beginning of the day is *kuyvato*. Due to the many instances of cultic and ritual attention that is directed toward the sun, the Hopi have actually been labelled ‘sun worshipers’ (Fewkes 1896:689), a tag that is catchy but obviously too one-sided.

As an astronomical device for time reckoning, sun observation provided the most accurate temporal results within Hopi culture. The important function of the sun as a chronometer during the span of an individual day was already discussed in 2.1.6 and its associated subchapters. Divisions of the day are indicated by standardized phrases referring to the varying positions of the celestial body; additional temporal orientation is derived according to the discernible light in the pre-sunrise and post-sunset phases. Of equal significance is the observation of the sun throughout the period of a year. Secular as well as ceremonial events are determined by the course of the sun. A quotation from Curtis' study of the Hopi may suffice to illustrate the latter point:

The announcement of Nimanw'u (sic), the ceremony that marks the close of the season of Kachina dancing, is made when the sun, after the summer solstice, has reached a certain point north of a gap in a mesa to the eastward. The Powamu Chief, noting this position of the sun, summons the members of his society, and they smoke formally. They instruct the Crier Chief to make the usual announcement on the following morning, that on the sixteenth day from the day after tomorrow they will dance; the intention being that on the last day, the day of public dancing, the rising sun shall appear exactly in the middle of the gap above mentioned. Sometimes the calculation is slightly at fault (1922:176).

Of course, not every ritual is dated by solar observation. The opening dates of some ceremonies are determined by the appearance of a certain moon, others begin "when a given number of days have elapsed after the completion of the preceding ritual" (Titiev 1944:103). The average Hopi does not engage in solar observation or dating based on the annual path of the sun. While the *wimmomngwit* or 'society leaders' are generally responsible for the starting dates of the ritual entrusted to them, they would still have to rely to some extent on the expertise of the person officially endowed with the office of watching the sun. One of the proper Hopi designations for this man, who is being referred to in the literature as "Sun Guardian" (Curtis 1922:64), "Sun priest" (Fewkes 1918:496), "Sun chief" (Stephen 1936:62), or "Sun Watcher" (Titiev 1944:184), is *taawa-t* (sun-ACC) *wiiki-y'-ma-qa* (take along/lead-POSS-PROGR-REL) 'the one who guides the sun along.' The progressive marker *-ma* alludes metaphorically to the routine performance of this task on a daily basis. The sun watcher's duty is also referred to as *taawat aw tayta* or *tunatyawta* 'he is watching/observing the sun.' Accordingly, he may be called *taawat aw tunatya-w-ma-qa* (pay:attention-STAT-PROGR-REL) 'the one who pays attention to /takes care of the sun.' No Third Mesa village has an active sun watcher any more.¹⁵⁹ The above-mentioned dependence of the society leaders on the sun watcher is referred to in the subsequent Hopi text:

- (2) *taawa-t a-w tunatya-w-ta-qa pam paas*
 sun-ACC it-to attention-STAT-IMPRF-REL that carefully
- mo-mngwi-tu-y put aawin-ma-ngwu haq-e'*
 RDP-leader-PL-ACC that tell-PROGR-HAB where-at
 ACC DIF
- taawa-ni-qw; pu' puma put e-p-ya-ngwu, taawa-t*
 sun-NEX-SUBR then those that he-on-PL-HAB sun-ACC
 DS ACC
- wiiki-y'-ma-qa-t e-p-e'; pu' puma put*
 take-POSS-PROGR-REL-ACC he-on-PS then those that
 along ACC
- a-ngqw ya-n nanapt-e' pu' hisat*
 he-from this-like hear-COND then which
 PL SS time
- tiingap-ya-ni-qe-y put a-w wuuwa-ya-ngwu*
 announce-PL-FUT-REL-ACC that it-to think-PL-HAB
 ceremony ACC

'The sun watcher informs the [society] leaders with great care where the sun is. Then they go by the sun watcher [i.e., rely on him]. When they have heard that from him, they think when they will make the announcement [for their respective rituals].'

Actual temporal orientation was achieved by observations of the rising and the setting sun. Time points considered critical for a certain agricultural activity or ceremonial observance were named according to some obvious terrestrial feature along the eastern horizon. Fewkes has described this process adequately:

As is well known, the sun, on account of the obliquity of the ecliptic, rises and sets at different points on the horizon at different dates, varying with latitude, between certain distances north and south. The intervals on the horizon between extreme northern and southern azimuth is mapped out by a society of sun priests, who note the tree, hillock, or depression in the horizon from which the sun rises or into which he seems to sink at each interval, and thus determine the time for ceremonials with surprising accuracy year by year (1896:691-692).

Examples (3-5) illustrate this in Hopi. (4-5) in addition introduce the lexeme *tingap-pi* (announce-place) 'announcement point/date setting place' which

The accuracy of this sun sighting method was phenomenal. How impressed Fewkes was when he noticed that the active ceremonials for the abbreviated Wuwtsim rites in the years 1892 and 1893 began exactly on the same date, may be gathered from his subsequent words:

This is a remarkable fact considering that the Tusayan Indians can neither read nor write, and are ignorant of our almanacs or calendars. Although this is the only instance when the assembly of a society fell on the same day in two successive performances (a year apart) of the same ceremony, the variation is never very great, and does credit to the astronomical knowledge of these rude people (1895:426).

The Hopi term for 'horizon' is *tuuwa-qalalni* (sand/earth-border). Another possible reference to the horizon is *tuuwa-qalaw-ngwa-va-qe* (sand-edge/border-NR:ABSTR-at:DIF-EX) 'along the horizon,' which morphologically constitutes a diffuse locative form. Among the features commonly serving as mnemonic markers for a particular sunrise date along the horizon perimeter are geological irregularities such as *tuyqa* 'projecting mesa cliff,' *pösö* 'concave corner,' *owatutukwmola* 'rock pile,' solitary trees of the species *söhöp-tsoki* 'cottonwood tree' and *tuve'tsoki* 'pinyon tree,' or even manmade landmarks such as shrines, etc.

After the breakup of the mother village Orayvi in 1906, which resulted in three new settlements in addition to the strengthening of the existing colony of Munqapi, no new horizon calendars were established in either Hotvela or Paaqavi. Some of the First and Second Mesa villages still have active sun watchers that provide temporal input as to the performance of agricultural or ceremonial activities. James reports in his *Pages From Hopi History* that the smoke-haze from the coal-fueled Four Corners Generating Plant near Farmington, New Mexico, "so obscures the silhouette of the eastern skyline at dawn that the Sun Watcher of Shongopovi has difficulty in observing the exact moment of sunrise" (1974:217). Not every Hopi village seems to have had an official office of sun watcher. According to Beaglehole this task was shared in Musanguvi by the *kikmongwi* 'town chief,' the *tša'akmongwi* 'crier chief,' and the *wimmomngwit* 'ceremonial chiefs' (1937:23).

To give some insight into the Orayvi name lore that was once in vogue in regard to the topographical horizon markers, I have tried to get the name stations verified that both Voth and Titiev have transmitted in writing.¹⁶⁰ Most of the horizon references listed by them were confirmed, however, none of my informants were able to verify their sequence.

Voth, in a song appendix to his detailed description of the Orayvi Powalawu and Powamuy ceremonies, has recorded a *natwantawi* or 'planting song'

which contains scores of place names that indicated times when seeds and plants were supposed to be put in the ground (1901:149-152). Two strings of names are provided. The first involves places west of Orayvi and marks horizon points of the setting sun. The second lists places east of Orayvi, i.e., horizon stations of the rising sun. Each location term is couched in one stanza and is practically the only variable that differentiates the individual stanzas with the exception of the references to the setting sun (*taawa paki*) in the former and the rising sun (*taawa yama*) in the latter string. Where confirmation of a particular point was obtained, it is rendered in my orthography. The following places are found along the western horizon:

- | | |
|--|--|
| (6) <i>apòoni-vi</i> ¹⁶¹
(?)-place | (7) <i>polii-ki</i>
butterfly-shrine |
| (8) <i>angwus-ki</i> ¹⁶²
crow-house | (9) <i>kis-ki</i>
hawk-house |
| (10) <i>pi-vos-tsomo</i> ¹⁶³
breast-(?)-hill | (11) <i>masi-k-'uy-pi</i> ¹⁶⁴
gray-(?)-plant-place |
| (12) <i>tohos-pi</i>
(?)-place | (13) <i>eve-'wa</i>
gritty-rock |
| (14) <i>pòöpa-va</i> ¹⁶⁵
path-at
DIF | (15) <i>siva'tsi-vi</i>
(?)-place |
| (16) <i>tsöqa-vö</i>
<u>mud-path</u>
earth dam | |

The following places are located along the horizon east of Orayvi:

- | | |
|---|---|
| (17) <i>tukwa'tsi-vi</i>
(?)-place | (18) <i>kwivi-'o-vi</i>
spinach-high-place
greens |
| (19) <i>hot-'aku</i>
<u>back-spoon</u>
swayback | (20) <i>mungyaw-'o-vi</i>
porcupine-high-place |
| (21) <i>hatikw-'uy-pi</i>
lima-plant-place
bean | (22) <i>mori-'uy-pi</i>
bean-plant-place |

- (23) *tuve'e*
dry
pinyon
wood
- (24) *owa-tsmo*
rock-mound
- (25) *tutskwa-t naasa-va*
earth-ACC middle-at
DIF
through the middle of the level ground
- (26) *taawa-ki*
sun-house
solstice

The sequence of reference points listed by Titiev focuses on the eastern horizon only and is accompanied by a skyline drawing (1938:41). It closely matches the places recorded in the planting song by Voth. It begins with Sikyaqvu, the point that the rising sun passes through at the time of the vernal equinox. Again, the names have been corrected where necessary and adapted to the transcription in this monograph.

- (27) *sikya-qvu*¹⁶⁶
yellow-(?)
- (28) *tukwa'tsi-vi*
(?)-place
- (29) *kwip-tuwi*
spinach-ledge
greens
- (30) *hot-'ak-hoya*
back-spoon-DIM
swayback
- (31) *wuko-hot-'aku*
big-back-spoon
swayback
- (32) *mungyaw-'o-vi*
porcupine-high-place
- (33) *hatikw-'uy-pi*
lima-plant-place
bean
- (34) *wuko-mori-'uy-pi*
big-bean-plant-place
- (35) *tuve'e*
dry
pinyon
wood
- (36) *tsivok-vasa*
alluvium-field
- (37) *pisaa-pas-va* *uyis-ti*
sand-field-on planting-R
DIF time

'It got planting time on the sand fields.'

- (38) *taawa-t kii-'at*
 sun-ACC house-its
 solstice

When comparing both Voth's and Titiev's horizon stations, we find partial overlap, but also striking differences. The chances of reconciling these divergences are rather slim since neither the Third Mesa mother village of Orayvi nor its off-shoot settlements have an active sun watcher any more.

Obviously, the names enumerated here are not exhaustive. Nor are those listed by both Voth and Titiev completely consistent. The two points, for instance, that Titiev cites prior to the sun's arrival at the summer solstice location, are not actual place names but refer to particular fields in the planting season. While I was able to elicit additional horizon names I failed to find knowledgeable informants who could have integrated them with the ones recorded by Voth and Titiev. I did succeed, however, in unearthing some of the idiomatic locutions that were used in conjunction with the horizon points. Among the typically recurring expressions are *pitu* 'he arrived,' *yama* 'he passed through,' *wuuvi* 'he climbed up,' and *riupa* 'he slipped by.' All of these terms are, of course, metaphorically applied to the sun. Sample sentences illustrating these expressions in context are given in (39-44).

- (39) *hatikw-'uy-pi-mi pitu*
 lima-plant-place-to arrive
 bean

'It [i.e., the sun] has come to [the place called] Hatikw'uypi.'

- (40) *tuve'e-t a-w pitu*
 dried-ACC it-to arrive
 pinyon

'[The sun] has arrived at [the place called] Tuve'e.'

- (41) *wuko-'uy-pu-va yama*
 big-plant-NR-at go
 DIF through

'[The sun] went through [the place called] Wuko'uypu.'

- (42) *kwip-tuwi-va yama*
 spinach-ledge-at go
 greens DIF through

'[The sun] went through [the place called] Kwiptuwi.'

- (43) *mori-'uyis-pi-mi kur wuuvi*
 bean-planting-place-to EV climb
 time

‘[The sun] climbed up to [the place called] Mori’uyispi.’

- (44) *pay pöma-'uyis-pu-va rüupa*
 well early-planting-NR-at slip
 plant time DIF past

‘[The sun] is past [the place called] Pöma’uyis.’

One Hopi word for the horizon station is *tuvoyla*, which translates as ‘sign’ or ‘marker.’ Whenever the sun reaches one of these markers in its journey along the horizon, Hopi folk belief has it that the sun comes to a standstill and generally spends four days there dancing.

- (45) *pu' pam haqa-mi hak tuvoyla-y'-ta-qw*
 then that where-to someone marker-POSS-IMPRF-SUBR
 DS

pa-nso pam pit-e' pe-p pam naalö-s
 there-to that arrive-COND there-at that four-times
 SS

a-ngqw=sa yáma-k-ngwu; pe-p naat piw pas
 it-from=only cross-k-HAB there-at still also very

àa-sa-kis taala-t a-ng wunima-t pu'
 REF-QNT-times day-ACC it-in dance-PRIOR then
 DIF SS

piw àa-piy-ni-ngwu
 again REF-away-NEX-HAB
 from

‘Then when it [i.e., the sun] arrives at a place where somebody has a marker, it rises four times from that place and having danced there just as many days it continues [its journey] again.’

Occasionally, the sun is said to add an additional day to its temporary sojourn at the horizon location, especially when it is not particularly in a hurry.

- (46) *pu' ephaqam yaw suu-kw piw hóyo-k-na-ngwu,*
 then occasionally QUOT one-ACC more move-k-CAUS-HAB

qa kyaktay-e'; pu' kyaktay-e' pam pay pas
 NEG hurry-COND then hurry-COND that ASSR very
 SS SS

a-ng-sa-kis-law-ngwu
 REF-DIF-QNT-times-CONT-HAB

'Then once in a while it adds an additional day if it is not in a hurry; if it is in a hurry, it just spends the respective [amount of four] days.'

The idiomatically correct question concerning the sun's position is given in (47). It may be used regardless of whether a person is interested in a particular 'day-time' or 'year-time.' The verb *qalawma* (see 1.6.7), which is a standard feature of this question, shares its root *qala* 'edge' with the terms for horizon *tuuwaqalalni* and *tuuwaqalawngwavaqe*. Following (47) a number of representative responses are listed that pertain to 'year-time.'

(47) *ya haq-e' taawa qala-w-ma?*
 Q where-at sun edge-STAT-PROGR
 DIF

'What time [of the year] is it?'

(48) *mori-'uyis-vi-mi ha'kyal-ti*
 bean-planting-place-to approach-PASS-R
 time

'It has gotten close to bean planting time.'

(49) *itam pu' wuko-'uyis-pu-va-ya*
 we now big-planting-NR-at-PL
 time DIF

'We are going through the height of the planting season now.'

(50) *pay pi pu' mori-'uyis*
 well FACT now bean-planting
 time

'It's bean planting time now.'

(51) *naat qa paamuy-ti*
 still NEG paamuya-R
 month

'It is not Paamuya yet.'

- (52) *pay tōmō'-iw-ma; oovi uma*
 well winter-STAT-PROGR therefore you
 PL

owak-yuku-wis-ni
 coal-fetch-PREGR-FUT
 PL

'It's getting winter; so you go and get coal.'

- (53) *pu' yaw kaway-'uy-pu-va yama*
 now QUOT watermelon-plant-NR-at go
 DIF through

'It's past the time when you plant watermelons.'

Among the numerous terrestrial markers along the time keeping device of the horizon, two, generally referred to as *taawat kii'at* 'sun house,' are of particular significance. They symbolize the respective solstice points. Fewkes informs us that both on the occasion of the sun's solstitial rising as well as its solstitial setting, elaborate solar ceremonies were performed that involved a great deal of sympathetic magic. The former, which took place at the end of June, was "directly connected with the advent of the rainy season." The latter, which took place at the close of December, "marks when the sun reaches his most distant point to the south, at a time when the great cold intensifies the growing fear of the people that he is about to depart from the earth never to return" (1918:496) The more crucial of the ceremonies associated with the solstices was, naturally, the one in winter. The departure of the being on which all life was essentially dependent had to be prevented. In Hotvela, prayer feathers are still being made for the sun on the fourth day following the Qööqöqlö dance, a public spectacle that once terminated the elaborate Soyal rites. The appropriate Hopi phrase for the effort of turning the sun back is given in (54).

- (54) *se'el taawa-t ahoy ríya-k-na-ya*
 this sun-ACC back spin-k-CAUS-PL
 morning to

'This morning they caused the sun to spin back [on its course].'

When this maneuver is successfully completed, it is said 'that the people are going back' (55).

(55) *soyàl-titso'-q* *naalö-s* *taala-t* *e-pe-q*
 Soyál-finish-SUBR four-times day-ACC it-at-EX
 rite dancing DS
 PL

haki-m *áhoy-ya-ngwu*
 someone-PL back-PL-HAB
 to

'When the Soyál rites are over, then people are going back [i.e., towards the summer solstice] on the fourth day.'

The sun, too, is said to be 'going back.' (56) couples this statement with the phrase that 'the sun has entered its house.' This descriptive circumlocution communicates the fact that the sun has reached the (winter) 'solstice,' and also marks the end of the Hopi solar year.

(56) *pu'* *hapi* *taawa* *ki-y* *a-qw* *paki,* *pu'* *hapi*
 now EMPH sun house-ACC it-to enter now EMPH
 EX

taawa *áhoy-ni;* *itam* *hapi* *oovi* *áhoy-ya-ni;*
 sun back-FUT we EMPH therefore back-PL-FUT
 to to

pu' *itam* *áhoy-ya-qw* *pu'* *hapi* *i'* *ye-p*
 then we back-PL-SUBR then EMPH this here-at
 to DS

yàasangw-ti-ni
 year-R-FUT

'Now the sun has entered its [winter] house, now the sun will go back. Therefore, we will go back; and then when we go back this will be a year here.'

A person that does not wash his hair that day, is teased about not being able to return with the others into the season of longer and warmer days (57).

(57) *kur* *um* *pay* *qa* *ita-mum* *áhoy-ni*
 EV you ASSR NEG we-with back-FUT
 to

'You will not go back with us.'

Much of the sun watcher's vernacular concerning the pivotal behavior of the

sun prior and subsequent to the summer solstice is quite similar, as may be gathered from the lengthy excerpt quoted in (58).

- (58) *noq oovi sùu-tala' pam antsa*
 and therefore exact-in that indeed
 SI summer
- sus-wupa-tawa-t e-p pam hapi ki-y*
 SUPER-long-sun-ACC REF-at that EMPH house-ACC
- a-qw páki-ngwu; pam pu' pàa-sa-t áhoy-ni-ngwu;*
 it-to enter-HAB that then that-QNT-time back-NEX-HAB
 EX to
- pu' pàa-sa-t pam hak put*
 then that-QNT-time that someone that
 ACC
- wiiki-y'-ma-qa pà-ng-qawu, "ta'á, pu' hapi*
 take-POSS-PROGR-REL that-way-say all now EMPH
 along right
- áhoy-i."*
 back-PS
 to

'Exactly at the time when it is summer the sun enters its house on the longest day; then it goes back; it is then that the sun watcher says, "All right, it is going back now."

The journey of the sun between the two solstitial points is commonly described by the slow repetitive *hòyta* 'it keeps moving slowly' or the rapid iterative *hoyoyota* 'it keeps moving quickly.' According to Hopi folk belief, however, the sun's movement is actually thought of as a dancing motion. The sun thus does not only spend four days dancing at each horizon marker as was pointed out above in (45), but dances all along its route from its winter (solstice) house to its summer (solstice) house and back.¹⁶⁷

- (59) *pam naa-qavo wuni-ma-kyangw*
 that RCPR-tomorrow stand-PROGR-SIMUL
 day after day dance SS
- hoyo-yo-ta-ngwu*
 move-RDP-IMPRF-HAB

'Dancing, it [i.e., the sun] is moving along day after day.'

(60) *haqa-m* *tuvoyla-t* *e-p* *hurüu-t-e'* *pu'* *pam*
 where-at marker-ACC it-at fixed-R-COND then that
 SS

pe-p *pas* *wuni-mu-muy-law-t* *pu'* *pàasat*
 there-at very stand-RDP-go-CONT-PRIOR then that
 dance SS time

piw *àa-piy* *wunima-n-ti-ma-ngwu*
 again REF-away dance-n-CONN-PROGR-HAB
 from

'Where it stops at a [horizon] marker, there it dances and then it continues going along dancing again.'

The sun's overall movement is considered not to be uniform but varying from a fast tempo following the winter solstice to a complete standstill at the time of the summer solstice. This standstill is believed to last for four days and is described in (61).

(61) *ki-y* *a-qw* *pákii-qe* *oovi* *taawa*
 house-ACC it-to enter-CAUSAL therefore sun
 EX SS

wunu-ptu; *naalö-q* *taala-t* *e-pe-q* *hapi* *pu'*
 stand-arrive four-ACC day-ACC it-at-EX EMPH then

pam *áho-y-ni*
 that back-FUT
 to

'Because the sun enters its house it comes to a standstill. In four days it will go back.'

Various folk beliefs are associated with this time point, two of which are quoted in (62) and (63). The former alludes to the final stage of the sun approaching its summer house. It generally marks the termination of all planting activities and according to Hopi weather lore is characterized by severe winds. The wind is thought to clean house for the sun about to enter its summer abode.

(62) *huukyangw* *hapi* *yaw* *put* *taawa-t* *kii-yat*
 wind EMPH QUOT that sun-ACC house-its
 ACC ACC

<i>e-ngem</i>	<i>maspita-ngwu;</i>	<i>a-w</i>	<i>qeni-law-ngwu-ni-qw</i>			
it-for	sweep-HAB	it-to	space-CONT-HAB-NEX-SUBR			
			DS			
<i>oovi</i>	<i>pam</i>	<i>hapi</i>	<i>a-qw</i>	<i>paky-e'</i>	<i>qeni-t</i>	<i>a-qw</i>
therefore	that	EMPH	it-to	go-COND	space-ACC	it-to
			EX	in SS		EX
<i>pítu-ni-ni-qw</i>		<i>oovi</i>	<i>yaw</i>	<i>a-qw</i>		
arrive-FUT-NEX-SUBR		therefore	QUOT	it-to		
				EX		
<i>hàykyala-qw</i>	<i>pu'</i>	<i>yaw</i>	<i>huu-huk-ngwu</i>			
approach-SUBR	then	QUOT	RDP-blow-HAB			
			DS			

'The wind sweeps for the sun's house; and because it is cleaning there it [i.e., the sun] will arrive at a clean place when it enters its house, and that's why the wind is blowing when it is approaching that location.'

Gnats are also a natural indicator for this time of the year.

(63)	<i>kur</i>	<i>taawa</i>	<i>ki-y</i>	<i>a-qw</i>	<i>pitu;</i>	<i>oovi</i>
	EV	sun	house-ACC	it-to	arrive	therefore
				EX		

to-top-hòoya-m · *kyaas-ta*
 RDP-fly-DIM-PL incredibly-IMPRF
 many

'Evidently the sun has reached its house; this is why there are so many little flies.'

Obviously, the time keeping institution of the horizon calendar, which became a reality due to the fixed or nonnomadic dwelling mode of the Hopi, merits much more research. In particular, a great deal of additional information is needed on the office and activities of the sun watcher. Some of the details concerning the actual sun observation technique and time recording devices will be dealt with in Chapter 6.

one finds throughout Stephen's as well as Curtis' works. A representative example from the latter may suffice:

After Orion has appeared above the horizon, the Taatawkyam begin to sing in Mongkiva, and when the constellation is about one hour high they go in a body to Kwankiva (1922: 115; rendition of Hopi terms mine).

No actual ritual, however, that was part of the Hopi ceremonial year, was determined by the stellar method.

Only a few stars served as a night time chronometer. The little information that I have been able to collect centers around them. (2-4) explain this in Hopi.

- (2) *pay tookila-t hapi a-ng pu' puma soo-tu*
 well night-ACC EMPH it-at then those star-PL
 DIF

api-'iw-yungwa
 useful-STAT-IMPRF
 PL

'During the night, of course, the stars are useful.'

- (3) *noq oovi pay puma songyawnen hisatniqw-nii-qa-t*
 and therefore ASSR those quasi what-NEX-REL-ACC
 SI time

itamu-y awini-y'-wisa
 we-ACC announce-POSS-PROGR
 PL

'So they [i.e., the stars] are telling us the time as it were.'

- (4) *puma pi itamu-y tookila-t haq-e'*
 those FACT we-ACC night-ACC where-at
 DIF

qala-w-ma-qa-t aawin-wis-ngwu
 edge-STAT-PROGR-REL-ACC tell-PROGR-HAB
 PL

'They [i.e., the stars] tell us what time of night it is.'

If commonly known names of stars are any yardstick as to the status of the Hopi science of astronomy, it cannot have been highly developed. How-

reference to Venus which both as evening and morning star is so prominent in the west shortly after sunset or in the east just before sunrise. Specifically as 'Morning Star' it is established as *taalaw-sohu* (light-star) in Hopi because it is associated with the approaching light of the new day. In Hopi mythology this star also surfaces in the lexical guise of *pono-tsona* (belly-suck). According to Nequatewa it is a god that is reputed "to do away with stomach troubles" (no date:1). It is also said to own all domestic animals.

(6) *pam pay hii-hiitu-y po-pko-tu-y hapi tuwat*
 that ASSR RDP-being-ACC RDP-pet-PL-ACC EMPH in
 PL turn

pok-mu-y'-ta-qa-t pa-ng-qaqwa-ngwu
 pet-PL-POSS-IMPRF-REL-ACC that-way-say-HAB
 PL

'They say that it has all sorts of animals for pets.'

The fact that it rises at different times throughout the seasons is referred to as 'jumping' in Hopi.

(7) *pam taala' hapi pay iits yama-k-to-ngwu,*
 that in EMPH ASSR early go-k-PREGR-HAB
 summer out

taalaw-so-hu; pu' tömö' pu' pam qa iits
 daylight-star-ABS then in then that NEG early
 winter

yama-k-ngwu-ni-qw oovi puma wuu-wuyo-m
 go-k-HAB-NEX-SUBR therefore those RDP-old-PL
 out DS

pa-ng-qaqwa-ngwu tso'-ti-ma-qa-t
 that-way-say-HAB jump-CONN-PROGR-REL-ACC
 PL

'That morning star rises early in summer. Then in winter it does not rise early and for this reason the older folks used to say that it is jumping.'

Two constellation names, for which I have not been able so far to determine the English equivalent, are *naa-na-tupko-m* (RDP-RCPR-brother-PL) 'brothers' and *o'waqölt*, which seems to be known in Second Mesa as *lalkont*. Named after two of the women society festivals in fall, the terms allude to

the relatively circular star arrangement of this particular constellation. A final star name is *ne-ve-q-so-hu* (RCPR-at-EX-star-ABS) ‘stars next to each other,’ the equivalent of our ‘Gemini.’

The stars that were primarily involved in temporal night time orientation appear to have been above all the Pleiades, Orion, and the morning star.¹⁷⁰ Most of the stellar locutions that I have been able to collect center around them. How accurately the Hopi were capable of determining the hours of the night from the fixed stars is difficult to judge. Many of the phrases referring to a specific star position involve deictic elements, which would indicate thorough acquaintance with the star, not only during a particular night, but also at definite times of the year. The morning star rises usually before the first discernable phase of daylight *qöyangnu* ‘gray dawn’ appears. Any event can be timed by its appearance (7-8). Sentence (9) demonstrates the use of the extreme-distal deictic *ayám* which to the person familiar with this star reveals the approximate time of night.

- (8) *ason nu' taalaw-sohu-t yama-k-qw nakwsu-ni*
 later I light-star-ACC go-k-SUBR start-FUT
 out DS out

‘I’ll start out when the morning star has risen.’

- (9) *su-'a-w taalaw-sohu-t maatsi-l-ti-ni-qw*
 exact-REF-to light-star-ACC visible-PASS-R-FUT-SUBR
 DS

haki-m yuku-ya-ngwu
 someone-PL finish-PL-HAB

‘Exactly when the morning star was going to become visible they used to finish.’

- (10) *aya-m=haqa-m taalaw-sohu-ni-qw nu' pitu*
 over-at=INDEF-at light-star-NEX-SUBR I arrive
 there DS

‘When the morning star was over there I arrived.’

Between Orion (*hotòmqam*) and the Pleiades (*tsöötsöqam*) the former seems to have been the favorite night time orientation referent. Both constellations follow each other, with *tsöötsöqam* rising first.

- (11) *tsöötsöqam mòoti-y'-wis-qw pu' hotòmqam*
 Pleiades at-POSS-PROGR-SUBR then Orion
 first PL DS

*amu-ngk-ya-ngwu; niikyangw*¹⁷¹ *hotòmqamu-y pas*
 they-after-PL-HAB but Orion-ACC very

haki-m e-p-ya-ngwu
 someone-PL REF-on-PL-HAB

‘The Pleiades go first and Orion follows them; however, people orient themselves on the latter.’

Descriptive terms used in reference to these constellations include the following: The plural forms *nönga* ‘they came out’ and *yungya* ‘they went in’ for ‘rising’ and ‘setting.’ Their movement along the night sky is termed *hoyo-yo-tota* (move-RDP-IMPRF:PL) ‘they are traveling along.’ A position directly overhead is called *sú-’o-va-qe-ya* (exact-high-at:DIF-EX-PL) ‘they are traveling directly above.’ Being on a descending course is termed *at-kyami-ya* (down-to-PL) ‘they are going down.’ Typical temporal references involving the two constellations are listed in (12-16).

- (12) *ason tsöotsöqam nönga-k-qw pu’ itam*
 later Pleiades go-k-SUBR then we
 out DS
 PL

salap-mok-wis-ni
 pine-bag-PREGR-FUT
 PL

‘When the Pleiades have risen we will go to get pine [branches].’

- (13) *hotòmqamu-y nönga-k-qw itam yuku-ya*
 Orion-ACC go-k-SUBR we finish-PL
 out DS
 PL

‘When Orion had risen we were finished.’

- (14) *hotòmqam yu-k öki-qw itam tok-ni*
 Orion here-to arrive-SUBR we sleep-FUT
 PL DS PL

‘When Orion gets to this point we’ll go to bed.’

- (15) *aya-m=haqa-m hotòmqam-ya-qw itam tok-wisa*
 over-at=INDEF-at Orion-PL-SUBR we sleep-PREGR
 there DS PL PL

‘When Orion was over there we went to bed.’

- (16) *mihi, pay kur hotòmqam haq-’iw-yungwa*
 become ASSR EV Orion far-STAT-IMPRF
 night PL

‘It’s late at night, Orion is far on its course.’

Overall, the importance of the stars as indicators of time increased in proportion to the shortening of the day span and the lengthening of the night. Their usefulness was thus maximized during the winter months, especially by those involved in night-time ceremonial activities.

- (17) *hüita tòmö’ a-ng yungy-iw-ta-qa-m*
 something in it-at enter-STAT-IMPRF-REL-PL
 ACC winter DIF PL

pi pay suyan hotòmqamu-y e-p-ya-ngwu; puma
 FACT ASSR clearly Orion-ACC it-on-PL-HAB those

pumu-y a-w pi antsa paas pàasat
 those-ACC REF-to FACT truly carefully at
 that
 time

tunatya-w-wis-ngwu
 attention-STAT-PROGR-HAB
 PL

‘The ones that have entered some [ceremony] in winter clearly go by Orion; at that time they observe it really very carefully.’

- (18) *pu’ tòmö’ tookila wuupa-ni-ngwu-ni-qw oovi*
 then in night long-NEX-HAB-NEX-SUBR therefore
 winter DS

pàasat pu’ puma pumu-y a-w
 at then those those-ACC REF-to
 that
 time

tunatya-w-wis-ngwu háq-e’-ya-qw; pu’
 attention-STAT-PROGR-HAB where-at-PL-SUBR then
 PL DIF DS

oovi hí-sa-t-ni-qw=haq-e’
 therefore some-QNT-time-NEX-SUBR=INDEF-at
 DS DIF

ya-ng-ya-qw pu' pàasat
 here-at-PL-SUBR then that
 DIF DS time

hi-n-tsa-tsk-ya-ni-qa-y a-w pitsi-na-ya-ngwu
 which-way-RDP-do-PL-FUT-REL-ACC REF-to arrive-CAUS-PL-HAB

'In winter the nights are long and therefore they watch [Orion] then; therefore, when they are at some time along here, then at that time they start whatever they will be doing [ceremonially].'

Orion's position in the winter sky also provides a clue to determine the time of midnight. Midnight is reached when the constellation arrives at a point that coincides with the sun's noon location during summer.

(19) *hotòmqam tòmö' pay piw taawa-t a-n taala'*
 Orion in ASSR also sun-ACC it-like in
 winter summer

hoyo-yo-ta-ngwu; nìiqe¹⁷² oovi haqa-m taala'
 move-RDP-IMPRF-HAB and therefore where-at in
 CAUSAL summer

sùu-tawa-nasa-ve-ni-qw pu' ima hotòmqam
 exact-sun-middle-at-NEX-SUBR then these Orion
 DS

piw tuwat tòmö' mihikqw put su-'a-w
 again in in at that exact-it-to
 turn winter night ACC

öki-qw sùutokihag-ni-ngwu
 arrive-SUBR midnight-NEX-HAB
 PL DS

'Orion is moving in winter just like the sun in summer. When it arrives, therefore, in winter at night exactly at the point where it is noon in summer, it is precisely midnight.'

ritual time reckoning worked for the average Hopi, some Second Mesa festivals are also included.

In my tabulation of these festivities I will follow the system of the Gregorian months, beginning with November which is commonly considered the starting period of the yearly ceremonial round. The sequential listing of the various major and minor rites for each month does not necessarily imply that every one of them occurred periodically every year. Some were performed on alternate years, others at irregular intervals. Nor were all of them employed as reference points in timing or dating a particular action or event. Also, while some were more or less fixed, others were variable and depended on the initiative of an individual sponsor. The temporal associations that we have, for example, with the religious festival of Easter, serves perhaps best to make plausible in what sense the function of the temporal reference frame of the Hopi ceremonial calendar is to be understood here.

Although even a brief description of the make-up of the respective ceremonies cannot be the goal of this monograph, some characteristic traits will nonetheless be included whenever possible. The society responsible for a particular ceremony will also be given if known. The prescribed times for most of the rituals were once determined according to solar and lunar observation. However, due to the fact that "young Hopi children began to attend day schools near home, and their parents began to take employment in town" (McCluskey 1979:11), the Anglo concept of the weekend began to become the focus for the major ceremonial activities. This development has profoundly altered the Hopi calendar. Today most events of ceremonial nature have shifted to the more convenient weekend rhythm. This calendrical adjustment concerns not only kachina dances but also most of the remaining major rituals that require up to eight and occasionally sixteen days of esoteric observances. They, too, are oftentimes so timed nowadays that their climactic public performance coincides with a weekend of the Anglo calendar.¹⁷⁴

The first subchapter will be devoted to primary ceremonial orientation points and will present the linguistic data pertaining to the temporal usage of the individual rituals as they unfold in the course of the ceremonial year. Standardized orientation features that reapply within the temporal framework will be dealt with in a second subchapter headed 'secondary ceremonial orientation features.'

5.1 Primary ceremonial orientation points

5.1.1 November

This is the time of the year when one of the most complicated of all Hopi rituals is performed. Its name Wuwtsim is commonly rendered 'Tribal Initiation,' but the term 'Manhood Initiation' might be more appropriate. The designation of the ceremony offers no real clue as to its meaning. It is apparently so ancient that its etymology is no longer transparent. Dorsey and Voth, too, had to concede failure in their attempt to secure plausible interpretation of the form *wuwtsimt*, the official label for the initiated members of the society in charge of Wuwtsim. On the basis of such evidence as *wuwuyom* 'the old ones/elders' and *wuyòoti* 'he got old' they argue that there might exist a connection with the morpheme *wuu* 'old' (see 1.8.2):

All information thus far obtainable points to the probability that by it is designated the fraternity of 'grown men.' When the boys have been initiated into this fraternity they are no longer 'boys,' but 'young men' (1901:10).

The three other societies involved in the Wuwtsim ceremony are the *taa-taw-kya-m* (RDP-sing-NR-PL) 'Singers,' *aa-'al-t* (RDP-horn-PL) 'Horns,' and the *kwaa-kwan-t* (RDP-agave-PL) 'Agaves.' The ceremony usually lasted eight days. Correct timing for its announcement by the *tsa'akmongwi* or 'crier chief' was determined by the sun passing through a certain location along the eastern horizon. It was known as *tingap-pi* (announce-place) 'announcement point.'¹⁷⁵ From a temporal point of view it constituted an absolute time marker and served to accurately initiate the Hopi ceremonial year. The following text sample provides insights into the Hopi phraseology in this connection.

- (1) *pu'* *pas* *tingap-pi-va* *taawa* *yama;* *pam*
then very announce-place-at sun go that
DIF through
- pa-ng* *tuvoyla-t* *a-ng* *yama-k-qw* *pu'* *pam*
there-at marker-ACC REF-at cross-k-SUBR then that
DIF DIF DS
- hak* *i-t* *wuwtsimu-y* *tiingap-ngwu-qa* *naala*
someone this-ACC Wuwtsim-ACC announce-HAB-REL alone
ceremony ceremony

navoti-y'-ta-ngwu-nii-qe *oovi*
 knowledge-POSS-IMPRF-HAB-NEX-CAUSAL therefore
 SS

tiingap-qw pas pàasat pu' haki-m nanapta-ngwu
 announce-SUBR very that then someone-PL hear-HAB
 ceremony DS time PL

'Then the sun rises at the 'announcement point.' And when it has risen at that marker there, the person who announces Wuwtsim alone knows it, and therefore people learn of it after he has announced it.'

Although the precise time at which the sun passed through the horizon marker *tingappi* was not known to the average Hopi, approximations of that event are exploited in temporal orientation as (2) illustrates.

(2) *tingap-pi-ve=haqam nu' hiita nöösiwqa-t*
 announce-place-at=APPROX I something food-ACC
 ACC

hisat àm-qe-y put piw ahoy ipwa-ngwu;
 long bury-REL-ACC that again back take-HAB
 ago ACC to PL
 OBJ
 out

noq pu' pàa-piy itam put noonova-kyàa-kyangw
 and then there-away we that eat-RDP-SIMUL
 SI from ACC PL SS

pa-ngso-q wuwtsim-totok-mi-q öki-ngwu
 there-to-EX Wuwtsim-totokya-to-EX arrive-HAB
 ritual day PL

'Around the time when the sun passes through the horizon marker for the Wuwtsim announcement I dig up the food that I buried long ago. And from then on eating that, we get to Wuwtsimtotokya [i.e., the day before the Wuwtsim ritual].'

A typical temporal reference to Wuwtsim is given in (3).

(3) *hisat wuwtsimu-y e-p sutsep nuva-'iw-ta-ngwu*
 long Wuwtsim-ACC it-at always snow-STAT-IMPRF-HAB
 ago ceremony

'Long ago there was always snow [on the ground] at [the time of] Wuwtsim.'

When Wuwtsim was held over a period of sixteen days, which generally was the case every four years, to accomodate additional initiation rites, (4) would have constituted a legitimate temporal reference point.

- (4) *wuwtsimu-y na-tnga-yamuy e-p pam tii-ti-wa*
 Wuwtsim-ACC RCPR-insert-their it-at that child-CAUS-PASS
 society PL ACC PERF
OBJ
 initiation

'He was born at the time of the Wuwtsim [society] initiation.'

Among the single days that can serve as time markers within the whole ceremonial span are the following: *wuwtsimpiktotokya* 'the antepenultimate day of the public performance,' *wuwtsimtotokya* 'the penultimate day of the public performance,' and *wuwtsimtikive* 'the public Wuwtsim performance' (5). During the quadrennially extended presentation, *wuwtsimtotokya* was also known as *as-totokya* (wash:hair-day:before/eve); it constituted the sacred night of the actual initiation (6).

- (5) *hotvel-pe-q wuwtsim-tiki-ngahaqa-qw nu' naqvu-tu-tuya*
 PN-at-EX Wuwtsim-dance-INDEF-from I ear-RDP-sickness
 ritual day ache

'I've had an earache since the Wuwtsim dance in Hotvela.'

- (6) *as-totok-pe haki-m haqa-mi-wat=sa*
 wash-totokya-at someone-PL somewhere-to-SPEC=only
 hair day
watkita-ngwu
 run-HAB
 PL

'At [the time of] Astotokya people move to only one particular place [in the village because the rest of the village is vacated for the visit of the dead].'

5.1.2 December

Soyalangw, the second major ritual of the Hopi ceremonial year, takes place a few weeks after the conclusion of Wuwtsim. Its appellation, morphologi-

cally a nominal just like Wuwtsim, resists all verifiable attempts to unlock its etymon. The fact that the climax of the ceremony revolves around the winter solstice on or about December 21 and is celebrated every year, suggests a likely interpretation of 'all/every year' festival, if indeed *so-* can be linked to *sòsoy* 'all' and *ya-* to *yàasangw* 'year.' Usually an eight day rite, its performance period is doubled when preceded by a sixteen day Wuwtsim involving the initiation of new members. The initiated members of the Soyal fraternity, according to Voth the largest of all Hopi religious organizations (1901:9), are called *so-soyal-t* (RDP-Soyal-PL). Initiation into any of the four sacerdotal orders relating to Wuwtsim, i.e., *wuwtsimt*, *aa'alt*, *kwaakwant*, and *taataw-kyam*, automatically qualifies a person for membership in the Soyal society. The initial day seems to have been the sixteenth day after the appearance of Soyalkatsina,¹⁷⁶ an event which generally took place on the day following the Wuwtsim observance. The proper date of Soyolangw was determined, however, by the position of the setting sun along the western horizon.¹⁷⁷ The following examples illustrate the temporal exploitation of the ceremonial term.

- (1) *soyolangwu-y e-p nimàn-katsina-m tiingap-ya-ngwu*
 Soyal-ACC it-at go-kachina-PL announce-PL-HAB
 ceremony home ceremony

'At Soyolangw the Niman [i.e., Home dance] kachinas announce [the date for their summer] ceremony.'

- (2) *soyolangwu-y a-ng=qe' sino-m hii-hiita*
 Soyal-ACC it-at=INDEF person-PL RDP-something
 ceremony DIF ACC
písoq-ya-ngwu
 busy-PL-HAB

'Around the time of Soyolangw people are busy with all sorts of things.'

In addition to the accusative marker *-y*, the stem *soyolangw-* occurs with the local case marker *-mi* (3) and the realized state suffix *-ti* (4).

- (3) *su'aw soyolangw-mi itam ahoy kii-mi-q pítu-ni*
 exactly Soyal-to we back village-to-EX arrive-FUT
 ceremony

'Exactly by the time of Soyolangw we will get back to the village.'

- (4) *su-'a-w* *soyalangw-ti-qw* *pam* *tii-qats-kuy-va*
 exact-REF-to Soyال-R-SUBR that child-sit-emerge-R
 ceremony DS finish puerperal period

'Exactly when it got Soyالangw she finished her puerperal period [of twenty days].'

Special time points within the ceremonial period are available by referring to *soyàtotokya* (5), the day when the two Mastop kachinas used to arrive, *qööqöqlötikive* (6) when the Qööqöqlöm¹⁷⁸ kachinas dance, and the ensuing four day rabbit hunting ritual (7).

- (5) *soyà-totok-pe* *mastop-katsina-t* *pítu-ngwu*
 Soyال-totokya-at PN-kachina-DL arrive-HAB
 rite day

'On Soyالtotokya the two Mastop kachinas used to come.'

- (6) *qööqöqlö-tiki-ve* *kur* *iisaw* *su-kw* *i-kanel-vòoko-y*
 PN-dance-at EV coyote one-ACC my-sheep-pet-ACC
 day

niina
 kill

'On the day of the Qööqöqlö [kachina] dance, a coyote killed one of my sheep.'

- (7) *soyal-mak-iw-qw* *kwangwa-'ew-ti-ngwu*
 Soyال-hunt-IMPRS-SUBR pleasant-ADVR-R-HAB
 rite DS

'It is usually fun when there is a hunt at Soyالangw.'

While many of the individual activities linked with the Soyال ceremony pertain to the solstice phenomenon, they are not used in everyday time orientation. The ritual following Soyالangw, however, the long extinct "Warrior fraternity ceremony" (Curtis 1922:106) may have served once in such a way. Generally known as *motswimi*, with the etymon *mots-* obscure, this annual war dance festival was controlled by its initiated members, the *moo-mots-t* or *mò-mtsi-t*. Since some of its members were associated with *nakyawimi*, a ritual involving the feat of swallowing sticks, the temporal reference marker *motstikive* was also known as *nasotantikive*. The latter term features the reflexive prefix *na-* and the stem of the durative verb form *sootanta* 'he is poking/sticking into something.'

- (8) *mots-tiki-ve* *itàa-so-y* *kii-'at* *sàapu*
 Mots-dance-at our-grandmother-ACC house-her collapse
 society day

'On the day of the Mots [Warrior society?] dance my grandmother's house collapsed.'

5.1.3 January

The taboo-laden month of *kyaamuya* (approx. December) is followed by the more jovial month of *paamuya* (approx. January).¹⁷⁹ Its initial phase is characterized by social dances.¹⁸⁰ Their participants, both male and female, are known as *tsetslet* and are unmasked. Among the groups performing at this time are *mo-msayru-t* (RDP-buffalo-PL) 'Buffaloes,' *payotsi-m* (PN-PL) 'Paiutes,' *tasavu-m* (PN-PL) 'Navajos,' *yotsi'e-m* (PN-PL) 'Apaches,' and *kòonina-m* (PN-PL) 'Havasupais.' The festive and entertaining occasions named after them usually last one day and are referred to as *mosayurtikive*, *payotstikive*, *tasaptikive*, *yotsi'tikive*, and *kòonintikive*. Sentence (1) illustrates one of these expressions in temporal usage.

- (1) *mosayur-tiki-ve* *nu'* *nawus* *laa-layi*
 buffalo-dance-at I must RDP-herd
 day

'On the day of the Buffalo dance I had to herd (sheep).'

The period distinguished by these social dance activities may also be referred to by an abstract nominal given in (2). It is built on the stem *tsele* 'social dancer.' A nominative form of the abstract derivative is not attested.

- (2) *tséle-wu-y* *a-w* *pitu*
 social-ABSTR-ACC it-to arrive
 dancer

'It has come to the time of the social dances.'

Next in calendrical sequence two night dances are staged, as a rule a week or two apart. For this purpose each kiva recruits a group of dancers to impersonate a particular kachina on the agreed night. The group then visits the remaining kivas in the community to perform this dance. In Hotvela, for example, where there are six kivas, a spectator will thus experience six separate dance groups in the course of the evening. The Hopi term alluding to this custom is *yúngy-iw-ma* (go:in:PL-STAT-PROGR) 'they are entering (i.e., the kivas) while going along (i.e., on their round through the village).' A temporal

example alluding to a kiva group that is impersonating the Tsa'kwayna kachina is given in (3).

- (3) *e-p tsaa-tsa'kwayna-mu-y yúngy-iw-ma-qa-t*
 REF-at RDP-PN-PL-ACC enter-STAT-PROGR-REL-ACC
 PL
 participate in night dance PL

e-p pam kiva-mi-q pòosi
 it-at that kiva-to-EX fall
 down

'That time when the Tsa'kwayna [kachinas] were participating in the night dances he fell down into the kiva.'

The event of the night dances as such is called *totokya*. (4) combines this term with the locution *yúngyiwma* which was explained above.

- (4) *yàa-piy hapi naalö-s taala-t e-pe-q oray-ve*
 here-away EMPH four-times day-ACC it-at-EX PN-at
 from

totokya-ni; noq e-p hapi pe-pe-q katsina-m
 night-FUT and REF-at EMPH that-at-EX kachina-PL
 dance SI

yúngy-iw-ma-ni
 enter-STAT-PROGR-FUT
 PL

'Four days from now there will be a night dance in Orayvi; that day there will be kachinas going from kiva to kiva and dancing.'

The fact that these night dances are staged in *paamuya*, is specifically expressed in (5).

- (5) *pamùy-totokya-y'-yungwa*
 paamuya-night-POSS-IMPRF
 month dance PL

'They are having Paamuya night dances.'

A specific time allusion to a *totokya* during Paamuya is given in (6).

- (6) *paamuy-totok-pe pay naat pas i-'yo-ho'-ni-ngwu*
 paamuya-night-at ASSR still very RDP-cold-ABS-NEX-HAB
 month dance

‘When the Maraw [society initiates] have made their prayer sticks, kachinas perform night dances for them.’

5.1.4 February

Powamuya,¹⁸¹ the great purification ritual in February, is known popularly by the English term ‘Bean dance’ because the ceremonial sprouting of beans in the kivas is an important facet of the ritual. While *-muya* in the compound locution is derived from *muuyaw* ‘moon’ and temporally embraces the time span ‘month,’ the stem *powa-* is not attested by itself. It occurs in forms like *powata* ‘he purified it,’ with positive connotations, and in *powaqa* ‘sorcerer/witch,’ with very negative ones. The nuclear semantics of *powa-* may therefore imply something like ‘change’ or ‘transformation.’ Although not verifiable, my gloss for the root element *powa-* will be ‘transform.’¹⁸²

The responsibility for the performance of the Bean dance rests with the *po-pwa-muy-t* (RDP-transform-month-PL), its initiated society members. The introductory phase of this ritual takes place eight days prior to the principal celebration and is called *powa-lawu* (transform-CONT) ‘purify.’ The day on which it is performed can function as temporal referent.

- (1) *powa-law-qa-t* *e-p* *puma* *pe-pe-q* *naa-naywa*
transform-CONT-REL-ACC it-at those there-at-EX RDP-fight

‘On Powalawu [i.e., the day of the opening ceremonies for Powamuya] they had a fight there.’

Time expressions drawing on the term for the principal ceremony occur both with local case suffixes (2-3) and with the realized state marker *-ti* ‘got’ (4).

- (2) *um* *powamuy-ve* *hii-sa’* *yungyapu-t* *mak-iwa?*
you Powamuy-at which-QNT wicker-ACC give-PASS
ceremony NUM plaque PERF

‘How many wicker plaques were you given at Powamuya?’

- (3) *i’* *pay* *powamuy-ngahaqa-qw* *ye-pe-q* *qatu*
this ASSR Powamuy-INDEF-from here-at-EX stay
ceremony

‘He’s been staying here since Powamuya.’

- (4) *sutsep* *powamuy-ti-qw* *hee’e’-wùuti* *pítu-ngwu*
always Powamuy-R-SUBR PN-woman arrive-HAB
ceremony DS

‘Whenever it gets Powamuya Hee’e’wùuti [kachina] comes.’

An individual reference point that may be singled out within the time span of Powamuya is the actual nocturnal performance of the unmasked kachina dancers with which the ordinary ceremony concludes (5). In years that feature initiation rites, the initiation days for both the Powamuy society (6) as well as the kachina society (7) may be used temporally.

- (5) *powamuy-tiki-ve* *mihikqw* *nu'* *pay* *qa* *sòosokmu-y*
 Powamuy-dance-at at I ASSR NEG all-ACC
 ritual night AN
- tiimay-t* *pay* *nima*
 witness-PRIOR ASSR go
 dance SS home

'At the night dance of Powamuya I went home without having watched all [of the dance groups].'

- (6) *powamuy-yung-ta-qa-t* *e-p* *nu'* *tii-ta*
 Powamuy-enter-IMPRF-REL-ACC it-at I child-CAUS
 society PL

'On the day of the Powamuy initiation I gave birth to a child.'

- (7) *katsin-yung-ta-qa-t* *e-p* *itaa-pahan-kwatsi*
 kachina-enter-IMPRF-REL-ACC it-at our-white-friend
 society PL man

pitu
 arrive

'On the day of the initiation rites for the Kachina society our white friend came.'

It is also in this latter extended ceremonial context, due to the initiation activities, that the observance of Patsavu is added to the Powamuy celebration.

- (8) *pu'* *nùutungk* *patsavu-t* *e-p* *i-kwa*¹⁸³ *mooki*
 now last Patsavu-ACC it-at my-grandfather die
 ceremony

'At the time of the last Patsavu ceremony my grandfather died.'

The following is a tabulation of the major phases and events of the Powalawu-Powamuya ceremonial complex. The arabic numerals indicate days.

I. Introductory rites

0. Powalawu

II. Preliminary Powamuy rites

1. Suus taala: announcement of the Powamuy leader (*powamuymo-ngwi*) to plant beans at all kivas (*tangatota* 'they put PL OBJ in') [cover term of this event for uninitiated children *tokotsqa waynuma* 'the blackbird is going about']
2. Löös taala
3. Payistala
4. Nalöstala
1. Suus taala
2. Löös taala
3. Payistala
4. Nalöstala

III. Main Powamuy rites

1. Suus taala: *yungya* 'Powamuy society members enter kiva' and Powamuy leader erects *na'tsi* 'ceremonial society emblem'
2. Löös taala
3. Payistala
4. Nalöstala: *powamuyyungya* 'initiation into the Powamuy society'
 1. Suus qa himu
 2. Piktotokya: *katsinyungya* 'initiation into the Kachina society'
 3. Totokya: (morning) *haru'o'oytinumya* 'kachinas distribute harvested bean sprouts and give presents to children' (afternoon) *qöqöntinumya* 'kachinas make four processional rounds through village'
 4. Tiikive: (after Totokya midnight) *powamuykatsinam yungyiwma* 'unmasked Powamuy kachina night dances in all kivas' [cover term of this event for uninitiated children *sooso'yokt tiiva* 'the So'yoko ogres are dancing'] (after *wuwtsimnatnga* or 'Wuwtsim initiation' the previous November) Patsavu celebration

IV. Winding-up rites

1. Suus taala
2. Löös taala
3. Payistala
4. Nalöstala: Powamuy leader officially concludes ritual

Following the conclusion of Powamuya, the Lakon society celebrates its

- (3) *hotvel-pe* *a-ngk-ti-w-qa-t* *e-p* *pahaana-m*
 PN-at REF-after-CAUS-PASS-REL-ACC it-at white-PL
 _____ PERF
 night dance man

wuko-’öki
 big-arrive
 PL

‘At the night dance in Hotvela white people arrived in large numbers.’

- (4) *pu’* *nüutungk* *a-ngk-ti-w-qa-t* *e-p*
 now last REF-after-CAUS-PASS-REL-ACC it-at
 _____ PERF
 night dance

homol’o-ve
 PN-at

‘This last night dance I was in Winslow.’

Unlike the pre-Powamuy night dances, those following Powamuya or the Bean dance are distinguished by the presentation of a variety of ‘puppet dramas.’ The Hopi term for the staging of such a ‘puppet show’ is *wutsi-lalwa* (fake/imitation-CONT:PL). The specific figures or objects that may be presented by a particular kiva group include the following: (*paa*-)lölöqangw ‘(water-)bullsnake,’ *kuy-sip-(paa)-lölöqangw* (water-vessel-(water-)bullsnake) ‘(water-)bullsnake in water container,’ *sa’lakw-mana-t* (PN-girl-DL) or *sa’lakw-manà-wya-t*¹⁸⁴ (PN-girl-DIM-DL) ‘the two (little) Sa’lako girls,’ *koyemsi-hoya* (PN-DIM) ‘the little Kooyemsi,’ *po-vol-hoya-t* (RDP-butterfly-DIM-DL) ‘the two little Butterflies,’ and *kwa-vö-hö* (eagle-wool-ABS) ‘an eagle down feather.’ While most of these marionettes require elaborate props, for the feather dance only a *tsuku-vota* (point-coiled:basket) ‘a coiled basket with a star design’ is necessary on which the eagle feather is danced. Since individual puppet performances constitute only an especially attractive facet of a night dance, they are not used in temporal orientation. An exception is the staging of the (Water)Serpent drama which may be used in such a way.

- (5) *lö-löqangw-ya-ni-qa-t* *a-w* *talöng-va*
 RDP-bullsnake-PL-FUT-REL-ACC it-to daytime-R

‘It became the day on which they were going to perform the Bullsnake [drama].’

- (6) *wàl-pe-q* *lō-lōqangw-ya-qa-t* *e-p* *piw* *naat*
 PN-at-EX RDP-bullsnake-PL-REL-ACC it-at again still
yaw *hak* *tso'o*
 QUOT someone jump
 off

'The day on which they staged the Bullsnake [drama], again someone jumped off [the mesa to commit suicide].'

Some of the kachinas that can be seen at this time, are usually not impersonated during the season of open plaza dances. Among these are the *pal-hikw-ma-man-t* (juice-drink-RDP-girl-PL) 'Palhikwmamant,' who may also appear during the January night dances, the *si'o-sa-sa'lakw-t* (PN-RDP-PN-PL) 'Zuni Shalakos,' and a pair of Eagle kachinas. The Hotvela custom of *kwaa-tiva* (eagle-dance:PL) is performed as puppet drama in Songoopavi.

- (7) *kwaa-hu-t* *a-kw* *wutsi-lalwa*
 eagle-ABS-ACC it-with fake-CONT
 PL

'They are staging the eagle drama.'

The temporal reference potential of a night dance staged in Ösömuya is again provided in the term *totokya*, as was also the case in Paamuya (approx. January). Contrary to the month of Paamuya, however, where the weather is still too inclement, one of the kiva groups participating in the night dances may now be requested to dance the following day on the public plaza. If this happens, that day is termed *tiikive* 'dance day' and will also qualify as a temporal bench mark. The very fact that such a *tiikive* may occur is of course the reason for applying the appellation *totokya* 'day before/eve' to the day of the night dances.

5.1.6 April - July

Any time during the period embracing the months April through July kachina dances may be performed on the public plaza. Formerly usually only of one day's duration, they nowadays last for two days. *Tiikive*, the term for the first day of the public exhibition, may be specified as *hoote-tikive*, *angaktsin-tikive*, *yota-tikive*, etc., depending on the kachina that is personated. The kachinas involved in the just mentioned dances are Hoote, Angaktsina, and Yoota. While temporal reference to the three days preceding the dance event is generally accomplished by drawing on the established nomenclature of

suus qa himu, *piktotokya*, and *totokya* (see 2.1.1.2), *tiikive* may also be featured with its differentiating epithet. The examples below illustrate this possibility.

- (1) *yota-tiki-ve* *i-kwatsi-m* *puma* *nuvatukya'o-ngaqw*
 PN-dance-at my-friend-PL those PN-from
 day my friends and company

öki
 arrive
 PL

'On the day of the Yoota [kachina] dance my friend and his family came from Flagstaff.'

- (2) *nu'* *hoo-te-tiki-mi* *na'sas-lawu*
 I PN-dance-to prepare-CONT
 day

'I'm getting things ready for the Hoo-te [kachina] dance.'

- (3) *tasap-katsin-tiki-ngaqw* *pono-tu-tuy-kyangw* *pitu*
 PN-kachina-dance-from stomach-RDP-pain-SIMUL arrive
 day SS

'He came [home] from the Navajo kachina dance with a stomach ache.'

- (4) *pam* *hoo-te-tiki-ngahaqa-qw* *tuy-qatsi*
 that PN-dance-INDEF-from sick-lie
 day

'He's been lying sick ever since the Hoo-te [kachina] dance.'

5.1.7 May

A ritual that once provided a temporal orientation point during May is Nevenwehe. The first element in the compound verb relates to *neeventa* 'she is picking *nepni* [i.e., 'edible greens']. The zero form of the *k*-class verb *wehe* 'it got spilled (en masse)' also occurs with the semantic content of 'they did it in a large number/group.' In analogy to *tuva-vòo-pong-wehe* (pinyon:nut-RDP-pick:up-spill) 'pinyon nuts gathering in a group,' *nevenwehe* may be rendered 'edible greens gathering in a group.' Since the celebration of this communal outing was associated with initiation rites carried out during Wuwtsim in Kyelmuya of the year before, it was only organized in those years when the Tribal Initiation had preceded.¹⁸⁵

- (1) *nevenwehe-k-qw i-kaway-vòoko hokya-qhi*
 greens-k-SUBR my-horse-pet leg-break
 gathering DS

‘When they had the outing to gather edible greens my horse broke its leg.’

- (2) A: *pam hisat nima?* B: *nevenwehe-k-qa-t e-p*
 that when go greens-k-REL-ACC it-at
 home gathering

tavok-nen
 yesterday-before

‘When did he come home?’ ‘The day before they had the outing to gather edible greens.’

Sentence (3) presents the social event in a form that displays the local case suffix *-va*. The suffix is used spatio-metaphorically and is appended to the nominalizer *-pu*.

- (3) *nu’ nevenwehe-k-pu-va nō’y-iw-ta-qe*
 I greens-k-NR-at pregnant-STAT-IMPRF-CAUSAL
 gathering DIF SS

oovi hì-n-toti-qw qa sòoso-k yori
 therefore which-way-R-SUBR NEG all-ACC see
 PL DS INAN

‘Because I was pregnant at the time of the greens gathering [excursion], I did not see all the things that happened.’

5.1.8 June

The short summer solstice ceremony, generally known as *taawa-vaho-lawu* (sun-prayer:stick-CONT) ‘he’s making sun prayer sticks,’ may also be referred to in the periphrastic way of *taawa-t* (sun-ACC) *e-ngem* (it-for) *paaho-lalwa* (prayer:stick-CONT:PL) ‘they are fashioning prayer sticks for the sun.’ Obviously a ritual that didn’t involve a large segment of the community, it was not used as a temporal reference mark.

5.1.9 July

The ceremony celebrating the departure of the kachinas for their homes on the peaks of Nuvatukya’ovi and the sacred spring of Kiisiw is in the hands of

'Gray Flutes' on the one hand, and the *tsuutsu't* 'Rattlesnakes' and *tsöotsöpt* 'Antelopes' on the other. Hotvela and Songoopavi celebrate the Snake dance, which has received the greatest publicity of all Hopi rites, in even-numbered years, Musanguvi in odd-numbered years. It is now extinct in Walpi, Supaw-lavi and Orayvi. The principal performances of both rituals commence eight days prior to the climactic public exhibitions. Commonly known as *lèntikive* and *tsu'tikive*, they frequently figure as temporal reference points.

- (1) *nu' lèn-tiki-ve i-sikisve-y sakwi-ta-qe*
 I flute-dance-at my-car-ACC break-CAUS-CAUSAL
 rite day SS

*nawus*¹⁸⁶ *kur hi-n tiimay-to-ni*
 must EV some-way witness-PREGR-FUT
 cannot in any way dance

'Since I ruined my car on the day of the Flute dance I had no way to see the ceremony.'

- (2) *tsu'tiki-mi-q hàykya-l-ti*
 rattlesnake-dance-to-EX approach-PASS-R
 ceremony day

'It has come close to the day of the Snake dance.'

- (3) *tsu'tiki-ve haa-haqa-qw sino-m*
 rattlesnake-dance-at RDP-somewhere-from person-PL
 ceremony day

óki-ngwu
 arrive-HAB
 PL

'On the day of the Snake dance people come from all sorts of places.'

One event that is associated with the Snake-Antelope dance is *ngöytiwa*, a post-ceremonial custom of girls and women pursuing boys and men and wrangling gifts from them. It, too, can be featured in time reference.

- (4) *hotvel-pe ngöytiw-ya-qw tuwat nu' kwangwa-vuwi*
 PN-at pursue-PL-SUBR in I pleasant-sleep
 DS turn

'After the chasing [game] in Hotvela I slept well.'

Following the solemn Flute or Snake rites a new round of social dances is

held. No secret rites are associated with them, and their duration does not exceed one day. While the most prominent social performance is the *poliiti-kive* ‘Butterfly dance,’ *tasavu-m* (PN-PL) and *ho-paq-mo-msayru-t* (east-at: EX-RDP-buffalo-PL) may also be selected. The former group represents ‘Navajo social dancers,’ the latter ‘Buffalo dancers performing in the style of the Eastern (i.e., Rio Grande) Pueblos.’

- (5) *nu’ poliiti-tiki-ve kaway-hep-to-qe*
 I butterfly-dance-at horse-search-PREGR-CAUSAL
 day SS

qa iits pitu
 NEG early arrive

‘I went searching for a horse on the day of the Butterfly dance and came home late.’

5.1.11 September

During the month of September the *lalkont* or ‘Lakon society members,’ almost exclusively women, stage their major ceremonial. It lasts eight days and culminates in a public dance known as *lakontikive*. It is said to have been performed at Orayvi in the even years (Voth 1903b:6).

- (1) *lakòn-tiki-ve lakon-mana-t tutsaya-t tuuva-qw*
 Lakon-dance-at Lakon-girl-DL sifter-ACC throw-SUBR
 rite day initiate DS

piw nu’ put homi
 ADMIR I that grab
 ACC

‘At the Lakon dance the Lakon girls threw a sifter and to my surprise I caught it.’

Long ago, around this time of the year also, the *yaya’t* or ‘members in charge of the *yaya’wimi*’ (Curtis refers to them as “Ceremony of the Magicians” (1922:160)) used to perform their ritual. Originally a Tewa ceremonial, it never became established in Orayvi; however, it spread to Musangnuvi on Second Mesa and occurred there at irregular intervals. Since one of the principal figures associated with it is the non-kachina Somaykoli, the initiated participants are also known as *sosomaykolt*. The public dance is normally termed *yaya’tikive*, but *somaykoltikive* is also heard.¹⁸⁷

- (2) *yaya'-tiki-ve itaa-kwa qa iits lay-vitu*
 Yaya-dance-at our-grandfather NEG early herd-arrive
 rite day

'On the day of the Yaya dance our grandfather returned late from herding.'

This month also sees the major performance of the Maraw society, whose initiated woman members are called *mamrawt*. It is an eight day ceremonial that occurs on alternate years. At Orayvi it was observed in years of even number. As Voth has pointed out, it essentially resembles the winter ritual with the significant difference, however, that recruiting of new members generally takes place at this time of the year (1912a:42). Also, its final day is not marked by a kachina dance but by an elaborate public exhibition that is termed *marawtikive* or 'Maraw dance.' It conveniently serves temporal orientation in the course of the year.

- (3) *maraw-tiki-ve nu' put a-w yori*
 Maraw-dance-at I that he-to see
 rite day ACC

'I saw him on the day of the Maraw dance.'

- (4) *nu' as maraw-tiki-mi kó-mok-to-ni-qa-y*
 I IMPOT Maraw-dance-to wood-bag-PREGR-FUT-REL-ACC
 rite day gather wood

wuuwa-n-ta
 think-n-IMPRF

'I was thinking of going to collect wood on the day of the Maraw dance.'

- (5) *maraw-tikive-t a-ngqa-qw pam naqvu-wehe-he-ta*
 Maraw-dance-ACC it-INDEF-from that ear-spill-RDP-IMPRF
 rite day

'Since the Maraw dance his ear has been draining.'

Yàasangwlawu, a minor ceremony carried out by the *kwaakwant* or 'Agave society members' to celebrate the completion of the agricultural year cycle, was not employed in time reference.

Either toward the end of this month or occasionally at the beginning of November, a Zuni-derived "thanksgiving dance" (Fewkes 1897a:305) was held. Stephen points out that the dance "is usually celebrated soon after the

harvest” (1936:949). Parsons interprets the howls during the performance as “war cries” and on this basis classifies the dance as a “war dance” (1936: 911). Both a Walpi and a Songoopavi consultant of mine spontaneously remarked that the *hoowina’aye*, as it is known in Hopi, was originally a war ritual. They recall that such a festival was to be organized when the Hopi GIs returned from World War II, but for some reason it failed to be carried out. (6) shows how *hoowina’aye* could have been used for orientation purposes.

- (6) *hoowina’ày-tiki-ve nu’ tuu-tuy-ti*
 Hoowina’ay-dance-at I RDP-sickness-R
 day be sick

‘I got sick on the day of the Hoowina’ay festival.’

5.1.12 October

The third of the women’s ceremonies is performed by the *o’waqölt* ‘Owaqöli initiates.’ Alternating with the Lakon and Maraw rites, the Owaqöli ceremony is staged in years of odd numbers. It usually occurs in the later part of October but occasionally also in the first part of November (Voth 1903:6). Its popular Anglo designation ‘Basket dance,’ which is also applied to the performance of the Lalkont, alludes to the rhythmic swinging of woven basketry plaques by its participants.

- (1) *nu’ pu’ owaqöli-tiki-ve qa nùutum wari*
 I now Owaqöli-dance-at NEG the run
 ritual day others

‘At this recent Owaqöli dance I did not join the others for the race.’

- (2) *nu’ yas hotvel-pe-q owaqöli-timay-ma-qw kur*
 I last PN-at-EX Owaqöli-witness-POSTGR-SUBR EV
 year ceremony DS

inùu-kwangya-p itàa-so naa-p a-qw
 I-behind-at our-grandmother REFL-at REF-to
 EX

tiimay-to
 witness-PREGR

‘After I had gone to see the Owaqöli dance last year at Hotvela, our grandmother went there on foot to see it.’

5.2 Secondary ceremonial orientation features

While the sequential taxonomy of the ceremonial observations presented in 5.1 provides a general calendrical grid for the course of the year, almost every ritual allows temporal substructuring which is available not only to the *wimkya* or ‘initiated participant’ of the sodality in charge of it but also the other community members.

Many of the major rites that last eight days begin with a brief preliminary gathering of the responsible *wim-mo-mngwi-t* (ritual-RDP-leader-PL) or ‘society heads,’ which is known as *paaho-lawu* (prayer:stick-CONT) ‘prayer stick making’ in the Third Mesa villages. Due to the important ingredient of ritual smoking during this meeting, the expression *tsoo-tsong-ya* (RDP-smoke-PL) ‘they are smoking’ is also used for it. Stephen reports its English equivalent as “smoke talk” (1936:5), Curtis as “ceremonial smoke” (1922:106). No temporal reference seems to have been the custom with this opening gambit.

Early the following morning the ceremony is publicly announced by the *tsa’akmongwi* or ‘crier chief.’¹⁸⁸ In Orayvi his activity is usually referred to as *tsa’lawu* ‘make a public announcement.’ The verbal term *tiingava*, which Curtis mentions in his paradigmatic day count, means ‘he communicated his plan for a ceremony’ and is synonymous with *tsa’lawu*, as is evident from (1).

- (1) *pu’ wuwtsimu-y yukì-l-ti-qw àa-piy*
 then Wuwtsim-ACC finish-PASS-R-SUBR REF-away
 ceremony DS from
- nalö-s-tal-qw pu’ pàasat soyalangwu-y*
 four-times-day-SUBR then that Soyal-ACC
 DS time ceremony
- tiingap-ngwu*
 announce-HAB
 ceremony

‘Then four days after the end of the Wuwtsim ceremony he announces the Soyalangw ritual.’

The announcement expressions *tsa’lawu*, and *tiingava*, by the way, allow specification according to their main purpose. Thus, *mak-tsa’lawu* refers to the public announcement of a ‘hunt,’ generally a rabbit hunt, and *namunwan-tsa’lawu* to that of a ‘footrace.’ The locution *niman-tsa’lawu* is illustrated in (3), and *wuwtsim-tingava* translates ‘he announced the Wuwtsim ceremony.’

Voth has recorded an announcement for the Owaqöl ceremony.¹⁸⁹ The pertinent section which transmits the actual date of the public performance is shown in (2) in our orthography (1903b:8).

- (2) *nu'* *umu-y* *aa'awna-ni:* *hapi* *kur* *yàa-piy=nen*
 I you-ACC tell-FUT EMPH EV here-away=and
 PL from then
- sùukop* *taala-t* *e-pe-q* *ima* *o-'waqöl-t*
 sixteen day-ACC it-at-EX these RDP-Owaqöl-PL
 initiate
- kuwan'ew-'unangwa-y*¹⁹⁰ *tiiva-ni-qe-y*¹⁹¹ *pasiwna-ya;*
 beautifully-heart-ADVR dance-FUT-REL-ACC plan-PL
 (?) PL
- pàa-sa'* *taala-t* *a-qw* *itam* *qa* *naa-na-mi*
 that-QNT day-ACC it-to we NEG RDP-RCPR-to
 NUM EX
- hi-n* *unangwa-y'-kyàa-kyangw* *sopkyawat*¹⁹² *sino-m*
 some-way heart-POSS-RDP-SIMUL all person-PL
 SS people
- yes-va-ni*
 sit-R-FUT
 PL

'I will tell you: in sixteen days from now these Owaqöl [members] have planned to dance with happy hearts; that many days we shall all live without being mean to each other.'

A temporal locution involving the Home dance announcement is presented in (3).

- (3) *ura* *nimàn-tsa'-law-qa-t* *e-p* *itam*
 MEMO go-announce-CONT-REL-ACC it-at we
 home
- wakas-ven-tota*
 cow-mark-IMPRF
 PL

'The day when he announced the Home dance we were branding cattle.'

Finally, the actual conclusion of the overall ceremony may also serve dating purposes. The idiomatically appropriate term is *tiitso'a* 'they finished dancing/performing,' which may again be differentiated lexically according to the specific appellation of the ritual that comes to an end.

- (14) *hoote-titso'-q* *songòopa-ve* *a'ni* *yok-va*
 PN-finish-SUBR PN-at a rain-R
 dance DS lot
 PL

'After the end of the Hoote [kachina] dance in Songoopavi it rained a great deal.'

- (15) *nimàn-titso'-qa-t* *qavong-va-qw* *kwa-tu-y*
 go- finish-REL-ACC tomorrow-R-SUBR eagle-PL-ACC
 home dance DS
 PL

qö-qa-ngwu
 RDP-kill-HAB
 PL
 OBJ

'The morning after the end of the Home dance they kill the eagles.'

soyàl-titso'-q *haki-m* *maq-wis-ngwu*
 Soyál-finish-SUBR someone-PL hunt-PREGR-HAB
 rite dance DS PL
 PL

'When the Soyál ceremony has come to an end people go hunting.'

Table XIX on p. 480 summarizes the various day sets which constitute the entire ceremonial sequence. *Tsa'lawu*, the act of public announcement that actually triggers the running day computation, counts as day zero.

Table XIX

CEREMONIAL DAY		HOPI DAY REFERENCE	GENERAL FUNCTION
LONG CEREMONY	SHORT CEREMONY		
0		<i>tsa 'lawu</i> 'he is announcing it'	announcement of ceremony
1		<i>suus taala</i> 'First day'	preceremonial day set I
2		<i>lööš taala</i> 'Second day'	
3		<i>payistala</i> 'Third day'	
4		<i>nalöstala</i> 'Fourth day'	
5		<i>suus taala</i> 'First day'	
6		<i>lööš taala</i> 'Second day'	
7		<i>payistala</i> 'Third day'	
8		<i>nalöstala</i> 'Fourth day' or <i>yungya</i> 'they went in'	
9		<i>suus taala</i> 'First day'	preceremonial day set III/I
10		<i>lööš taala</i> 'Second day'	
11		<i>payistala</i> 'Third day'	
12		<i>nalöstala</i> 'Fourth day'	
13		<i>suus qa himu</i> 'Suus qa himu'	preceremonial day set IV/II
14		<i>piktotokya</i> 'Piktotokya'	
15		<i>totokya</i> 'Totokya'	
16		<i>tiikive</i> 'Dance day'	
17		<i>suus taala</i> 'First day'	postceremonial day set
18		<i>lööš taala</i> 'Second day'	
19		<i>payistala</i> 'Third day'	
20		<i>nalöstala</i> 'Fourth day'	

6 Timekeeping devices

6.0 Introduction

Whorf's contention that "our objectified view of time is . . . favorable to historicity and to everything connected with the keeping of records, while the Hopi view is unfavorable thereto" (Carroll 1956:153) is certainly true when the sheer mass of physical devices that allow the recording and measuring of time – "records, diaries, bookkeeping, accounting . . . clocks . . . time graphs . . . annals, histories" – are selected as a yardstick for this comparison. That Hopi does not lack an objectified view of time has been confirmed in a multitude of instances in the previous chapters. As Whorf concedes himself, "writing has no doubt helped toward our linguistic treatment of time" (Carroll 1956:153), but oral traditions of mythological¹⁹³ as well as true historic events, clan migrations, etc., are definitely as viable a basis for the development and furthering of a historical sense or attitude as is a history book.

The Hopi past, both ancient and recent, is full of tragic and traumatic encounters with representatives of other tribes or cultures, inter- and intravillage feuds, famines, etc., all of which provide for historical landmarks and depth. Although not recorded they were certainly passed on orally from one generation to another. While examples (1-2) are representative excerpts from such historical experiences in the past, (3) refers to an event in the Hopi mythological past.

- (1) *tsõngõs-iwu-y* *e-p* *yaw* *itaa-so-m*
famine-ABSTR-ACC it-at QUOT our-grandmother-PL
- po-pko-tu-y* *enang* *noonova*
RDP-dog-PL-ACC inclusive eat
PL

'At the time of the famine our grandmothers also included dogs in their diet.'

describes the sophisticated knotted strands of the Zuni (1892:298) and James reports that during the Pueblo revolt “a knotted cord was carried by runners to all the villages which had agreed to join the rebellion. This set the date for a general uprising to take place apparently on August 13, 1680” (1974:52).¹⁹⁴ At Hopi the knotted string seems to have been used primarily by society leaders as a counting device for the sequence of the ceremonial days.¹⁹⁵ The overall length of a given ceremony (*tokila*) is first decided upon. In the past it usually comprised sixteen days.

- (1) *sùukop taala-t a-qw tiingava*
 sixteen day-ACC it-to announce
 EX ceremony

‘He announced [his intention for] a sixteen-day ceremony.’

As a next step the actual date is determined. The appropriate term is *tokilta*.

- (2) *kur puma hisat hùita tokil-tot-e’*
 EV those long something time-CAUS-COND
 ago ACC limit PL SS

sùukop taala-t a-qw tokil-tota-ngwu
 sixteen day-ACC it-to time-CAUS-HAB
 EX limit PL

‘Long ago, when they set the date for a ritual, they generally set it for sixteen days.’

The society heads now prepare a knotted string for their *tokila*. The term for ‘string’ is *toni*. The perfective form for ‘tying one knot’ is *soma*, for a plurality of knots *sòmta*. *Som-i*, featuring the nominalizer *-i*, stands for the concept ‘knot.’ The corresponding plural concept is commonly conveyed by the relativized expression *sómi-w-yung-qa* (tie-STAT-IMPRF:PL-REL).

- (3) *ima wim-mo-mngwi-t put sòm-tota-ngwu,*¹⁹⁶
 these ritual-RDP-leader-PL that tie-CAUS-HAB
 ACC PL
 OBJ
 PL

tokila-y
 time-ACC
 limit

‘These society leaders tie their time limit into knots [i.e., they convert the temporal distance into a number of knots].’

- (4) *pam tokila-'at pe-p sómi-w-yungwa*
 that time-his there-at tie-STAT-IMPRF
 limit PL

'His time limit is tied into knots.'

Sometimes only one person will be involved in this work.

- (5) *pu' pam put toni-t a-ng sùukop-sikip*
 then that that string-ACC it-on sixteen-at
 ACC DIF

sòm-ta-ngwu
 tie-CAUS-HAB
 PL
 OBJ

'Then he ties knots into that string in sixteen places.'

Next the *tša'akmongwi* or 'crier chief' is asked to publicly announce the length of the *tiingavi*.¹⁹⁷ The day of the actual announcement is not part of the sixteen day period.

- (6) *noq pu' puma i-t tša'ak-mongwi-t*
 and then those this-ACC announce-leader-ACC
 SI

aya-tota-qw qaavo tša'-law-ni; pu'
 ask-CAUS-SUBR tomorrow announce-CONT-FUT then
 PL DS

e-p pay naat qa tal-ngwu
 REF-at ASSR still NEG day-HAB

'And then they ask this crier chief to announce it the next day; and that occasion does not count as a day yet.'

The ceremonial count-down begins with the day following the announcement. This is considered the first day and accordingly the first knot in the cord is untied by the person in charge of keeping track of time.

- (7) *qavong-va-qw pu' suu-s tal-qw pu' e-p*
 tomorrow-R-SUBR then one-times day-SUBR then it-at
 DS DS

put ngàa-ngwu
that untie-HAB
ACC

‘The following day is the first day and it is then that he unties it.’

The knots are now unravelled for each passing day until the sixteenth day is reached. The consecutive performing of this task is captured by the progressive suffix *-ma* which is here exploited timewise in keeping with the mechanism of a spatio-temporal metaphor.

- (8) *pam put somi-y ngá-ngàa-ti-ma-ngwu*
that that knot-ACC RDP-untie-IMPRF-PROGR-HAB
ACC

‘He is untying his knots [day after day].’

- (9) *àa-sa-kis talöng-va-qw su-kw ngàa-ngwu; pu’*
REF-QNT-times daytime-R-SUBR one-ACC untie-HAB then
as many times as DS
- qavong-va-qw piw su-kw; pa-n-tsak-ma-kyangw*
tomorrow-R-SUBR also one-ACC that-way-do-PROGR-SIMUL
DS S§
- pay pi sòosoy himu pa-ngso-q sùukop*
ASSR FACT all something that-to-EX sixteen
INAN

a-qw-ni-ngwu
it-to-NEX-HAB
EX

‘Each new day he unties one; and the next day one more. In that fashion all ceremonies reach the point of sixteen days.’

Most of the esoteric aspects of the ceremony begin on the eighth day following the announcement. This is the half way mark of the count-down.

- (10) *qaavo piw naat ngàa-qw naasa-mi-q pítu-ni*
tomorrow again still untie-SUBR middle-to-EX arrive-FUT
DS

‘When he unties one more [knot] tomorrow, he will get to the midway point.’

These sticks are about a foot or a foot and a half long, and are divided into two parts, one section being round, the other flattened on one side. The round section is girt by fifteen shallow parallel grooves, and occupies about a third of the whole length of the stick. The remaining two thirds of the stick has a number of parallel grooves or notches cut upon the flattened surface. Five of the latter grooves, which are situated at equal distances, are deeper than the remaining, and between each pair there are four smaller parallel grooves arranged at equal distances . . .

While he continues his description without pointing out the relevance of the configuration of the marks, the final passage in the above-quoted paragraph seems to relate clearly to the ceremonial day count. The fact that twenty-one lines are incised on the stick, makes sense if one recalls that the first mark, the day of the announcement, is not counted and that society members are usually required to exercise continence, abstain from salty foods, etc., for an additional four days following the public exhibition. One of my informants was able to confirm the former existence of such a stick.

- (1) *tuuwuhi-w-kyangw pam tookila yukì-l-ti-ngwu;*
 line-STAT-SIMUL that time make-PASS-R-HAB
 SS span
- niikyangw pam taala-t a-ng pòotoyla*
 and that day-ACC it-on count
 SIMUL DIF

'Consisting of [many] lines that [device to keep track of the] time span is made; and he [who is in charge] counts the days on it.'

The days are arranged in sets of four. The following Hopi passage describes these day sets of four until *tiikive*, the dance day is reached.

- (2a) *puma naalö-q=sa tú-tuwüu-tota-ngwu; noq puma*
 those four-ACC=only RDP-line-CAUS-HAB and those
 PL SI
- pay put=sa a-ng-ya-ngwu, nalö-s-tala-t=sa*
 ASSR that=only it-on-PL-HAB four-times-day-ACC=only
 ACC DIF
- a-ng-a';*
 it-on-PS
 DIF

'They [i.e., those in charge of the ceremony] make only sets of four lines, and this is what they go by, only [sets of] four days.'

(2b) *puma nalō-s-tala-y a-qw öki-qw pu' pay*
 those four-times-day-ACC it-to arrive-SUBR then ASSR
 EX PL DS

piw ahoy suu-s taala-ni-ngwu, löö-s
 again back one-times day-NEX-HAB two-times
 to

taala-ni-ngwu, payi-s-tala-ni-ngwu nalō-s-tala-ni-ngwu;
 day-NEX-HAB three-times-day-NEX-HAB four-times-day-NEX-HAB

'When they have reached their [first] four days, then there are once again first day, second day, third day, and fourth day.'

(2c) “*ta'á-y, naasa-mi-q pitu,*” *pu' ki-tota-ngwu;*
 all-EXCLM middle-to-EX arrive then say-CAUS-HAB
 right M PL

“*qaavo hapi oovi yung-ni, suu-s*
 tomorrow EMPH therefore enter-FUT one-times
 PL

tàl-qa-t e-p-e';”
 day-REL-ACC it-at-PS

“All right, the half way point is reached,” they say then. “Tomorrow, on the first day, they [i.e., the society members] will go into [the kiva].”

(2d) *pu' pàa-sa-t piw pay àa-piy löö-s*
 then that-QNT-time again ASSR REF-away two-times
 from

taala-ni-ngwu, payi-s-tala-ni-ngwu, pu'
 day-NEX-HAB three-times-day-NEX-HAB then

nalō-s-tala-ni-ngwu;
 four-times-day-NEX-HAB

'From that time on then there is another second, third, and fourth day.'

(2e) “*pu' qaavo suu-s tàl-qa-t e-p piw*
 then tomorrow one-times day-REL-ACC it-at also

suu-s qa hímu-ni-ngwu,” *pu' piw*
 one-times NEG something-NEX-HAB then again

ki-tota-ngwu; pu' lōō-tok, lōō-s tàl-qa-t e-p,
 say-CAUS-HAB then two-night two-times day-REL-ACC it-at
 PL

pik-totokya-ni-ngwu; payi-s-tal-qa-t e-p
 piki-totokya-NEX-HAB three-times-day-REL-ACC it-at
 day

totokya-ni-ngwu; nalō-s-tal-qa-t e-p pu'
 totokya-NEX-HAB four-times-day-REL-ACC it-at then
 day

tiikive-ni-ngwu''
 dance-NEX-HAB
 day

“Tomorrow on the first day is the day also called Suus qa himu,” they say then. “Then in two days, on the second day, is Piktotokya. On the third day is Totokya, and on the fourth day is the day of the dance.”

In managing special time periods that consist of multiple sets of four days, such sets may also be grouped together by means of multiplicatives, as is evident from (3-4).

- (3) *tii-qats-wiuti pu' se'el lōō-s*
 child-hatch-woman today this two-times
 hatch child morning

nalō-s-tal-ni-y'-ta
 four-times-day-CAUS-POSS-IMPRF

‘The “child hatching woman” had [i.e., finished] her second set of four days this morning [a reference to the puerperal period of twenty days].’

- (4) *haki-m wuwtsimu-y e-p qa*
 someone-PL Wuwtsim-ACC it-at NEG
 ceremony

natnga-y'-yungw-e' pay panis lōō-s
 initiation-POSS-IMPRF-COND ASSR only two-times
 PL SS

nalō-s-tal-na-ya-t pay kuu-kuyva-ngwu
 four-times-day-CAUS-PL-PRIOR ASSR RDP-emerge-HAB
 SS

- (4) *nen pu' pam pa-ngso-q taawa-t a-qw*
 and then that there-to-EX sun-ACC it-to
 then EX
- tay-ta-ni-k naat taawa-t qa yama-k-qw*
 look-IMPRF-FUT-COND still sun-ACC NEG go-k-SUBR
 SS out DS
- pu' pam qatu-w-ta-ngwu, put su-àa-sa-q;*
 then that sit-STAT-IMPRF-HAB that exact-it-QNT-extent
 ACC
- pu' pàa-sa-t a-ngqa-qw kuy-va-qw*
 then that-QNT-time REF-INDEF-from emerge-R-SUBR
 DS
- haq-e' pam tal-ni-'at put a-ng yáma-k-ngwu;*
 somewhere-at that light-NR-its that it-in go-k-HAB
 DIF ACC DIF out
- kur pay naat qa su-'a-ng yama-k-qw kur*
 EV ASSR still NEG exact-REF-in go-k-SUBR EV
 DIF out DS
- pay naat qa a-qw pitu*
 ASSR still NEG it-to arrive
 EX

'And if he wants to look at the sun then before it has risen he sits there right in line with it. When it appears [above the horizon] its rays go somewhere through the hole. And if they do not cross it exactly, it is evidently not the [right] time yet.'

As was pointed out above in (3), all the planting dates were arrived at in this fashion.

- (5) *pam haki-mu-y navot-na-ngwu hisat*
 that those-PL-ACC know-CAUS-HAB what
 time

uyis-ni-qa-t
 planting-FUT-REL-ACC
 time

'He makes it known to the people when it will be planting time.'

A Second Mesa informant from Songoopavi tells me that there existed even an arrangement of holes for the whole series of lunar months. When the sun was 'in a special hole' a certain month had been reached.

- (6) *i' hapi paamuya, pa-ngso-q paki-w-ta*
 this EMPH paamuya that-to-EX go-STAT-IMPRF
 month in

'This is the month of Paamuya, [the sun] is in that [hole] there.'

Society chiefs responsible for a particular ritual made time calculations also using the sun holes alignment technique. Note that the individual perforation in the wall is called *paho-ki* (prayer:stick-house) in the subsequent Hopi text.

- (7) *pam pay hak nee-ngem=nen haqa-m*
 that ASSR someone REFL-for=COND somewhere-at
 SS

*paho-ki-y'-t-e*²⁰⁰ *su-'a-ng taawa*
 prayer-house-POSS-IMPRF-COND exact-REF-in sun
 stick SS DIF

yama-k-qw siuu-pa-ng put a-ng pam
 go-k-SUBR exact-there-at that REF-in that
 out DS DIF ACC DIF

taalawngwa-'at yama-k-qw pu' pa-ng-qaw-ngwu, "ta'á,
 sun-its go-k-SUBR then that-way-say-HAB all
 ray out DS right

kur itàa-himu-y a-w pitu
 EV our-something-ACC it-to arrive

'If someone has such a hole for himself and the sun goes right through it and the sun rays are exactly in line with it he says, "All right, it's evidently time for our ceremony.'"

6.4 Shadow observation

Determination of the time of day by observation of the length of the shadow (*kiisiwni*) was once routine among the Hopi.²⁰¹ With the introduction of the pocket watch this timekeeping device, too, was doomed. Some old-timers still practice this timing method and factual knowledge is still obtainable.

- (1) *hisat-sino-m pay k̀isiwni-y a-w yóri-k-y-e'*
 long-person-PL ASSR shadow-ACC it-to look-k-PL-COND
 ago SS
- pu' nanapta-ngwu haq-e' taawa*
 then notice-HAB where-at sun
 PL DIF

qala-w-ma-qw
 edge-STAT-PROGR-SUBR
 DS

'The old people just looked at their shadow and then they knew what time [of the day] it was.'

- (2) *hak k̀isiwni-y e-p-ni-ngwu*
 someone shadow-ACC it-on-NEX-HAB

'One goes by one's shadow.'

Although this method is not the most satisfactory in a geographical area where the sun's daily course is subject to considerable variation throughout the year, it provides at least reliable temporal orientation for the farmer during the summer months. He knows the length of his shadow early in the morning and observes it growing shorter until it is almost nonexistent at noon. Towards evening it begins to increase in length again.

- (3) *taala' hapi hak wunu-w-t-e' pu'*
 in EMPH someone stand-STAT-IMPRF-COND then
 summer SS

k̀isiwni-y a-w yori-k-qw pay pas nu'an
 shadow-ACC it-to look-k-SUBR ASSR very IRREV
 DS

h̄i-sa-va-ni-ngwu, kur taawa-nasap-ti; pu' pam
some-QNT-length-NEX-HAB EV sun-middle-R then that
 short

tapki-w-ma-qw pay piw a-n pam
 early-STAT-PROGR-SUBR ASSR again it-like that
 evening DS

wup-'iw-ma-ngwu
 long-STAT-PROGR-HAB

'In summer, of course, if someone is standing and looks at his shadow and it is very short, it evidently got noon. When it's getting early evening then, it is growing longer again.'

- (4) *kur pay tapki, oovi pay i-kiisiwni wup-ti*
 EV ASSR become therefore ASSR my-shadow long-R
 early evening

'Evidently it has become early evening, that's why my shadow got so long.'

To elicit a clue about the time of day or the temporal location of a certain event, a Hopi will actually inquire about the direction of a person's shadow. (5-6) exemplify the idiomatically appropriate questions, (7-9) show representative replies. Depending on the seasonal position of the sun, the directional replies will, of course, indicate different times of day.

- (5) *ya haqa-mi-wat um kiisiwni-y'-ta?*
 Q where-to-SPEC you shadow-POSS-IMPRF

'Into what direction do you have your shadow?'

- (6) *ya uu-kiisiwni haqa-mi-wat qaatsi?*
 Q your-shadow where-to-SPEC lie

'Into what direction does your shadow lie?'

- (7) *i-kiisiwni pu' su-ho-po-q qaatsi*
 my-shadow now direct-east-to-EX lie

'My shadow is lying exactly into easterly direction.'

- (8) *naat kur talavay-'u, oovi i-kiisiwni naat*
 still EV morning-PS therefore my-shadow still

teevenge-wat qaatsi
 to-SPEC lie
 west

'It's still morning, that's why my shadow is lying towards the west.'

- (9) *kwini-wi-q-wat qaatsi*
 north-to-EX-SPEC lie

'It is lying towards the north.'

it was not so much the shadow that was watched but the sunlight that came in through the kiva hatch on top of the roof. (15-16) refer to this custom of temporal orientation.

- (15) *niikyangw pam kiva-mi-q paky-e' pu' a-ng*
 and that kiva-to-EX enter-COND then it-in
 SIMUL SS DIF
- nan'i-k tuuwi-va hòy-ti-ma-kyangw pu' pam*
 both-DIF stone-at move-IMPRF-PROGR-SIMUL then that
 sides bench DIF SS
- töng-va-qw ay-ó-q tuwaki-mi-q pítu-ngwu;*
 midmorning-R-SUBR over-to-EX storage-to-EX arrive-HAB
 DS there hole
- pu' pàa-sa-t piw a-ng*
 then that-QNT-time again it-at
 DIF
- hoyo-yo-ti-ma-kyangw yu-k qöpqö-t*
 move-RDP-IMPRF-PROGR-SIMUL here-to fire-ACC
 SS place
- sú-hop-qöy-mi=haqa-mi pitu-qw pàa-sa-t*
 exact-east-side-to=INDEF-to arrive-SUBR that-QNT-time
 DS
- taawa-nasa-p-ti-ngwu*
 sun-middle-length-R-HAB

'And when the sunlight enters the kiva, it moves along the sides of the two stone benches and reaches the storage hole [at the northern side] by midmorning. Then moving along again it comes here to the hearth; then it is noontime.'

- (16a) *niikyangw pay kivàa-pe haki-m hiita*
 and ASSR kiva-at someone-PL something
 SIMUL ACC
- hi-n-tsa-tsk-ya-ni-qw haki-m taavi-t*
 some-way-RDP-do-PL-NEX-SUBR someone-PL sunshine-ACC
 DS
- e-p-ya-ngwu*
 it-on-PL-HAB

‘But when people are going to do something in the kiva they go by the sunshine.’

- (16b) *kiva-mi-q taavi paky-e' mòoti teeve-nge'*
 kiva-to-EX sunshine enter-COND at west-at
 SS first DIF

taavi-ni-ngwu
 sunshine-NEX-HAB

‘When the sun shines into the kiva there is sunlight at first in the western section.’

- (16c) *pu' pam pa-ng hoyo-yo-ti-ma-kyangw*
 then that there-at move-RDP-IMPRF-PROGR-SIMUL
 DIF SS

qöpqö-t àa-kwini-ngye'-nii-kyangw pu' oovi
 fireplace-ACC it-north-at-NEX-SIMUL then therefore
 DIF SS

haqa-mi pitu-qw taawa-nasa-p-ti-ngwu
 somewhere-to arrive-SUBR sun-middle-length-R-HAB
 DS

‘Then moving along there and passing along the north [side] of the fireplace it arrives at a certain place where it gets noontime.’

- (16d) *pa-ngqw pu' pam hoo-po-nii-kyangw pu'*
 there-from then that east-to-NEX-SIMUL then
 SS

yáma-k-to-ngwu;
 go-k-PREGR-HAB
 out

‘Continuing from there in an easterly direction it leaves [the kiva].’

- (16e) *pu' yáma-k-to-kyangw e-pe-q oo-ve-q à-ng-qe*
 then go-k-PREGR-SIMUL REF-at-EX high-at-EX REF-at-EX
 out SS DIF

kòo-som-i kwap-'iw-ta-ngwu-ni-qw
 wood-tie-NR place-STAT-IMPRF-HAB-NEX-SUBR
 PL DS
 OBJ
 on
 top

pa-nso-q *pitu-qw* *pu'* *pay* *pas* *suyan*
 there-to-EX arrive-SUBR then ASSR very exactly
 DS

tapki-ngwu
 early-HAB
 evening

'Then on its way out [the sunlight] reaches up there an area where a bundle of wood is placed and at that time it gets early evening.'

The final example is understandable when familiarity with the shadow at different times of the year is taken into consideration.

(17) *naat* *i-kiisiwni* *qa* *a-n* *qaatsi*
 still my-shadow NEG REF-like lie

'My shadow doesn't lie yet in the right way.'

7 Pluralization and quantification of time expressions

7.1 *The concept 'number of times'*

In one of his subchapters of “The Relation of Habitual Thought and Behavior to Language” entitled “Plurality and Numeration in SAE and Hopi” (Carroll 1956:139) Whorf points out a linguistic habit of ours which according to him is jointly shared by all of the SAE languages: that of applying the pattern of plurality and cardinal numbers to real as well as imaginary plurals. This means, for example, that no overt discrimination is being made in the quantification of perceptible spatial aggregates such as ‘five apples’ and metaphorical aggregates such as ‘five steps.’ Hopi, as we will see, does not subscribe to a counting approach which equates solid, physical entities with reality matters that intrinsically constitute a cyclic or sequential event. With the exception of temporal units, which, contrary to Whorf’s contention, can also be quantified by cardinal number, the concept of cyclicity or ‘number of times’ is captured in Hopi by the multiplicative morpheme *-s*. Its semantic content is glossed ‘times’ in this monograph. As the arithmetic operation of multiplication was autochthonously not developed in Hopi, its function is primarily that of indicating how many times or on how many separate occasions a given event takes place.

To convey this cyclicity concept ‘times,’ the multiplicative element *-s* attaches to a number of stems which are listed in Table XX. Except for the numerals one through four, which append the multiplicative morpheme directly to their respective stems, in all other cases *-s* occurs on the extended stem element *-ki*. As I tried to show in HR 5.11.4, the latter may originally have embodied the spatial notion ‘place’ which appears to be semantically empty now. *-ki* in turn is preceded in numerals beyond four by the etymologically obscure element *si*. Of the remaining stems, those introduced by the demonstrative, interrogative/indefinite, and personal pro-prefixes, all involve the quantifier morpheme *sa*.

Table XX

CLASSIFICATION OF STEM	STEM	MEANING
1. NUMERAL	<i>suu- löö- paayi- naalö- tsivot-siki- navay-siki- tsange'-siki- nanal-siki- peve'-siki- pakwut-siki- sunat-siki-</i>	'one' 'two' 'three' 'four' 'five' 'six' 'seven' 'eight' 'nine' 'ten' 'twenty'
2. DEMONSTRATIVE	<i>yàasa-ki- àasa-ki- pàasa-ki-</i>	'this many' 'the same/respective amount' 'that many'
3. INTERROGATIVE INDEFINITE	<i>hìisa-ki- hiisa-ki-</i>	'how many' 'several/indefinite amount'
4. PERSONAL	<i>inùusa-ki- ùusa-ki- àasa-ki- itamùusa-ki- umùusa-ki- amùusa-ki-</i>	'as many as I' 'as many as you' 'as many as he/she/it' 'as many as we' 'as many as you:PL' 'as many as they'
5. QUANTIFIER	<i>hi-ki- wuuha-ki-</i>	'few' 'many'

7.1.1 Numeral stems

7.1.1.1 Numeral stem *suu-* 'one'

Among the numeral stems occurring with the multiplicative element *-s* 'times,' *suu-* 'one and the same' takes on a very prominent status due to the great diversity of phrasal combinations in which it is attested. Its basic content of 'one time/once' may team up with a number of particles in conjunction with which semantically novel temporal values are conveyed. Unaccompanied by such particles the multiplicative is illustrated in (1-3).

- (1) *nu' i-t suu-s wuvi-k-na-t pay*
 I this-ACC one-times strike-k-CAUS-PRIOR ASSR
 SS

sáha-k-na
split-k-CAUS

'I split this with one blow.'

- (2) *nu' suu-s put a-w yori*
I one-times that he-to see
ACC

'I only saw him once.'

- (3) *pas um su-'a-w pitu, suu-s pee-ti*
very you exact-REF-to arrive one-times leave-R
over

'You came just at the right time, one [dance sequence] is left.'

In syntactic collocation with the particle *piw* 'more/also/again,' *suus* assists in establishing the meaning 'one more time/once more.'

As a rule, *piw* will follow the multiplicative (4); for reasons of emphasis it can also precede it (5). In pausal position *suus* takes on the marker *-i* (6).

- (4) *um suu-s piw-ni-qw nu' ung a'ni*
you one-times more-FUT-SUBR I you a
DS ACC lot

hi-n-tsa-n-ni
some-way-do-CAUS-FUT

'If you do it one more time I'll really give it to you.'

- (5) *piw nu' suu-s qaavo ye-p-ni nit pu'*
more I one-times tomorrow here-at-FUT and then
PRIOR

nu' níma-ni
I go-FUT
home

'I'll be here one more time tomorrow and then I'll return home.'

- (6) *piw suu-s-i, naat qa naalö-s-ti*
more one-times-PS still NEG four-times-R

'Once more, it's not four times yet.'

In connection with the negator *qa* 'not,' the literal meaning 'not once' actually translates with the frequency locution 'several times/often.'

- (7) *qa suu-s pas tis sipal-'uyi*
 NEG one-times very even peach-plant
 several times
- sì-y'-yung-qw nuva-ti*
 blossom-POSS-IMPRF-SUBR snow-R
 PL DS

'Several times the peach trees were even in bloom when it snowed.'

- (8) *qa nakwha-qa-t wuvàapi-t a-kw mots'in-katsina*
 NEG agree-REL-ACC whip-ACC it-with disheveled-kachina
- put wuvàata-ngwu; e-p=haqa-m qa suu-s*
 that whip-HAB REF-at=INDEF-at NEG one-times
 ACC sometimes several times

'The Mots'inkatsina whips the person who fails to agree with a whip; sometimes several times.'

When occurring with the intensifier *pas* 'very,' the overall value with *suu-s* comes to mean 'once and for all/for good' (9-10). However, the context itself may be such that the same idea is brought about without the intensifying particle (11).

- (9) *naat hak hisat itamu-y powa-ta-to-qa*
 still someone some we-ACC transform-CAUS-PREGR-REL
 time purify
- pit-e' itamu-y powa-ta-qw pàa-sa-t*
 arrive-COND we-ACC transform-CAUS-SUBR that-QNT-time
 SS DS
- pu' itam pas yaw suu-s yes-va-ni*
 then we very QUOT one-times sit-R-FUT
 PL

'When one day in the future the one arrives who comes to purify us, he'll purify us and then we'll live forever.'

- (10) *pas nu' tooki suu-s puw-va*
 very I last one-times sleep-R
 night

'I slept right through last night.'

- (11) *nu' a-qw suu-s ya-n-ma; nu' son*
 I REF-to one-times this-way-PROGR I NEG
 EX
paapu hisat a-ngqw-ni
 progressively some REF-from-FUT
 time

'I'm going there to stay; I'll never return.'

Together with the temporal adverb *naat* 'still,' which may optionally be reinforced with the particle *pu* 'now,' *suus* conveys the idea that an event has taken place 'for the first time.' The syntactic ordering of the involved particles need not adhere to any fixed pattern as (12-15) show.

- (12) *talavay katsina-m naat suu-s öki-qw*
 in kachina-PL still one-times arrive-SUBR
 morning PL DS
pàa-sa-t tunatya-y'-ta-qa
 that-QNT-time intention-POSS-IMPRF-REL
 sponsor

hom-na-to-ngwu
 corn-CAUS-PREGR-HAB
 meal

'In the morning, when the kachinas have come for the first time, the sponsor goes to sprinkle them with corn meal.'

- (13) *tooki naat pu' suu-s nuva-ti*
 last still now one-times snow-R
 night

'Last night it snowed for the first time.'

- (14) *itam tooki suu-s naat hong-va*
 we last one-times still stand-R
 night PL

'Yesterday evening we got into standing position [i.e., practiced the dance in the kiva] for the first time.'

- (15) *nu' pu' suu-s naat sivuvono-y a-w yori*
 I now one-times still PN-ACC it-to see

'I just saw [the place called] Sivuvono for the first time.'

qötö-tuy-va
head-ache-R

'When we were coming here I had a headache without letup.'

- (22) *uti, puma suu-s naangwu-y'-va*
surprise those one-times quarrel-POSS-INCHO
EXCLM

'Incredible, they started a quarrel and they're still at it.'

- (23) *suu-s yoo-yok-ti-va*
one-times RDP-rain-CONN-INCHO

'It rained without stopping.'

A final pattern that needs to be mentioned presents *suus* in copular position and is marked for habitual aspect. *Suusningwu* in such a case conveys the idea 'continue with an activity' and typically follows a verb form featuring *-t*, the priority suffix for identical subject.

- (24) *uti, pam suu-kw hikw-t pay paa-sa-t*
surprise that one-ACC drink-PRIOR ASSR that-QNT-time
EXCLM SS

suu-s-ni-ngwu
one-times-NEX-HAB

'Gee, he has just one drink and then he continues [drinking].'

- (25) *pam sikwi-t tuumoy-v-e' pas suu-s-ni-ngwu*
that meat-ACC eat-INCHO-COND very one-times-NEX-HAB
SS

'Once he starts eating meat he continues [until it's gone].'

That *suus* by itself may represent the value 'one day' was pointed out in 2.1.5. This illustrates the possibility of a day reckoning technique that relies only on multiplicatives. In this function *suus* may even attach the realized state suffix *-ti*.

- (26) *tiikive pay suu-s-ti*
dance ASSR one-times-R

'The dance lasted only one day.'

The custom that in former times a kachina dance lasted only one day may

also be conveyed by (27) which displays the multiplicative form in connection with causative *-ta*.

- (27) *hisat pi pay katsina suu-s-ta-ngwu, qa*
 long FACT ASSR kachina one-times-CAUS-HAB NEG
 ago

löö-s-ta-ngwu
 two-times-CAUS-HAB

‘Long ago kachinas danced only one day, not two.’

For the special ceremonial day designations *suus taala* or *suus qa himu*, which operate with the multiplicative *suus*, see 2.1.1.2. In regard to *suus* cooccurring with the adverbial *teevep* to handle the sense ‘one whole day’ see 2.1.4. Among other temporal adverbs that are found with *suus* are *talavay* ‘in the morning,’ *mihikqw* ‘at night,’ *hisat* ‘long ago,’ etc. (28) illustrates a representative example.

- (28) *suu-s mihikqw nu' ita-ngu-y pumu-y*
 one-times at I our-mother-ACC those-ACC
 night our mother and company:ACC

a-ngqw nimàa-qe toknamusi
 REF-from go-CAUSAL lose
 home SS way

‘One night on my way home from my mother’s family I lost my bearings.’

The reduplicated form *suusus* occurs free or together with the modulator clitic =*haqam*. The former translates ‘one at a time/slow(ly),’ the latter ‘once every so often.’ In both cases only durative verbals can cooccur with the adverbial.

- (29) *pay um suu-su-s tú-tuwùu-ti-ma-ni*
 well you RDP-one-times RDP-line-CAUS-PROGR-FUT

‘Just draw one line at a time.’

- (30) *pas pam suu-su-s yu'a-'a-ta*
 very that RDP-one-times talk-RDP-IMPRF

‘He talks very slowly.’

- (11) *paa-sa-t pu' yaw*
 that-QNT-time then QUOT
naalö-s-ni-y'-wis-qe pu' yaw pay
 four-times-CAUS-POSS-PROGR-CAUSAL then QUOT ASSR
 PL SS
lööqmu-y taw-lalwa
 two-ACC sing-CONT
 PL

'When they were doing it the fourth time they only sang two [stanzas].'

- (12) *piw suu-s-i, naat qa naalö-s-ti*
 more one-times-PS still NEG four-times-R

'[Do it] one more time; it's not four times yet.'

- (13) *itam kopa-ng-tsööqö-k-ya-qw nu' tsivot-sikis*
 we top-ng-stick-k-PL-SUBR I five-times
 of in DS
head
 somersault

naa-tuho-ta
 REFL-hurt-CAUS

'When we somersaulted I hurt myself five times.'

- (14) *uma i-t navay-sikis róya-k-na-ni*
 you this-ACC six-times turn-k-CAUS-FUT
 PL

'Turn this six times.'

- (15) *tsange'-sikis nu' kaway-vòosi*
 seven-times I horse-fall
 down

'Seven times I fell off the horse.'

- (16) *pam súnat-sikis inu-ngem qa hiita oovi*
 that twenty-times I-for NEG something concerning
 ACC

*kó-mok-va*²⁰⁴
wood-bag-INCHO

‘Twenty times he brought wood for me for nothing.’

Rarely used nowadays but still remembered by elderly speakers is the multiplicative locution *siikyay’tasikis*. It can occur in numbers exceeding twenty except for exact multiples of twenty such as 40, 60, etc. In the dialect region of Second Mesa, whose number system is not vigesimal but decimal, the term is encountered in numbers above ten. Several instances of *siikyay’tasikis* are attested in the Hopi version of the New Testament. (17) is quoted from Galatians 1, 18 (Matthew:623).

- (17) *pakwt tsivot siikya-y’-ta-sikis taala-t a-ng*
 ten five plus-POSS-IMPRF-times day-ACC it-at
 DIF
put a-mum qatu
 that he-with stay
 ACC

‘He stayed with him for fifteen days.’

7.1.2 Demonstrative stems

The deictically neutral base *a-* as well as proximal *ya-* and distal *pa-* combine with the quantifier morpheme *sa-* to provide stems for the extended multiplicative element *-kis*. They occur both in singular and plural shape, with the diffuse element *-ng* indicating pluralization. Examples are listed according to stem.

7.1.2.1 *àasakis* ‘each time/on every occasion’

The adverbial *àasakis* occurs either with a particular temporal reference (1-4) or with a specified event (5-7).

- (1) *ita-na àa-sa-kis talavay yáma-k-ngwu*
 our-father REF-QNT-times in go-k-HAB
 morning out

‘Each morning our father leaves the house.’

- (2) *àa-sa-kis tapkiqw tu-tuqay-hòoya-m òki-ngwu*
 REF-QNT-times in RDP-listen-person-PL arrive-HAB
 evening learn PL

‘Every evening the school kids come home.’

'There is a hole in my shirt; each time I reach out for something it gets larger.'

Àasakis may be verbalized with causative *-ta* (8) or the intransitive realized state marker *-ti* (9). While the referent base in (8) brings about the meaning 'as many times as,' it is understood in (9) to refer specifically to the number 'four' which constitutes the traditional Hopi frequency figure or 'special number.'

- (8) *itam tokinen hii-sa-kis-ta-qa-y tooki*
 we night which-QNT-times-CAUS-REL-ACC last
 before night
- qa àa-sa-kis-ta*
 NEG REF-QNT-times-CAUS

'We didn't do it as many times the night before as we did it last night.'

- (9) *pay àa-sa-kis-ti; nu'-ni*
 well REF-QNT-times-R I-FUT

'Well, it got to be the appropriate number of times [which is four in Hopi culture]; I'll [do] it [now].'

Angsakis, the plural form of *àasakis*, infixes the diffuse element *-ng*. As a rule, it cooccurs with a regular succession of time units as in (10-12) or events that take place according to a set pattern (13-16).

- (10) *a-ng-sa-kis uma talöng-va-n-ta-qa-t*
 REF-DIF-QNT-times you daytime-R-n-IMPRF-REL-ACC
 PL

a-ng naangwu-y'-ta
 it-in quarrel-POSS-IMPRF
 DIF

'You quarrel every day.'

- (11) *a-ng-sa-kis qavong-va-n-ta-qa-t uma*
 REF-DIF-QNT-times tomorrow-R-n-IMPRF-REL-ACC you
 PL

a-ng hii-hiko
 it-on RDP-drink
 DIF

'You are drinking every day.'

- (1) *ya pàa-sa-kis kur pam ye-pe-q pitu?*
 Q that-QNT-times EV that here-at-EX arrive

'That many times he's been here?'

- (2) *panis um pàa-sa-kis-ta?*
 only you that-QNT-times-CAUS

'You did it only that many times?'

The plural shape *pangsakis* is illustrated in (3).

- (3) *pam pa-ng-sa-kis tú-tuwüu-ti-ma*
 that that-DIF-QNT-times RDP-line-CAUS-PROGR

'He's drawing that many lines at a time.'

7.1.3 Indefinite-interrogative stems

The indefinite aspect of *hìisakis* translates 'an uncertain number of times/several times' (1). When accompanied by the approximator clitic =*haqam*, its semantic content becomes even vaguer (2).

- (1) *hìi-sa-kis talöng-va-qa-t a-ng pu' ya-n*
 some-QNT-times daytime-R-REL-ACC it-in now this-like
 DIF

pam e-p pitu
 that REF-at arrive

'For several days he has now arrived there like this.'

- (2) *nu' pay hìi-sa-kis=haqam kur i-t*
 I ASSR some-QNT-times=APPROX EV this-ACC

tuuwutsi-t a-w tuuqayi
 story-ACC it-to listen

'I've heard this story an untold number of times.'

- (3) *àa-piy hìi-sa-kis=haqam tal-qw pu' pam*
 REF-away some-QNT-times=APPROX day-SUBR then that
 from DS

tuwat a-ngk-lawu
 in REF-after-CONT
 turn sponsor night dance

'Several days after that [event] he in turn sponsored a night dance.'

The interrogative side of *h̄isakis* occurs more frequently. It denotes ‘how many times?/how often?’ and may append a number of verbal affixes.

- (4) *um h̄i-sa-kis niutu-m mosayur-wunima?*
 you which-QNT-times the-at buffalo-dance
 others

‘How many times have you participated in a Buffalo dance?’

- (5) *um h̄i-sa-kis n̄öma-ta?*
 you which-QNT-times wife-CAUS

‘How many times did you get married?’

- (6) *ya h̄i-sa-kis-ti?*
 Q which-QNT-times-R

‘How many times is it now [that something has been done]?’

- (7) *ya um qatuptu-qe h̄i-sa-kis-ni-y’-ma?*
 Q you get-CAUSAL which-QNT-times-CAUS-POSS-PROGR
 up SS

‘How many times is it now that you’ve been getting up [to go to the bathroom]?’

- (8) *um h̄i-sa-kis-ta-qw taalaw-va?*
 you which-QNT-times-CAUS-SUBR daylight-R
 DS

‘How many times did you do it [i.e., have intercourse] before it got daylight?’

The plural form *hingsakis* seems to be attested in interrogative role only.

- (9) A: *um hi-ng-sa-kis u-na-y a-w*
 you which-DIF-QNT-times your-father-ACC he-to
po-pta? B: *pay löö-s=haqam santi-ti-qw pu’*
 RDP-check well two-times=APPROX week-R-SUBR then
 DS

hak piw a-w-ni-ngwu
 someone again he-to-NEX-HAB

‘How many times do you go to check on your father?’ ‘About two weeks pass, then I go again (NEO).’

7.1.4 *Personal pronoun stems*

In conjunction with the personal pro-bases the extended multiplicative morpheme *-kis* conveys the comparative content 'as many times as the person specified in the base.'

- (1) *pas kya um son inuu-sa-kis nööma-ta*
 very maybe you NEG I-QNT-times wife-CAUS

'I guess you didn't get married as many times as I.'

- (2) *sen nu' üu-sa-kis peeski-ve pitu-ma*
 DUB I you-QNT-times PN-at arrive-POSTGR

'I wonder if I have been as many times in Prescott as you.'

- (3) *nu' put àa-sa-kis laa-lay-ma*
 I that he-QNT-times RDP-herd-POSTGR
 ACC

'I've been herding sheep as many times as he.'

- (4) *hawiwvi-t qa itamüu-sa-kis mòoti-tota*
 PN-PL NEG we-QNT-times first-CAUS
 PL

'The members of [the] Hawiwvi [kiva] didn't win as many times as we [in races].'

- (5) *itam sumataq paaqavi-tu-y amüu-sa-kis*
 we CONJECT PN-PL-ACC they-QNT-times
tiikive-y'-yungw-ni
 dance-POSS-IMPRF-FUT
 PL

'It seems we'll have as many dances as the people from Paaqavi.'

7.1.5 *Quantifier stems*7.1.5.1 *hikis* 'a few times'

By drawing on *hi-*, the indefinite base variant of *ha-*, the multiplicative morpheme sequence *-kis* brings about the content 'a few times.'

- (1) *pam pay pas hi-kis ye-p kuyva-ma-t*
 that ASSR very some-times here-at visit-POSTGR-PRIOR
 SS

pu' *ho-po-q-ki-ve=ha-q* *nööma-ta*
 then east-to-EX-village-at=INDEF-at wife-CAUS
 EX

'He only visited here a few times and then he got married at an eastern pueblo [i.e., a Rio Grande village].'

- (2) *pay itam ason hi-kis taala-t e-p a-ngqw*
 well we later some-times day-ACC it-in REF-from

áhoy-ni
 back-FUT
 to

'We'll come back in a few days.'

- (3) *pay yaw hi-kis a-ts-ve poni-l-ti-t*
 well QUOT some-times REF-above-at tum-PASS-R-PRIOR
 SS

pu' *yaw pay kur haqa-mi*
 then QUOT ASSR EV somewhere-to

'[The bird] circled a few times and then disappeared.'

7.1.5.2 *wuuhakis* 'many times'

The extended base form of the quantifier morpheme *wuu-* 'large' combines with the multiplicative sequence *-kis* to establish the value 'many times.'

- (1) *nu' wuuha-kis pu' itàa-kya-y e-p qa*
 I many-times now our-aunt-ACC she-at NEG

kuy-va-ma
 visit-R-POSTGR

'It's been many times now that I haven't been to visit our aunt.'

- (2) *pam wuuha-kis sivi-vaki*
 that many-times atone-go
 in

'He's been in jail many times.'

- (3) *pay wuuha-kis-ti, qe'tii'*
 well many-times-R stop
 IMP

'It's many times now, stop!'

- (4) *itamu-y wuuha-kis-toyna*
 we-ACC many-times-EFF

'He made us [dance over] many times.'

7.2 *The counting of time units*

Whorf's observation that SAE languages are distinguished by a high degree of objectification in regard to portions of world reality which is basically available only to the mental or subjective grasp of the mind, is correct. The experience of time, one of the most intangible aspects of our existence, has not been spared by this process of objectification. Symptomatic of this phenomenon is, among other things, the fashion in which we pluralize units of time. The grammatical formula that our languages use is identical with that employed for discrete entities: cardinal numbers plus plural noun. Whorf's comments read as follows:

We say 'ten men' and also 'ten days.' Ten men either are or could be objectively perceived as ten, ten in one group perception – ten men on a street corner, for instance. But 'ten days' cannot be objectively experienced. We experience only one day, today; the other nine (or even all ten) are something conjured up from memory or imagination. If 'ten days' be regarded as a group it must be as an 'imaginary,' mentally constructed group (Carroll 1956:139).

'Ten days' constitute a cyclic phenomenon that realistically can only be experienced in successive stages. Objectification, however, ignores this fact and assigns 'day' the quality of a 'thing.' To quote Whorf again:

Concepts of time lose contact with the subjective experience of 'becoming later' and are objectified as counted QUANTITIES, especially as lengths, made up of units as a length can be visibly marked off into inches. A 'length of time' is envisioned as a row of similar units, like a row of bottles (Carroll 1956:140).

All of Whorf's observations on this subject-matter stem, of course, from his contrastive analysis of English and Hopi. He claims a grammatical pattern for Hopi which does not promote an obfuscation of the essential subjectiveness of time by objectification, as may be gathered from the following passage:

In Hopi there is a different linguistic situation. Plurals and cardinals are used only for entities that form or can form an objective group. There are no imaginary plurals, but

instead ordinals used with singulars. Such an expression as 'ten days' is not used. The equivalent statement is an operational one that reaches one day by a suitable count. 'They stayed ten days' becomes 'they stayed until the eleventh day' or 'they left after the tenth day.' 'Ten days is greater than nine days' becomes 'the tenth day is later than the ninth.' Our 'length of time' is not regarded as a length but as a relation between two events in lateness. Instead of our linguistically promoted objectification of that datum of consciousness we call 'time,' the Hopi language has not laid down any pattern that would cloak the subjective 'becoming later' that is the essence of time (Carroll 1956: 140).

That our approach with its high degree of thing-awareness is considered tantamount to a distortion of reality and therefore a primitive trait, seems to transpire not only from Whorf's own writings, but also from the writings of the many commentators and expounders of the Whorfian view of Hopi time. Bradfield provides a typical example: In analogy to Whorf's day-count illustration, his explanation singles out the time concept 'dawning' which envisages the verbal term *taalawva* 'it got daylight.'

Thus, each dawning ('is light for the first time', 'is light for the second time', . . .) is seen as a further stage in the process of 'getting later and later' – the immediate and subjective awareness of which constitutes, in Whorf's view, the sensory experience at the root of *all* notions of time. Where, with us, this awareness has been dulled by the linguistic usage which enables us to cut time into segments, to set them one beside another, and to imagine a 'length of time' as so many of these units (minutes, hours, days) set out in a row like bottles, with the Hopi it has been dulled by no such usage (1973:261).

Whorf's statement that, in Hopi, nonobjective entities cannot be pluralized by plurals and cardinals, is alluded to again in the passage in which he addresses the day-counting pattern in particular.

The count is by ORDINALS. This is not the pattern of counting a number of different men or things, even though they appear successively, for, even then, they COULD gather into an assemblage. It is the pattern of counting successive reappearances of the SAME man or thing, incapable of forming an assemblage. The analogy is not to behave about day-cyclicity as to several men ('several days'), which is what WE tend to do, but to behave as to the successive visits of the SAME MAN (Carroll 1956:148).

Whorf's conclusions concerning the Hopi time counting practice have triggered, as is well known, a great deal of speculation. The fact that he substantiated his observations with examples in English, did not further the linguistic cause at stake but only added fuel to the many reinterpretations of his statements. One such reinterpretation, exhibiting particular imaginative force, is found in Girdansky.

To use an image which the Hopi themselves would probably never think of: Hopi-Time is a single snowball rolling down the hill of 'the world as it is.' Using the same metaphor, Europe-Anglo-Time might be likened to a row of snowballs, each of the same size.

Carrying the analogy one step further, the passage of time in Hopi eyes would be the accumulation of snow to the rolling mass, the snowball growing ever larger. In contrast, non-Hopi Americans – at least non-Amerind Americans – would see time's progress as a collection of snowballs rolling in procession down the hill past the fixed point of 'now.'

To escape the fiction of snowballs, and come once again directly to the realities of Time: where we would think of 1 minute + 1 minute = 2 minutes; the Hopi would regard a unit of time – that fiction in which so many heartbeats thud softly, suns rise and fall, air turns warm or chill – as a fragment, one of many, merging into the huge mass of tradition and age which lend strength to the pueblos, and have lent it since the kachina-gods made Man and the World (1963:36).

On the other hand one can cite some of the comments that were made by the participants of the Chicago conference 'Language in Culture.' Greenberg is critical of Whorf's equating one of two sets of numerals that he found in Hopi with the English cardinals and the other with the English ordinals. In regard to Whorf's contention that, where English analyzes a situation cardinally, Hopi views it ordinally he says:

Employing the same reasoning, a Frenchman who calls his kings *Henri quatre* (*Henry four*) and *Louis treize* (*Louis thirteen*) might draw the conclusion that English speakers who use the phrases 'Henry the fourth' and 'Louis the thirteenth' view each king of the same name as the same man appearing anew. He might even conjecture a belief in reincarnation of like-named kings. Further, a French observer might even be moved to conclusions similar to those entertained by Whorf for Hopi regarding the English conceptualization of time periods, by contrasting the French *Juillet quatorze* (sic) (*July fourteen*) with English 'July fourteenth'. On the other hand, the German metalinguist accustomed to *Heinrich der vierte* (sic) (*Henry the fourth*) and *der vierzehnte Juli* (*the fourteenth July*) would not have a basis for drawing conclusions similar to that of the French scientist concerning the English-speaking community. (Hoijer 1954:14).

Greenberg must also be credited for making at least the attempt to come up with some Hopi linguistic evidence to verify or falsify Whorf. His subsequent comment, too, stems from the discussion 'Language in Culture:'

For example, Whorf says that the Hopi do not say 'He stayed ten days,' but 'He left on the eleventh day.' No Hopi text is given for that. When I looked in the only source available to me, the glossary to Stephen's *Hopi Journal* (1936), which was annotated by Whorf, I found that numerals after 'five' did not seem to have a distinction between cardinal and ordinal forms (Hoijer 1954:275).

However, not one of the many expounders of the Whorfian data, with the

exception of Gipper (1972) and Voegelin (1975), seem to have bothered to get Hopi linguistic evidence in the field to solve aspects of the problems involved. Obviously, the answer to Whorf's thesis about the counting of temporal units in Hopi cannot be a simple one. Whorf was right in some respects, wrong in others. For example, his statement that "an expression as 'ten days' is not used" (Carroll 1956:140) is utterly false. A Hopi version for such a durational phrase is easily elicited. (1) uses Whorf's 'ten days,' (2) exemplifies a similar pattern that was recorded spontaneously.

- (1) *pam pakwut-sikis taala-t a-ng ye-pe-q qatu*
 that ten-times day-ACC it-at here-at-EX stay
 DIF

'He stayed here for ten days.'

- (2) *itam tsivot-sikis taala-t a-ng nuvatukya'o-ve*²⁰⁵
 we five-times day-ACC it-at PN-at
 DIF

'We were five days in Flagstaff.'

Most serious of all seems to be the fact that Whorf based his observations on an extremely incomplete corpus of linguistic data. As far as the Hopi domain of time is concerned, he seems to have barely scratched the surface.

As may readily be derived from our numerous samples illustrating the various units of time (2.1 through 2.6), many of their pertinent locutions represent morphologically verbal constructions. Quantification in such a case is usually done by multiplicatives. Whorf failed either to recognize the multiplicative aspect of the element *-s*, which was detailed in 7.1, or based his interpretation on English nominal expressions such as 'the third visit' (3), 'the fourth knock' (4), 'the fifth blow' (5), etc. Of course, such nominal constructions can also be rendered verbally in English. 'When he had knocked the fourth time' draws again on the ordinal numeral, 'when he had knocked four times,' however, on the multiplicative one. In Hopi, multiple cyclicity of verbally conceived events requires the semantic notion 'times,' not the serial notion inherent in ordinals.

- (3) *paayi-s ye-pe-q kii-ki-num-ma-qw*
 three-times here-at-EX RDP-house-CIRCUMGR-POSTGR-SUBR
 visit DS

pu' nu' tuwat a-qw-a'
 then I in REF-to-PS
 turn EX

'After his third visit here I, too, [went] there.'

(4) *naalö-s pöngö-ngö-yki-na-qw pu' nu'*
 four-times knock-RDP-DISCONT-CAUS-SUBR then I
 DS

a-qw hōta
 REF-to open
 EX

'After the fourth knock I opened [the door].'

(5) *pam nu-y tsivot-sikis wuvàata-qw pu' nu' munu*
 that I-ACC five-times hit-SUBR then I fall
 DS

'After his fifth blow I fell.'

The actual day-counting system presents an extremely complex picture. To begin with, *taala*, the Hopi word for 'day,' can be used both verbally and nominally (see 2.1.1.1). In accordance with what was said above in regard to verbally conceived cyclicity, verbal day constructions generally attract the multiplicative morpheme *-s*. To complicate things, Hopi assigns the element *-s* also ordinal value. Indirect evidence for this semantic content is provided in the usage of *suus* in its prefixed form *sus-* for superlative constructions.

(6) *hak pas sus-'uu-kwatsi?*
 who very SUPER-your-friend

'Who is your best friend?'

(7) *pam pas sus-tuwi-y'-ta*
 that very SUPER-practical-POSS-IMPRF
 knowledge

'He knows it best.'

Nominal constructions with *taala*, on the other hand, may cooccur with multiplicatives and ordinals, as well as with cardinals. While durative *ang* motivates the multiplicative form of the distal quantifier *pàasa'* in (8), (9) and (10) show *pàasa'* in a role that may be compared to that of cardinals. Example (11), finally, illustrates *taala* preceded by an ordinal.

- (8) *pàa-sa-kis taala-t a-ng huu-hukya*
 that-QNT-times day-ACC it-in RDP-blow
 DIF

‘That many days the wind has been blowing.’

- (9) *itam tu-tuqay-nōnga-k-ni-qa-t pàa-sa’ taala a-qw*
 we RDP-listen-go-k-FUT-REL-ACC that-QNT day REF-to
 learn out NUM EX
 PL

pee-ti
 leave-R
 over

‘That many days are left until the time when we will come out of school.’

- (10) *pàa-sa’ taala-t yaw a-qw tokil-ta*
 that-QNT day-ACC QUOT it-to time-CAUS
 NUM EX limit

‘He scheduled it [i.e., his dance] to so many days [hence].’

- (11) *yaw oovi naalō-s taala-t e-p mihikqw*
 QUOT therefore four-times day-ACC it-at at
 night

pu’ yaw yàapa i-t kii-yat a-w-i
 then QUOT mockingbird this-ACC house-his it-to-PS
 ACC

‘On the fourth day at night the mockingbird therefore went to his [i.e., the rooster’s] house.’

Ceremonial day designations in the range of one through four exclusively append *-s* to their respective numerical stems (see 2.1.1.2). They may be interpreted ordinally or cardinally, depending on the overall syntactic situation in which the day forms are embedded. Numerals beyond ‘four’ are frequently not marked by the ordinal/multiplicative marker. That this cannot be a recent acculturation trait, is evidenced by set dates featured in the standardized ceremonial announcements, some of which were recorded by Voth (1903:277) around the turn of the century (12) as well as by Curtis (1922: 110) some twenty years later (13). Transcriptional changes are mine.

- (12) *hapi kur yaa-piy=nen sùukop taala-t e-pe-q ima*
 EMPH EV here-away=and sixteen day-ACC it-at-EX these
 from then

tsuu-tsu'-t, tsöö-tsöp-t kuwan'ew'unangway
 RDP-rattlesnake-PL RDP-antelope-PL pureheartedly

tiiva-ni-qe-y pasiwna-ya
 dance-FUT-REL-ACC plan-PL
 PL

'Sixteen days from now these Snake and Antelope [society initiates] have planned to dance with pure hearts.'

- (13) *pa-ng=qe' kya uma sino-m tala-hoy-ya;*
 there-at=INDEF maybe you person-PL light-reach-PL
 DIF PL maturity
 come alive

uma pa-ngqw inu-mi tuqay-vas-tota-ni:
 you there-from I-to listen-carefully-CAUS-FUT
 PL PL

pu' ya-n tàl-ti-qa-t e-p nanal taala-t
 now this-like light-R-REL-ACC it-at eight day-ACC

e-p ya-n wuwtsim-t wiimi-y kuu-kuy-va-ni
 it-at this-like Wuwtsim-PL ceremony-ACC RDP-emerge-R-FUT
 initiate finish PL

'Around there you people have probably come to life [i.e., are awake by now], listen carefully to me: Eight days from today the Wuwtsim initiates are going to finish their ceremony.'

Despite the rather 'messy' picture delineated above, there is no denying the fact that cardinals, too, are employed in the day-counting pattern. This permits us to conclude that an objectification of time units is not in the least foreign to Hopi. That sequences of day units are frequently considered as cardinally countable aggregates, is clear from the examples cited in this chapter as well as from examples scattered throughout this monograph. Quantities of days can even be compared. The Hopi version of Whorf's 'Ten days is greater than nine days' (Carroll 1956:140) reads as follows:

- (14) *pakwt taala pept taala-t àa-pe wuuya-vo-ni-ngwu*
 ten day nine day-ACC it-on large-to-NEX-HAB

‘Ten days is longer than nine.’

Whorf’s claim about Hopi time conception being radically different from ours does, therefore, not hold. Additional proof can of course be cited in the day-reckoning system using the adverbial feature *-tok* ‘night’ (see 2.1.2). By attaching to the element cardinal number stems, such locutions as *löötok* ‘in two days/two days ago,’ *pàytok* ‘in three days/three days ago,’ etc., clearly do not mirror a counting pattern of “successive reappearances” but rather that of an “assemblage” to use Whorf’s comparative notions. The cardinal approach also prevails in the counting of such temporal units as week (2.3), month (2.4.2), and year (2.6) as long as the construction involves a nominal form. Verbal constructions, on the other hand, call for multiplicatives.

Whorf’s observation that Hopi time unit designations do not undergo pluralization, is also only partially true. A notable exception is *muuyaw* ‘month.’ The fact that the remaining ones occur both in cardinal and ordinal/multiplicative environment with zero plurals need not be regarded as too unusual. A number of English nouns, too, especially those classified as quantitative (e.g., ‘two dozen eggs’) or partitive (e.g., ‘three yoke of oxen’), behave similarly when preceded by a numeral or other indication of quantification such as ‘few’ or ‘several.’

8 Temporal particles

8.0 Introduction

Of the parts of speech classes that Whorf sets up for Hopi, he characterizes one as “an analytic group, words which have either no inflections or few or irregular ones” (1946:163). The types that he assigns to this group are adjectives, numeratives, indefinites, interjections, locators, temporals, tensors, modalizers, particles, and conjunctions. He also suggests that all but the first four may conveniently be labeled adverbs. The only categorizing labels that are of interest in this chapter are “temporals” and “tensors.” According to him the former “denote points and periods in natural cycles, like summer and the other seasons, morning and the other times of day, the moon’s phases, the Hopi months, etc.” (1946:180). As this Whorfian category is much too vague for the many Hopi temporal expressions pertaining to it, I have not adopted it in the description of Hopi time. Nor will his label “tensors,” which he defines as “adverbs of time and degree” that “all denote intensities of various types” (1946:179) and “handle notions allied to those of the verb aspects” (1946:180) be upheld here. The term “tensor” is both impractical and alienating. Quite a few of the examples that he lists under this heading — in another place he calls them “adverbs of duration (durativeness) which take the place of our adverbs of time” (1956:53) — actually turn out to be case forms of spatio-temporal metaphors involving the quantifier element *sa*. The Hopi equivalents of others, which he renders “very quickly, right away, now” or “quickly, soon after, soon, etc.,” and characterizes as “estimators of present or future time” (1946:179) are clearly adverbial. In referring to them, therefore, I will give preference to the established label ‘particle,’ which in its broader sense also allows us to include conjunctions. While many of the temporal items that would commonly be subsumed under the collective term of ‘particle’ were already dealt with above for reasons of morphological or semantic classifications, the present section is devoted to those that exhibit no such classificatory associations. The particles in question will be presented in alphabetical order.

8.1 *aapiy* 'prematurely'

The temporal particle *aapiy*, which differs from the spatio-temporal locution *àaapiy* 'from there on/from then on' by featuring level tone instead of falling tone (see 1.5.7.2), carries a semantic content that is best described as 'ahead of time/too soon in regard to the customary, correct, or socially practiced time pattern/uncommonly or unexpectedly early.' Clauses exemplifying the particle are tinged with a reproachful note and are best understood by adding the explanatory phrase 'than expected/supposed to.' Our gloss 'prematurely' is an attempt to capture both the temporal notion and the occasionally associated reprimanding ingredient of the adverbial.

- (1) *itam aapiy pay tumala-y'-va*
 we prematurely ASSR work-POSS-INCHO
 'We started working too soon.'
- (2) *aapiy pay wari*
 prematurely already run
 'He already ran off before [he was supposed to].'
- (3) *itam aapiy yung-wis-ni*
 we prematurely enter-PREGR-FUT
 PL PL
 'We'll just enter [i.e., without knocking as is customary].'
- (4) *qa hisat oovi haqa-m hopi-taqa, tiyo,*
 NEG some therefore somewhere-at PN-man boy
 time
hisat kwa-y²⁰⁶ a-w pit-e' a-w
 when grandfather-ACC he-to arrive-COND he-to
 SS
aapiy loma-hì-ng-qawu
 prematurely nice-some-way-say
 'At no time does a Hopi man or boy therefore start out saying something nice to his grandfather when he meets him.'
- (5) *yas pi pas aapiy pay sòosoy tuusungw-ti*
 last FACT very prematurely ASSR all freeze-R
 year INAN
 'Last year everything froze ahead of time.'

Sentence (6) is nonverbal and demonstrates the particle as predicator with imperative function. This explains the inflectional element -'u.

- (6) *paapu haak qa pas aapiy-'u*
 progressively meanwhile NEG very prematurely-IMP
 'Don't start yet' or: 'Don't do it right away.'

In conjunction with durative action that is carried out before its assigned time, the particle undergoes reduplication.

- (7) *pam aa-'apiy tuumoy-ta*
 that RDP-prematurely eat-IMPRF
 'He is eating prematurely [i.e., without waiting for the others].'

- (8) *um hintiqw naat uu-tihu-y qa pas*
 you why still your-kachina-ACC NEG very
 doll
yuku-t pay aa-'apiy tuma-lwi-ta?
 finish-PRIOR already RDP-prematurely white-paint-IMPRF
 SS clay

'Why are you whitewashing your kachina doll when you haven't even finished it completely?'

8.2 *angwu* 'beforehand/aforetime'

In contrast to *aapiy* (see 8.1) whose value 'ahead of time' carries an ostracizing, that is negative connotation, the meaning of the particle *angwu* expresses a temporal priority which is viewed positively in regard to a succession of events. The event that is accompanied by the particle is thus to be implemented 'ahead of time' or 'before' the other in order to avoid a temporal conflict. To establish its temporally anticipatory role, *angwu*, which I will gloss 'beforehand,' needs to occur in future-oriented contexts. The majority of the sentences illustrating the particle below constitute commands (1-4). Hopi speakers frequently resort to inchoative locutions to render their overall meanings.

- (1) *angwu*²⁰⁷ *pay tuumoy-ta-'a; naat ung qa*
 beforehand already eat-IMPRF-IMP still you NEG
 ACC

- (7) *itam angwu pay i-t amùu-sa-vo mokyàata-ni*
 we beforehand already this-ACC they-QNT-to wrap-FUT
 up

'We'll wrap it up ahead of time before they [arrive].'

The third person pronominal base *a-* to which the element *-ngwu* appends may occasionally be replaced by the corresponding plural base *amu-* (8).

- (8) *yupá, amu-ngwu pay-'u*
 go they-beforehand now-PS
 on
 EXCLM

'Go on, [leave] now before them.'

8.3 *ason* 'later/subsequently'

The temporal function of the particle *ason* embodying the value of 'subsequently/following in time,' for which I suggest the gloss 'later,' is perhaps best characterized as that of a futurity time signal. Its value described above as 'subsequently' thus does not constitute a counternotion of 'earlier' but represents a symbolic marker that projects an action or an event into a time frame that is located beyond the immediate 'now,' regardless of whether the interval between the 'now' and the 'later' is of short or long duration. In a way, *ason* imposes a temporal constraint on the content in which it occurs with the implication that some time must or will pass before the envisaged action or event can be realized.

Voegelin and Voegelin, who comment on this particle in their semantic investigation of *as*, analyze it as a phrase consisting of *as* "past-stages/not yet" and *son* "not-future" (1969:196). Thus they write our *ason* as two lexemes *as son* and assign the particle sequence hortative function. Their interlinear glosses are either HORT [past-stages not-future] or HORT [not-yet not-future]. To date I have not been able to confirm a two-lexeme sequence for *ason*. Its phonetic reality neither admits a pause as indicated by *as son* nor the acoustic impression of a lengthened consonant. While the sequence *as son* is attested, it differs from *ason* not only semantically but also quite noticeably by carrying primary stress on the negator *son* (1). In addition, the sequence *as son* may be reversed in the form of *son as* without suffering a change in semantic force (2).

- (1) *um as son pa-nso tuuva-ni-kyangw hìntiqw*
 you IMPOT NEG there-to throw-FUT-SIMUL why
 SS

pà-n-ti?
 that-way-do

'You shouldn't have thrown it there, [so] why did you do that?'

- (2) *um son as ya-ng hángwa-n-ta-ni, i' ya-ng*
 you NEG IMPOT here-at dig-n-IMPRF-FUT this here-at
 DIF DIF

qa itàa-mu
 NEG our-something

'You should not dig here, this is not our property.'

While I contend that synchronically *ason* needs to be treated as one lexeme, I do suggest that diachronically its etymological makeup consists of the combined forces of *as* and *son*. *As*, for which I retain Whorf's gloss "impotential" (Carroll 1956:121) embodies a series of values which depending on the given context, embrace such abstract notions as 'negative diagnosis,' 'counterfactual,' 'negative anticipation,' 'failure of intention,' etc. The modal particle thus presents a negative force which may be symbolically represented as a minus sign. In fusing with the negator *son*, which contrary to Voegelins' gloss "not-future" is also attested in nonfuture contexts, two negative forces combine, which in Hopi always has the semantic effect of a strong positive. A double negative drawing on the negator *qa* is demonstrated in (3).

- (3) *pas yaw qa hìita qa tìi-ta*
 very QUOT NEG something NEG child-CAUS
 ACC

'There was not anything that she didn't give birth to [i.e., she gave birth to every creature].'

In a sense, *ason* thus assumes an abstract content that may symbolically be interpreted as a plus sign. Its occurrence in a clause can be likened to that of a guarantor of the action or event. Their realization, however, is placed into a temporal frame that requires a 'surmounting of the present time stage.' Voegelins' characterization of *as son* as a "quite positive, quite affirmative hortative force" (1969:198) is acceptable in stressing the positive and affirmative. Hortative force as such, however, is not present in *ason*. The hortative

force turns out to be just one of the modal notions that coalesce in the futurity marker *-ni*. An actual hortative is conveyed by the nonsingular hortative particle *tum* or *tuma*. The following contrastive sentences illustrate the actual semantic possibilities.

- (4) *tuma tsoo-tsongi*
 EXHRT RDP-smoke
 1P
 NSG

'Let's smoke.'

- (5) *itam ason tsoo-tsong-ni*
 we later RDP-smoke-FUT

'Let's smoke later.' or: 'We'll smoke later.'

- (6) *tum haak hii-sa-vo tsoo-tsongi*
 EXHRT meanwhile some-QNT-to RDP-smoke
 1P
 NSG

'Let's smoke for a little while.'

- (7) *ason itam qaavo-ni*
 later we tomorrow-FUT

'We'll go tomorrow.' or: 'Let's go tomorrow.'

In describing the syntactic matrices in which we encounter *ason*, I will first list simple sentences. The particle conveys the meaning 'later' in a context that is not future-oriented but rather succession-oriented. In most of these instances *ason* is accompanied either by preposed or postposed *pu* 'then.'

- (8) "*ya um hi-n-ti?*" *yaw a-w kita; noq pas*
 Q you which-way-R QUOT he-to say and very
 SI

yaw peep qa hu'wa-na; pas yaw ason pu'
 QUOT almost NEG answer-CAUS very QUOT later then

lavà-y-ti . . .
 speech-do

‘‘What happened to you?’’ he said to him. He almost did not reply, but then some time later he said . . .’

- (9) *pu' hak mowa-'iw-pu-t mÒoti a-qw*
 then someone wet-STAT-PERF-ACC at REF-to
 PRTC first EX
- òotso-k-na-ngwu pu' ason oo-ngaqw pay lak-pu-t*
 fill-k-CAUS-HAB then later up-from ASSR dry-PERF-ACC
 PRTC

‘One first fills it [i.e., the planting hole] with wet [soil] and then with dry [soil] from the top.’

The pausal termination of the particle is *-i* and is illustrated in (10).

- (10) A: *tume-'í* B: *ason-í*
 let's-PS later-PS
 go
- ‘Let’s go.’ ‘Later.’

In conjunction with the attenuative clitic =*'awú* the temporal implication of *ason* is weakened to ‘a little bit later.’

- (11) A: *nu' qa pay a-qw itàa-kwa-y*
 I NEG right REF-to our-grandfather-ACC
 now EX
- tuutsam-to-ni?* B: *áson='awú*²⁰⁸
 invite-PREGR-FUT later=ATTEN
 to
 meal

‘Shouldn’t I go right now and invite our grandfather to eat [with us]?’
 ‘A little bit later.’

Ason may also occur in simple sentences whose predicates are marked for future. Note that (12-13) contain no additional temporal references. Frequently in the translation stage, a Hopi speaker will not even bother to explicitly render the value of *ason*. The particle thus simply signals the passing of time before the projected event can be realized.

- (12) *pay um qa a-w hí-ng-qaw-law-ni; pay*
 well you NEG REF-to some-way-say-CONT-FUT well

ason songqe p'ohi-k-ni
 later most calm-k-FUT
 likely down

'Don't say anything to him; he will probably calm down.'

(13) A: *ya hintoq pas qa yok-va?* B: *hep owí,*
 Q why very NEG rain-R CFIRM yes

pay ason son qa yok-va-ni
 ASSR later NEG NEG rain-R-FUT
 for sure

'Why didn't it rain?' 'Yes, it is bound to rain later.'

In the majority of cases, however, the time interval that needs to be bridged will be specifically given in a temporal locution.

(14) *ason nu' tapki-qw uu-mi y'ori-k-ni*
 later I evening-SUBR you-to see-k-FUT
 DS

'I'll see you in the early evening.'

(15) *ason nu' löö-tok talavay pu' kaway-hep-to-ni*
 later I two-night in then horse-search-PREGR-FUT
 morning

'Two days from now in the morning I will go search for the horse.'

The force of *ason* as an emphatic element that more or less 'guarantees' an action at a specified time following a temporary intermission becomes evident when minimal pair utterances such as (16) and (17) are compared. The emphasized notions of the English equivalents are underlined.

(16) *nu' qaavo piw u-mum tumala-y'-ta-ni*
 I tomorrow again you-with work-POSS-IMPRF-FUT

'I'll work with you again tomorrow.'

(17) *ason nu' qaavo piw u-mum tumala-y'-ta-ni*
 later I tomorrow again you-with work-POSS-IMPRF-FUT

'Tomorrow I'll work with you again.'

Instead of drawing on explicit time locutions, *ason* may also accompany a concrete event which requires completion before another event can take

place. This switch from specified time interval to specified completion of an activity complicates matters syntactically. The result is a complex sentence with primary and secondary clause, in some cases even a string of secondary clauses. Basically, three types of subordination can be observed in conjunction with *ason*.

Type I considers the activity somewhat like a temporal obstacle that needs to be surmounted before the main event can unfold. In the case of subject coreferentiality, Hopi marks the subordinate clause with the sequential marker *-t* which is glossed 'PRIOR.' When urging a Hopi consultant to assign *ason* some kind of a gloss he will usually resort to the explanatory phrase 'not before.' Generally, *ason* will be encountered in the dependent clause (18). However, it may also be placed in the main clause with resulting shift in emphasis (19).

- (18) *ason um ùu-totsi-y oya-t pu' paa-mi-q*
 later you your-shoe-ACC put-PRIOR then water-to-EX
 PL SS
 OBJ

páki-ni
 enter-FUT

'Go into the water after you've taken off your shoes.'

- (19) *ùu-totsi-y um oya-t pu' ason paa-mi-q*
 your-shoe-ACC you put-PRIOR then later water-to-EX
 PL SS
 OBJ

páki-ni
 enter-FUT

'Not before you've taken off your shoes you'll go into the water.'

With the particle *ason* completely removed from the sentences in (18-19), the emphasis on the temporal prerequisite is also lost.

- (20) *ùu-totsi-y um oya-t pu' paa-mi-q-ni*
 your-shoe-ACC you put-PRIOR then water-to-EX-FUT
 PL SS
 OBJ

'Take your shoes off and go to the water.'

Inversion of the predominant sentence structure with the subordinate clause succeeding the main clause is illustrated in (21).

- (21) *pay nu' naat ay-ó' hóyo-k-ni, ason nu' i-t*
 well I still over-to move-k-FUT later I this-ACC
 there

tsööqö-k-náa-t
 insert-k-CAUS-PRIOR
 SS

'I will still move over, but only after I have rammed this [into the ground].'

While the predicate of the main clause is commonly marked with the future suffix *-ni*, the habitual marker *-ngwu* may also occur.

- (22) *pu' yaw pam piw pas qa yu'a-'a-ta-ngwu;*
 then QUOT that also very NEG talk-RDP-IMPRF-HAB

pas ason aas-e' paa-sa-t pu' pam
 very later wash-COND that-QNT-time then that
 hair SS

yu'a-'ä-yku-ngwu
 talk-RDP-DISCONT-HAB

'Then also she doesn't talk; later when she has washed her hair, she begins to talk [i.e., during the four probationary days that the bride grinds corn at her future husband's house].'

Type II presents the intervening activity as a temporal condition that needs to be met before the main event can come about. In conjoined sentences sharing identical subjects Hopi marks the subordinate verb with the conditional suffix *-e'*. *Ason*, which adds a strong emphatic flavor to the secondary clause, may again occur in various positions.

- (23) *pay nu' ason qa hiita hi-n-tsaky-e'*
 well I later NEG something some-way-do-COND
 ACC SS

a-w peena-ni
 he-to write-FUT

'When I have nothing to do I will write to him.'

- (24) *pay nu' son ason a-w qa peena-ni qa*
 well I NEG later he-to NEG write-FUT NEG

h̄iita hi-n-tsaky-ée'
 something some-way-do-COND
 ACC SS

'I will certainly write to him when I have nothing to do.'

Occasionally, two or more subordinate events may precede the independent clause.

(25) *pu' um taw-m-e' ason so'tapn-e' pu' um*
 then you sing-PROGR-COND later end-COND then you
 SS SS

hora-rà-yku-manta-ni
 shake-RDP-DISCONT-HAB-FUT
 leg

'Then when you sing and finish your song shake your leg [to which bells are attached].'

Besides the predominant main clause pattern featuring future *-ni* on the predicate, the habitual marker *-ngwu* will be appended if the action is customary.

(26) *pay haki-m pas ason h̄iita*
 well someone-PL very later something
 ACC
kyaktay-nawakn-e' pu' nawus pay síhongva-t a-w
 hurry-want-COND then must ASSR PN-ACC he-to
 SS

h̄iuyya-to-ngwu
 trade-PREGR-HAB

'If we need something in a hurry, we have to go shopping at Sihongva's.'

Type III, which is rather rare, displays the simultaneity marker *-kyangw* (PL *-kyàakyangw*) on the subordinate predicator. As in the case of *-t* 'PRIOR' and *-e* 'COND,' *-kyangw* 'SIMUL' only occurs when the actor of the secondary clause is identical with that of the primary clause. The interaction with *ason* causes the simultaneity of the two events to shift slightly so that here, too, the subordinate activity has to pass first before the consecutive main event can be realized.

- (27) *ason nu’ pas qalaptu-kyangw pu’ tihu-law-ni*
later I very get-SIMUL then kachina-CONT-FUT
well SS doll

‘I’ll carve after I get well.’

- (28) *ason nu’ nös-to-kyangw pu’ a-ngqw*
later I eat-PREGR-SIMUL then REF-from
meal SS

yaw-ma-ni
take-PROGR-FUT

‘I’ll bring it on my way to eat.’

In cases where the conjoined sentences of type I through III distinguish nonidentical subjects, *-t*, *-e’*, and *-kyangw* are replaced by the switch reference marker *-qw*.

- (29) *pàa-sa-t pu’ ason pas suyan hongvi-toti-qw*
that-QNT-time then later very clearly strong-R-SUBR
PL DS

pu’ hak put tsaa-tsa’-ta-ngwu
then someone that RDP-small-CAUS-HAB
ACC

‘Later then when they [i.e., the corn plants] become really strong, one thins them out.’

A final example illustrates *ason* in both clauses of the complex sentence.

- (30) *ason itam pay put sowa-ni-y’-ma-qw*
later we ASSR that eat-CAUS-POSS-PROGR-SUBR
ACC up DS

pu’ nu’ piw ason maq-to-ni
then I again later hunt-PREGR-FUT

‘When we are about to have that [meat] eaten up, I’ll go hunting again.’

8.4 *haak* ‘temporarily’

The sense of the temporal particle *haak*, for which I suggest the gloss ‘tem-

porarily/meanwhile' clearly involves the indefinite pronoun base *ha-*, occurring here in lengthened form *haa-*, and the diffuse locative marker *-k*. The latter is no longer productive. Being the remnant of an earlier case system, it is still preserved in such spatially diffuse forms as *lõõ-k* (two-DIF) 'in two lines,' *hii-sa-ki-k* (some-QNT-place-DIF) 'in some areas,' *sòoso-vi-k* (all-place-DIF) 'everywhere,' etc.

Although it is not possible to describe the motivation for *haak* in an abstract formula that encompasses all its occurrences, one can say that the particle typically surfaces in situations in which either an ongoing event or activity is interrupted 'for some indefinite time,' only to be resumed at a later opportunity, or where an action that is about to be realized is postponed to a later date. The first situation becomes evident in a contrastive view of the minimal pair clauses (1) and (2). While in (1) the subject simply states his intention of not doing anything at night, (2) clearly implies that the subject has been engaged in an activity which is now to be discontinued 'for the time being.'

- (1) *itam mihikqw pay qa hiita hi-n-tsak-ni*
 we at ASSR NEG something some-way-do-FUT
 night ACC

'We won't be doing anything tonight.'

- (2) *itam haak mihikqw pay qa hiita*
 we temporarily at ASSR NEG something
 night ACC
hi-n-tsak-ni; ason itam qaavo mihikqw pu'
 some-way-do-FUT later we tomorrow at then
 night

piw hiita hi-n-tsak-ni
 again something some-way-do-FUT
 ACC

'Tonight we won't be doing anything; tomorrow we'll be doing something again.'

The second situation is illustrated in the imperative situation of sentence (3).

- (3) *um haak qa pen-ta-ni*
 you temporarily NEG write-IMPRF-FUT
 'Don't start writing.'

The overall context in which *haak* may participate must be future-oriented in its general thrust. This is also possible when the event is embedded in a past time context. Present time situations, on the other hand, rarely draw on the particle. The following examples illustrate a range of contextual options.

- (4) *um haak nu-y peena-ni; nu' ason qaavo*
 you temporarily I-ACC write-FUT I later tomorrow
pay si-svi-ni
 ASSR RDP-pay-FUT

'Give me credit for the time being; I'll pay [you] tomorrow.'

- (5) *tum haak naasungwna*
 EXHRT temporarily rest
 1P
 NSG

'Let's rest for the time being.'

- (6) *hak oovi haak qa*
 someone therefore temporarily NEG
nuvö-wuwa-n-ta-ngwu
 sexually-think-n-IMPRF-HAB
 interested

'Don't take any interest yet in sex [i.e., for the time being while you're still young].'

Frequently the length of the indefinite interim indicated by *haak* may be specified by additional time locutions. *Haak* usually remains untranslated in such instances.

- (7) *itam pay haak hii-sa-vo ye-p-ni*
 we ASSR temporarily some-QNT-to here-at-FUT

'Let's [stay] here for a little while.'

- (8) *pam a'ni hoonaq-'iw-ta; oovi pay itam*
 that a drunk-STAT-IMPRF therefore ASSR we
 lot

nawus haak pu' qe'-ni
 must temporarily now not-FUT

'He's very drunk; therefore we won't be able to do anything for now.'

- (9) *nu' haak suu-kw yàasangwu-y a-ng as*
 I temporarily one-ACC year-ACC it-in IMPOT
 DIF

qa piw tii-ta-ni
 NEG more child-CAUS-FUT

'For one year I'd like not to bear another child.'

The occurrence of the particle *naat* 'still' together with *haak* is quite rare. Example (10) demonstrates such a cooccurrence with *haak* entering the compound expression *haakyese*. Its corresponding singular shape is suppletive *haakqatu* 'he is living/staying for a limited time.' An additional compound verbal with *haak* is the neologistic term *haaktu'i* (11).

- (10) *itam pi pay ye-p naat haak-yese*
 we FACT ASSR here-at still temporarily-sit
 PL

'We're living here [on this earth] temporarily.'

- (11) *nu' pay i-sikisve-y haak-tu'i*
 I ASSR my-car-ACC temporarily-buy

'I bought my car on credit.'

(12) represents a complex sentence using *haak*.

- (12) *itam as haak paapu nös-t*
 we IMPOT temporarily progressively eat-PRIOR
 meal SS

qa piw-ni
 NEG again-FUT

'Let's not continue this time [with the work] after we've eaten.'

The basic value of *haak* also constitutes the semantic core of the formulaic exclamation *haaki* 'just a moment!/hold it!/wait!' Contrary to Whorf, who considers the form to be a reflex of an original command construction **haaki'i* (Stephen 1936:1215), I suggest that *haaki* presents a pausal derivative of *haak*. That the vowel *i* typically follows the consonant *k* as pausal termination, is evidenced for example in *yuki*, the pausal form of the destinate locator *yuk*, as well as in various constructions involving the interrogative-indefinite pronoun *hak*.

- (13) *haaki, ason nu' umu-y nop-na-qw pu'*
 wait later I you-ACC feed-CAUS-SUBR then
 EXCLM PL DS

uma túwat-ya-ni
 you in-PL-FUT
 PL turn

'Wait! I'll feed you [i.e., sprinkle the kachinas with cornmeal] first and then you can have your turn [i.e., to dance].'

- (14) *haaki, haak um qa mú'a-ni*
 wait temporarily you NEG shoot-FUT
 EXCLM

'Wait! Don't shoot yet.'

A verbal derivative drawing on *haak* as stem is *haakta* which translates 'he waited a while/put it off for a while' (15). It is also attested in imperfective shape (16).

- (15) *nu' as pu' kiqötsmo-mi-q-ni-t pay*
 I IMPOT today PN-to-EX-NEX-PRIOR ASSR
 SS

haak-ta
 temporarily-CAUS

'I wanted to go to Kiqötsmovi today but put it off for the time being.'

- (16) *nu' as put h̄iita ayata-qw pam*
 I IMPOT that something order-SUBR that
 ACC ACC DS

naat haak-lawu
 still temporarily-CONT

'I told him to do that but he keeps putting it off.'

8.5 *iits* 'early'

iits is a time adverbial signifying 'at an early time.' Contrary to *se'el* which is semantically restricted to denote the diurnal phase 'early morning' (see 2.1.6.3.3), *iits* may be used to designate practically any 'early time point.'

Depending on the overall context, it may also be rendered 'soon' as is exemplified in (2).

- (1) *nu' pay iits hòy-ta-ni*
I ASSR early move-IMPRF-FUT

'I'll be on my way early.'

- (2) *um iits qalaptu-ni*
you early get-FUT
well

'Get well soon.'

- (3) *hatiko qa halayvi-ni-ngwu; put hak oovi*
lima NEG fast-NEX-HAB that someone therefore
bean ACC

iits uy-ngwu
early plant-HAB

'The lima bean is not [a] fast [grower]; therefore one plants it early [in the season].'

- (4) *pà-n-t-e' hak yaw hongvi-ti-ngwu, nen*
that-way-do-COND someone QUOT strong-R-HAB and
SS then

qa iits wuyòo-ti-ngwu
NEG early old-R-HAB

'If one does that one gets strong, and then one doesn't age at an early time.'

Negated *iits* will frequently be used to mean 'late.'

- (5) *um hìntiqw pas qa iits pitu?*
you why very NEG early arrive

'Why did you come so late?'

Sentence (6) combines both *iits* and *se'el* in one statement.

- (6) *i' pay as sumataq tooki qa iits*
this ASSR IMPOT CONJECT last NEG early
night

puw-va-kyangw se'el itamu-mi pà-ng-qawu
 sleep-R-SIMUL this we-to that-way-say
 SS morning

sùu-puw-va-qa-y
 quickly-sleep-R-REL-ACC

'Apparently he didn't fall asleep early last night, but this morning he told us that he had fallen asleep right away.'

The pausal ending of *iits* is marked by *-i*. When occurring in a copular phrase such as (7), the predicator *iitsi* translates 'be early.'

(7) A: *tum-í* B: *naat iits-i*
 let's-PS still early-PS
 go

'Let's go.' 'It's still early.'

When prefixed by the intensifier element *su-* 'direct/very,' the long stem vowel of *iits* is shortened.

(8) *e-p talavay nu' su-'its pay umu-y*
 REF-at in I direct-early ASSR you-ACC
 morning PL

nùutay-ta
 wait-IMPRF

'That day in the morning I was waiting for you quite early.'

Reduplicated forms of *iits* are attested in contexts where a distributive range of 'early points' is envisaged such as in (9) or in conjunction with imperfective actions as in (10-11).

(9) *noq pu' yaw oovi qavong-va-qw ii-'its*
 and then QUOT therefore tomorrow-R-SUBR RDP-early
 SI DS

pay yaw peetu nöönga-n-ta, tootim, ma-man-t
 already QUOT some come-n-IMPRF boys RDP-girl-PL
 AN out
 PL

'The following day therefore some boys and girls were already coming out [of the village] early.'

- (10) *nu' paapu ii-'its hòy-ta-ni; nu' taavok*
 I progressively RDP-early move-IMPRF-FUT I yesterday
qa iits-nii-qe katsin-mu-y qa tuyqaw-va
 NEG early-NEX-CAUSAL kachina-PL-ACC NEG reach-R
 SS in
 time

'I'll be on my way early this time; because yesterday I didn't go early I missed the kachinas.'

- (11) *um hìntiqw pas ii-'its pay wa-wa'ö*
 you why very RDP-early already RDP-lie
 down
naat qa hi-n pas mihikqw?
 still NEG some-way very at
 night

'Why are you lying down so early already when it's not even night yet?'

8.6 *mòoti* 'at first'

The temporal adverb *mòoti*, whose root *mòo-* may be reflected in such derivatives as *mo'a* 'mouth' and *mongwi* 'leader/head person,' translates 'at first.' It frequently figures in enumerating events, as is exemplified in (1) and (2).

- (1) *nu' se'el mòoti kiqötsmo-mi-q-ni-t pu' àa-piy*
 I this at PN-to-EX-NEX-PRIOR then REF-away
 morning first SS from

songòopa-mi

PN-to

'This morning I [went] first to Kiqötsmovi and then on to Songoópavi.'

- (2) *nu' mòoti ita-ngu-y a-w kuyva-to-kyangw*
 I at our-mother-ACC she-to look-PREGR-SIMUL
 first in SS

pu' àa-piy kaway-hep-to-ni
 then REF-away horse-search-PREGR-FUT
 from

'I'll go and look in on my mother first and then I'll go searching for the horses.'

When used with punctive forms of personal pronouns, the resulting meaning approximates our temporal notion 'before.'

- (3) *kur um pumu-y amiu-pe` mòoti tumoy-t-e' qa*
 EV you those-ACC they-on at eat-IMPRF-COND NEG
 first SS

<i>pas</i>	<i>ngas'ew</i>	<i>nö-nös-pi-t</i>	<i>itse-he'-ta-ni</i>
very	at	RDP-eat-place-ACC	dirty-ABS-CAUS-FUT
	least	<u> meal</u>	
		table	

'If you eat before them, at least don't make the table dirty.'

- (4) *nu' put àa-pe mòoti nõösa*
 I that he-on at eat
 ACC first meal

'I ate before he did.'

The adverbial may function as a modifier in certain compounds. Attested are *i-mòoti-wùuti* (my-at:first-wife) 'my first wife,' *mòoti-wimi* (at:first-ceremony) 'the first of the many rituals that take place throughout the Hopi ceremonial year,' and *mòoti-totokya* (at:first-night:dance) 'first night dance.' The latter is exemplified in the sentence below.

- (5) *su'aw mòoti-totok-mi pitu-qw ye-pe-q nuva-ti*
 exactly first-night-to arrive-SUBR here-at-EX snow-R
 dance DS

'Just when it came to the first [kachina] night dances here, it snowed.'

As adverb, *mòoti* may participate in a number of verbal constructions as illustrated in (6-7).

- (6) *um hìntoq pu' pas sùu-pòosi? pas as um*
 you why now very direct-fall very IMPOT you
 down
- | | | | |
|---------------------|-----------|-------------|-------------------|
| <i>mòoti-nii-ge</i> | <i>qa</i> | <i>iits</i> | <i>pos-kyangw</i> |
| at-NEX-CAUSAL | not | early | fall-SIMUL |
| first SS | | down SS | |

'Why did you fall off right away this time? When you did it the first time you didn't fall off so soon.'

- (7) *pàa-sa-t* *pu'* *oovi* *suukya* *naa-tavi* *pam*
 that-QNT-time then therefore one REFL-put that
 volunteer

yaw *mòoti-ni-qa-y*
 QUOT at-FUT-REL-ACC
 first

'So then one offered himself [i.e., volunteered] to do it first.'

In the petrified shape of an adverbial clause featuring the obviative suffix *-qw*, *mòotiniqw* translates 'in the beginning/at first.' In the instances cited under (8) and (9) it turns out to be an alternant of *mòoti*.

- (8) *mòoti-ni-qw* *nu'* *as* *qa* *mà-mqas-qe*
 at-NEX-SUBR I IMPOT NEG RDP-fear-CAUSAL
 first DS SS

nu' *a-qw* *wuuvi*
 I REF-to climb
 EX

'At first I was not afraid and climbed on it [i.e., the horse].'

- (9) *mòoti-ni-qw* *as* *nu'* *qa*
 at-NEX-SUBR IMPOT I NEG
 first DS

mo-mor-tuwi-y'-ta-ngwu-ni-t *pu'* *nu'*
 RDP-swim-practical-POSS-IMPRF-HAB-NEX-PRIOR then I
 knowledge SS

pay *tuwì-y'-ta*
 ASSR practical-POSS-IMPRF
 knowledge

'In the beginning I couldn't swim but now I know how to.'

Nominalization of *mòoti* is achieved by means of the specifier element *-wa*. (10) shows the form as adjectival modifier in subject position.

- (10) *mòoti-wa i-voko pas talavay siuu-wari-k-ngwu*
 at-SPEC my-pet very in directly-run-k-HAB
 first morning

'My first car [lit. pet] used to start right away in the morning.'

The causative derivative featuring perfective *-ta* (PL *-tota*) denotes 'to win a race' (11). Its imperfective pendant substitutes *-lawu* (PL *-lalwa*) for *-ta* (12).

- (11) *hotvel-pi-t mòoti-tota*
 PN-person-PL first-CAUS
 PL

'The people from Hotvela won.'

- (12) *pam wuuya-vo mòoti-lawu*
 that long-to first-CONT

'He's been [placing] first for a long time.'

In conjunction with the possessive-progressive sequence *-y'ma* we get the reading 'go in first position.'

- (13) *pu' yaw oovi puma a-qw paki, taaqa*
 then QUOT therefore those REF-to enter man
 EX

mòoti-y'ma-qw pu' tiyo a-ngk
 at-POSS-PROGR-SUBR then boy he-after
 first DS

'So then they entered there, the man going first and the boy following him.'

Mòoti is also attested with *=haqam*, the nonextreme modulator clitic (14) as well as with its extreme counterpart *=haq* (15). In both cases the temporal adverb establishes the sense 'way back in the beginning.'

- (14) *naat pas mòoti=haqa-m ima hopli-t pu' i-t*
 still very at=INDEF-at these PN-PL then this-ACC
 first

pahan-hiita a-w toona-l-ti-qe pay as
 white-something it-to align-PASS-R-CAUSAL ASSR IMPOT
 man ACC PL SS

hópìi-tu-y kyaptsi-y'-yungw-ni-t pu' pay
 PN-PL-ACC respect-POSS-IMPRF-NEX-PRIOR then now
 PL SS
 HAB

pas qa haki-y kyaptsi-y'-yungwa
 very NEG someone-ACC respect-POSS-IMPRF
 PL

'When these Hopis first associated with the white man's things [i.e., became a progressive faction] they respected the Hopis, but now they have respect for no one.'

- (15) *pay mòoti=ha-q son wuwtsim-t qa pas*
 well at=INDEF-at NEG Wuwtsim-PL NEG very
 first EX initiate

su-'a-n yu-yku-ya; pu' pi pay panis
 exact-REF-like RDP-finish-PL now FACT ASSR only

tok-tay'-yungwu
 night-awake-IMPRF
 PL
 HAB

'I'm sure that at first the Wuwtsim [society members] carried out their ceremony in the appropriate way; now all they do is stay up all night [without sleep].'

Susmòoti, featuring the superlative prefix *sus-*, conveys the meaning 'for the very first time' (16-17) and 'first before others/as the very first one' (18-19).

- (16) *nu' taavok sus-mòoti pik-ta*
 I yesterday SUPER-at piki-IMPRF
 first

'Yesterday I made piki for the very first time.'

- (17) *nu' sus-mòoti tihu-ta-qw a-n-'eway*
 I SUPER-at kachina-CAUS-SUBR REF-like-ADJR
 first doll DS unattractive

'When I carved a kachina doll for the very first time it was not very nice.'

8.7 *naat* 'still'

The particle *naat* embodies duration, continuance, and persistence of an existing state. As it may occur in time frames that are embedded in the past, the present, and the future, it lexically symbolizes something like the flow of time. Assigning the particle the gloss 'still,' *naat* interacts with a series of other particles which introduce a considerable amount of temporal differentiation in respect to the duration concept.

8.7.1 *Simple naat*

In nonfuture-oriented clauses the particle *naat* simply emphasizes the duration, ongoing process or existing condition of an event. Correspondingly, in such cases the imperfective form of the verb must be used.

- (1) *pay nu' naat wungwnuptu*²⁰⁹
 well I still stand
 up

'I'm still in the process of getting up.'

- (2) *uma piw-ya-ni, pas itam naat umu-y*
 you again-PL-FUT very we still you-ACC
 PL PL

kwangwa-'iw-yungwa
 pleasant-STAT-IMPRF
 PL

'You do it [i.e., dance] again, we're still enjoying you [i.e., the kachinas] very much.'

- (3) *um naat puw-moki-w-ta?*
 you still sleep-die-STAT-IMPRF

'Are you still sleepy?'

- (4) *pu' naamahin àa-piy-nii-kyangw naat hiita*
 then although REF-away-NEX-SIMUL still something
 from SS ACC

la-lvay-ti-ma
 RDP-speech-do-PROGR

'And although he's leaving he is still saying something.'

- (5) *pay naat pas hisat=haqa-m i' ye-pe-q*
 well still very long=INDEF-at this here-at-EX
 ago

ho-qlö-ni-ngwu
 juniper-COLL-NEX-HAB

'Long ago this was still all juniper forest.'

In statements with *naat* projected into the future a speaker may either contemplate the onset of a durative state or envisage an ongoing event. Sentences conforming to the first possibility rule out the usage of stative or imperfective verb forms.

- (6) *inu-mi pà-ng-qawu, nu' yaw naat hisat*
 I-to that-way-say I QUOT still some
 time

kyahak-taqa-niwti-ni-qa-t
 rich-man-change-FUT-REL-ACC

'He told me that some day I would become a rich man.'

- (7) *naat pam pik-ta-ni*
 still that piki-IMPRF-FUT

'She will still be making piki.'

8.7.2 *Negated naat*

In conjunction with the negator *qa* the particle *naat* indicates that the envisaged state has not materialized yet. *Naat qa* thus corresponds to English 'not yet.' In this sense the negator *qa* may also occur in sentences marked for future.

- (1) *is²¹⁰ uti, se'elhaq-ti-qw naat momoyam*
 on surprise a-R-SUBR still women
 EXCLM while DS

qa pik-yuku-ya
 NEG piki-finish-PL

'Gee, it's quite a while and still the women haven't finished making piki.'

- (2) *nu' nuvatukya'o-mi-ni niikyangw nu' pay naat qa*
 I PN-to-FUT and I ASSR still NEG
 SIMUL

p'itu-ni; nu' pay pas naat puw-ni
 arrive-FUT I ASSR very still sleep-FUT

'I'll [go] to Flagstaff but I won't return yet; I'll still stay the night.'

In sentences negated by *son* we have to differentiate between future-oriented and nonfuture-oriented ones. The modal notions that are activated in the latter are best translated with 'cannot yet,' those in the former with 'probably not yet.'

- (3) *naat nu' pu' i-tihu-y tuma-lelwi*
 still I now my-kachina-ACC white-paint
 doll clay

son naat laaki
 NEG still dry

'I just whitewashed my doll; it cannot be dry yet.'

- (4) *naat son umu-na iits lay-vitu-ni*
 still NEG your-father early herd-arrive-FUT

'Your father will probably not return early from herding.'

With negated *naat* embedded in the subordinate clause of a complex sentence, the combined forces of *naat qa* or *son naat* and the subordinating markers bring about the semantic content 'before.'

- (5) *naat nu' tooki qa puw-va-t piw pay*
 still I last NEG sleep-R-PRIOR again ASSR
 night SS

tamàa-tuy-va
 tooth-ache-R

'Before I fell asleep last night I got a toothache again.'

- (6) *itam naat qa tiikive-ni-qw naangwu-ta*
 we still NEG dance-NEX-SUBR quarrel-CAUS
 day DS

'We quarreled before it was dance day.'

- (7) *naat qa waaya-qw um a-w úmu-k-na-ni*
 still NEG run-SUBR you REF-to explode-k-CAUS-FUT
 off DS

'Shoot at it before it runs away.'

- (8) *naat ung son pitu-qw pay pam i-t*
 still you NEG arrive-SUBR already that this-ACC
 ACC DS

sòoso-k sówa-ni
 all-ACC eat-FUT
 up

'Before you arrive he will have eaten up all of this.'

8.7.3 *naat pu* 'just'

The particle phrase *naat pu*, featuring *pu* with the value 'now,' corresponds in its overall meaning to the English unstressed adverbial 'just' in the sense of 'only a moment ago.' In abstract terms, it signals immediate past. The particle sequence most frequently encountered with is *naat* preceding *pu* (1), however, the sequence is also reversible as *pu naat* (2). In addition *naat pu* may be used discontinuously (3).

- (1) *naat pu' wari-k-qw pay yaw kuktönsi-'at tuy-va*
 still now run-k-SUBR ASSR QUOT heel-his pain-R
 DS

'He had just run off when his heel started to hurt.'

- (2) *tooki nu' pu' naat puw-va-t pay mashurüu-ti*
 last I now still sleep-R-PRIOR ASSR nightmare-R
 night SS

'I had just fallen asleep last night when I experienced a nightmare.'

- (3) *naat yaw oovi pam pu' na-y wangway-qw*
 still QUOT therefore that now father-ACC call-SUBR
 DS

pay yaw a-tpi-p himu tsööqö
 immediately QUOT he-in-at something insert
 front

'He had just called his [spiritual] father when something drove into the ground in front of him.'

Discontinuous *naat . . . pu'* with future verb expresses an intention or wish in the immediate past.

- (4) *naat nu' pu' yáma-k-to-ni-kyangw u'na kur nu'*
 still I now go-k-PREGR-FUT-SIMUL recall EV I
 out SS

ura naat a-qw as qòö-na-ni-qe-y
 MEMO still REF-to IMPOT fire-CAUS-FUT-REL-ACC
 EX

'I was just leaving when I remembered that I was still going to make a fire.'

- (5) *naat nu' pu' qatuptu-ni-qw i-qõ-hi tooki*
 still I now sit-FUT-SUBR my-fire-ABS extinguish
 down DS

'I was just ready to sit down when my fire went out.'

The particle phrase *naat pu'* may be accompanied by additional time locutions that specify the 'recentness' of its temporal dimension. A variant of *naat pu'* is *naato pu'*, still common among older speakers.

- (6) *naato pu' se'elhaq itam nõö-nõsa-qw pay*
 still now while we RDP-eat-SUBR now
 ago meal DS

nu' piw tsöng-moki-w-ta
 I again hunger-die-STAT-IMPRF

'Just a while ago we ate a meal and already I'm hungry again.'

- (7) *pas i-tu-nawak-ni-y sú-'à-n-ti; naat nu'*
 very my-UNSPEC-want-NR-ACC exact-REF-like-R still I
 OBJ
 prayer

se'el pu' put oovi enang naawakna
 this now that concerning inclusive pray
 morning ACC

'It turned out exactly like my prayer [i.e., my prayer was answered]; just early this morning I had included that in my prayer.'

- (8) *naat taavok pu' yok-va-kyangw piw pay*
 still yesterday now rain-R-SIMUL again ASSR
 SS

huu-hukya
 RDP-blow

'Just yesterday it rained and [today] the wind is blowing again.'

- (9) *naat pu' hisat qa hímu-ni-t pu' mongwi*
 still now some NEG something-NEX-PRIOR now leader
 time SS
 ago

'Just some time ago he was still nothing and now he's the leader.'

- (10) *naat nu' pu' pas-ngaqw pitu; ason nu'*
 still I now field-from arrive later I
manguy'-qalaptu-t pu' u-ngem saavu-ta-ni
 tired-recover-PRIOR then you-for chopped-CAUS-FUT
 SS wood

'I just returned from the field; when I have recovered from my tiredness I'll chop wood for you.'

The role of *naat pu'* to indicate immediate past is syntactically restricted to perfective verbs. In conjunction with imperfective verbs, *naat pu'* translates either 'still then' (11) or 'so far' (12).

- (11) *noq pay yaw e-p=haqa-m naat pu' pahaana-m*
 and well QUOT REF-at=INDEF-at still then white-PL
 SI man
híki-yo-m, pay háqa-m=sa yes-ngwu
some-size-PL well somewhere-at=only sit-HAB
 a few PL

'And at that time then there were still only a few white people living here and there.'

- (12) *naat pu' i-wupa-vàapu-'uyi-y a-ng su-skya*
 still now my-long-bean-plant-ACC it-on RDP-one
 DIF

pàapu haayi-w-yungwa niikyangw naat
 beans hang-STAT-IMPRF and still
 PL SIMUL

a'ni sì-y'-ta
 a blossom-POSS-IMPRF
 lot

'So far only a few beans are hanging on my string bean plants, but they still have lots of flowers.'

8.7.4 *naat piw* 'again'

The particle *piw*, which by itself conveys such notions as 'more/also' and even 'again,' differs from the *piw* reinforced by *naat* in that it alludes to an event that reoccurs with a certain degree of regularity or monotony. Imperfective verbs may be rendered 'continue to verb' in a context with *naat piw* (1-2). The order of the sequence may also be reversed as *piw naat* (3). Discontinuity is attested, too (4).

- (1) *naat pu' piw utu-hu'-u*
 still today again hot-ABS-PS

'It continues to be hot today.'

- (2) *nu' peevewna hak mooky-e' naat piw*
 I doubt someone die-COND still again
 SS

qátu-ni-ni-qw
 sit-FUT-NEX-SUBR
 DS

'I doubt that someone will continue to live when he's dead.'

- (3) *sumats piw naat pam haki-y haqa-m*
 obviously again still that someone-ACC somewhere-at

a-w hurùu-ti
 he-to fixed-R

'Obviously he stopped at someone's place again.'

- (4) *tuma haak hii-sa-vo naasungwna, pay pi*
 EXHRT temporarily some-QNT-to rest well FACT
 1P
 NSG

naat qa piw tsöqa-ta
 still NEG again mud-CAUS

'Let's rest for a while, he hasn't made mud [i.e., mortar] again.'

8.7.5 *naat suus* 'for the first time'

The syntactic grouping of *naat* with the multiplicative *suus* 'once' establishes the semantic notion 'for the first time' in regard to a series of recurring events

- (1). A variant sequence with the additional particle *pu'* carries the same sense
- (2). For additional examples see 7.1.1.1 (12-15).

(1) *hak naat suu-s wári-k-m-e'*
 someone still one-times run-k-POSTGR-COND
 SS

muuva-l-ti-ngwu
 stiff-PASS-R-HAB

'If someone has run for the first time he gets stiff.'

(2) *naat nu' pu' suu-s nuùtu-m-nii-kyangw*
 still I now one-times the-at-NEX-SIMUL
 others SS

pay qa kwangwa-'ew-ta
 ASSR NEG pleasant-ADVR-CAUS

'The first time that I participated I didn't enjoy it.'

8.7.6 *Variant naato and derivatives*

Naato is attested in free variation with *naat*. The truncated form, however, is the one predominantly in use. *Naato* is more frequently heard among elderly speakers.

(1) *naato yoo-yoki*
 still RDP-rain

'It's still raining.'

(2) *nu' naato put qa a-ngqw yuku*
 I still that NEG REF-from taste
 ACC

'I haven't tasted from it yet.'

Naato is also the form that is used in pausal position.

- (3) *pay pi kya tuwat kya-y e-pe=ha-q*
well FACT maybe in aunt-ACC she-at=INDEF-at
 turn EX

naat-o
still-PS

'Perhaps he's still at his aunt's.'

Inflected forms (4) or derivatives (5) will of necessity draw on the full form.

- (4) *taa', piw naato-ni-y*
now again still-FUT-EXCLM
EXCLM M

'Now, [sing] once more!'

- (5) *qatsi-t naato-ni-qa-t e-p sen itam*
life-ACC still-FUT-REL-ACC it-at DUB we

kwangwa-yes-ni
pleasant-sit-FUT
PL

'I wonder whether we'll be enjoying life in the future.'

8.8 *nawis'ew* 'finally'

Nawis'ew is a temporal adverb translating 'after a considerable delay/finally.' The adverbial function of the word is transparent from the adverbializer *-'ew*, which is no longer productive. For the remaining portion of the adverbial I can offer no etymological clue.

- (1) *sòoso-vi-k nu' i-siva-moki-y hep-numa*
all-place-DIF I my-money-bag-ACC search-CIRCUMGR

nit nawis'ew nu' tuwa
and finally I find
PRIOR

'I looked for my purse all over and finally I found it.'

- (2) *nawis'ew yaw pumu-y kur himu ookwa-tuwa*
 finally QUOT those-ACC EV something mercy-find

'Finally some being had mercy on them.'

Occasionally the adverb will also occur in the adverbial clause construction *nawis'ewtiqw* featuring the realized state marker *-ti* 'got' before the switch reference suffix *-qw*.

- (3) *nawis'ew-ti-qw um yuku*
 finally-R-SUBR you finish
 DS

'You're finally finished.'

- (4) A: *ya qa nakwha?* B: *as-'á, nawis'ew-ti-q-öö*
 Q NEG agree yes-PS finally-R-SUBR-PS
 OVERNEG DS

'Didn't he consent?' 'Yes, finally.'

8.9 *nen* 'and then'

Nen is a conjunction with temporal force translating 'and then.' It generally functions as an introducer that depicts one event in temporal sequence to another. Syntactically, the two independent sentences conjoined by *nen* show identical subjects. Morphologically, the conjunction is constrained not only to follow a predicator that is marked for habitual aspect (3-4) or futurity (1-2), but also to introduce one that is in congruence with the preceding in regard to aspect or tense. The independent conjunction, which only occurs after a pause, is not to be confused with the clitic =*nen* which serves as conditional subordinator on nonverbal predicators. Both forms are illustrated in (2). Note that in three of the cited examples *nen* is followed by the temporal particle *pu* 'then.'

- (1) *nu' tungw-ni-yamuy pas tuwì-y'-va-ni;*
 I name-NR-their very practical-POSS-INCHO-FUT
 ACC knowledge

nen qa sùutok-ni
 and NEG forget-FUT
 then

'I'll memorize their names; then I won't forget them.'

- (2) *nu' pi pas a-w=nen pu' a-qw kuyva-ni;*
 I FACT very REF.to=COND then REF-to peek-FUT
 SS EX in
- nen pu' nu' pas naa-p hi-n yóri-k-ni*
 and then I very REFL-at which-way see-k-FUT
 then

'If I go there I can look in; and then I will see for myself what it is like.'

- (3) *pa-ngqw pu' puma kiison-mi-ya-ngwu; nen pu'*
 there-from then those plaza-to-PL-HAB and then
 then
- puma pe-p tiiva-ngwu*
 those there-at dance-HAB
 PL

'From there they [go] to the plaza; and then they dance there.'

- (4) *pàa-sa-t pu' puma pa-ngqw yáma-k-ngwu;*
 that-QNT-time then those there-from go-k-HAB
 out
- nen pu' puma má-man-tu-y kii-yamuy*
 and then those RDP-girl-PL-ACC house-their
 then ACC
- a-ng-ni-ngwu*
 it-at-NEX-HAB
 DIF

'Thereupon they leave that place; and then they [go] to the houses of the girls.'

8.10 *nit* 'and after that'

The conjunction *nit* occurs after a pause in place of the subordinating element *-t* 'PRIOR' in clauses that feature identical subjects. The temporal content of *nit* indicates a sequence of events or activities which may be rendered 'and after(wards)/following that.' As gloss I will use 'and:PRIOR.' To occur as a free form, the sentence preceding it needs to display a full verb predicator

taavi-w-va
sunshine-STAT-INCHO

‘[At first] there was no sunshine and then the sun started shining.’

8.11 *nungwu* ‘meanwhile’

Nungwu is a temporal adverb that refers to a time span which is located between a given point in the past and the present, occasionally also between the present and the future. The concept of an intervening time interval between two occurrences corresponds to our ‘in the meantime’ and will be glossed ‘meanwhile.’ As a rule, only the event at the end of the elapsed time interval is specified. It may be portrayed as an inchoative state (1-2), a realized state (3-4), and a state proper (5-6).

- (1) *pay nungwu paa-hu tòòqö-k-iw-ma*
well meanwhile water-ABS dry-k-STAT-IMPRF
up

‘In the meantime the spring was drying up.’

- (2) *panis i-tihu-y nasimokya-lalwa-qw nungwu*
constantly my-kachina-ACC borrow-CONT-SUBR meanwhile
doll PL DS

a-ng peeni-'at súlaw-'iw-ma sutsep
it-on paint-its empty-STAT-PROGR always
DIF

mapri-tota-qw
handle-IMPRF-SUBR
PL DS

‘They’re constantly borrowing my kachina doll, and because they are always handling it, its paint is coming off.’

- (3) *nungwu hisat-ti-qw uma naat umùu-ki-y*
meanwhile some-R-SUBR you still your-house-ACC
time DS PL PL

qa am-ya
NEG bury-PL

‘It’s quite some time now that you haven’t buried your house [i.e., covered your roof with brush, sand, etc.]’

- (4) *nungwu pay löö-s yàasangw-va-qw naat inu-mi*
 meantime ASSR two-times year-R-SUBR still I-to
 DS

qa si-svi
 NEG RDP-pay

'It's two years now and still he hasn't paid me.'

- (5) *pa-n-ma-kyangw pay yaw manà-wya-t nungwu*
 that-way-PROGR-SIMUL now QUOT girl-DIM-DL meanwhile
 SS

laho'-ma
 crawl-PROGR
 on
 all
 fours

'By now the two little girls were crawling on all fours.'

- (6) *nungwu pay yaw humi-'uyi peep kyeevel-mo-q*
 meanwhile already QUOT corn-plant almost ceiling-to-EX
pitsi-w-yungwa
 arrive-STAT-IMPRF
 PL

'By now the complaints were already almost reaching to the ceiling.'

Examples (7) and (8) display events in the immediate future.

- (7) *kyaktayi-'i, nungwu pay itamu-y wìiki-ni*
 hurry-IMP meanwhile immediately we-ACC catch-FUT
 up

'Hurry, he's now about to catch up with us.'

- (8) *a-ng ay-ó' qeni-ta-'a, nungwu tunösvongya*
 REF-at over-to space-CAUS-IMP meanwhile set
 DIF there out
 food

tuuqay-va-ni
 speak-INCHO-FUT

'Clear [the table], [or] the food will learn to speak.'

An older alternant of *nungwu* is *nuwu*. In addition to displaying this older form, the examples (9-11) differ from the ones cited above in that all of them feature negated predicates. The introduction of the negator *qa* affects the particle *nuwu* semantically. The combined force of the particle sequence *nuwu qa* now conveys notions which may be circumscribed ‘all this time the event didn’t take place/it’s taking a long time for the event to happen.’

- (9) *um nuwu ùu-tihu-y a-w qa yuku*
 you meanwhile your-kachina-ACC it-to NEG finish
 doll

taq²¹¹ pay nimàn-tiki-mi-q su-ptu-ni
 because ASSR go-dance-to-EX quickly-arrive-FUT
 home

‘[During] all this time you didn’t finish your kachina doll, and the Home dance will be coming soon.’

- (10) *pas katsina-m nuwu qa òki*
 very kachina-PL meanwhile NEG arrive
 PL

‘It’s taking the kachinas a long time to come [i.e., to return to the plaza after a dance intermission].’

- (11) *nu’ nuwu qa qalaptu*
 I meanwhile NEG get
 well

‘It took me a long time to get well.’

8.12 *paapu* ‘progressively’

In a temporal sense the particle *paapu* expresses a semantic content that may be summarized by such adverbials as ‘steadily/continuously/further/more.’ We will gloss this inherent notion of advancing time increments ‘progressively.’ Examples (1-3) illustrate this value.

- (1) *itàa-kwa paapu okiw*
 our-grandfather progressively COMPASS

qa tála'-vos-'iw-ma
 NEG light-eye-STAT-PROGR
 blind

'Our poor grandfather is steadily getting blind.'

- (2) *nungwu yaw pay paapu pas amu-mi-q*
 meanwhile QUOT ASSR progressively very they-to-EX
hàykyala
 approach

'In the meantime [the fire] was steadily getting closer to them.'

- (3) *nu' pu' pay paapu sùu-kwew-yuku-ngwu*
 I now ASSR progressively quickly-belt-finish-HAB
 'I finish my belts faster and faster.'

In negated contexts, the combined force of *paapu* and negator brings about the temporal values 'no longer/not . . . any more/never ever.'

- (4) *itam paapu put qa pa'angwa-ya-ngwu;*
 we progressively that NEG help-PL-HAB
 ACC

pam haki-mu-y a-w qa hàalay-ti-ngwu
 that someone-PL-ACC REF-to NEG happy-R-HAB

'We won't help him any more; he doesn't thank you.'

- (5) *sùupan as yaw pam son hisat paapu*
 seemingly IMPOT QUOT that NEG some progressively
 time

yu-mu-y amu-mi yóri-k-ni-qa-y
mother-PL-ACC they-to see-k-FUT-REL-ACC
 parents

wuuwa-n-ta-ngwu
 think-n-IMPRF-HAB

'It seems he thought he'd never see his parents again.'

- (6) *nu' sòoso-k i-tuwutsi-y uu-mi tùu-tuwuts-qe*
 I all-ACC my-story-ACC you-to RDP-tell-CAUSAL
 story SS

paapu kur hiita uu-mi tiu-tuwuts-ni
 progressively EV something you-to RDP-tell-FUT
 ACC story

'I've told you all my stories and don't know what to tell you any more.'

Frequently, the temporal notion of *paapu*²¹² is clearly outweighed by a definite modal tinge. Conveying something like an urgent recommendation or request, it may be translated 'be sure to/make sure that.' In such instances our gloss will be ADMON for 'admonition.'

(7) *um paapu navot-ni; um paapu qa tsay-hoya*
 you ADMON hear-FUT you progressively NEG small-person

'Be sure to listen; you're not a little child any more.'

8.13 *panis* 'constantly'

In one of his grammatical sketches of the Hopi language Whorf describes *panis* as a tensor that is tensive in nature, "meaning an intensity that is exerted persistently for a certain time though the outward effects (action) may be either continuous or interrupted" (1946:182). He assigns it the gloss "while" under the syntactic condition of conjoined sentences in which the *panis* clause is simultaneous with the other clause. In his second grammatical treatise he attributes *panis* the value "forever" (1956:45). Voegelin and Voegelin gloss the particle in conjunction with intensifying *pas* "always/very characteristically" (1957:24). As is the case with other Hopi particles, *panis* seems to combine both temporal and modal aspects. Depending on the individual context in which the particle appears, either of the two semantic ingredients may gain the semantic upper hand. Since we reserve the gloss 'always' for the Hopi adverbial *sutsep* (see 8.20), our choice for *panis* will be 'constantly' which also carries a flair of the modal notion 'only/typically.'

(1) *panis i-naqvnu-ngaqw himu suq-la-la-ta*
 constantly my-ear-from something make-RDP-IMPRF
 noise

'There is something constantly making noise in my ear.'

(2) *panis puma tuwat pe-qw put tuu'awva-manta*²¹³
 constantly those in here-to that inform-PREGR
 turn EX ACC HAB

pay pi nu' put navoti-y'-ta-qw
 already FACT I that know-POSS-IMPRF-SUBR
 ACC DS

'They constantly come to tell me something when I know already about it.'

(3) *pam panis inu-mi-q hi-ng-qaw-lawu*
 that constantly I-to-EX some-way-say-CONT

'He's constantly saying something against me [i.e., criticizing me].'

As may be gathered from the examples above, *panis* generally seems to refer to events or activities that in the speaker's eyes are tinged with a certain degree of 'unusualness, strangeness, abnormality,' even 'annoyance' or 'irritation.' In addition, *panis* may be quite devoid of its temporal sense in the role of a restrictive particle denoting 'simply/only' as the following examples show:

(4) *nu' pay panis ung tuuvingta*
 I ASSR only you ask

'I only asked you.'

(5) *um pay panis inu-ngem hùuya-to-kyangw*
 you ASSR only I-for trade-PREGR-SIMUL
 SS

pay tsivot siiva-t àasata-ni
 ASSR five money-ACC earn-FUT

'Simply by going to the store for me you can make five dollars.'

While this cannot be the place to give a semantic description of *panis* 'only' and differentiate it from the exclusive clitic =*sa*, the citation of (4-5) is justified in the light of *panis* 'only' also conveying temporal values such as 'as soon as/no sooner . . . than.' These notions are triggered in complex sentences in which the subordinate clause featuring the particle *panis* is marked by the temporal subordinator suffixes *-t* 'PRIOR' (6-7) or *-kyangw* 'SIMUL' (8-9), both of which convert to the general switch reference marker *-qw* under nonidentical subject conditions (10). As a rule, the main clause will be introduced by such temporal particles as *pay* 'immediately/right away,' *pu* 'then,' *pàasat* 'at that time,' *angqaqw* 'from then on,' etc.

- (6) *panis pam nös-t pay puw-to*
 only that eat-PRIOR immediately sleep-PREGR
 meal SS

'No sooner had he eaten than he went to bed.'

- (7) *panis hong-va-t pay taw-kuyna-ya*
 only stand-R-PRIOR immediately song-start-PL
 PL SS

'The moment they got in standing position they started singing.'

- (8) *panis yaw oovi powaqa tutskwa-mi pos-kyangw*
 only QUOT therefore witch earth-to fall-SIMUL
 down SS

pay yaw àa-piy moosa wari
 immediately QUOT REF-away cat run
 from

'No sooner had the witch fallen to the ground than it ran on as a cat.'

- (9) *nu' hapi panis pítu-kyangw pay ita-na-y*
 I EMPH only arrive-SIMUL immediately our-father-ACC
 SS

tuuvingta-ni
 ask-FUT

'As soon as I get home I'll ask my father.'

- (10) *panis yaw pumu-y talavay yes-va-qw*
 only QUOT those-ACC in stand-R-SUBR
 morning up DS
 PL

nöö-nösa-qw pay yaw piw hotnga-y
 RDP-eat-SUBR immediately QUOT again quiver-ACC
 meal DS

iikwilta-t pu' maq-to-ngwu
 put-PRIOR then hunt-PREGR-HAB
 on SS
 back

'As soon as they had gotten up in the morning and eaten breakfast, he shouldered his quiver again and went hunting.'

8.14 *pay* 'right now/already'

Like other particles, *pay* also contributes "significantly if not crucially to the semantic organization of the sentence" (Langacker 1977:30). Its semantic load is notoriously hard to gloss. The fact that it is not amenable to easy characterization seems to be rooted in the complex fusion of both temporal and modal notions that adhere to the particle. The nontemporal glosses assigned to *pay* in this monograph are 'INTR' for 'introducer' and 'ASSR' for 'assertion.'²¹⁴ The modal value of 'ASSR' can be linked to the PUA element **pa* that Langacker pinpoints to carry emphatic and assertive force (see fn. 17). As individual introducer, *pay* may embrace the role of English 'well,' and this gloss will also be encountered throughout this work. Its introductory function is also very evident in conjunction with other particles such as *pi* 'FACT,' *kya* 'maybe,' *yaw* 'QUOT,' *pas* 'very,' etc., with which *pay* semantically coalesces into formulaic introducer sequences.

Temporally, *pay* conveys such notions as 'now/this instant' in respect to present time and 'already' in respect to past time. These temporal implications of the particle were first recognized by Whorf, who defines *pay* among other things as "a sign of present time" (Stephen 1936:1272). Voegelin and Voegelin attribute it such glosses as "this moment/the next moment/already/ but/then/and" (1957:24). Some of their glosses give *pay* also the status of a conjunctive element. This force is particularly evident when it follows a subordinate clause.

Phonologically significant is the observation that, with the weight of temporal immediacy, *pay* is endowed with primary stress. The following sentences, some of which are contrasted with clauses lacking the particle, exemplify this:

- (1) *nu'* *ú-mum-ni*
 I you-with-FUT
 'I'll go with you.'
- (2) *nu'* *pay* *ú-mum-ni*
 I ASSR you-with-FUT
 'I intend to go with you.'
- (3) *nu'* *páy* *ú-mum-ni*
 I right you-with-FUT
 now
 'I'll go with you right now.'

(4) *nu' pay pu' ú-mum-ni*
 I ASSR now you-with-FUT
 'I will certainly go with you now [i.e., today].'

(5) *um i-t yaw-ma-ni?*
 you this-ACC take-PROGR-FUT
 'Will you take this along?'

(6) *um páy i-t yaw-ma-ni?*
 you right this-ACC take-PROGR-FUT
 now
 'Do you want to take this along right now?'

(7) *yaw-ma-'á-y*
 take-PROGR-IMP-EXCLM
 M
 'Take it along!'

(8) *páy yaw-ma-'á-y*
 right take-PROGR-IMP-EXCLM
 now M
 'Take it along now!'

(9) *tum noonova*
 EXHRT eat
 1P PL
 NSG
 'Let's eat.'

(10) *tum páy noonova*
 EXHRT right eat
 1P now PL
 NSG
 'Let's eat right now.'

(11) *pay itam páy tuumoy-ta-ni*
 well we right eat-IMPRF-FUT
 now
 'Well, we'll eat right now.'

- (12) *noq pi nu' páy ung naawakna, qa qaavo*
 and FACT I right you want NEG tomorrow
 SI now ACC

'I need you right now, not tomorrow.'

When teamed up with the intensifier particle *pas*, stressed *páy* conveys 'immediate futurity' in sentences marked for future. Our gloss for *páy* will be 'immediately' in such a case, and bilingual Hopi consultants generally introduce the English adverbials 'about to/almost' in their renditions. This is illustrated again in contrastive sentences.

- (13) *nu' yúku-ni*
 I make-FUT

'I'll make it.'

- (14) *nu' pay pu' yúku-ni*
 I ASSR now make-FUT

'I intend to make it today.'

- (15) *nu' páy yúku-ni*
 I right make-FUT
 now

'I'll make it right now.'

- (16) *nu' pas páy yúku-ni*
 I very immediately make-FUT

'I'm about to finish it.' or: 'I'm almost done.'

The content 'almost,' by the way, is not limited to temporal situations as (17) and (18) prove:

- (17) *pas páy yaw momo-s-pala*
 very almost QUOT bee-s-juice
 honey

'It was almost [like] honey.'

- (18) *pas páy tutuveni-ni-ngwu*
 very almost paper-NEX-HAB

'It's almost [like] paper [i.e., when milk dries on a piece of cloth].'

The temporal value ‘already’ is usually conveyed by unstressed *pay*. It is exemplified in the following examples.

- (19) *ya pay puuwi?*
Q already sleep

‘Is he asleep already?’

- (20) *um písoq-ti-ni, pay mihi*
you busy-R-FUT already become
night

‘Hurry, it’s night already.’

- (21) A: *haqa-mi ita-na?* B: *pam pay nima*
where-to our-father that already go
home

‘Where did our father go?’ ‘He went home already.’

8.15 *pi'ép* ‘repetitively’

Pi'ép is a temporal adverb which characterizes an activity as occurring in a regular sequence of reiterated or recurring manifestations. Depending on the context, the adverbial, which will be glossed ‘repetitively’ or ‘repeatedly’ in our interlinear glossing stage, may be rendered ‘repetitiously/constantly/again and again,’ etc. In all instances predicators encountered in conjunction with *pi'ép* are marked by the habitual suffix *-ngwu*.

- (1) *pi'ép nu' poski-ngwu*²¹⁵
repetitively I enter-HAB
eye

‘Again and again something is getting into my eyes.’

- (2) *pam inu-mi pi'ép pà-ng-qaw-ngwu, nu'*
that I-to repetitively that-way-say-HAB I
paapu qa homol'o-mi sa-sqa-ni-qa-t
progressively NEG PN-to RDP-STEM-FUT-REL-ACC
go repeatedly

‘Again and again he is telling me not to go to Winslow any more.’

- (3) *pam pi'ép tsuku-tavi-w-ngwu*
 that repetitively clown-place-PASS-HAB
 PERF

'He is constantly assigned the duty of clowning.'

- (4) *pi'ep-ni-ngwu yaw a-ngqa-qw, "ta'á-y*
 repetitively-NEX-HAB QUOT REF-INDEF-from all-EXCLM
 right M

pakí-y," pi'ép yaw a-ngqa-qw kíta-ngwu
 enter-EXCLM repetitively QUOT REF-INDEF-from say-HAB
 M

'Repeatedly [the voice] was saying, "All right, come on in." This is what [the voice] kept saying.'

8.16 *piw* 'again'

The adverbial *piw*, which in a nontemporal sense translates as 'more/also,' denotes 'anew/over again/once more/the next time' in regard to temporal reality. Its gloss will be 'again' here. As a rule, only a one-time repetition of the event is envisaged.

- (1) *nu' as piw u-mum tumala-y'-ta-ni-qa-y*
 I IMPOT again you-with work-POSS-IMPRF-FUT-REL-ACC
wuuwa-n-ta
 think-n-IMPRF

'I was thinking of working again with you.'

- (2) *um piw hikw-ni-ni-k paapu sùu-hikw-ni*
 you again drink-FUT-NEX-COND ADMON quickly-drink-FUT
 SS

'If you are going to drink again, drink quickly.'

- (3) *um piw a-ngqw=nen síkwi-y'-ma-ni*
 you again REF-from=COND meat-POSS-PROGR-FUT
 SS

'When you come again, bring some meat along.'

In conjunction with the temporal particle *naat* ‘still/yet’ (see 8.7), *piw* indicates a repetition that may either be anticipated (4-5) or gives reason for concern or even vexation (6-7). The former connotations are realized in future contexts, the latter in past time contexts.

- (4) *hotvel-pe piw naat totokya-ni*
 PN-at again still night-FUT
 dance

‘There will be another night dance in Hotvela.’

- (5) *nu’ suyan piw naat tamàa-tuy-va-ni*
 I clearly again still tooth-ache-R-FUT

‘I’m bound to get another toothache.’

- (6) *um piw naat a-ngqw?*
 you again still REF-from

‘Did you come again?’

- (7) *ya ita-na piw naat pas-mi=haqa-mi?*
 Q our-father again still field-to=INDEF-to

‘Has our father [gone] to the field again?’

Piw may also activate the temporal sense ‘more/additional’ as is evident from (8).

- (8) *tiikive yukl-l-ti-qw àa-piy naat piw*
 dance finish-PASS-R-SUBR REF-away still again
 DS from
- naalö-s taala-t a-ng katsina-m put*
 four-times day-ACC it-in kachina-PL that
 DIF ACC

himù-y'-yungwa
 something-POSS-IMPRF
 PL

‘From the time the dance is over the kachinas still own it [i.e., the ceremony] for four more days.’

The temporal value ‘next’ is suggested in sentences of the type cited under (9). The event associated with *piw* here usually occurs in realized state shape.

- (9) *nu' piw taala'-ti-qw paapu humi-'uy-ni*
 I again summer-R-SUBR ADMON corn-plant-FUT
 DS

taq nu' pu' taala' kwangwày'tuswa
 because I now in covet
 summer

'Next summer I will make sure that I plant corn because this summer I had great desire for that.'

The pausal form of *piw* becomes bisyllabic. In de-diphthongizing *piw* the stem initial vowel lengthens and the original glide appends the pausal termination *-u*.

- (10) *tum piw-u*
 EXHRT again-PS
 1P
 NSG

'Let's [do it] again.'

As may be gathered from the translation of (10), temporal *piwu* implies 'do over/again' when used in the predicate slot. The corresponding plural form is *piwya* (11).

- (11) *ta'á-y, huvam piw-ya-'á-y²¹⁶*
 all-EXCLM EXHRT again-PL-IMP-EXCLM
 right M 2P M
 NSG

'Okay, [do it] again.'

The rigid particle sequence *pu' piwningwu* occurs exclusively after the priority subordinator suffix *-t*. The overall semantic force of this syntactic grouping amounts to 'from time to time/now and then/occasionally.'

- (12) *pam tùm-po-q qatu-w-kyangw a-qw owa-t*
 that mesa-to-EX sit-STAT-SIMUL REF-to stone-ACC
 edge SS EX

tuuva-t pu' piw-ni-ngwu
 throw-PRIOR then again-NEX-HAB
 SS

'He sat at the mesa edge and from time to time threw a rock down.'

- (13) *pu'* *yaw* *sumataq* *tiyo* *ahoy* *taa-tay-ni-qe*
 then QUOT CONJECT boy back RDP-awake-FUT-CAUSAL
 to SS

yaw *hihin* *poni-ni-yku-t* *pu'*
 QUOT somewhat budge-RDP-DISCONT-PRIOR then
 SS

piw-ni-ngwu
 again-NEX-HAB

'Then the boy was apparently coming back to life and would stir now and then.'

In a subpattern the subordinate clause featuring *-t* is preceded by the singular or plural form of conditionally marked intransitive *hinti* 'it happened.' The particle sequence *pu' piwningwu* here stresses the continuation of a state that was interrupted by the event introduced by *hinte'* or *hintote'*.

- (14) *pay* *nu'* *pas* *hi-n-t-e'* *qa*
 well I very some-way-R-COND NEG
 SS

na-nvoti-y'-num-t *pu'* *piw-ni-ngwu*
 RDP-notice-POSS-CIRCUMGR-PRIOR then again-NEX-HAB
 SS

'Once in a while it happens that I'm out of my mind and then [everything is back to normal] again.'

- (15) *pay* *itam* *hi-n-tot-e'* *pas* *naa-na-mi* *qa*
 well we some-way-R-COND very RDP-RCPR-to NEG
 PL SS

yu'a-'a-tota-t *pu'* *piw-ya-ngwu*
 speak-RDP-IMPRF-PRIOR then again-PL-HAB
 PL SS

'Occasionally it happens that we don't talk to each other and then [we get along] again.'

8.17 *pu'* 'now/then'

8.17.1 *pu'* 'now'

The particle *pu'* basically refers to what may be described as 'now-time.' It is

then glossed 'now.' Depending on the overall contextual configuration, the 'now-time' of *pu* may be quite punctual and short (1) or comprise a more extended time span, such as 'nowadays' in (2) or 'this year' in (3).

- (1) *um hapi pu' tuuhikya*
 you EMPH now medicine
 man

'You're a medicine man now.'

- (2) *oray-ve as hisat qatsi-ni-ngwu; pu' pay*
 PN-at IMPOT long life-NEX-HAB now ASSR
 ago

pas e-p qa qatsi
 very there-at NEG life

'Orayvi at one time used to be a very lively place; now it is dead there.'

- (3) *pas itam yas a'ni hōq-ya; hi-n pi*
 very we last a harvest-PL some-way IGNOR
 year lot

pu' itam hōq-ya-ni
 now we harvest-PL-FUT

'Last year we harvested a lot; I don't know what our harvest will be like this year.'

Pu may specifically refer to the present day and will then translate 'today.' The rather long time span of 'today' allows both future and past time oriented statements.

- (4) *um hīta pu' tuuqay-va?*
 you what today learn-INCHO
 ACC

'What did you learn today?'

- (5) *nu' pu' i-tihu-y a-w yūku-ni*
 I today my-kachina-ACC it-to finish-FUT
 doll

'I'll finish my doll today.'

In pausal position the particle first lengthens its stem vowel and then copies it in nonlengthened form.

- (6) A: *ya pam hintoq pas qa pitu?* B: *a-ngqw*
 Q that why very NEG arrive REF-from

puu-’u
 now-PS

‘Why hasn’t he come yet?’ ‘There he comes now.’

While in sentences with future time reference *pu’* may imply the sense ‘from now on’ (6), in those implying past time the opposite notion ‘up to now’ is conveyed.

- (7) *nu’ pay pu’ haak qa maq-to-ni; pay*
 I ASSR now temporarily NEG hunt-PREGR-FUT well
pi naat itam a’ni sikwi-y’-ta
 FACT still we a meat-POSS-IMPRF
 lot

‘I won’t be going hunting now for some time; after all, we still have a lot of meat.’

- (8) *pay yaw puma löö-s pu’ nuvatukya’o-ve-ni-qw*
 well QUOT those two-times now PN-at-NEX-SUBR
 DS

yaw yu-mat qa navota
 QUOT mother-their NEG notice
 NSG
POSSD
 their parents

‘By now they had been twice in Flagstaff, but their parents had not noticed it.’

The ‘now-time’ notion of *pu’* may be narrowed down by additional temporal locutions.

- (9) *pu’ talavay*
 today in
 morning

‘this morning’

- (10) *pu'* *mihikqw*
 today at
 night
 'tonight'

- (11) *hi-n pa pu' taala' hi-n-ta-ni?*
 which-way SPECUL now in which-way-IMPRF-FUT
 summer

sen itam hiita aniwna-ya-ni
 DUB we something grow-PL-FUT
 ACC crop

'I ask myself what this summer will be like. I wonder whether we'll grow anything.'

In conjunction with the indefinite modulator clitic =*haqam* the semantic content 'by now' is established in sentences marked for future (12), 'around this time' in nonfuture sentences (13).

- (12) *siupan as um pu'=haqam pay*
 seemingly IMPOT you now=APPROX already

hopii-tuqay-ta-ni
 PN-speak-IMPRF-FUT

'I thought you would be speaking Hopi by now.'

- (13) *pu'=haqam haki-m mihikqw-tikive-y'-yungwu*
 now=APPROX someone-PL at-dance-POSS-IMPRF
 night PL
 HAB

'Around this time [of the year] they are having night dances.'

8.17.2 *pu'* 'then'

Pu' is also encountered with the temporal value 'then.' This is generally the case in narratives in which related events are concatenated by means of the particle. To fulfill this function, *pu'* needs to stand in sentence initial position. (1) constitutes a narrative excerpt that demonstrates two instances of *pu'* as sentence introducer.

- (1) *paa-sa-t pu' yaw oovi pam pösaala-y*
 that-QNT-time then QUOT therefore that blanket-ACC

kwusu; pu' yaw hotnga-y piw iikwilta;
 grab then QUOT quiver-ACC also put
 on
 back

pà-n-ti-t pu' yaw pam ki-y a-ngqw
 that-way-do-PRIOR then QUOT that house-ACC it-from
 SS

yama; pu' yaw pam a-ngqw orayvi-y taat-ö-q;
 go then QUOT that REF-from PN-ACC south-to-EX
 out

taat-ö-q yaw pam pitu-t pu' hoo-po-q
 south-to-EX QUOT that arrive-PRIOR then east-to-EX
 SS

'Thereupon he grabbed his blanket; then he also shouldered his quiver. Having done that he went out of the house. He [went] to a point south of Orayvi. Having reached it he [went] east.'

Example (1) illustrates at the same time the frequent occurrence of *pu'* following the priority marker *-t*. Whorf terms this behavior of *pu'* enclitic (1956:46a) and assigns it the value 'and.' We will adhere to our gloss 'then,' though. Rarely is there a need to actually translate it.

(2) *puma tumala-y'-yungwk-t pu' ni-nma*
 those work-POSS-IMPRF-PRIOR then RDP-return
 PL SS

'After work they went home.'

(3) *um háqa-m-ni-t pu' a-ngq-ö?*
 you where-at-NEX-PRIOR then REF-from-PS
 SS

'Where were you before you came?'

The same clitic-like role of *pu'* may be observed following the simultaneity marker *-kyangw* (4), the conditional marker *-e'* (5) as well as the causal suffix *-qe* (6).

(4) *ason nu' kwayngya-vo-nii-kyangw pu' put*
 later I dump-to-NEX-SIMUL then that
 SS ACC

maspa-to-ni
throw-PREGR-FUT
away

'Later, on the way to the dump, I'll throw that away.'

(5) *hak naavahomt-e' paa-mi-q pit-e' pu'*
someone bathe-COND water-to-EX arrive-COND then
SS SS

hak a-qw wunu-w-kyangw ma-y a-kw
someone REF-to stand-STAT-SIMUL hand-ACC it-with
EX SS

nàa-pa kuuyi-t kuu-kuy-ngwu
REFL-on water-ACC RDP-scoop-HAB
DIF

'When someone takes a bath and has gotten to the spring he stands in it and pours water on himself with his hand.'

(6) *pu' yaw pam a-w hàykyala-qe pu' tuwa*
then QUOT that REF-to approach-CAUSAL then spot
SS

'Upon getting closer to it he saw it.'

For conjoined clauses featuring nonidentical subjects, all of the above-mentioned subordinators are replaced by obviative *-qw*. (7) lists a case in which the particle *pu'* stands in sentence final position where its vowel is lengthened.

(7) *pas nu' qa navota; pas um inùu-kwayngya-ngaqw*
very I NEG hear very you I-behind-from

inu-mi pitu-qw puu'
I-to arrive-SUBR then
DS

'I didn't hear [anything]; [only] when you came up to me from behind [I heard you].'

Used with other temporal adverbs such as indefinite *hisat* 'long ago,' deictically proximal *yàapiy* 'from now on,' metaphorically neutral *ep* 'that day,' etc., the particle *pu'* emphasizes the onset of a new event. This notion of 'succeeding time' will also be rendered 'then.' *Pàasat pu'* 'at that time then/

thereupon' is one of the most stereotypic linking formulas for ensuing events in a narrative. The reversed sequence *pu' pàasat* is also attested.

- (8) *um oovi nu-y iikwilta-ni; pu' pàa-sa-t*
 you therefore I-ACC put-FUT then that-QNT-time
 on
 back

nu' u-ngem tay-ma-ni
 I you-for see-PROGR-FUT

'So put me on your back; I will then see for you [as you go along – an excerpt from the story 'The Blind Man and the Lame Man'].'

Examples (9-12) provide additional illustrations of this use of *pu'*.

- (9) *nu' hisat pu' hopii-tu-tuqay-ti-va-qe*
 I long then PN-RDP-listen-CONN-INCHO-CAUSAL
 ago learn SS

qa hiita tuwi'y'-ta-ngwu; pu' nu'
 NEG something knowledge-POSS-IMPRF-HAB now I
 ACC

pay navot-ngwu
 immediately notice-HAB

'Long ago when I started learning Hopi I didn't know anything; now I understand right away.'

- (10) *pay yaw puma àa-sa-t pu' piw nakwsu*
 well QUOT those REF-QNT-time then again start
 out

'They started out at the same time again.'

- (11) *niiqe e-p mihikqw pu' yaw pam pa-ngqw*
 and REF-at at then QUOT that there-from
 CAUSAL night

oray-mi-'i
 PN-to-PS

'And so he [went] to Orayvi that night.'

- (12) *nu' taavok pu' tukw-na-na-tuw-na*
 I yesterday then unfinished-RDP-REFL-see-CAUS
 wall practice

'I was practicing laying bricks [i.e., masonry] yesterday.'

8.17.3 *pu* 'just now'

In regard to events located in the immediate past, *pu* is to be rendered 'just now/just.' For its semantic interplay with *naat* 'still' indicating an even more recent past time notion, see 8.7.3.

- (1) *itam pu' yuku*
 we just finish

'We just finished it.'

- (2) *naat nu' pu' sowa*
 still I just eat
 up

'I just ate it up.'

- (3) *nu' pu' tuwanta-ma*
 I just practice-POSTGR

'I've just been practicing.'

8.17.4 *pu'sa* 'only now'

In conjunction with the restrictive enclitic =*sa* 'only,' *pu* denotes a temporal notion that translates 'only now' with the implication that an event was not realized at an earlier time.

- (1) *kur nu' as haak i-ngöla-y qa*
 EV I IMPOT temporarily my-tire-ACC NEG
maspa-ni-kyangw, pu'=sa nu' haqta
 throw-FUT-SIMUL now=only I need
 away SS

'I shouldn't have thrown my tires away, only now I find a need for them.'

- (2) *tooki nu' qa puuwi; pu'=sa nu' puw-moki-w-ta*
 last I NEG sleep now=only I sleep-die-STAT-IMPRF
 night

'Last night I didn't sleep; now only I feel how tired I am.'

- (3) *pu'=sa um qa hàalay-i; naapas qa hopi*
 now=only you NEG happy-PS DISPROB NEG well
 behaved

'Now you're unhappy; why can't you behave?'

- (4) *um hìntoq pu'=sa a-ngqa-qw? taavok as*
 you why now=only REF-INDEF-from yesterday IMPOT
nu' ung naawakna-qw, qa puu'
 I you want-SUBR NEG today
 ACC DS

'Why did you come only now? I wanted you yesterday, not today.'

8.17.5 *pu'hisat* 'recently'

The adverbial compound *pu'hisat*, consisting of *pu'* 'now' and the indefinite pro-adverb *hisat* 'at some time,' denotes in its overall force 'not too long ago/recently.'

- (1) *nu' pu'hisat mihikqw mashurìu-ti*
 I recently at nightmare-R
 night

'Recently at night I had a nightmare.'

- (2) *pu'hisat nu' hotvel-ngaqw níma-kyangw*
 recently I PN-from go-SIMUL
 home SS

sùu-pööpa-ve siva-mok-tukpu-t tuwa
 directly-road-at money-bag-container-ACC find

'Recently on my way home from Hotvela I found a purse right on the road.'

- (3) *nu' pu'hisat i-kaway-vòoko-y kwakwha-ta*
 I recently my-horse-pet-ACC tame-CAUS

'I tamed my horse recently.'

8.17.6 *puunathaqam* 'lately'

The compound adverb *puunathaqam* decomposes into the particle *pu* 'now,' appearing here with lengthened vowel and without the final glottal stop, the particle *naat* 'still' showing vowel shortening, and the approximator clitic =*haqam* 'about.' The joint force of the three elements amounts to 'lately' and is clearly based on the semantic value of the particle sequence *pu* 'naat' 'just' (see 8.7.3).

- (1) *puunathaqam nu' i-kwats-mu-y a-ngqw i-t*
 lately I my-friend-PL-ACC REF-from this-ACC

kwusu
 pick
 up

'I received this lately from my friends [i.e., by mail].'

- (2) *puunathaqam naat nu-y²¹⁷ qa qatuptu-qw pay*
 lately still I-ACC NEG get-SUBR already
 up DS

ita-na puma öki
 our-father those arrive
 our father and company PL

'Lately when I had not even gotten up, my father and family arrived.'

8.18 *qa sùusa* 'not (even) once'

The adverbial locution *qa sùusa* denotes 'not a single time/not once' and generally applies its temporal content to a time span of one day or less. In addition to the negator, *qa sùusa* decomposes into the numeral stem *sùu*- 'one' and the restrictive enclitic =*sa* 'only.' While the phrase may also be rendered 'never,' it needs to be pointed out that this sense only applies to a particular activity within a limited time frame. *Qa sùusa* thus differs markedly from *qa hisat* which means 'never at any time.' Nonnegated *sùusa* is not attested with temporal significance. The locution may also be employed discontinuously, as shown in (4).

- (1) *um tooki qa sùu=sa taa-tayi?*
 you last NEG one=only RDP-awake
 night

'You didn't wake up a single time last night?'

- (2) *pam pi taavok su-'its pay*
 that FACT yesterday directly-early ASSR
- pongsik-mi-q=haqa-mi-ni-t pas qa sùu=sa ahoy*
 PN-to-EX=INDEF-to-NEX-PRIOR very NEG one=only back
 SS to

pitu
 arrive

'He [went] to Keams Canyon yesterday very early and never came back.'

- (3) *pay pi nu' ung suu-s tuwa noq um naat*
 well FACT I you one-times find and you still
 ACC SI

nu-y qa sùu=sa tuwa
 I-ACC NEG one=only find

'I found you once already but you haven't found me one single time yet.'

- (4) *ya qa hak sùu=sa nu-y hep-numa?*
 Q NEG someone one=only I-ACC search-CIRCUMGR

'Didn't anyone look for me at any time?'

Qa sùusa is to be differentiated from *qa suus* (see 7.1.1.1) which translates 'often' as the minimal pair examples in (5-6) indicate.

- (5) *nu' qa sùu=sa ìi-po yama*
 I NEG one=only outside-to go
 out

'I never went out [today].'

- (6) *nu' qa suu-s ìi-po yama*
 I NEG one-times outside-to go
 out

'I went out quite often.'

8.19 *se'elhaq* 'a while ago/for a while'

The temporal adverb *se'elhaq*, which is attested in the Second Mesa dialect of Songoopavi in the form *seelaq*, displays two distinctive meanings. The more common value 'a while ago' is usually activated in conjunction with perfective verb forms. The form clearly decomposes into the stem element *se'el* 'this morning' and the extreme-punctive modulator clitic =*haq*. Since the notion 'this morning' does not enter the overall meaning of the adverbial, it will not be individually glossed, however.

- (1) *nu' se'elhaq aasi*
 I while wash
 ago hair

'I washed my hair a while ago.'

- (2) *nu' pu' se'elhaq nùutungk-nii-qa-t sowa*
 I now while last-NEX-REL-ACC eat
 ago up

'A little while ago I ate the last one up.'

As is readily evident in examples (1) and (2), the particles *pay* 'already' and *pu* 'now' are not without influence on the temporal force of *se'elhaq*. Addition of the particle sequence *naat pu'* to *se'elhaq* would locate the notion 'a while ago' as being even more recent in the past. An appropriate translation would then be 'just a little while ago.' To convey the opposite idea of 'an extremely long while ago/earlier this day,' *se'elhaq* appends the element *-nen* 'before,' which is also encountered in the temporal expressions *tokinen* 'the night before' (see 2.2.4) and *tavoknen* 'the day before' (see 2.1.7.2).

- (3) *pay nu' i-t se'elhaq-nen pà-ng-qawu*
 well I this-ACC a-before that-way-say
 while
 ago

'I already said that earlier today.'

The pausal shape of the adverbial is distinguished by the vowel *-a*. Depending on the syntactic circumstances, it may append directly to *se'elhaq* or will be preceded by a glottal closure. The latter option is illustrated in (4).

- (4) A: *puma hisat-ni-qw àa-piy-ya?* B: *se'elhaq-'a*
 those what-NEX-SUBR REF-away-PL while-PS
 time DS from ago

'What time did they leave?' 'A while ago.'

The adverbial may be verbalized with the realized state marker *-ti*. It then translates 'it is quite a while that . . .'

- (5) *pam nima-qw pay se'elhaq-ti*
 that go-SUBR already while-R
 home DS ago

'It's already quite a while since he went home.'

In past time contexts with imperfective verbs, *se'elhaq* unfolds its second meaning 'for a lengthy period.'

- (6) *pam pay se'elhaq pe-p ho-honaqa*
 that already for there-at RDP-play
 while

'He's been playing there already for a while.'

- (7) *pay yaw pàa-sa-t i-t a-w qa*
 well QUOT that-QNT-time this-ACC it-to NEG
tongo-k-t pay yaw a-ts-va
 touch-k-PRIOR immediately QUOT REF-above-at
 SS DIF
atkya-mi-q=haqa-mi se'elhaq pos-to
 down-to-EX=INDEF-to for fall-PREGR
 while down

'Without having touched him it [i.e., the snake] then fell over him into the depth below for quite a while.'

8.20 *sutsep* 'always'

Sutsep is a temporal adverb and accompanies events or activities that occur 'all the time/regularly/customarily,' etc. Its gloss is 'always.' As a rule, verb forms characterized in this fashion are marked for imperfect aspect or feature the habitual affix *-ngwu*. (1-3) constitute simple sentences, (4-5) complex ones.

- (1) *pam sutsep h̄iita hi-n-va-ngwu*
 that always something some-way-INCHO-HAB
 ACC arrive with something

'He always brings something [when he comes visiting].'

- (2) *itam hisat sutsep naap=sa yakta-ngwu*
 we long always on=only walk-HAB
 ago foot PL

'Long ago we used to go on foot only.'

- (3) *taawa-t a-w sutsep naawakin-tiwa*²¹⁸
 sun-ACC it-to always pray-PASS
 PERF

'The sun has always been prayed to.'

- (4) *hak sutsep h̄o-h̄oq-qe put*
 someone always RDP-harvest-CAUSAL that
 SS ACC

wa'ö-mi-n-ma-ngwu
 lie-MULTI-CAUS-PROGR-HAB

'When harvesting [corn] one always knocks [the plants] over [by stepping on them].'

- (5) *pam hapi sutsep h̄iita pu-hu-'aniwni-t*
 that EMPH always something now-ABS-crop-ACC
 ACC new

n̄öös-e' pas kur hi-n put akw qa
 eat-COND very EV some-way that with NEG
 meal SS cannot ACC

paakwuts-ngwu
 get-HAB
 diarrhea

'Whenever he eats some new crops he is bound to get diarrhea.'

Sutsep may emphasize the regular activity that unfolds at a certain time point.

- (6) *sutsep nu' taawa-nasa-ve öngava-t n̄ös-ngwu*
 always I sun-middle-at boiled-ACC eat-HAB
 beans meal

'I always eat boiled beans at noon.'

- (7) *nu' sutsep tapkiqw i-'uyi-y a-ng pòota-ngwu*
 I always in my-plant-ACC it-on check-HAB
 evening DIF

'I always check my plants in the early evening.'

- (8) *sutsep yàasangw-ti-qw tii-ta-ngwu*
 always year-R-SUBR child-CAUS-HAB
 DS

'Every year she gives birth to a child.'

The adverb is also attested as modifying constituent in compound verb locutions featuring perfective aspect only. Contrary to free *sutsep*, which implies a temporal dimension that may theoretically go on forever, the compound verbals with *sutsep* convey the notion of an uninterrupted activity over a limited period of time. English translations of such expressions reflect this in phrases like 'uninterruptedly/without interruption/without letup,' etc. Note that most of the examples below show verbs marked for inchoative aspect.

- (9) *itam hapi yàa-piy sutsep-tumala-y'-va-ni*
 we EMPH here-away always-work-POSS-INCHO-FUT
 from

'From now on we'll work without a break.'

- (10) *um pas ùu-kaphe-y a-qw kwangwa-önga-t*
 you very your-coffee-ACC it-to sweet-salt-ACC
 EX sugar

sutsep-'o-'oy-ti-va
 always-RDP-put-CONN-INCHO
 PL
 OBJ

'You're putting sugar into your coffee without interruption.'

- (11) *pam atkya-mi-q owa-t sutsep-wahi-va*
 that down-to-EX stone-ACC always-throw-INCHO

'You're throwing down rock after rock.'

- (12) *itam hapi yàa-piy sutsep-wari-k-ni*
 we EMPH here-away always-run-k-FUT
 from

'We'll run from now on without letup.'

8.21 *sùutsepngwat* ‘gradually’

The adverbial *sùutsepngwat*, which by older Third Mesa speakers is generally used in the phonological variant shape *sùytsepngwat*, stresses the consistent temporal progression of an activity or state. Its semantic content ‘as time goes on/step by step/by and by/slowly but surely’ will be glossed ‘gradually’ here. Verb forms occurring in conjunction with the adverb show either progressive *-ma* (PL *-wisa*) or the habitual marker *-ngwu*.

- (1) *sùutsepngwat nu’ a’ni hongvi-’iw-ma*
 gradually I a strong-STAT-IMPRF
 lot

‘Slowly but surely I’m getting very strong.’

- (2) *i-sip-kya-qe i-hovi-napna páro-k-pu;*
 my-groin-at-EX my-buttock-wrapping rip-k-PERF
 pants PRTC

sùutsepngwat wup-’iw-ma nu’ teevep
 gradually long-STAT-PROGR I all
 day

tsu-tskuni-l-ti-num-qw
 RDP-squat-PASS-R-CIRCUMGR-SUBR
 DS

‘My pants are ripped in the crotch; [the tear] is gradually getting longer because I’m squatting around all day.’

- (3) *pas ii-kye’ huukyangw sùutsepngwat*
 very outside-at wind gradually
 DIF

öqawi-y’-ma
 strength-POSS-PROGR

‘By and by the strength of the wind is increasing.’

- (4) *tihu sùutsepngwat hiikya-y’-ma*
 kachina gradually value-POSS-PROGR
 doll

‘The price of kachina dolls is gradually going up.’

States may increase as in (1-4) or decrease as shown in the subsequent

examples. A decrease may be expressed lexically (5-6) or by means of the negator (7-8).

- (5) *nu' tsoo-tsong-q i-piva sùutsepngwat*
 I RDP-smoke-SUBR my-tobacco gradually
 DS

tsoap-'iw-ma
 short-STAT-PROGR

'Because I'm smoking, my cigarette is getting shorter.'

- (6) *sùutsepngwat i-siva súlaw-'iw-ma*
 gradually my-money empty-STAT-PROGR

'My money is gradually becoming less.'

- (7) *sùutsepngwat itam qa a-n tumala-y'-yungwu*
 gradually we NEG REF-like work-POSS-IMPRF
 PL
 HAB

'As time goes on we're not working as hard any more.'

- (8) *pam sùutsepngwat nu-y qa hùita-y'-ma*
 that gradually I-ACC NEG something-POSS-PROGR
 ACC

'Gradually he's losing respect for me.'

9 Miscellaneous

This chapter presents time-related data that does not fit into any of the previous chapters. Among the ‘loose ends’ that will be dealt with are the following: first, a presentation of several lexemes involving either time or speed; second, the lexical field of ‘end;’ third, a glimpse into the problem of temporal anglicisms and morpheme borrowing from English; and finally, a brief description of the Hopi tense system.

9.1 *Miscellaneous time words*

9.1.1 *ewhaq- ‘ancient’*

The time expression *ewhaq-* is only attested as a modifying base element in connection with human utterances, either spoken or sung. Its semantic content approximates the notion ‘archaic.’ While *-haq* can be identified as an indefinite modulator clitic in extreme punctual shape (see 1.3.3), no comment is possible in regard to the initial syllable *ew-*.

- (1) *pam pas ewhaq-lavayi*
that very ancient-word

‘That is a really ancient [i.e., archaic] word.’

- (2) *ewhaq-tawi*
ancient-song

‘an ancient song’

9.1.2 *halayvi ‘quick’*

Whorf contended that “the Hopi language has no word really equivalent to our ‘speed’ or ‘rapid.’ What translates these terms is usually a word meaning intense or very, accompanying any verb of motion” (Carroll 1956:217). This

statement is true in so far as no nominal lexeme exists in the Hopi language that conveys the value 'speed/velocity.' It is also true that the notion of 'fast' in conjunction with 'running' is frequently captured by the quantifying intensifiers *a'ni* in the case of a male speaker and *hin'ur* in the case of a female speaker. Their basic force may be rendered 'a great deal/a lot.' The semantic range of *a'ni* and *hin'ur* extends metaphorically to such values as 'fast/loud/excellent,' etc., depending on the given contextual circumstances.

- (1) *pas yaw kur pam himu a'ni war-ta-ngwu*
 very QUOT EV that being a run-IMPRF-HAB
 lot

'That creature runs extremely fast.'

- (2) *i-sikisve iuu-sikisve-y aa-pe a'ni war-ta*
 my-car your-car-ACC it-on a run-IMPRF
 lot

'My car runs faster than yours.'

It is not true, however, that no word is found that might be considered an equivalent of English 'rapid.' *Halayvi* is an adjective that translates 'quick/fast,' occasionally also 'active' or 'lively' (Voegelin – Voegelin 1957:42). Its plural form *hàalayvit* differs from the dual form *halayvit* by featuring falling tone on the vowel of the first syllable. Among the subjects that are eligible to be characterized *halayvi* are persons, animals, plants, even the melody of a song. Excluded are cars or arrows, for example. What is notable lexically about *halayvi* is that it is always accompanied by additional intensifiers. In the majority of cases it is *a'ni* 'a lot,' or *hin'ur*, its companion term for female speakers, but *pavan* 'strong/more,' *hihin* 'somewhat/a little,' *pas* 'very,' or a combination of these are also attested. The simple statements cited in (3) and (4) may apply to a multitude of things. (5-7) are specific as to the area in which a person excels with speed. (8) assigns *halayvi* the meaning 'active' from the point of view of a person's health. (9-10) are references to growing crops.

- (3) *nu' a'ni halayvi*
 I a quick
 lot

'I [am] very fast.'

- (4) *pam tupko-y àa-pe-nii-qe a'ni halayvi*
 that younger-ACC he-on-NEX-CAUSAL a quick
 brother SS lot

'He [is] much faster than his younger brother.'

- (5) *um a'ni qeni-halayvi*
 you a space-quick
 lot

'You [are] quick in cleaning things up.'

- (6) *pam hin'ur yungyap-halayvi*
 that a wicker-quick
 lot plaque
 F

'She [is] quick in weaving wicker plaques.'

- (7) *a'ni itam tihu-hàalayvi-t*
 a we kachina-quick-PL
 lot doll

'We [are] quick in carving kachina dolls.'

- (8) A: *um hi-n hi-n-ta?* B: *pay nu' naat*
 you which-way which-way-IMPRF well I still

a'ni halayvi
 a quick
 lot

'How are you [i.e., how is your health]?' 'Well, I [am] still very active.'

- (9) *i' pay hatiko pas sus-qa-halayvi*
 this ASSR lima very SUPER-NEG-quick
 bean

'This lima bean [is] the slowest [bean].'

- (10) *i'-wa tawaqtsi pas a'ni halayvi*
 this-SPEC sweet very a quick
 corn lot

'This sweet corn in particular [is] very fast [growing].'

Among the actions that may be characterized 'fast' or 'quick' are talking,

singing, writing, dancing, drumming, flowing, rolling, running, digging, working, etc. In such cases *halayvi* is marked by the suffix *-t* for direct object. (11-15) show a few of the many possible contexts.

- (11) *pam a'ni halayvi-t tukw-lawu*
 that a quick-ACC unfinished-CONT
 lot wall

'He is laying bricks quickly.'

- (12) *a'ni halayvi-t mú-muna*
 a quick-ACC RDP-flow
 lot

'[The water] is flowing very fast.'

- (13) *sowi a'ni halayvi-t wári-k-ngwu*
 jackrabbit a quick-ACC run-k-HAB
 lot

'The jackrabbit runs very fast.'

- (14) *pavan halayvi-t a-qw pùusu-k-na-ngwu*
 more quick-ACC REF-to drum-k-CAUS-HAB
 EX

'Drum a faster beat.'

- (15) *a'ni halayvi-t tiiva*
 a quick-ACC dance
 lot PL

'They are dancing very fast.'

The semantic counternotion of *halayvi* is *suusus* 'slow' (see 7.1.1.1).

- (16) *taw-vö pi pay hi-n taawi*
 song-path FACT ASSR which-way song
 melody

yuki-w-ta-ngwu, sen suu-su-s sen halayvi-t
 make-STAT-IMPRF-HAB DUB RDP-one-times DUB quick-ACC
 slow

'The melody, that is how the song is made, either slow or fast.'

Derivatives drawing on the stem *halayvi* feature *-ti* 'got,' *-ta* 'did,' *-lawu* 'doing,' and the possessive sequence *-y'ta* 'have.'

- (17) *ye-p pay hihin halayvi-ti-ngwu*
 here-at ASSR somewhat quick-R-HAB

'Here it [i.e., the song] gets a little quicker.'

- (18) *na-halayvi-ta-'a*
 REFL-quick-CAUS-IMP

'Quicken your pace/do it faster!'

- (19) *pam na-halayvi-y'-ta*
 that REFL-quick-POSS-IMPRF

'He keeps himself at a rapid pace.'

A compound occurring with the nominalizer element *-hoya* 'person/creature' is given in example (20).

- (20) *pok-mat a'ni halayvi-hòoya-m pas inu-mi*
 animal-his a quick-creature-PL very I-to
 NSG lot
 POSSD

sú-öki
 direct-arrive
 PL

'His animals, very fast creatures, came right up to me.'

9.1.3 *nawutsti* 'it took a long time'

The stem element *nawuts-* may be glossed 'long time.' It is similar to the temporal adverb *nawis'ew* 'finally/at long last' (see 8.8); however, there is no evidence for an etymological relationship with it. Among the derivational suffixes occurring with *nawuts-*, one encounters the realized state marker *-ti* (1-2) as well as the causative marker *-na* (3-4). All of the existing forms are considered somewhat archaic. Thus, instead of *nawutsti* 'it took a long time,' *teevepti* (see 2.1.4) or *wuuyavoti* (see 1.8.2.4) are the preferred expressions today.

- (1) *pas hapi nawuts-ti*
 very EMPH long-R
 time

'It's been a long time.'

- (2) *pu'* *pay* *yaw* *oovi* *pas* *nawuts-ti-qw* *pu'*
 then ASSR QUOT therefore very long-R-SUBR then
 time DS

yaw *piw* *ahoy* *ōki-w-ta*
 QUOT again back arrive-STAT-IMPRF
 to PL

'After a long time, therefore, they were coming back again.'

- (3) *itam* *ita-na-y* *a-w* *unangw-tap-qe*
 we our-father-ACC he-to heart-CAUS-CAUSAL
 help SS

oovi *pas* *nawuts-na*
 therefore very long-CAUS
 time

'We helped our father, that's why it took us so long.'

- (4) *itse,* *umu-na* *nawuts-ni-y'-ma*²¹⁹ *taq*
 darn your-father long-CAUS-POSS-PROGR because
 EXCLM PL time

kya *i'* *as* *p'isoq-'iw-ta-qw*
 maybe this IMPOT busy-STAT-IMPRF-SUBR
 DS

'Darn it, your father is taking a long time [i.e., coming], because this [man] may be in a hurry.'

9.1.4 *sööwu* 'tardy'

Sööwu is an adverb that approximates the notions 'dilatatory' or 'tardy' and the connotations associated with them. Hopis interpret *sööwu* as a negative term that implies a tendency to delay. It is also characterized by procrastination and comes close to our concept of 'wasting one's time.' The semantic range of the adverbial is best displayed by citing a broad spectrum of contexts in which it may participate.

- (1) *itam* *homol'o-ve* *sööwu* *tuumoy-ta*
 we PN-at tardy eat-IMPRF

'We were wasting our time eating in Winslow.'

- (2) *pam hintoq pas sööwu?*
that why very tardy

'What is keeping him?'

- (3) *um oovi qa sööwu-ni-t pay-ni*
you therefore NEG tardy-NEX-PRIOR immediately-FUT
SS now

'You go right now without delay!'

- (4) *qa sööwu-'u*
NEG tardy-IMP

'Do it right away!'

- (5) *pas nu' as hii-sa-vo puw-ni-kyangw sööwu*
very I IMPOT some-QNT-to sleep-FUT-SIMUL tardy
SS

uu-mi yu'a-'a-ta
you-to speak-RDP-IMPRF

'I should take a nap for a little while, instead, I am wasting my time talking to you.'

- (6) *sööwu pi nu' tumala-y'-ta, nu' a'ni*
tardy FACT I work-POSS-IMPRF I a
lot

siiva-y'-ta
money-POSS-IMPRF

'Why should I waste time working? I have plenty of money.'

- (7) *um sööwu ye-p=haqa-m ya-n-ta; a-ng*
you tardy here-at=INDEF-at this-way-IMPRF REF-at
DIF

hàalay-ya; um ùu-qatsi-y hovala-n-ta
happy-PL you your-life-ACC waste-n-IMPRF

'You are just sitting here doing nothing. [Out] there [people] are happy [and enjoying themselves]. You're just wasting your life.'

Sentence (8) differs from the ones listed above in that it employs *sööwu* not in reference to a person but to characterize the subjective impression of slowly passing time.

- (8) *pas yaw sōōwu qa taalaw-va*
 very QUOT tardy NEG daylight-R

‘It just wouldn’t get daylight.’

The adverbial *sōōwu* may also figure in derivatives. Its stem generally takes on the truncated form *sōw-* then. Younger speakers use the base *sīw-*, which displays a vowel change *ō > i*.²²⁰

- (9) *um haqa-m piw pay sōw-ti?*
 you where-at again ASSR tardy-R

‘Where did you get delayed again?’

- (10) *itāa-taha itamu-y pongsik-ve-q sōw-toyna*
 our-uncle we-ACC PN-at-EX tardy-EFF

‘Our uncle caused us to delay at Keams Canyon.’

Interestingly enough, *sōōwuy’toyna*, the imperfective counterpart to perfective *sōwtoyna*, draws on the full base *sōōwu-*. This verbal is morphologically highly exceptional in that effective *-toyna* is permitted to cooccur with the possessive marker *-y’*. For suffixes commonly cooccurring with the latter, see the element *-y’* in HR:382.

- (11) *pīsoq-ti-’i, taq um ùu-pava-y sōōwu-y’-toyna*
 busy-R-IMP because you your-older-ACC tardy-POSS-EFF
 brother

‘Hurry up, because you are delaying your older brother.’

9.1.5 *sun* ‘at the same speed’

When fusing with the simulative element *-n*, the basic content of the morpheme *su* ‘one and the same’ is open to a great number of semantic interpretations. Obviously, these interpretations depend on the overall contexts in which the adverbial occurs. (1-3) show *sun* in situations which are void of time connotations. (4-5), on the other hand, clearly depict *sun* with a temporal element which is here associated with the phenomenon of velocity. *Sun* then translates ‘at the same speed.’

- (1) *pay yaw pas su-n maa-mapsi-m-u*
 INTR QUOT very same-way RDP-shot-PL-PS

‘They are equally good shots.’

- (2) *qa su-n pè-y'-ta-ngwu*
 NEG same-way mark-POSS-IMPRF-HAB
 '[These two objects] don't have the same design.'
- (3) *qa su-n tutskwa*
 NEG same-way earth
 'not an even ground/not a plain'
- (4) *puma su-n wári-k-iw-ta*
 those same-way run-k-STAT-IMPRF
 'They are running at the same speed.'
- (5) *itam su-n hòy-ta*
 we same-way move-IMPRF
 'We're moving along at the same speed.'

9.1.6 *tokila* 'allotted time/time limit'

Tokila is a noun whose semantic content may be characterized as 'time limit/ deadline.' It typically surfaces in contexts that set a certain endpoint to a given time span. The term is used both secularly and ceremonially and may allude to endpoints marking a specific project, a stay, a person's life, the length of this (fourth Hopi) world, etc. In a ceremonial sense, *tokila* implies 'set date' for the public performance of a given ritual. The following examples reflect the usage spectrum of this time expression. Compared with the spatio-temporal term *tuwani* 'measure' (see 1.9.4), the time span of *tokila* generally exceeds that of one day.

- (1) *pas hapi ùu-tokila-y a-qw qa pas wuuya-vo*
 very EMPH your-time-ACC it-to NEG very long-to
 limit EX

peeti
 remain

'There is not much time left till your deadline.'

- (2) *is ohi, i-tokila-y a-qw hàykya-l-ti*
 oh grief my-time-ACC it-to close-PASS-R
 EXCLM limit EX

'Oh dear, it's close to my deadline.'

- (3) *tokila-yat a-qw pitu-to*
 time-his it-to arrive-PREGR
 limit ACC EX

‘It is getting to the end of his life.’

- (4) *nu' i-tokila-y a-ngqw pelvo-ta*
 I my-time-ACC it-from less-CAUS
 limit

‘I shortened my allotted time [i.e., I had to leave earlier].’

- (5) *yàa-piy pu' yaw puma put ngöy-ta, nanal*
 here-away now QUOT those that pursue-IMPRF eight
 from ACC
- taala-t, tokila-yat, e-p hapi pam nakwsu-ni-qw*
 day-ACC time-his REF-at EMPH that start-FUT-SUBR
 limit ACC off DS

‘From here on now they were pursuing that, the eight days, his deadline, the day on which he was going to start out.’

This nominal appends a number of affixes, especially possessive *-y'ta* (6), causative *-ta* (7), and effective *-toyna* (8-9).

- (6) *pay um qa pas wuuya-vo tokila-y'-ta*
 well you NEG very long-to time-POSS-IMPRF
 limit

ahoy iu-toko-y a-qw pítu-ni-qa-y-u
 back your-body-ACC it-to arrive-FUT-REL-ACC-PS
 to EX

‘You have not much of your allotted time left to return into your body.’

- (7) *ya pam hisat tokil-ta anga-ktsin-mu-y-ni-qa-y?*
 Q that when date-CAUS long-kachina-PL-ACC-FUT-REL-ACC
 hair

‘What date did he set to have the Longhair kachina dance?’

- (8) *ung haqa-mi tokil-toyna?*
 you where-to deadline-EFF
 ACC

‘Until when did he give you time?’

- (9) *nu' pay nawus qaavo nima-ni, nu' pay*
 I ASSR must tomorrow go-FUT I ASSR
 home

pe-qw=haqa-mi naa-tokil-toyna
 here-to=INDEF-to REFL-deadline-EFF

'I will have to return home tomorrow, I set a deadline for myself to this time here.'

9.2 The lexical field of 'ending'

Several of the lexemes constituting the semantic domain of 'end/ending/ceasing/stopping' were discussed in conjunction with the device of the spatio-temporal metaphor. Among these were *so'ngwa* 'the end' (1.9.3), *kuyva* 'he finished' (1.10.4), *so'ta* 'it is at an end' (1.10.14), *sòosoko* 'he stopped' (1.10.15), *súlawti* 'it is over' (1.10.16), and *yuku* 'he completed it' (1.10.20). Excluded, because not attested in a purely spatial way, were the general ending word *qe'ti* 'he stopped/quit' and the specific ending verbals *mooki* 'he died,' *noptso'a* 'they finished a meal,' *ooki* 'he stopped crying,' *tiitso'a* 'they finished the ceremonial dance,' and *yaala* 'it ceased raining, etc.'

9.2.1 *mooki* 'he died'

The verb *mooki* is perfective and conveys the two meanings 'he passed out' and 'he died.' The associated plural shape is *so'a*, a suppletive form that is reminiscent of the root *so-* as in the nominal *so'ngwa* 'end' (see 1.9.3). The imperfective aspect of *mooki* is reduplicated *mómoki*, which lacks a plural form.

- (1) *pam hì-n-ti-qe mooki?*
 that which-way-R-CAUSAL die
 SS

'What happened to him that he died?'

- (2) *nu' mok-ni-qe-y unàngw-ti*
 I die-FUT-REL-ACC heart-R

'I felt like dying.'

The perfective participle form *mok-pu* (PL *so'-pu-m*) means 'dead.' The stative *mokiwta*, on the other hand, translates 'numb,' not 'dead.'

- (3) *lölöqangw* *mok-pu* *ahoy* *taa-tayi*
 snake die-PERF back RDP-STEM
 PRTC to wake up

‘The dead snake came back to life.’

Sentence (4) introduces the rare nominal ‘death,’ featuring the abstract nominalizer element *-w*. A nominative form is not attested.

- (4) *um* *qa* *moki-wu-y* *na-nmor-t*
 you NEG die-ABSTR-ACC RDP-choose-PRIOR
 death SS

qalaptu-ni-qa-y=sa *wuuwa-n-ta-ni*
 convalesce-FUT-REL-ACC=only think-n-IMPRF-FUT

‘Don’t chose death but keep thinking of getting better.’

As to the idiomatic sense of *mómoki* ‘he is dying’ in relation to moon and sun, see 2.4.1 (examples (8) and (21)).

Synonymous locutions for *mooki* ‘die’ are *súlawti* and *qatsikuyva*, both of which have a euphemistic ring to them. The realized state form *súlawti* is identical for both singular and plural subject.

- (5) A: *ya himu hì-n-ti?* B: *yaw itàa-so*
 Q what which-way-R QUOT our-grandmother

súlaw-ti
 empty-R

‘What happened?’ ‘I heard that our grandmother died.’

- (6) *i-kwatsi-m* *súlaw-ti*
 my-friend-PL empty-R

‘My friends are dead.’

- (7) A: *pam hi-n* *qatsi-kuy-va?* B: *pam tùm-po-q*
 that which-way life-emerge-R that mesa-to-EX
 edge

pòosi
 fall
 down

‘How did his life end?’ ‘He fell down the mesa edge.’

Two highly idiomatic expressions signifying 'to die' are rendered in (8) and (9). The euphemistic term *àapiy* 'away from' that was quoted in HR (946) with the value 'to die,' is probably a calque based on English 'he passed away.'

- (8) *sòoso-k hikwsu*
all-ACC breathe
INAN

'He breathed everything [i.e., he breathed his last].'

- (9) *pam sa'lakw-timay-to*
that PN-witness-PREGR
dance

'He went to see the Sa'lako ceremony [i.e., he died].'

The suffixal element *-niipu* denoting 'former/deceased' also needs to be mentioned in this context. It attaches both to kin terms and proper names.²²¹

- (10) *i-nöma-niipu*
my-wife-deceased

'my deceased wife'

- (11) *itaa-so-niipu* *pà-ng-qaw-ngwu-ni-qw*
our-grandmother-deceased that-way-say-HAB-NEX-SUBR
DS

puma yaw tutskwa-ngaqw=sa noonova-ngwu
those QUOT earth-from=only eat-HAB
PL

'Our dead grandmother used to say that they ate from the earth only [i.e., they did not buy food].'

- (12) *kuwanlets-tiwa-niipu*
PN-ONOM-deceased
M

'the late Kuwanletstiwa'

9.2.2 *noptso'a* 'they finished eating'

Perfective *noptso'a* 'they finished eating' is intransitive and lacks a correspond-

- (1) *ooki-'i*
stop-IMP
crying
'Stop crying!'
- (2) *pu' yaw puma tuwat piw ok-qe yaw*
then QUOT those in again stop-CAUSAL QUOT
turn crying SS

hàalay-ti
happy-R

'When they had ceased crying again, they were happy.'

9.2.4 *qe'ti* 'he quit doing something'

Morphologically, *qe'ti* decomposes into the negator *qe'*, an allomorph of more commonly attested *qa* 'not,' and the realized state marker *-ti*, which pluralizes as *-toti*. Semantically, the verbal refers to the ceasing of a certain activity. It frequently combines with the latter in compound expressions.

- (1) *qa pas um maanguy'-t pay qe'-ti-ni*
NEG very you get-PRIOR ASSR not-R-FUT
tired SS quit

'Quit before you get tired.'

- (2) A: *um hísatniqw pítu-ni?* B: *pay*
you what arrive-FUT well
time

tumàl-qe'-toti-qw àa-piy hii-sa-vo-ni-qw-ö
work-not-R-SUBR REF-away some-QNT-to-NEX-SUBR-PS
PL DS from little DS

'When will you come?' 'Shortly after they stop working.'

- (3) *qa lavày-qe'ti-ngwu-qa*
NEG speak-stop-HAB-REL
'one who does not quit talking'

Reduplicated *qèeqe'ti* implies a repetitive stop-and-go action.

- (4) *i-tawa qèe-qe'ti*
 my-watch RDP-stop

'My watch keeps stopping and running again.'

The causative notion 'make something stop/bring to a halt' is derived from the stem *qe'*- by the bimorphemic causative suffix *-tapna*.

- (5) *nu' i-sikisve-y qe'-tapna*
 I my-car-ACC not-CAUS

'I stopped [the engine of] my car.'

A final derivative affixes the morpheme sequence *-wma*, signaling inchoative state.

- (6) *nu' totok-mi-q pitu-to-q paas*
 I totokya-to-EX arrive-PREGR-SUBR completely
 day DS

qé'-iw-ma nùutu-m-ni-qa-y
 not-STAT-PROGR the-at-FUT-REL-ACC
 others

'By the time it was getting Totokya [i.e., the day before the dance], I was having second thoughts about participating.'

9.2.5 *tītso'a* 'they finished dancing'

Constructed similar to *noptso'a* 'they finished eating' (see 9.2.2), intransitive *tītso'a* 'they finished dancing' may be broken down into *tii*- 'dance' (cf. *tiiya* 'they are dancing') and the element *-tso'a* reminiscent of *so'*- 'end' (cf. *so'ngwa* 'the end'), with the fricative *s* having changed in the composition process to the affricate *ts*. Again, as in the case of *noptso'a*, no singular form is attested.

- (1) *ya hiitu pu' tii-tso'a?*
 Q what now dance-finish
 beings PL

'What kind of kachinas just finished dancing?'

While *tītso'a* generally refers to the end of a ceremonial dance, the plural causative derivative *tītso'naya* implies the termination of the entire ceremony, of which the dance is only one aspect.

Alternatives to straight morpheme borrowing from English are, of course, circumlocutions or innovations. The former generally tend to be somewhat awkward, as is evidenced by a reference to ‘bank’ in (3).

- | | | | | | | |
|-----|----------------|---------------|------------------------------|-------------|------------|---------------|
| (3) | <i>i'</i> | <i>taaqa</i> | <i>tumala-y'-ta</i> | <i>pe-p</i> | <i>ura</i> | <i>haqa-m</i> |
| | this | man | work-POSS-IMPRF | there-at | MEMO | where-at |
| | <i>siiva-t</i> | <i>sino-m</i> | <i>tangà-y'-yungwu-ni-qw</i> | | | |
| | money-ACC | person-PL | put-POSS-IMPRF-NEX-SUBR | | | |
| | | | PL | PL | DS | |
| | | | OBJ | HAB | | |
| | | | in | | | |

‘This man is working there where people generally put money [i.e., at a bank].’

Innovative terms, on the other hand, whether arrived at on the basis of a deliberate loan translation or spontaneous coining, are usually concise and much to be preferred. (4-9) show some such innovations.²²² Note that *masòmpi* ‘brake,’ in (9), was originally a horse term with the meaning ‘hobble.’

- | | | | |
|-----|---------------------------|-----|-----------------------------------|
| (4) | <i>patusungw-sivu</i> | (5) | <i>tapa-ven-pi</i> |
| | ice-container | | hammer-write-INSTR |
| | ‘freezer’ | | ‘typewriter’ |
| (6) | <i>tokpel-ki</i> | (7) | <i>siva-sowana-y'-ta-qa</i> |
| | sky-house | | money-tuberculosis-POSS-IMPRF-REL |
| | ‘skylab’ | | ‘inflation’ |
| (8) | <i>si-siro-k-hoy-mu-y</i> | | <i>tsöpàa-pi-'am</i> |
| | RDP-slide-k-person-PL-ACC | | pick-INSTR-their |
| | | | up |
| | ‘ski lift’ | | |
| (9) | <i>ma-sòm-pi</i> | | |
| | hand/arm-tie-INSTR | | |
| | ‘brake’ | | |

Wholesale morpheme borrowing from English is especially rampant in the domain of time expressions. Here it is practiced not only by younger generation speakers, who are no longer familiar with the appropriate temporal locu-

tions, the numeral system, etc., but also by members of the middle-aged and older generations. Even at occasions where culturally relevant situations are almost exclusively communicated in Hopi, for instance during story telling, a simple phrase like 'four days,' which could easily be rendered in Hopi, will be incorporated in its English shape into the flow of the Hopi narrative without the slightest hesitation.

In the course of this monograph the phenomenon of the temporal anglicism or neologically constructed time expression had to be alluded to on more than one occasion. The following presentation will attempt to systematize some of these observations and delineate briefly the various approaches that Hopi has taken in its encounter with the English language and the temporal reality reflected in English. Several mechanisms or combinations of such mechanisms can be factored out in this linguistic acculturation process. One of the most important is borrowing. In the early stage of the Hopi-Anglo encounter, in which the Anglo side made every effort to rigorously impose its system of western culture in terms of religious beliefs, moral values, material items, etc., on the Hopi communities, the gaps in Hopi temporal orientation became readily apparent. Borrowing at this stage was primarily done out of a need-filling motive. Thus, clock time with individual hours and calendar time with months evenly divided into weeks and the latter subdivided into named days, seem to have been among the first time notions accepted from the foreign donor. We observe that the unaccustomed temporal conventions are recast into Hopi terms. *Taawa* 'sun' becomes the word for 'clock' (see 2.1.3), *taawa-qöni-k-i* (sun/clock-turn-k-NR) the term for 'hour' (see 1.10.11), *santi*, the term for 'week' is the result of a phonologically assimilated 'Sunday' (see 2.3), and the days of the week are captured in rather lengthy circumlocutions (see 2.1.8). *Pahan-muyaw* (white:man-moon) becomes the word for the 'calendar month' and *muuyaw-tutuveni* (moon-paper) the acculturated expression for '(paper) calendar.' While thus expanding his cultural horizon, the Hopi borrower nevertheless remains committed to his own linguistic creativity and the morphological mechanisms provided by his language. Prestige, rather than need-filling, as a motive, may have played a role in borrowing terms like 'Easter,' 'Thanksgiving,' 'Christmas,' 'New Year,' etc., particularly among those characterized as *pahan-na-nawakna* (white:man-RDP-want), i.e., Hopis 'desiring to embrace the ways of the white man.' Conversion to various strains of Christianity may have been an equally powerful factor in integrating these notions into the Hopi language fabric. Still, total adaptation to Hopi phonemic reality is the rule, as may be gathered from (10-13). Note also the morphological integration of the borrowed items by equipping them with native suffixes.

- (10) *isti-tota*
Easter-CAUS
PL

'They celebrated Easter.'

- (11) *naat itam pu' kiving-tota-qw pay*
still we now (Thanks)giving-CAUS-SUBR already
PL DS

piw kyesmis a-qw pitu
again Christmas it-to arrive
EX

'We just celebrated Thanksgiving and already it has come to Christmas [time] again.'

- (12) *pay pi pu' kyesmis-muyaw qaatsi*
well FACT now Christmas-moon lie

'Well, it's December.'

- (13) *pay pu' nooyuu*
well now New
Year

'Well it's New Year now.'

Interpretive innovation rather than mere phonological assimilation is seen in an alternate locution for 'Christmas' (14). It did not gain widespread acceptance, however.

- (14) *naa-huyva-n-ta-qa-t*²²³ *a-w pitu*
RCPR-give-n-IMPRF-REL-ACC it-to arrive
to
PL
OBJ

'It has come to Christmas [time], [lit. to the time when they are giving to each other].'

This early phase of adopting from the donor both word and concept or practice associated with it, is further distinguished by accommodating new temporal reality in the way of calques or loan translations. (15-17) exemplify this solution, which is again indebted to the native, monolingual approach.

- (15) *puhu-yàasangw-lawu*
new-year-CONT

‘He is celebrating New Year.’

- (16) *ùu-tii-ti-w-pu-y* *a-w* *pitu*
your-child-CAUS-PASS-NR-ACC it-to arrive
PERF

‘It has come to [the time of] your birthday.’

- (17) *sutsep-qatsi*
always-life

‘eternal life’

On a larger scale, complete sentences may represent acculturated thinking. Overexposure to the English language can generally be attributed as the causative factor here. The speaker who generates calque clauses is generally bilingual, equally versed in both languages, but determined not to relinquish his native tongue. (18-23) represent a sampling pertaining to the time domain. On the whole, I have tried to guard against the inclusion of such linguistic material in my documentation process of Hopi time; however, frequently a Hopi is not aware himself any more how deeply his thinking has been affected by English thought or ideational patterns. Where intentionally incorporated, this is pointed out. However, I am aware that if all the sentences could be read back to a monolingual Hopi speaker – no such speaker could be found any more – quite a few would probably fail the test on grounds of being unidiomatic and tinged by English thought structure.

- (18) *nu' i-t* *pahan-muyawu-y* *naasa-mi-q*
I this-ACC white-month-ACC middle-to-EX
man

paa-sa-vo *tumala-y'-ta-ni*
that-QNT-to work-POSS-IMPRF-FUT

‘I’ll work until the middle of this calendar month.’

- (19) *i-t* *a-w* *wuko-talöngw-iw-ta*
this-ACC it-to big-daytime-STAT-IMPRF

‘The big day for this [event] is there.’

- (20) *hi-n* *pa* *ita-na* *tapki-ni-y'-ma*
which-way SPECUL our-father early-CAUS-POSS-PROGR
evening

'I wonder what kind of evening our father is having [i.e., at the hospital].'

- (21) *nu' nuvatukya'o-ve tuho'os-ta*
 I PN-at fall-CAUS

'I spent the fall in Flagstaff.'

- (22) *ason itam navay rüupa-k-qw pu'ya-ni*
 later we six slide-k-SUBR then-PL-FUT
 apart DS

'We'll go after six o'clock.'

- (23) *ya um navoti-y'-ta hisatniqw-ni-q-ö?*
 Q you know-POSS-IMPRF what-NEX-SUBR-PS
 time DS

'Do you know what time [of day] it is?'

The transition phase of Hopi linguistic acculturation following the initial contact phase, which, as we saw, operates within the phonological, morphological, and syntactic givens of the mother tongue, is typically marked by hybrids or blends. These are locutions that usually combine semantically concrete English loans with the more abstract native affixes. Also, the English loan portions are now generally rendered in compliance with English pronunciation rules.

- (24) *birthday-lawu*
 birthday-CONT

'He is making [i.e., celebrating] his birthday.'

- (25) *nu' qa a-w time-ni-y'-ta*
 I NEG REF-to time-CONN-POSS-IMPRF

'I have no time for that.'

- (26) *pas pay five days-ti-ni-qw i-ti-m*
 very immediately five days-R-NEX-SUBR my-child-PL
 DS

öki
 arrive
 PL

'It was almost five days when my children came.'

In the next phase of this process, extensive syntactic groupings are integrated into the vernacular.

- (27) *nu' songqa next two weeks e-p pik-ta-ni*
 I probably next two weeks REF-at piki-IMPRF-FUT

'I will probably be making piki for the next two weeks.'

- (28) *itam last Wednesday-t e-p kuyva-wisa*
 we last Wednesday-ACC it-at visit-PREGR
 sun PL

'Last Wednesday we went to speak a morning prayer to the sun.'

- (29) *i' pi muuyaw i-t pahan-muyawu-y qa*
 this FACT moon this-ACC white-month-ACC NEG
 man

wiiki-ngwu, every year pam ten days a-kw
 catch-HAB every year that ten days it-with
 up

behind-ti-ngwu
 behind-R-HAB

'This moon does not catch up with this calendar month, every year it gets ten days behind.'

This linguistic acculturation process has led to a situation today where the majority of Hopi children growing up are generally better equipped to handle English than their own native tongue by the time they start pre-school. For some reason the parents of these children, although perfectly versed in their vernacular, prefer to communicate with their children in English. Fortunately, there still exist 'correctives' in the form of grandparents. However, unless this trend can be halted or slowed down by massive, well organized bilingual education administered by linguistically trained Hopi teaching personnel, the Hopi language will not be facing stabilization in older and expanded Hopi as Voegelin would have it, but serious and irreparable deterioration, if not extinction, in the next generation or two.

9.4 *The Hopi tense system*

The purported absence of Hopi tenses is a myth that still tenaciously per-

vades much of the nonlinguistic literature that feels compelled to comment on the Hopi language, in particular on Hopi time. This passage quoted from Robert Hall is a typical outgrowth and/or reinforcing contribution to this myth:

It has been suggested that our Western European concern with time – which is a specific characteristic of our culture, not at all innate to the human race as a whole – may be due to the presence, in our grammatical systems, of a contrast between past and nonpast tenses (with also a specifically future tense in Greek and Latin, in which our philosophical systems were elaborated). Other languages have no tense-contrasts at all, but (like Hopi or the Slavic languages) lay much more emphasis on aspect (e.g., completed vs. incomplete action) or verified vs. unverified status (as when a statement must be given as being on either the speaker's or some one else's authority) (1964:402).

The originator of this myth was Whorf, who in his later writings repeatedly denied tense for Hopi (Whorf 1946:176; Carroll 1956:113/144/217). Conversely, all of his early writings composed between 1935-1937, two of which were published posthumously (Carroll 1956:103; Whorf 1956:41), clearly assign tenses to Hopi.

There are three tenses: past (i.e., past up to and including present), future, and generalized (that which is generally, universally, or timelessly true), all of which are mutually exclusive (Carroll 1956:103).

Later, Whorf reversed his stand, and replaced the term “tense” with that of “assertion.”

Hopi verbs have three assertions: REPORTIVE (zero form), EXPECTIVE (suffix *-ni*), NOMIC (suffix *-ngwu*). These translate, more or less, the English tenses. But they do not refer to time or duration. They distinguish three different kinds of information. Assertion, in other words, is a classification that refers the statement to one of three distinct realms of validity (Carroll 1956:113).

Two years later he coined the phrase “the timeless Hopi verb” in restating his position in regard to the topic of tense:

The timeless Hopi verb does not distinguish between the present, past, and future of the event itself but must always indicate what type of validity the SPEAKER intends the statement to have: (a) report of an event . . . ; (b) expectation of an event . . . ; (c) generalization or law about events (Carroll 1956:217).

Tense is, of course, a grammatical category. It is deictic²²⁴ in nature because its essential characteristic is “that it relates the time of the action,

event or state of affairs referred to in the sentence to the time of utterance (the time of utterance being 'now')" (Lyons 1968:305). Lyons continues;

Many treatments of tense have been vitiated by the assumption that the 'natural' division of time into 'past,' 'present,' and 'future' is necessarily reflected in language (1968:305).

Whorf, too, became a victim of this assumption in his comparison of temporal forms of verbs in SAE and Hopi: "The three-tense system of SAE verbs colors all our thinking about time" (Carroll 1956:143). If tense is defined not semantically but morphologically, his statement is true for Latin,²²⁵ for instance, but not for German or English, to mention only a few of the languages that he lumps together as Standard Average European.

The unidirectional flow of time out of a 'before-now' or 'already' via a 'now' into an 'after-now' or 'not-yet,' often diagrammatically represented by a one-dimensional time line drawn from left to right and featuring an arrow tip pointing into the future, may actually mirror time reality as experienced by human beings; however, there is no compelling or intrinsic reason to find this 'natural' state of affairs reflected in the tense categorization of a language. To quote Lyons again:

Tense admits of categorization in many different ways . . . The 'theoretical zero point' (the 'now' of utterance) might be included with either 'past' or 'future' to yield, on the one hand, a dichotomy between 'future' and 'non-future', or, on the other, a dichotomy between 'past' and 'non-past'. A different dichotomy (based on the distinction of 'now' and 'not-now' without reference to the directionality of time) could be 'present' v. 'non-present' (1968:305).

As it turns out, from among the numerous suffixes that the Hopi verb can select to mark the grammatical categories of aspect, mode, and tense, one is specifically reserved to refer to time or rather the sequential ordering of events or states. This temporal marker is *-ni* whose referential force is futurity. Its temporal function is primary; however, in many contexts *-ni* also takes on a number of secondary, atemporal functions which essentially belong to the modal²²⁶ category (imperative, hortative, desiderative, etc.). Since no markers exist to point out present or past time, Hopi, like many other languages, can be said to be endowed with a future-nonfuture tense system.²²⁷ The term 'nonfuture' captures the tense that Whorf originally defined as "past (i.e., past up to and including present)" and later reclassified as "reporitive assertion" because "it reports an actual occurred or occurring fact; it corresponds to past and present tense" (1946:176). Whorf's third tense, originally termed "generalized or usitative" but later recast as "nomic asser-

tion or validity-form" declaring "a general or customary truth" (1946:176), draws in Hopi on the aspectual marker *-ngwu*. Unlike English, which characteristically expresses gnomic utterances such as timeless and generic propositions, general truths, etc., by sentences in the present tense, Hopi employs the habitual marker. However, just as so-called general truths embodied in gnomic utterances have nothing to do with present time in English, they really have no intrinsic connection with habitual or customary aspect in Hopi. Tense in the case of English and aspect in the case of Hopi are simply the grammatical vehicles readied by the respective linguistic systems to assume these rather different functions. That gnomic propositions are frequently handled by aspect is pointed out by Lyons:

Our belief in the validity of some general truth may be based upon our knowledge of what is usually the case; this makes the habitual or iterative aspect appropriate in languages that grammaticalize aspectual distinctions of this kind (1977:681).

In the process of translating Hopi nonfuture verb forms into English and interpreting them as present or past time relevant, a number of clues are available, including the overall temporal setting of the context, time particles, and especially the overt or covert aspect associations of the particular verb. Perfective verbs generally admit a past tense translation, imperfective verbs a present tense rendering, although a past tense reading for the latter and a present tense reading for the former is also possible under special syntactic and contextual conditions. For more specifics concerning the Hopi tense situation in simple and conjoined sentences see Voegelin, Voegelin, and Jeanne (1980:582), who concur in the view that Hopi sentences are not restricted to a minimum division of time into future and nonfuture tenses.

While many other contributing factors instrumental in disambiguating present and past time interpretations of Hopi nonfuture verbs cannot be detailed here, suffice it to say that Hopi speakers never consider themselves at a loss in determining whether a particular utterance refers to past, present, or future time. Figures 7, 8, and 9 summarize the above diagrammatically: Figure 7 the universal time system, which must be posited to constitute an experience shared by all mankind and Figure 8 the specific Hopi tense categorization. Figure 9 lists a number of verbal suffixes which render a given stem either perfective or imperfective. Usually the aspectual notion is secondary to the semantic content of the suffix. Suffixes classified 'perfective' generally allow past time interpretation, those characterized 'imperfective' generally allow present time interpretation.²²⁸

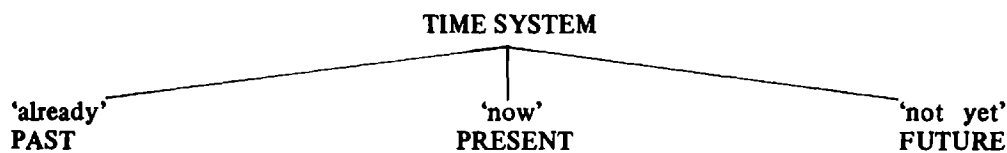


Figure 7

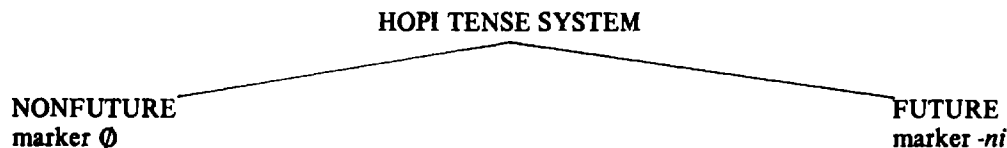


Figure 8

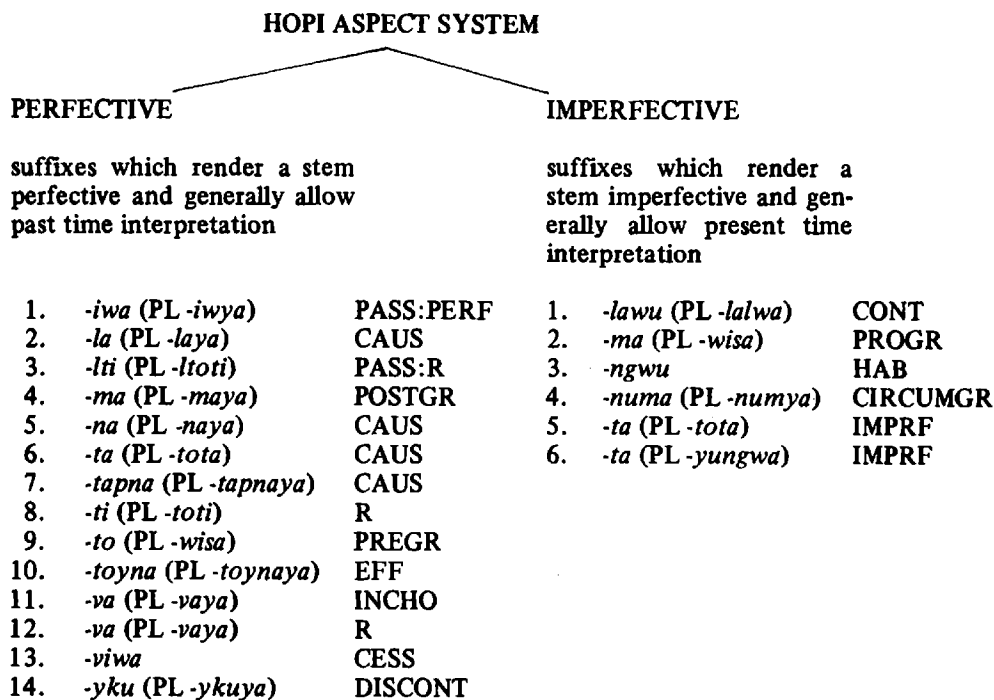


Figure 9

To conclude our comments on the Hopi tense system, a quotation concerning the English tense systems seems appropriate. While today it is generally conceived as one along the lines of past-nonpast opposition, the passage quoted from Church has implications beyond that point, especially in regard to the linguistic relativity hypothesis as suggested by Whorf and expounded by many of his followers.

Much of Whorf's argument, moreover, is invalid in that he argues from certain formal observable grammatical characteristics to a 'model of the Universe'. The Hopi's model is for him based largely upon the verbal system. But by a similar argument we could argue that English too has no concept of time . . . Formally English has two tenses only, past and present as in *love* and *loved*. All other so-called tenses are composite forms involving auxiliary verbs, *was loving*, *will love*, etc.; these are not strictly part of the 'basic' tense system (and in this sense English has no future tense). Moreover, the 'past' tense is not semantically simply a matter of past time reference. The past tense may refer to past time as in *I went there yesterday*, but it is also used for 'unreality' as in *If I went tomorrow, I should see him* or *I wish I went there every day* . . . It has been actually suggested (by M. Joos) that English does not have a past tense, but a 'remote' tense to indicate what is remote in time or remote in reality. This makes English rather more like Hopi, and it is easy to see that, if English had been an American Indian language, it could have been used as an example of a language in which time relations are not distinguished. But few of us would believe that English speakers fail to make such time distinctions. It is clear that the grammatical structure of a language tells us little about our way of thinking about the world (1976:57-58).

10 Concluding remarks

This monograph conclusively disproves Whorf's widely publicized contention that "the Hopi language contains no reference to 'time,' either explicit or implicit" (Carroll 1956:58). It elaborates this result on the basis of the ethno-linguistic evidence which was gathered in the field and which, for the most part, constitutes hitherto unrecorded source material. Crucial here is a methodology based on the broadest possible linguistic documentation from the Hopi language. It is through such an approach that new insights into Hopi language and culture are arrived at.

Whorf's challenging observations on the interdependence of language and thought popularized the notion that thinking is more or less at the mercy of grammatical structures and in the grip of lexical systems. Many of his ideas were developed contrastively in a partial comparison between the Uto-Aztecan language of the Hopi Indians in Arizona and the western European languages. To substantiate his ideas Whorf also focused on the different view of time that Hopi speakers supposedly have. However, his conclusions, which according to him were induced "after long and careful study and analysis" (Carroll 1956:57), were hardly ever supported by the required linguistic proof. For decades, while Whorf's startling findings about a "timeless language" (Carroll 1956:216) have stirred the imagination of many minds, scholars have not only speculated about the defensibility of his claim, but also deplored the absence of the necessary evidence to verify or falsify his claim. By inventorying the Hopi time domain and describing the full scope of Hopi temporal orientation as it is reflected in the language, this study provides new and reliable information which allows scholars to evaluate the results of Whorf's investigation anew. It is my hope that the evidence presented will eliminate the myth of Hopi being a "timeless language" once and for all.

If Sapir's observation that "the latent content of all languages is the same—the intuitive *science* of experience" (1921:218) is true, it must, of course, also hold for man's experience of time. For not only each of man's individual actions, but indeed every single spoken utterance is inextricably tied to a

temporal situation. While one can probably concede to Whorf that linguistic differences may result in different thought worlds (Carroll 1956:147), provided that these linguistic differences are limited to the lexical level which takes stock of a speaker's material, social, and cultural environment, one will also have to posit that there exist domains which are experienced universally by all mankind, regardless of the linguistic microcosm that every human being "carries about within himself, by which he measures and understands what he can of the macrocosm" (Carroll 1956:147). One such domain is time, a fundamental experience conceptualized by every human mind and processed linguistically by all languages to some degree or other. Coming to terms linguistically with the category of time must therefore be reckoned among the genuine linguistic universals. Hopi is no exception. In the light of the data compiled in the nine chapters above, the Hopi language turns out to be 'human' after all. Thus, the thought that it might actually be impossible for a SAE speaker even to conceive the Hopi world in its more abstract aspects of reality, an idea that is intimated in Whorf's comments on the Hopi language in support of his theory of linguistic relativity, need no longer be alarming.

While trying to present an all-encompassing survey of Hopi temporal reality, my intention was also to preserve and record as large a corpus of the Hopi language as possible and practical. Preservation is important, for English is rapidly displacing this Southwestern Indian language due to the ever accelerating acculturation process. Factual knowledge of temporal orientation is being forgotten equally rapidly; indeed, to a great extent it is already lost. Fewkes' statement at the turn of the century, that "Hopi aboriginal life is fast fading into the past and the time for gathering ethnological data is limited" (1902:510), must now be taken more seriously than ever. Thus, topics concerning the scientific side of temporal reality (solar, lunar, and stellar orientation) as well as the pragmatic aspects of temporal technology (horizon-based sun calendar, timekeeping devices such as knotted cords, calendar sticks, shadow observation, etc.) could not be treated as extensively here as I would have liked because reliable information is exceedingly difficult to obtain. For the most part, field work in these areas amounts to what might be termed 'linguistic archaeology.' Two major reasons justify this expression. First, much of the expertise concerning matters of this sort is often esoteric to the average Hopi himself, and second, most of the experts, such as sun watchers, society leaders, and others, who remain today are either unwilling to divulge this esoteric knowledge to a non-Hopi or are not known to me.

Naturally, all of these topics deserve monograph-length investigations of

their own. To be valid, the research needs to be carried out in the Hopi vernacular, the predominant approach of this investigator. Revelations about an unfamiliar culture are more genuine if they are obtained in the native language of that culture. Thus, a theory by White Bear Fredericks that the Hopi kachinas were once preastronauts who traveled about aboard spaceships without engines or fuel but guided by magnetic fields (Blumrich 1979:30), can easily be punctured because simply no Hopi linguistic equivalents relate to such technological concepts. On the other hand, concepts or customs, such as that of the 'puerperal period' or 'intercalation,' which are firmly established in Hopi culture and referred to throughout the literature, gain transparency when they are presented and researched in the source language (see 2.1.1.4. and 2.4.5). Unless research in these areas is carried out soon, and unless the results are presented bilingually, however, time will run out too quickly for us to salvage some of what remains of these intangible but fascinating aspects of Hopi culture.

The temporal items that were covered more exhaustively in this monograph are those which still survive in the language itself. Among these are the spatio-temporal metaphor, the units of time (day, month, season, etc.), the ceremonial calendar, temporal particles, and a range of miscellaneous time words. In this study many, if not most, of Whorf's contentions have been refuted: that there is no objectification of Hopi time, that is, "as a region, an extent, a quantity, of the subjective duration-feeling" (Carroll 1956:143); that "temporals are not used as subjects or objects, or at all like nouns" (Carroll 1956:143); that "the absence of . . . [spatio-temporal] metaphor from Hopi speech is striking" (Carroll 1956:146); that the time-counting pattern is only "by ordinals" (Carroll 1956:148); that "our 'time' differs markedly from Hopi 'duration'" (Carroll 1956:158), and various other such claims. While I do not want to contend that all of my observations are flawless, one wonders, however, why Whorf erred so drastically in many of the Hopi time issues, and what motivated him to sum up his findings with the bold statement that "after long and careful study and analysis, the Hopi language is seen to contain no words, grammatical forms, constructions or expressions that refer directly to what we call 'time,' or to past, present, or future, or to enduring or lasting" (Carroll 1956:57).

That semantic niceties and lexicalized concepts indigenous to a foreign language are not gleaned from a superficial familiarity with the source language and culture is, of course, a truism for any ethnolinguist. One must, therefore, also ask with what size grain of salt one has to view all those generalizing accounts of orientation and measuring of time among so-called primitive peoples (see e.g. Cope, Dangel, Fettweis, Müller, Nilsson, etc.). A

passage which is typical for such a summarizing account relates how the natives informed the explorer-research in question that they would make a journey in two days. "They indicated with their hands the diurnal motion of the sun and expressed the number two by as many of their fingers" (Nilsson 1920:12).

Mention must also be made that this study is one-sided in that it focuses only on Hopi temporal reality as it is reflected in the dialect of Third Mesa speakers. Whorf's research, on the other hand, was based primarily on the vernacular of the Second Mesa community of Musanguvi. To complement the Hopi time picture that has evolved here, comparative studies in the villages of the other dialect regions would have to be undertaken. Especially in the realm of the lexicalization of temporal reality, additional information should easily be found. Of the topics neglected here is the whole range of grammatical subordinators which mark temporal clauses and structure actions or events according to principles of anteriority, simultaneity, and posteriority. While they, as well as the many aspectual suffixes that often merge with notions of time, are scattered throughout the many text samples, a preliminary survey was made available in Malotki 1979b. A more detailed exploration of their syntactic and semantic interplay, however, is now being undertaken by this author.

While it is the paramount thrust of this monograph to attest to the fact that the Hopi Indians lack neither an elaborate consciousness of time nor its reflection in their speech—the monograph amply illustrates this point in the hundreds of time lexemes and locutions—we can also say that their sense of time, or the role that time plays in their lives and culture, does not correspond to ours. Nor would one expect the two to be identical. Indeed, projections of the kind which Whorf based on a comparison of the Hopi and SAE approach to handling time do not seem to be fair to either side. Time-reckoning methods, calendrical systems, temporal orientation means, etc., are very complex and highly sophisticated in both the Hopi and our western world. And although we detect a great deal of overlap, the influence of historical, social, religious, environmental, and other factors has definitely shaped, and is still shaping, the individual temporal needs of each group.

Thus, the Hopi calendar was not used to record the passage of time, to single out just one point. Nor are the temporal divisions of the Hopi day adjusted in terms of Standard Time, although the basis for both the Hopi calendar and ours is solar. Most of all, two or three generations ago, the Hopi sense of time was still unaffected by the timepiece. Our modern notion of time has been irreversibly imprinted by this device, and the clock has become one of the foremost characteristics of western civilization as a whole.

Mumford maintains that “the clock, not the steam-engine, is the key-machine of the modern industrial age . . . By its essential nature it dissociated time from human events” (1934:14) and helped reduce “life to a careful, uninterrupted routine: so long for business: so long for dinner: so long for pleasure—all carefully measured out, as methodical as the sexual intercourse of Tristram Shandy’s father, which coincided, symbolically, with the monthly winding of the clock. Timed payments: timed contracts: timed work: timed meals: from this period [i.e., the 17th century] on nothing was quite free from the stamp of the calendar or the clock” (1934:42).

Today, even for the Hopi, time threatens to cease being the organic experience that it always was and to become a mechanical one. There is little natural foundation for such a time approach, as Mumford points out:

Throughout the year the days are of uneven duration, and not merely does the relation between day and night steadily change, but a slight journey from East to West alters astronomical time by a certain number of minutes. In terms of the human organism itself, mechanical time is even more foreign: while human life has regularities of its own, the beat of the pulse, the breathing of the lungs, these change from hour to hour with mood and action, and in the longer span of days, time is measured not by the calendar but by the events that occupy it. The shepherd measures from the time the ewes lambed; the farmer measures back to the day of sowing or forward to the harvest (1934:15).

Still, for a good many Hopi who are living on their ancestral land and are clinging to what is left of their ancient traditions, time is basically an organic experience which unfolds in harmony with the cyclic rhythms of their social, agricultural, or religious events. For some Hopi individuals life is not yet regimented by the digital readouts of their quartz watches, adherence to a punctual office span from eight to five, or the consumption of the daily soap opera dose at the scheduled television time; for them, Parsons’ analysis of Zuni time, Pueblo neighbors of the Hopi to the southeast, is still applicable to the Hopi, too. Her main point is that for people who are “highly gregarious” and share a life of a “gregarious routine” there is no need of knowing the exact time.

If you all sleep in the same room, you all wake up about the same time; if you plant or hoe or harvest or thrash together in a group in the same field or circle, you all go to work and leave off work at the same time, going to eat the midday meal, by the way, at the house of the family you are helping at the same time the members of the family go; if in getting ready for a dance, you all make up together in the same ‘green room’ to do your turn together, there is no need of a stage caller, particularly as your spectators sit together in unruffled patience until you appear. In other words, if the gregarious impulse is as strong as it still is in Zuñi, the need of keeping time is remarkably unpressing (1917: 297).

In general, conclusions of this nature, or answers to Whorf's speculation about "whether such a civilization as ours would be possible with widely different linguistic handling of time" (Carroll 1956:154), if indeed the handling of time should vary that greatly for speakers of different languages, should be left to others, however. Mine was simply the task of documenting the vast realm of Hopi time.

Notes

1. Note that the chapter headings from 1.2.1.1 through 1.2.4.5 are abbreviated in the table of contents for more convenient reference.
2. Curtis suggests an etymological explanation for the term *kiva* which must remain speculative: “Kiva, probably from *kihu*, house, and *pahu*, spring. The analogy between the subterranean cell and the crater-like depressions in which most Hopi springs are found is evident” (1922:250).
3. Cf. McCluskey who points at the fragility of the traditional Hopi calendar structure and shows how easily such a structure can be disturbed when it “comes into contact with a powerful culture equipped with a calendar based on the predictive models of mathematical astronomy” (1979:2).
4. Typically, a bisyllabic word will be stressed on the first syllable. Multisyllabic words, i.e., words with three syllables or more, receive initial stress if the first syllable is long by nature (i.e., featuring a long vowel or diphthong) or long by position (i.e., featuring two consonants following the short vowel of the first syllable). Stress is on the second syllable if the first is not long.
5. Third Mesa Hopi speakers of the latest generation no longer labialize the velar stop *qw* (see also fn. 20).
6. What was said in fn. 5 also applies to the palatal nasal *ngw* (see also fn. 20).
7. “I ‘grasp’ the ‘thread’ of another’s arguments, but if its ‘level’ is ‘over my head’ my attention may ‘wander’ and ‘lose touch’ with the ‘drift’ of it, so that when he ‘comes’ to his ‘point’ we differ ‘widely,’ our ‘views’ being indeed so ‘far apart’ that the ‘things’ he says ‘appear’ ‘much’ too arbitrary, or even ‘a lot’ of nonsense!” (Carroll 1956:146).
8. The Latin deictic pro-complex comprises proximal *hic/haec/hoc* ‘this one here’ (demonstrative of the first person), the two distal options *ille/illa/illud* ‘that one there’ (demonstrative of the third person) and *iste/ista/istud* ‘that one (near you)’ (demonstrative of the second person), and finally neutral *is/ea/id* ‘this/that’ which is deictically rather colorless and comes closest to English ‘he/she/it.’
9. In English locative prepositions the selection of the correct preposition depends on whether the place which is occupied by an entity is characterized as having dimensionality or not. If the location constitutes a place whose size and dimensionality is irrelevant or negligible the preposition ‘at’ is called for. If it is represented as having dimensionality, the choice lies between ‘on’ and ‘in.’ Of these ‘on’ is selected when the location represents a line or a surface, ‘in’ when it is represented as an enclosed area or volume (Lyons 1977:694).
10. Traditional case labels for the grammaticalization of the goal of locomotion are

'allative' and 'dative.' The latter is not adopted here because it does not really reveal the spatial reality involved. 'Allative' is avoided because Whorf used it for the to-relation while he employed 'illative' for the into-relation. Since the illative turns out to be an 'extreme' allative in Hopi, preference is given here to the newly coined term 'destinative.'

11. The classifier *-n*, which is simply repeated in the interlinear glossing stage, typically occurs in the vicinity of durative suffixes only. Compare the nasal quality in the English progressive suffix *-ing* and the German present participle ending *-nd*.
12. *Yuk* '(to) here' is analyzed *yu-k* (here-to) because *yu-* is reminiscent of the deictically proximal base *ya-* and its variant *ye-* (see HR, Table V). No other locator is attested, however, in which *-k* embodies the destinative notion 'to.' For the function of *-k* as a diffuse case marker see HR p. 341.
13. The term *pahaana* 'white man' has resisted so far all attempts to unlock its etymon. White Bear Frederick's explanatory periphrasis for the word in Blumrich (1979:74) "der Mann, der mit dem Boot über das Wasser kommt," which translates as "the man who comes across the water by boat," cannot be taken seriously on linguistic grounds. While *pa-* could be a reflex of *paahu* 'water,' there is no intrinsic evidence whatsoever for the element *ha* (sic) to mean "eine Fahrt auf dem Wasser, also mit dem Boot" (Blumrich 1979:74), i.e., "a voyage on the water, therefore by boat." Curtis considers *pahaana* to be a "corruption of Americano" (1922:250). Whether the phonetically similar Navajo term *bilagáana* 'white man' was influential in coining Hopi *pahaana* or vice versa, must be left undecided here (Young – Morgan 1980:221).
14. The modalizing particle combination *pay pi* is characterized by Whorf as "philosophic resignation to unchangeable reality" (Carroll 1956:124). My individual glosses 'well FACT' in the sense of 'well, I accept this as a fact' try to suggest this unconditional submission to factual reality.
15. The *-ng-* possibly represents a connective element in certain environments. See also fn. 119.
Note also that the classifier *-k-* is simply repeated in the interlinear glossing stage.
16. No phonologically-separate pronouns are attested in Hopi for the number concept 'dual' although this concept is realized in other nominals by the suffixation of special dual markers. Since verbs do not display special dual forms either, sentences with pronominal plural subjects are automatically understood to be dual if their predicates are singular (Malotki 1980).
17. In a great number of contexts the emphatic and assertive associations of *pay* clearly outnumber its temporal connotations. In such a case my gloss will be ASSR for 'assertion.' Langacker's reconstruction of a Uto-Aztecan proto element **pa* with emphatic and assertive force seems to confirm this value (1977b:32).
18. For a likely etymological analysis of the stem *nùutu-* see 1.5.5.3.
19. *Qàa'e* is the negative reaction signal most commonly used to respond to yes-no questions. Its positive companion *òò* is also distinguished by falling tone. In situations that may be termed more assertive, preference is given to the responders *qa'é* and *owí*, both of which receive primary stress on the second syllable. In highly emphatic situations, the latter will append additional exclamatory suffixes, *-y* in the case of male speakers and *-ya* in the case of female speakers.
20. Speakers of the latest generation have entirely eliminated the labialization feature *-w*, which terminates the different subject subordinator *-qw* following the vowels

- a*, *e*, *i*, and *u*. The same holds for its disappearance at the end of the simultaneity marker *-kyangw*. In addition to the bound elements *-niqw* and *-kyangw* this delabialization is also observed for free forms if *kw* stands in syllabic final position. Examples are *nakwsu* > *naksu* 'he started out,' *hikwni* > *hikni* 'he will drink,' *tuusungwti* > *tuusungti* 'he got frozen,' etc.
21. The plural form of perfective *oya* 'he put/placed PL OBJ' shows partial reduplication reflected in the glottal stop of *o'ya*. Its imperfective pendant *oo'oya* 'he is putting/placing PL OBJ' is marked by full initial reduplication and is pluralized by appending the plural suffix *-ya*, thus *oo'oyaya*.
 22. While *ep'é* in (2B) features the pausal pattern *-V̇*, *epe'* in (2A) displays the pattern *-V*. Pausal markers of the type *-V̇* I call 'strong,' those of the type *-V* (occasionally also *-'*) 'weak' (Malotki 1980).
 23. Verbal derivatives featuring the possessive marker *-y'* are automatically affected by falling tone, if the vowel immediately preceding *-y'* is stressed. Primary stress and falling tone then occur on the same vowel with which the possessive element phonologically constitutes a diphthong. Thus, while *masà-y'-ta* (wing-POSS-IMPRF) 'he has a wing' is displaying tone, *tumala-y'-ta* (work-POSS-IMPRF) 'he is working' does not (see also fn. 34).
 24. To standardize the usage of Hopi ceremonial nomenclature in the glossing and translation stages to a certain degree, the following approach will be taken in this monograph:
 1. Generally, ceremonial nomenclature will be identified as to its specific function in Hopi culture if such information is not evident from the overall context of the text sample. Thus, role-specific labels such as 'ceremony,' 'ritual,' 'rite,' 'dance,' 'initiate,' 'kachina,' etc., will be added in the interlinear glossing stage under the Hopi term.
 2. Translatable terms will be glossed according to their meaning, e.g., *niman* 'home,' *len-* 'flute,' *tsu'* 'rattlesnake,' etc.
 3. Nontranslatable terms will be glossed with the Hopi lexeme in its stem form when used attributively, e.g., 'Soyal:ceremony,' 'Powamuy:ritual,' 'Lakon:dance,' etc.
 4. Where applicable, a nontranslatable term will also be cited in its nominal shape if the latter is attested, e.g., Wuwtsim, Soyalangw, Powamuya, Patsavu, etc.
 25. Older speakers prefer *pangsoq* to *pansoq*. We thus observe a consonantal shift *ng* > *n*. Exactly the reverse is true for the doubly negative particle *son-qe* (NEG-NEG) 'most likely/probably,' which is pronounced *songqa* by younger speakers.
 26. For an analysis of *tiitso'a* 'they finished dancing' see 9.2.5.
 27. Numerous attempts have been made to unlock the etymon or true meaning of the term *katsina*. The spectrum of suggested interpretations ranges from the absurd (cf. Fewkes 1921:486, who quotes one writer as deriving it from the Spanish word *cochino* 'pig') to quite intriguing ones, associating the word with either *qatsi* 'life' or *qaatsi* 'to lie.' Both are found in Fewkes' writings. For the latter option he proposes a tentative derivation form "*kátsi* (sic), spread out, horizontal, the surface of the earth, *náa* (sic), father, abbreviated *na*, surface of land, father" (1897a:265). Dockstader seems to corroborate this by his suggestion "that many Hopis trace it to "*kāchi* (sic) 'to recline' –thus, a 'sitter,' i.e., one who sits with

the people (and among other things, listens to their petitions for rain and other spiritual and material blessings)." (1954:9).

Some twenty years after his first etymological explanation the connection with "*katci* (sic), life, *na*, father of" is presented as "a much more probable interpretation" by Fewkes (1921:486). In Dockstader's words, who picks up this etymological strain in the passage quoted above, "it may mean 'life father,' or 'spirit father' (*kachi* (sic), life or spirit; *na*, father)."

As I have shown already in Malotki 1978:203, these explanations founder on an inaccurate observation of Hopi phonological facts. Both *qatsi* 'life' and *qaatsi* 'lie' feature velar *q*, *katsina*, however, begins with palatal *k*. In addition, and of much greater significance, is the Hopi phonological constraint not to permit syllable initial *ka-* in native words. Only nonautochthonous loans (Tewa, Keresan, Spanish) allow a syllable initial sequence featuring palatal *k* preceding *a*. The very phonological makeup of the term *katsina* thus provides the linguistic proof that "katsina cultus is extra Tusayan in origin" as Fewkes already rightly assumed on the basis of legendary and other evidence (1898:174).

The most recent interpretation stems from White Bear Fredericks and is found in Blumrich:

Kachina bedeutet 'hohe, geachtete Wissende'. In früheren Zeiten hießen sie Kyápchina, doch da sich unsere Sprache mit der Zeit verändert, sagen wir jetzt Kachina. Eigentlich bezeichnet Kyápchina einen einzelnen; wenn mehrere gemeint sind, heißt es Kyákyapchina, das ist die Mehrzahl. Das Wort Chinakani bedeutet Sproß, ein neuer Trieb an einer Pflanze, und es bezeichnet hier das geistige Wachstum, das sie uns geben. Die volle Übersetzung des Namens würde daher lauten: 'Hohe, geachtete Wissende im Wachstum' (1979:27).

Fredericks' exegesis of *kachina* as "a great, respected sage or savant in growth" is based on his claim that the term *katsina* originally existed in the shape *kyaptsina*, but changed in the course of time to its present form. On the basis of the semantic elements extracted from *kyaptsina* he seems to assume a morphological fusion of the two modern Hopi verbals *kyaptsiy'ta* 'he has respect for' and *tsina* 'it [i.e., a plant] developed an offshoot.' This verbal content of *tsina* is then simply assigned nominal status and said to designate "the spiritual growth" that the *kachinas* bestow on the Hopi. Needless to say, this interpretation without any regard for both diachronic and synchronic principles in Hopi linguistics constitutes folk etymology 'at its best.'

28. The element *tunös-*, which is attested exclusively in a prefix-like position, decomposes into the unspecified object prefix *tu-* and the truncated stem of vowel shortened *nöösa* 'he ate a meal.'
29. The bisyllabic hortative particle *tuma* 'let's' occurs in free variation with monosyllabic *tum*. For further information concerning the remaining Hopi hortative particles see HR, fn. 45.
30. The verb *kyaktayi* (PL *kyaktayya*) 'he is hurrying' may owe part of its semantic content to the intensifier prefix *ky(a)-* 'INTNS/great/fantastic.'
31. The particle *pi* expresses 'ignorance' when it follows an H-word. In such a case it will receive the abstract gloss IGNOR. The 'ignorance' which the particle conveys seems to be limited to the speaker and the person talked about. In pausal situa-

tions *pi* takes on the shape *pīiyi* and denotes 'I don't know' without the accompanying H-word. Other monosyllabics which become bisyllabic and lengthen their first vowel under pausal conditions are *pu*' > *puu'u* 'then,' *piw* > *pīiwu* 'also,' and *nuy* > *nuuyu* 'me.' The following example combines both *pīiyi* and *pi* in one response to a question.

- (1) A: *ya puma haki-m?* B: *pīiyi, haki-m pi puma-'a*
 Q those who-PL don't someone-PL IGNOR those-PS
 know

'Who [are] those people?' 'I don't know who they [are].'

For *pi* 'FACT' in conjunction with other particles see HR, fn. 114.

32. Semantically, *maqaptsiy'-ta* (PL *-yungwa*) 'he is waiting' differs from *nūtay-ta* (PL *-yungwa*) 'he is waiting' in that the latter awaits the arrival of an absent person while the former waits for a person to act or for an event to take place. *Mokmaniy'-ta* (PL *-yungwa*), on the other hand, specifies a waiting in the sense of 'he is looking out for/is on the watch for/lies in wait.' *Paqawna*, finally, translates 'he waited for his turn.'
33. The term 'H-question' is coined parallel to the English expression 'WH-question' since Hopi interrogative pro-forms characteristically start with the letter *h*.
34. Diphthongs are generally eligible for falling tone if they are succeeded by either a stop or the affricate *ts*. However, nasals, too, will occasionally allow the diphthong to receive the suprasegmental. To date, my only examples are forms associated with the stems *yây-* 'begin' and *ngây-* 'untie' as well as the compound noun *lôqôyngyapu* 'wicker plaque with pine tree design.' For the falling tone rule in conjunction with the diminutive suffix *-wya* see fn. 184, for its application in connection with the possessive marker *-y*' see fn. 23. The following keywords exemplify the diphthong *ây* with all possible stops, i.e., *p*, *t*, *ky*, *k*, *kw*, *q*, *qw*, and ' : *tuqâypi'at* 'his sideburn/temple,' *pâytok* 'in three days/three days ago,' *hâykyalti* 'he got close,' *kwalalâyku* 'it boiled,' *kawâykwakwhata* 'he tamed a horse,' *wakasalâyqa* 'cow herder/cowboy,' *wakasalâyqw* 'while herding cows (SUBR:DS),' *kwangwây'pu* 'person with a mean or cruel streak in playful interaction with persons or animals.' An example for *ây* followed by the affricate *ts* is *pâytsintota* 'they are cleaning the spring.'
35. Note how *sòosok*, the accusative shape of *sòo-so-y* (RDP-STEM-size) 'all (INAN),' typically lacks the final labialization due to the preceding influence of *o*. Labialization is quite apparent, however, in *tsaakw* and *hikikw*, accusative forms of *tsa-y* (small-size) 'small/young/child' and *hi-ki-y* (some-place:(?)-size) 'a few (INAN).'' Only elderly speakers still uphold this phonetic idiosyncrasy. Younger generation speakers have eliminated the final labialization feature altogether.
36. The gloss CAUS:PL:OBJ:PL for *-tota* in *hõtàatotaqw* needs to be seen in relation to the value of singular *hõtàa-ta* (open-CAUS:PL:OBJ) 'he opened PL OBJ.' While it is causative and perfective like *hõtà* (PL *-ya*) 'he opened it,' the action of the latter only engulfs one object. Cf. also fn. 196.
37. *So'ni* is the correct negative responder 'no' if it serves as answer to a future-oriented sentence. Otherwise, the adverbials *qa'é* or *qaa'e* are used. For an example with *qa'é* see 1.5.3 (1).
38. Etymological attempts on the part of Hopi speakers to decompose the word

tasavu 'Navajo,' invariably focus on the element *savu*, as the folk definition in (1) illustrates:

- (1) *tasavu haki-y saavu-ta-ngwu-ni-qw oovi*
 PN someone-ACC chopped-CAUS-HAB-NEX-SUBR therefore
 wood DS
- pumu-y pa-n tuwi-y'-yungwa*
 those-ACC that-like knowledge-POSS-IMPRF
 PL

'A Navajo chops a person up, therefore they [i.e., the Hopi] know them [i.e., the Navajos] like that.'

The element *savu* is reminiscent of the nominal *saavu* 'chopped wood' and its associated causative derivatives *saavu-ta* (chopped:wood-CAUS) 'he chopped wood' and *saavu-lawu* (chopped:wood-CONT) 'he is chopping wood.' Reflexes of this apparently widespread etymological breakdown are also encountered in the literature. Waters analyzes "*tu* 'person' and *savuh̄ta* 'to pound,' because they killed a captured enemy by pounding his head with a rock or stone ax" (1963: 312). This version, which links the initial syllable *ta-* to the unspecified argument prefix *tu-* 'UNSPEC:OBJ,' is linguistically equally untenable, as is Stephen's attempt. He assigns the initial syllable to *taaqa* 'man' and the rest to *saavulawu* 'to split/rend apart' and interprets the plural form *tasavum* 'Navajos' as "the men who rend from others, the men who maraud" (1936:1301). All of these analyses amount to typical products of folk etymology.

Another term by which the Navajo is known is *qalà-y'-ta-qa* (forehead-POSS-IMPRF-REL) 'one who has a forehead.' This expression sums up the different hair styling approach of the Navajo man.

- (2) *pu' pay piw qalà-y'-ta-qa, ya-n*
 then ASSR also forehead-POSS-IMPRF-REL this-like
- itam pumu-y tuwi-y'-yungwa; puma hapi*
 we those-ACC knowledge-POSS-IMPRF those EMPH
 PL
- susmataq qalà-y'-yung-qw oovi;*
 clearly forehead-POSS-IMPRF-SUBR therefore
 PL DS
- áhoy-wat naawusi-y'-yungwa; hopi pi pay sutsep*
 back-SPEC comb-POSS-IMPRF PN FACT ASSR always
 to PL
- höömi-y mòo-kya-qe hii-sa-và-wya-t*
 hair-ACC front-DIF-EX some-QNT-length-DIM-ACC
 small
- pöò-pöng-ngwu-ni-qw oovi put qala-'at*
RDP-STEM-HAB-NEX-SUBR therefore that forehead-his
 cut off DS ACC

qa maatsi-w-ta-ngwu
NEG visible-STAT-IMPRF-HAB

'Then we also know them [i.e., the Navajos] [by the term] *qalày'taqa*. They clearly have a forehead; they comb [their hair] back. A Hopi always cuts his hair along the front [only] minimally and therefore his forehead is not visible.'

39. Nonmodulated *àngqe* is also attested in the reduplicated shape *àngqèeqe*. The process of reduplication adds a distributive notion to the meaning of the diffuse locator, as may be gathered from (1):

(1) <i>tavòo-ya</i>	<i>sivap-tso-tski-t</i>	<i>à-ng-qèe-qe</i>
cottontail-DIM	rabbit-RDP-bush-ACC	it-at-RDP-EX
	brush	DIF

na-n'uy-ti-numa
RDP-secretly-CAUS-CIRCUMGR

'The little cottontail [rabbit] goes around hiding along rabbit brush bushes.'

40. Note that this is the phonologically correct differentiation. It differs from the one in Malotki 1979b where I was guilty of erroneous analysis. All extreme-diffuse locators in conjunction with the pro-stems *a-*, *ya-*, *pa-*, and *ayá-* need to add the feature falling tone, thus, e.g., *àngqe* instead of **angqe* (see Table IX and HR 1.6.2). Modulated diffuse locators with the same pro-bases, on the other hand, which were transcribed *aàngqe'*, *yaàngqe'*, etc., need to remove both the vowel lengthening and the falling tone on the initial syllable. They read correctly *angqe'*, *yangqe'*, etc. (see HR Table XI).
41. For additional verbs featuring the contracted element *-ptu* 'he arrived' with the grammaticalized value 'got/became' (gloss:R) see HR fn. 59.
42. While the simple verb *tu'i* 'he bought it' retains its shape in all instances of inflection and derivation (e.g., *tú'ini* 'he will buy it'), compound forms with *tu'i* undergo the phonological change represented in *puhutotstuy'ni*. Another example is *navan-tuy'.kyangw* (shirt-buy-SIMUL:SS) 'while buying a shirt.'
43. The vowel *o* typically figures in goal-oriented locators like *panso* as well as the irregular and ancient destinative case markers *-mo*, *-po*, and *-vo*. The same force is at work in the semantic content of the progressive verb suffix *-to* 'going to/on the way to.'
44. Langacker has shown that PUA **m* may become *w* according to the lenition pattern **m > w̄ > w* (1975:2). While *-m* is still attested in the destinative case markers *-mo* 'to' and *-mi* 'to,' of which *-mo* is the older one, the change to *-w* is observable in the progressive plural marker *-wisa* 'they go to [do something],' whose singular pendant is *to* 'he/she/it goes to [do something].'
45. "Sequencing" as part of the temporal system of language is defined by Traugott as "ordering of events or situations talked about" (1978:372).
46. The basic meaning of *angkta* is 'he did it after him.' In reference to a race its value is 'he came in second.' For the counter-term *mòotita* 'he did it first/came in first in a race' see 8.6.
47. The nominal shape for 'wrapping/shirt' is *napna*, which tentatively decomposes into *na-* 'REFL' and contracted *pana* 'he put it into.' *Napna* thus refers to a garment 'into which he put/placed himself.' Verb forms related to the derivative

- stem displayed in *hovi-navan-tu'i* 'he bought pants,' are *naavan-ta* (PL -*yungwa*) 'he is wearing a shirt' and *naavàn-ta* (PL -*tota*) 'he made a shirt.' Homophonous with the former is *naa-va-n-ta* (father-that-like-IMPRF) 'he is like his father.' This form also pluralizes with -*yungwa*.
48. Cf. also the expression *nu-nutu-ngk-hoya* (RDP-the:others-after-person) 'the very last person [e.g., a tiny girl at the end of a line of Butterfly dancers].' The form seems to be patterned after similar expressions which signal the diminutive notion by means of reduplication, such as *ku-kuri-wya* (RDP-behind-person) 'person with a little behind,' *ya-yaqa-wya* (RDP-nose-person) 'person with a little nose,' etc.
 49. Younger speakers are beginning to replace *mo-moya-m* (RDP-STEM-PL), the suppletive plural form of *wùuti* 'woman,' with its regular form *wuu-wùuti-m* (RDP-woman-PL). The acculturation pressure, both materially and linguistically, seems to have initiated an acceleration of regularizing trends in the Hopi language. The above example is symptomatic of many such changes.
 50. Traugott hypothesizes that the spatial front-back terms for the sequencing of events or situations are assigned "on the basis of the basic body-space and perceptual field as we walk along a path" generally referred to as "the concept of the canonical encounter, also known as 'facing'" (1978:380).
 51. Eligibility criteria for the diphthong *aw* to receive falling tone are basically the same as those spelled out in fn. 34 for *ay*. As a rule, *aw* needs to be succeeded by a stop if the suprasegmental is to be present. To date, however, I have not encountered *aw* in conjunction with the affricate *ts* or any of the nasals. Unlike *ay*, the diphthong *aw* is also affected by falling tone if the reflexive prefix *naa-* attaches to a verb featuring the initial syllable *ho* or *hö*. In such a case the reflexive marker is shortened, initial *ho* and *hö* deleted, and the resulting diphthong *aw* equipped with falling tone. Examples are *naa- + hölökna > nàwlökna* 'he uncovered himself,' *naa- + horokna > nàwrokna* 'he pulled himself out,' and *naa- + hovala > nàwwala* 'he wasted himself.' The same falling tone result is observed in cases where the intensifier prefix *su-* or an adjective like *kwangwa* fuse with verbs distinguished by initial *ho* or *hö*. Representative examples are *su- + hölökna > sùwlökna* 'he uncovered it quickly' and *kwangwa + hoovaqtu > kwangwàwvaqtu* 'it smelled pleasantly.'
 52. Among other functions, the device of reduplication is exploited in Hopi to indicate perfective aspect. The imperfective pendant to perfective *qö-qri* (RDP-stir) is *qöri-ta* (stir-IMPRF) 'he is stirring it.'
 53. While in subject position conjoined noun phrases feature the conjunction *ni-qw* (NEX-SUBR:DS) 'and,' *ni-t* (NEX-ACC) 'and' is its required shape in object position, which is motivated here by the complex postposition *amiùtsave*.
 54. Pro-derivatives with the indefinite-interrogative stem *hin-* 'some way/which way?' convey the semantic notion 'abnormality' whenever their indefinite aspect is activated. Depending on the reality referred to, *hin-* may thus imply the values 'bad/wrong/difficult/sick/impure/ugly/insane,' etc. In conjunction with the negator *qa*, these notions are turned into their opposites, of course.
 55. The spatial element *ng* (see HR:351) is diffuse (gloss: DIF). Metaphorically, the infix prepares the quantifier element *sa* for a plural role. In interpreting the morpheme sequence *ng-sa*, however, all plural bases of the personal pro-type need to be differentiated from all the other base types. Thus, while *yangsa-* means

- 'plural quantity of this kind' (e.g., *ya-ng-sa-yo-m* (this-DIF-QNT-size-PL) 'persons that are this old,') *inungsa-* does not translate 'plural quantity of I' but 'many (subjects) as X as I' (e.g., *inu-ng-sa-yo-m* (I-DIF-QNT-size-PL) 'persons that are as old as I').
56. The morpheme sequence *-sa-* (quantity-number) will be written *-sa* and receive the interlinear gloss 'QNT:NUM.'
 57. Langacker suggests that PUA **-ya* is a likely reconstruction for 'person from' (1977b:60). I suggest that the nominalizing suffix *-kya* 'person,' although no longer productive, is a possible Hopi reflex (*wiimi* 'ritual' > *wim-kya* (ritual-person) 'initiate'). Without the additional *k*, **-ya* is probably also part of the nominalizer elements *-hoya* and *-wya*, which can both denote 'person.' Compare also the term *wu'-ya* (old-person), which is generally rendered 'clan ancestor/clan totem.'
 58. I take the element *-pits-* to be a reflex of *pitsina*, the transitivity derivative of intransitive *pitu* 'got to/reached/arrived.'
 59. The nominal *tuuwutsi* 'story' decomposes into the unspecified object prefix *tuu-* and the adjective *wutsi* 'false.' The notion 'story/tale' thus rests on the semantic content of 'many unspecified false or make-believe things.'
 60. My decomposition and interlinear glossing of *pakmumuya* 'weep/cry' are quite hypothetical. However, the image of 'tears rolling down the cheeks' makes the analysis plausible. The notion "go" for *-muya* is taken to be a Hopi reflex of PUA **-mīya*, which Langacker posits with this value in 1977b:147.
 61. Already Whorf has pointed out that *pay* "as predicator" can take on the meaning "go" in the sense of 'depart/quit the scene'" (1946:180). He failed to observe, however, that the envisaged departure must be immediately imminent.
 62. The first syllable of *pàytsintota* alludes to *paahu* 'water/spring' which drops its absolutive suffix in the composition process. In its place we find the segmental glide *y* and the suprasegmental feature falling tone. The same phonological process may for instance be observed in *ngày-ngwu* (untie-HAB), the habitualized aspect form of *ngaa-ha* (untie-ABS) 'he untied it.' Note that the absolutive element is distinguished by vowel harmony in the latter. Compare also Voegelin, Voegelin and Hale who cite the Hopi reflexes *pa·y* (sic) and *yayva* for PUA **pahi* 'three' and **yahi* 'climb' (1962:52).
 63. Iteratives displaying stem final reduplication and ending in durative *-ta* such as *yu'a'ata* become perfective by supplanting *-ta* with discontinuative *-yku*. In the process the vowel immediately preceding *-yku* is automatically endowed with falling tone, thus *yu'a'àyku* (see also fn. 34).
 64. Ablative markers like *-vaqw* and *-paqw* 'from/in:3-DIM' have shed their labialization feature among younger speakers and have thus become synonymous with the extreme-locative case endings *-vaq* and *-paq*. While *hoopaq* will thus denote 'in the east (EX)' or 'from the east' according to context, elderly speakers clearly set off the ablative *hoopaqw* from the extreme punctive *hoopaq*.
 65. *Hísatniqw*, displaying its indefinite value in (21), may of course also be used interrogatively.

(1) *ya hí-sa-t-ni-qw* *a-ngqw-ya-ni?*
 Q which-QNT-time-NEX-SUBR REF-from-PL-FUT
 DS

'When will they [come] from there?'

The dialect equivalent of *hísatniqw* in the Second Mesa community of Songoopavi is *hísatnöq*. In the vernacular of the younger generation this form is truncated to *satnöq*. Taking all the dialectal differences between Hotvela on Third Mesa and Songoopavi on Second Mesa into consideration, (1) is recast as follows:

- (2) *pu sa-t-nö-q a-h-ya-ni?*
 Q QNT-time-NEX-SUBR REF-from-PL-FUT
 DS

‘When will they [come] from there?’

66. The intensive and emphatic content of *pas* ‘very’ can most certainly be tied to the Uto-Aztecan proto element **pa* that Langacker reconstructs as an element with emphatic and assertive value (1977b:32).
67. The Hopi prefer the term *hisatsinom* ‘the ancient people’ to the Navajo-derived designation *Anasazi*, which is used by archaeologists and anthropologists to refer to the prehistoric pueblo people of the Southwest. ‘*Anaasázi*, commonly misinterpreted as ‘the ancient ones,’ actually denotes “enemy ancestors” (Young–Morgan 1980:114) and is disliked by the Hopi for this reason.
68. *Orayep-* is the derivative stem of the village name Orayvi. It features the intrusive vowel *e* to facilitate the pronunciation of nonattested **orayp-*. Note that word final combinations *vV* generally change the fricative into the stop *p* and delete the vowel in the composition process.
69. In rapid speech the clitic *=haqam* is frequently contracted to *=ham*. The same holds for the destinative modulator clitic *=haqami*, as may be gathered from the following example:

- (1) *um i-t wuko-'o-'wa-t hop-qöy-mi-q=ham*
 you this-ACC big-RDP-rock-ACC east-side-to-EX=INDEF
- hapi wahi-ma-ni*
 EMPH throw-PROGR-FUT
 PL
 OBJ

‘You go along and throw these big rocks down the east side.’

70. To mark a third-person possessor (SG/DL/PL) in respect to a possessed nonsingular, i.e., dual or plural, inanimate noun, Hopi attaches *-mat* to the singular noun in subject position, *-muyatuy* in object position (nonreflexive possessive only). This rule does not apply if the animate noun is considered to have the status of a ‘pet’ that may be kept in the village. In such a case *-vok-* (from *pòoko* ‘pet’) is infixes between the animate noun stem and the possessive suffixes. According to the possessor involved, *-mat* will be glossed ‘his,’ ‘her,’ or ‘their’ with the addition NSG:POSSD, which stands for ‘nonsingular possessed object.’ Examples:
1. nonpets; *tupko-mat* (younger:brother-his:NSG:POSSD) ‘his younger brothers,’ *kwats-mat* (friend-her:NSG:POSSD) ‘her friends,’ *sino-mat* (person-their:NSG:POSSD) ‘their relatives.’
 2. pets; *kwaa-vok-mat* (eagle-pet-his:NSG:POSSD) ‘his eagles,’ *mos-vok-mat* (cat-pet-her:NSG:POSSD) ‘her cats,’ *kaway-vok-mat* (horse-pet-their:NSG:POSSD) ‘their horses.’

71. Compare the PUA element **ci* that Langacker posits as the basic diminutive suffix (1979:93).
72. Strictly speaking, the animate number suffix *-m* carries the abstract value 'plural.' In conjunction with nonreduplicated stems, however, as in the case of *tsaayom*, this content is semantically 'lowered' to 'dual.' In the case of animate nouns like *i-ti-m* (my-child-PL) 'my children' or *i-kwatsi-m* (my-friend-PL) 'my friends,' which do not reduplicate their stem to indicate plurality, the singular verb form serves to interpret the nouns as 'dual.' In this monograph *-m* and *-t*, the other animate plural marker, are glossed according to their semantic reading in the overall context.
73. The realized state verbal *wùutaqti* 'he became an old man' is exemplified in (1).
- (1) *um hapi nuwu wùu-taq-ti*
 you EMPH meanwhile old-man-R
- 'In the meantime you have become an old man.'
74. I can offer no clue for the semantic value of the element *-harku* in *wùuti-harku* (woman-?) 'old woman.' A phonologically similar element occurs in *lak-haru* (dry-?) with the meaning 'skinny.' For *wùutiharku* one can substitute the expression *so'harku* which shares the element *so'* with *so'-wùuti* (grandmother-woman), a term that is frequently applied to the mythological figure of spider woman.
75. Animate nouns featuring the absolutive marker *-hu* generally pluralize by supplanting *-hu* with *-tu*. Thus, *aatu* is the plural form of *aahu*. Since this pluralization process is not productive any more, the *-tu* is no longer recognized as a plural marker. Younger speakers will therefore pluralize *aahu* as *aatum* by adding the additional animate plural suffix *-m*.
76. The PUA posture verb **kati* 'sit' (see Langacker 1977b:40), which is reflected in Hopi as *qatu* 'sit/stay/be at home/live' and uses suppletive *yeese* as plural form, is obviously connected with modern Hopi *qatsi* 'life.'
77. According to Voegelin, Voegelin, and Hale, PUA medial **l* is reflected in Hopi as */n/*. As evidence they claim *i-qáni* (my-place) to be a modern reflex of PUA **kali* 'house' (1962:53). In the Third Mesa dialect region *i-qani* is attested as *i-qeni*.
78. In a metaphorical usage which does not relate to the temporal domain, *qeni* may take on the value 'position within a hierarchical structure'. Thus the term *mong-qeni* (leader-place) refers to the highest position in a Hopi religious society.
79. The sentential complement *uyniqey* in (3), motivated by the verb *wuuwanta* 'he is thinking (to do something),' displays the suffix sequence *-qey* indicating coreferentiality of the subject of the complement clause with the subject of the higher clause. Among younger generation speakers the form *-qey* is generally giving way to the more modern shape *-qay*.
80. In the derivational paradigms of many *k*-class verbs one finds 'paired' intransitive iteratives of which one member can be characterized as implying 'fast' iteration, the other 'slow' iteration. While the former is always distinguished by final reduplication before the imperfective aspect suffix *-ta*, the latter typically consists of the bare stem followed by imperfective *-ta*. In addition, slow iteratives always feature falling tone on the stem, as is evidenced by *hòyta* (see 1.10.3 (5)), the 'slow' pendant to 'fast' *hoyoyota*. See also HR:370 where I labeled these forms "Tardiv-Iterativ" and "Rapid-Iterativ."

81. In addition to modulated *yukhaqami* story tellers from the Second Mesa village of Songoopavi also use the destinative form *yuksavo* 'to this length here/this far,' which is unattested on Third Mesa.

(1) *yu-k-sa-vo* *i'* *pölo-w-ta*
 here-to-QNT-to this ball-STAT-IMPRF

'Here this [story] ends.'

Variants of this ending formula, also recorded from Songoopavi speakers, are listed in (2-4). Note the absence of falling tone in *yaasavo* (2) and *paasavo* (3) as well as the representation of the possessive notion by the marker -' instead of Third Mesa -y'.

(2) *i-t* *nu'* *yu-k* *yaa-sa-vo* *tuuwutsi-'-ta*
 this-ACC I here-to this-QNT-to story-POSS-IMPRF

'This is as far as I have [i.e., know] this story.'

(3) *yu-k* *i'* *paa-sa-vo* *i-tuwutsi*
 here-to this that-QNT-to my-story

'Until this point [goes] my story.'

(4) *yu-k-sa-vo* *i-tuwutsi*
 here-to-QNT-to my-story

'This far [is] my story.'

The formulaic story ending encountered in Walpi, a First Mesa village, is given in (5). Note that the sequence *ah* featuring the laryngeal *h* is represented as *àa* in the Third Mesa dialect area, as *aa* without falling tone in Songoopavi.

(5) *pay* *yah-sa-va*
 well this-QNT-length

'This long [is the story].'

82. Diffusive *ayáng* constitutes the regularized shape of normally irregular *ayé*'. The pro-adverb thus fits the pattern of the other pronominal locators, i.e., *yang*, *ang*, and *pang*. For the complete paradigm relating to the extreme-distal pro-base *ayá* see HR:158.
83. For more information on *naasaptu* 'it got to be full moon,' which is an integral part of the compound verb *tsange'nasaptu*, see 2.4.1. and fn. 128.
84. Note that the stem *so'* is attested irregularly as *sòo-* here.
85. One of the accusative suffixes that Langacker reconstructs for PUA is **-ku* (1979: 88). In addition to *-k* as in *sòoso-k*, it is reflected in modern Hopi in the labialized shape *-kw* as in *suu-kw* (one-ACC), *yàa-sa-kw* (this-QNT-size:ACC) 'this big:ACC/this old:ACC,' etc., as well as in the velar shape *-q* as in *löö-q* (two-ACC), etc. Interestingly enough, all of the forms encountered in Hopi seem to constitute either quantifiers or numerals.
86. For a better understanding of the verbal *tsange'sulawti* 'it got to be the third moon quarter' and its related expression *tsange'nasaptu* 'it got to be the first moon quarter' see 2.4.1.

87. The switch reference marker *-q* in *owak'oyq* lacks final labialization due to the preceding *o* which blocks its realization. Recall that in the dialect of Third Mesa speakers, *o* is the only vowel that may not coalesce with the glide *w* into the diphthong **ow*. The same constraint is at work in a form like *mong-ti* (leader-R) 'he became the leader' (cf. *mongwi* 'leader'), where *ng* lacks the labialization that is clearly audible in cases where the nasal occurs in preposed position to other vowels such as *a* in *unàngw-ti* (heart-R) 'he became minded' (cf. *unangwa* 'heart') or *i* in *hayingw-ti* (close-R) 'it got close' (cf. *hayingwa* 'it is close'). Note also that the bimorphemic suffix sequences like verbal *-wta* and diminutive *-wya* delete bilabial *w* when they are appended to words terminating in *o*. While in verbals the *w* is generally substituted by a glottal stop (e.g., *tsomo-'ta* (hill-STAT-IMPRF) 'he's in the condition of a hill/has his legs drawn up'), disappearing *w* causes lengthening of the *o* in nominals and adds the feature falling tone (e.g., *tsomòo-ya* (hill-DIM) 'little hill').
88. *Owa-ko* (stone-wood) 'coal' displays devocalization of *o* in the composition process. The same phonological phenomenon is also observable in *hikw-ya* (drink-PL), the plural form of *hiiko* 'he drank.'
89. When glossed ADMIR, the modal particle *piw* portrays the speaker's attitude as colored by a sense of admiration, surprise, disbelief, bewilderment, astonishment about something unexpected or unforeseen, etc. See also HR, fn. 101.
90. As evidence for reconstructing a PUA diminutive suffix **-ma*, Langacker mentions Hopi *-wya* which is diminutive in force (1979:95). He shows that *-wya* can be derived regularly from **-ma-ya* as PUA **m* may lenite along the path **m > w̃ > w*. As a fuller reconstruction for the PUA diminutive suffix he cites **-ci-ma* with *-ma* attested in "quite a number of UA languages . . . in a diminutive role, specifically with kinship terms, where it often indicates the younger member of a reciprocal relationship" (1979:94). Taking the above-mentioned lenition path into consideration, I would suggest that **-ci-ma* has a modern Hopi reflex in *i-siwa* 'my younger sister.'
91. The few details given here are based on an extensive narrative which I have collected in the field.
92. Skeat under the entry 'day.'
93. E.g., *tala-hoya* (light-matured) (PL *talahoy-ya*) 'he made it to daylight/woke up,' *qa* (NEG) *tála'-vo* (light-eye) 'blind,' *muy-tala* (moon-light) 'moonlight,' *mùy-tal-pu-va* (moon-light-NR-in:DIF) 'through the moonlight,' *tal-qõt-vahaana* (light-head-white:man) 'bald-headed white man,' *tal-wiipi* (light-twitch) 'lightning flashed,' *tàl-po-q* (light-to-EX) 'towards the light/sun,' *tal-vew* (light-to) 'to the light,' *paa-tala* (water-light) 'it is shiny with water/it is in puddles,' *paa-tal-pu-va* (water-light-NR-in:DIF) 'through a watery area,' *sakw-tala* (blue/green light) 'area with green vegetation,' *kòo-tala* (radiate-light) 'ray/beam of light,' *soo-tala* (star-light) 'starlight,' *qa* (NEG) *tàl-pu-ve* (light-NR-in) 'in the dark,' etc.
94. Whorf in his annotations to Stephen's *Hopi Journal* (1936:1299) lists a plural form *ta''tala* (sic) which is unattested on Third Mesa.
95. The nominal *totokya* 'day before the public plaza performance/night dance' must not be confused with reduplicated *tòo-tokya* (RDP-sleep:PL), a suppletive plural verb form of *puu-vuwi* 'he is spending the nights sleeping.' Homophonous with plural *tòotokya* is *tòo-tokya* (RDP-extinguish:fire) 'he is putting out the fire,' which pluralizes *tòo-tokya-ya*.

96. I take it that the root element *tay* 'awake' is identical in meaning to the one encountered in perfective *taatayi* 'he awoke/came alive/looked' and imperfective *tayta* (PL *taayungwa*) 'he is awake/alive/is watching,' although the latter lack the glottal stop.
97. See also 5.1.5.
98. Cf. Caesar, C. Julius *De Bello Gallico*, Comm. 6. 18: "Ob eam causam spatia omnis temporis non numero dierum sed noctium finiunt" 'For this reason they limit the intervals for every sort of time not by the number of days but nights.'
99. Cf. Tacitus, P. Cornelius *De Germania Liber* 11: "Nec dierum numerum, ut nos, sed noctium computant." 'They do not count the number of days, as we, but of nights.'
100. An alternative to the notion 'X days ago' is the syntactically periphrastic approach in (1). It combines the temporal adverb sequence *taavok pu* 'yesterday and then' with possessive day locutions marked for simultaneity.
- (1) *pam e-p taavok pu' nalö-s-tal-ni-y'-kyangw*
 that there-at yesterday then four-times-day-CAUS-POSS-SIMUL
 SS
- mooki*
 die
- 'He died there five days ago.'
101. *Yungya-pu* (go:in:PL-NR), the term for 'wicker plaque,' indicates in its stem *yungya-* the weaving technique which is characterized by a radiating warp, i.e., warp sticks that 'go into' one center.
102. For the pro-adverb 'why?' four Hopi lexemes can be heard today side by side in the dialect region of Third Mesa. Of these, *hintoq* and *hinoq* seem to belong to the most archaic language stratum. *Hintiqw* is the form most prevalent among the speakers of the last two generations. It, in turn, has given way to *hintöq* and is used by the most recent generation. A similar observation can be made in regard to the conjunction triplets *noq*, *niqw*, and *nöq* 'and.' The one cited last is the form used by the young people of today.
- Both inter- and intra-mesa evidence points to the forms with *o* as the oldest stage in this sound change. Examples within the Third Mesa region are *tsootsongo* > *tsootsongi* 'he is smoking,' *puye'emo* > *puye'emi* 'I had a feeling that . . .,' *engemo* > *engemi* 'for him,' etc., with the last two lexemes showing the phonological change in their pausal terminations. On an inter-mesa basis one can observe for instance that the ancient Third Mesa destinative *hotvelmo* 'to Hotvela' is represented as *hotvelmi* at First Mesa, i.e., with the more recent and 'regular' vowel *i*. Note also that *i* is becoming *ö* in *a'ni* > *a'nö* 'a lot,' *tsimöqa* > *tsömöqa* 'a bunch,' etc. For a reversal of this process, in which older *ö* is becoming *i*, see fn. 220.
103. The postpositional phrase *naap*, consisting of reflexive *naa-* and postpositional *-p* 'in/on/at,' is used here in its true locative sense 'on oneself/on foot.' Figuratively, it may also occur with the emphatic reflexive value 'by oneself' (see 2.6.3(8)).
104. Compare the English hyperbolic locution 'it's been ages.'
105. One of my Hopi informants also used the expression *qömawva* in the sense of 'it got dark.' The term is evidently related to the adjectival *qömvı* 'black.'

- (1) *pay pas qōma-w-va-qw pu' pumu-y yaw*
 well very black-STAT-R-SUBR then those-ACC QUOT
 DS

na-'am kó-mok-vitu
 father-their wood-bag-arrive
 gather wood

'It was quite dark already when their father came back from gathering wood.'

Others, however, insist that the form is affiliated with Second Mesa speakers. The Third Mesa value of *qōmawva* seems to be primarily attested in the metaphorical sense of 'a mental or emotional black-out,' which in the Hopi way of thinking is always related to a darkening of the heart.

- (2) *pumu-y pas pe-p unangwa-'am qōma-w-va*
 those-ACC very there-at heart-their black-STAT-R

'Their hearts got very dark there [when they had the fight].'

106. The name Koonina designates some of the Yuman groups located to the west of the Hopi territory. In particular, the Hopi differentiate between the *sakwakòoninam*, i.e., the 'Blue Koonina people' or Havasupai and the *yavaqkòoninam*, i.e., the 'Far Koonina people' or Walapai.
107. On a larger scale, the rapid iterative verbal *sirorota* is used to indicate the constantly shrinking distance of the sun's journey towards its winter (solstice) destination. Metaphorically, the sentence cited in (1) may convey the meaning that 'the days are constantly getting shorter.'

- (1) *haki-m tòmōng-mi-q öki-wis-qw taawa*
 someone-PL winter-to-EX arrive-PROGR-SUBR sun
 PL PL DS

sùutsepngwat siro-ro-ta
 gradually slide-RDP-IMPRF

'When people are approaching wintertime, the sun is constantly sliding down [i.e., not as high on its course across the sky].'

108. I cannot cite any reason for the *i*-ablaut in *pastiyuku*. The element *-ti* clearly reflects underlying causative *-ta* as is attested by the free form *pas-ta* (field-CAUS) 'he made the field/hoed weeds.'
109. The *w* following *talōng-* in *talōngwiwta* can possibly be explained as a connective. The same explanation may hold for *wi* in *talōngwinta* in example (14) below.
110. Interestingly enough, this Hopi binomial locution for 'days and nights' places the nocturnal term before the diurnal one. As Tschirch points out, this was also the preferred pairing pattern in earlier stages of Indo-European languages (1966:31). He cites Homeric *nýktas té kaí émar* 'the nights as well as the day,' Latin *nocte et die* 'at night and at day,' the New Testament attested Greek neuter nominal *nychthémeron* 'night-day period,' and older German *naht unde tac* 'night and day.'
111. The inflectional devices termed 'pausal' differentiate two types: the 'strong' or stressed type, which generally affixes *-'V*, and the 'weak' or unstressed type,

- which appends -V or simply -'. For an example with the 'weak' pausal vowel -a see 2.1.7.1 (9).
112. The word *hopi* approximately translates 'well behaved/well mannered.' The fact that it came to be used for 'tribal' identification – the concept tribe is not part of Hopi semantics – is perhaps attributable to the widespread phenomenon of ethnocentrism. Similar to the early Greeks who considered all foreigners 'barbarians,' that is, uncivilized people capable only of uncouth babbling, the sedentary Hopi probably developed the same kind of belief in ethnic superiority when they compared their achievements in architecture, agriculture, ceremonial organization, etc., with those of their predominantly nomadic neighbors. *Hopi* does not mean 'peaceful,' however, an interpretation that is encountered in practically every publication concerning the Hopi. While the plural form *hopiit* is frequently rendered "the peaceful ones," Washburn in a recent article defines *hopi-sino-m* (PN-person-PL) 'Hopi people' as "little people of peace" (1980:39). Needless to say, neither the notion "peaceful" nor the idea "little" are semantic ingredients of the Hopi term. That the Hopi language lacks a word for the concept 'peace' is probably to be expected because it represents the normal state of affairs. It is thus the unmarked term. The abnormal state of affairs, on the other hand, is the semantically marked term. *Naa-qöy-iw* (RCPR-kill:PL:OBJ-ABSTR) literally denotes 'the killing of each other' and comes closest to our notion of 'war.'
 113. In his Hopi grammar abstract (1946:180), Whorf characterized the temporal term "sunset," which I presume to be *tapkiqw*, as the "transrelative mode" of a verb, i.e., an adverbial clause construction, denoting "when the sun enters." This constitutes an etymological turnabout of his from *tap-ki* (sun-house), as quoted above, to *ta-pki* (sun-enter) which I consider to be the more likely interpretation.
 114. The modal particle *songqa*, which is also encountered in the shape *sonqe* (see (1) in 1.5.3), translates 'probably/most likely.' It is to be differentiated from the discontinuous negative particles *son . . . qa* whose semantic force amounts to 'definitely/for sure' (see example (3) in 2.2.4).
 115. According to Langacker the pausal vowel ending -a is a modern Hopi reflex of a reconstructible PUA accusative suffix. Of the three accusative suffixes which he reconstructs he claims *-a to be the newest. "It was the one that occurred on nouns. When a non-possessed noun was made accusative, *-a co-occurred with the absolutive suffix *-ti; the sequence *-ti-a was realized as *-t-a by truncation of the first vowel" (1979:89). In Hopi *-t-a was then reanalyzed as an accusative ending "with subsequent loss of the vowel by regular apocope, so that -t (originally the absolutive) is now the Hopi accusative suffix for non-possessed nouns (the vowel a still surfaces in 'pausal' forms)" (1979:90).
 116. While *taavok tapkiqw* 'yesterday evening' in (2) is perfectly idiomatic, **taavok mihikqw* is not; its notion is captured by the lexeme *tooki* 'last night' (see 2.2.4).
 117. Langacker contends that the modern Hopi pronoun *itam* 'we' goes back to the PUA sequence **ita=mi*, "consisting of the independent pronoun **ita* 'we' and the plural clitic *=mi*," and that this sequence was later "reanalyzed as a single-word independent pronoun" (1975:14). Interestingly enough, *itam* is frequently realized as *ita* today, even in slow speech and before pause.
 118. The sense 'the following day,' which is conveyed here by *qaavo*, is more frequently expressed by *qavongvaqw* (see 2.1.7.3.3).
 119. The connective function attributable to the nasal *ng(w)* may also be observed in

- such words as *pōlà-ng-pu* (lump-CONN-NR) 'ball-shaped/round,' *sikyà-ng-pu* (yellow-CONN-NR) 'yellow color,' *kopa-ng-wunu* (top:of:head-CONN-NR) 'he is standing on his head,' *masa-ng-yam-qa* (wing-CONN-go:out-ONOM:F) 'Masang-yamqa,' etc.
120. Homophonous with the adverbial *took* and etymologically related to it is the intransitive verb form *took* 'the fire went out.' Its durative pendant is *tòotoki* 'the fire is going out.' The transitive counterterms are *tookya* (PL *tookyaya*) for the perfective notion 'he extinguished the fire' and *tootokya* (PL *tootokyaya*) for the imperfective value 'he is extinguishing the fire.'
 121. The *k* preceding the subordinating marker for temporal priority is intrusive to facilitate pronunciation. The same intrusive *k* is heard in plural forms of nouns originally ending in *-ngw(u)*. Due to the disappearance of the final labialization feature *-w*, the old-type plural shape of *lölöqangw(u)* 'bullsnake),' for example, is nowadays pronounced *lölöqang-k-t* instead of *lölöqangw-k-t*.
 122. Singular nouns terminating in the labialized nasal *-ngw* feature an intrusive *k* in the nominative plural to facilitate pronunciation before the animate plural marker *-t*. The corresponding accusative plural form does not require this *k* because the ending now constitutes a syllable of its own. Thus, singular *yooyangw* 'rain' has a nominative plural form *yoo-yoyangw-k-t* (RDP-rain-k-PL) and an accusative plural form *yoo-yoyangw-tu-y* (RDP-rain-PL-ACC).
 123. When considering PUA **-mīya* 'go' (Langacker 1977b:147) as a possible root element of *muuyaw* 'moon' one might be tempted to characterize the Hopi term as something like a 'wanderer' across the sky. The element *-w(u)* would then have to be assigned the role of nominalization. However, Langacker assures me that "**-mīya* 'moon' is a well-attested PUA form. While some relation to 'go' is not impossible, it would have to date to PUA, not really being operative here any longer" (personal communication). Compare the Indo-European root **me* 'to measure' which underlies 'moon' and indicates that it was considered a 'measure' of time (Morris 1976:1528).
 124. For a partial bibliographic survey of Hopi folklore collectors and compilers see Malotki 1978:211-213.
 125. The address *muuyaw íkwa'a* is part of a little poem that was uttered by children when sleeping outdoors during the warm summer months. The poem concludes with *aatsí*, one of the lexical items that make up the rather extensive inventory of Hopi 'baby lexemes,' i.e., words used exclusively by adults when communicating with infants or toddlers.

(1) *muuyaw íkwa-'a*
 moon my-grandfather-PS
muuyaw íkwa-'a

nu' pay puw-ni
 I now sleep-FUT

nu' pay puw-ni

aatsí
 lie
 down
 IMP

yukì-l-ti-qw *qa* *tùu-tuwuts-ngwu*
 finish-PASS-R-SUBR NEG RDP-story-HAB
 DS

'If someone tells those stories after this story telling month has ended, the rattlesnake bites him. Therefore one does not tell stories when that [month] is over.'

The entire month is dreaded. Titiev suggests that Kyaamuya is considered "dangerous" because "at Soyal the dead come to the pueblo to get the 'souls' of their prayer-offerings and . . . there are no patrols of Al and Kwan men [as there are for the same reason during Wuwtsim] to make sure that no evil spirits have mingled with the others" (1944:145, fn. 22).

A Hopi belief in "the 5 days of imminent disaster" as pointed out by Ellis in her explanation of Kyaamuya is not borne out by my fieldwork. She says that Kyaamuya is "known as 'the sacred but dangerous moon' because it includes the 5 days of imminent disaster from witchcraft . . . and other frightening possibilities, a complex borrowed from prehistoric Mexico's feared 5 days at the end of their year" (1973:9).

131. Epp also lists the seasonal opposite *tömö'vamuya* with the gloss "January" (no date:51). The informants that I consulted were not familiar with this expression. Their preference was for unmodified *paamuya*.
132. There is evidence according to Langacker that the reconstructible PUA absolutive suffix **-yí* "has assumed accusative functions in various northern Uto-Aztecan languages and is reflected phonetically as *-yí*, *-yi*, *-y*, or *-i*" (1977a:15). While *ma-man-tu-y* (RDP-girl-PL-ACC) reflects the accusative plural of *ma-man-t* (RDP-girl-PL) 'girls,' **-yí* still surfaces in its entirety in the pausal shape *ma-man-tu-y-u* (RDP-girl-PL-ACC-PS). An example with an accusative plural noun in pausal shape is given in (1).

(1) *itam hìntoq tur u-ngem qa yuk patupha-mi*
 we why PROPOS you-for NEG here lake-to
 to

tsiròo-tu-y-u?
 bird-PL-ACC-PS

'Why don't we [get] birds for you then here at the lake?'

133. Fewkes in his endeavor to find an explanation for the reapplication of the lunar terms during the second half of the solar year, records the following comments from one of his priestly consultants:

When we of the upper world are celebrating the winter *Pa* moon the people of the under world are engaged in the observance of the Snake or Flute, and vice versa . . . That is the reason that we make the Snake or Flute pahos during the winter season, although the dance is not celebrated until the corresponding month of the following summer.

And in a footnote concerning this explanation Fewkes adds:

From their many stories of the under world I am led to believe that the Hopi consider it a counterpart of the earth's surface, and a region inhabited by sentient beings. In this under world the seasons alternate with those in the upper world, and when it is summer in the above it is winter in the world below, and vice versa. Moreover, ceremonies are said to be performed there as here, and frequent references are made to their character. It is believed that these ceremonies somewhat resemble each other and are complementary (1897a:258).

134. *Noo*, the truncated shape of the question tag *nooqa*, is the form generally preferred by speakers of the younger generation.
135. To initiate this game of *ngöytiwa*, young men used to gather some of the first flowers in bloom such as *heesi* 'mariposa lily' and *tukyamsi* 'larkspur' or pick edible roots such as *pasipna* 'Astragalus ceramicus imperfectus' and *totona* 'Cymopterus newberryi.' With these they tempted unmarried girls and women into wrangling them away from them. For the ethnobotanical identification of the above-mentioned plants see Whiting.
136. When scanning the literature on this topic one gets the impression that the Hopi solstitial year always had to accommodate thirteen synodic months. Two quotations may suffice to illustrate this misconception: "The Pueblo calendar of thirteen lunar months (paralleling the old Mayan and Mexican religious calendars) . . . is best preserved today at Hopi" (Ellis 1973:7). And: "It will be observed that there are six winter moons . . . and six identically named summer moons with the addition of a thirteenth moon . . . to fill out the solar year" (Curtis 1922:250).
137. Cf. Stephen who points out in his *Journal* on December 20, 1892 that "the new moon now showing is Paamuya (my transcription), moisture moon (January)" (1936:61). His reference to the moon permits us to locate Kyaamuya for 1892 and all subsequent years on our chart.
138. Ellis hypothesizes that due to "the shift in dates of successive new moons and of the same moon in successive years" (1973:13) the resulting confusion in temporal orientation might have been solved by occasionally omitting a moon rather than adding one. "If we figure our 13 moons as averaging 29 days from crescent to crescent, we have 377 days, some 17 more than those of the solar year. By accurate reckoning the named moons thus would move farther and farther from the seasonal breakdown of the solar year for which the ceremonies were primarily intended as an aid to growth. Moreover, crops would suffer as lunar dates for planting and other agricultural activities shifted in relation to the solar calendar. Something obviously would have had to give, possibly by the priest-chiefs occasionally skipping one of the nameless moons to bring the calendar back to reality" (1973:14). This speculation is not borne out by my field data.
139. Beaglehole claims that "the lunar calendar is not specifically important in the determination of dates for work or ritual and so no problem of intercalation can arise. These dates are, in general, fixed by means of a precise observation of the position of the rising sun on the eastern horizon" (1937:22).
140. Titiev's rendering *angokmuya* is phonetically incorrect. As its value he lists "October," which is denied by knowledgeable Hopi informants (1944:174). One of Gipper's consultants suggests an etymological connection with *angvu* 'bundle of cornhusk,' which is difficult to accept (1972:201). One of my informants con-

sidered the particle *angwu* 'beforehand' to be the etymon of *angukmuya*. This view seems equally unacceptable.

141. In years requiring the intercalation of an additional month the following sequence of lunar terms is encountered:

<i>kyelmuya</i>	November	<i>hakitonmuyaw</i>	May
<i>kyaamuya</i>	December	<i>kyelmuya</i>	June
<i>paamuya</i>	January	<i>kyaamuya</i>	July
<i>powamuya</i>	February	<i>paamuya</i>	August
<i>ösömuya</i>	March	<i>powamuya</i>	September
<i>kwiyamuya</i>	April	<i>ösömuya</i>	October

In years not requiring an intercalary interpolation one would now expect May to be equated with *kyelmuya*, June with *kyaamuya*, etc. Interestingly enough, this is not the case, however. The month in which the Snake ritual is performed, for instance, is always termed *paamuya*, never *powamuya*, and the white calendar pendant is always August (see McCluskey 1979, Appendix, where he shows that from 1877-1963 this ceremony has consistently taken place at dates fluctuating between August 12 and August 26). My Hopi consultants were not able to enlighten me in regard to the naming of May in a year without intercalation. With the exception of the winter months, they do not tend to think in terms of an uninterrupted chain of monthly appellations as rigorously as we do, and this may be one of the reasons why they have no answer for this problem or consider the question a purely academic one.

142. Ascribing human characteristics to the sun is also evidenced in other, nontemporal expressions, such as the following:

- (1) *taawa mó-moki*
sun RDP-die
'The sun is having an eclipse.'
- (2) *taawa kî-y'-ta*
sun house-POSS-IMPRF
'The sun has a halo.'
- (3) *taawa peeni-y'-ta*
sun mark-POSS-IMPRF
'The sun has a halo.'
- (4) *taawa sisiwku-ku-ta*
sun urinate-RDP-IMPRF
'The sun is urinating [i.e., it is sprinkling while the sun is shining].'

143. Nominals featuring *-ngw(u)*, or *-w(u)* typically inflect the accusative in the shape of *-ngwuy* and *-wuy*. Hopi displays a number of such nominals which are, however, only attested in nonsubject function. Examples in addition to *tömölangwuy* are *pasvasangwuy* 'field clearing season (ACC),' *katsinawuy* 'kachina rite (ACC),' *laayiwuy* 'herding (ACC),' and *tutuqayiwuy* 'instruction (ACC).'
144. See, for example, *talöngna* (2.1.6.3.1.1), *töngva* (2.1.6.3.4), *qavongva* (2.1.7.3),

- tömöngva* (2.5.1.3), *tal'angwva* (2.5.6.2), and *támöngva* (2.5.3). Note that the labialization of the nasal *ng* is blocked due to the influence of the preceding *ö*. The same phonological rule applies in the case of a preceding *o*.
145. Langacker suggests **pahi* as a likely proto form for the Uto-Aztecan quantifier capturing the content 'some/few/a little' (1977b:106). While I cannot verify his suggested modern Hopi reflex *pah* (possibly a Second Mesa form?), Third Mesa *pee-hu* (some-ABS) is definitely related. The animate pendant *pee-tu* (some-PL: AN) features the absolutive *-tu*, which exercises here the role of a plural marker.
146. The form *mori-'uyis-ve=haqa-m* (bean-planting:time-at=INDEF-at) 'around bean planting time,' featuring the punctual locative marker *-ve* 'at,' which I recorded spontaneously in an interview, is rejected as childish or false by older speakers. Correct, on the other hand, is the form *pöma-'uyis=haqa-m* (early:crop-planting:time=INDEF-at) 'around early planting time.'
147. The accusative marker *-y* indicates reflexive possession when occurring on possessed singular nouns. Nonpossessed singular nouns feature the accusative marker *-t*.
148. Planting stages are also indicated according to the type of field that happens to be cultivated. While planting on a *pöma-vasa* (early:crop-field) refers to the earliest stage, subsequent stages are indicated by planting on a *pisa-vasa* (sand-field) or *nönga-vasa* (sand:drift-field), the *tsivok-vasa* (new:sediment-field), and finally the *mun-vasa* (flood-field). For the latter a Hopi farmer generally selects a dry wash in which flash flood run-off is used as natural irrigation. Although expressions like *mun-vas-va* (flood-field-at:DIF) *uyis-ti* (planting:time-R) 'it got planting time on the flood fields' are fairly common, events are not dated according to the 'field' system.
- Other types of fields that the Hopi farmer differentiates are the *yongi-vasa* (warm-field) which is located in a warm spot, the *halasam-vasa* (moist-field) which has retained the winter moisture, and the *naya-vasa* (clay-field) which is not very desirable as planting ground.
149. A variant expression for the solstitial event is *taawa kiy aqw paki* 'the sun entered its house.'
150. In attaching the diminutive marker *-hoya* (PL *-hòoya*) to the indefinite pro-adjective *hiisay* (PL *hingsay*) 'little/small,' the semantic content 'tiny' is brought about.
151. According to my consultants Gipper's recorded example "*pas tala utuhu'u* 'it is a very hot summer/der Sommer ist sehr heiß'" is illformed. The idiomatically correct version in (1) omits the intensifier *pas* and characterizes the copular predicate with the habitual marker *-ngwu*. *Tala* needs to be rewritten as *taala*, of course.
152. In glossing *taala* both 'in:summer' and the shorter reference 'summer' will be used.
153. Exceptions are singular nouns ending in a diphthong with the glide *w* (e.g., *hoonaw* 'bear') and nouns featuring the final nasal *-ngw* (e.g., *kòokyangw* 'spider') which under certain conditions attract the pausal termination *-u*.
154. The nominal *ná'öna* 'lazy' decomposes into the root element *öna* 'without desire' and the reflexive element *na-*, which adds an emphatic or intensifying touch to the root value. While *öna* in the sense of 'being tired or fed up with one particular job/taking time out from the same type of work' has no negative impli-

- cations, the characterization of a person as *ná'óna* 'lazy' is not considered a desirable social trait.
155. According to Miller, *ta-*, *te-*, and *ti-* occur in PUA words denoting "man/male/person/boy." One or a possible combination of the two proto bisyllabics **tawa* "man" and **tewi* "person/people," which he suggests (1967:45), are most likely relatable to the Hopi onomastic suffix *-tiwa*, which simply denotes 'male person.' Compare also the term *mantuwa* 'girlfriend/female lover,' which when analyzed as *man-tuwa* (girl-person), may represent a reflex of the proto form with a value still void of sexual differentiation.
 156. The first element in *nöq-kwiv-i* (?-boil-NR) is obscure as to its exact value. The two main ingredients of the dish are *paatsama* 'hominy' and meat which are boiled into a stew. A semantic clue for *nöq-* may perhaps be derived from the compounds *nöqsona* 'one keen on meat,' *nöqvala* 'meat soup,' and *nöqvalkiwta* 'he is craving for meat,' where it is commonly interpreted as 'meat.'
 157. The indefinite-interrogative pro-verb *hinti* may be used transitively and intransitively. Accordingly, it will translate 'he did something/what did he do?' or 'something (negative) happened to him/what (negative thing) happened to him?' The negative strain of intransitive *hinti* may of course lend itself to a variety of semantic interpretations which will be activated by the overall context in which the pro-form occurs.
 158. The *qala-nyyam* or 'Forehead clan members,' considered to be a group inferior to the *taawa-nyyam* or 'Sun clan members' with whom they share the same phratry, are supposed to have derived their name from the fact that the sun was just rising, i.e., peeking with its forehead over the horizon, when they arrived at their Hopi destination after years of migrating.
 159. Titiev reports that the important duties of the sun watcher were shared by two officials in Orayvi. From the winter solstice until the summer solstice the sun "is watched from the roof of the Sun clan's main house by the head of the Patki clan," between summer and winter solstice "the task is entrusted to the chief of the Horn society, who makes his observations from the Buffalo shrine" (1938:40).
 160. For horizon stations along horizon profile calendars concerning Hopi villages on First and Second Mesa see Fewkes (1897a:258), Stephen (1936: maps 4 and 12), Parsons (1933:60), and Forde (1931:386).
 161. With the exception of the place name, which happens to be the diffuse case form of Apoonivi in the sample below, each stanza of the planting song is composed identically. Note that the first two lines display archaic verbals featuring the ingredient *muy*. I suggest that this element represents a reflex of PUA **mīya*, which Langacker reconstructs with the value "go" (1977b:147). See also footnotes 60 and 123.

(1) *taawa* *wiiki-muy-iwa*
 sun guide-go-PASS
 PERF

taawa *wuni-muy-iwa*
 sun stand-go-PASS
 dance PERF

apòoni-va taawa páki-q-ö
 PN-at sun enter-SUBR-PS
 DIF DS

uuyi yuuyaha
 plant dress
 PL

'The sun is being guided along,
 The sun is dancing as it moves along.
 When at Apoonivi the sun went down,
 Plants dressed themselves.'

162. The element *ki* 'house,' which in compounds generally occurs without its absolutive marker *-hu*, is to be interpreted as 'shrine' in (8-9).
163. The horizon marker in question is a hill which is said to resemble a female breast. While informants of mine were quick to point out this connection of *pi* to *piihu* 'breast/milk,' only one intimated that *pivos-* might relate to *pii-vots-ta* (breast-squeeze-IMPRF) 'he is squeezing a breast/is milking.'
164. One of my informants suggested that *masik'uypi* is really a reflex of the longer form *masi-hatikw-'uy-pi* (gray-lima:bean-plant-place). I have no linguistic evidence to prove this hypothesis except that both the shortening and lengthening of syllables and words is a typical feature in the singing of Hopi.
165. Syntactically, almost every individual horizon reference point is embedded in the stanza in its diffuse form. The respective spatial marker *-va* 'in/on/at (DIF)' is motivated by the motion verbs *paki* and *yama*, which relate to the sun's 'entering/setting' and 'going out/rising' through each point in question. The nominative shape of diffusive *pòöpava* would be *pöhu*.
166. According to a folk saying, people would take off their warm body wrappings when the sun rose at this point, as it marked the oncoming period of warmer weather.

(1) *kur sikyaqvu-mi taawa pitú-y; itam*
 EV PN-to sun arrive-EXCLM we
 M

itàa-napna-y o-'ya-ni
 our-body-ACC RDP-take-FUT
 wrapping PL
 OBJ

'The sun has reached [the horizon marker] Sikyaqvu; we'll be taking off our [warm] body wrappings.'

167. For this reason the Hopi kachina pantheon also includes a Sun kachina.

(1) *noq oovi haqa-wa-t piw taawa-t katsin-tota,*
 an' therefore some-SPEC-PL also sun-ACC kachina-CAUS
 SI PL

hísat=haqa-m; oovi pam piw katsina, taawa-katsina
 long=INDEF-at therefore that also kachina sun-kachina
 ago

'And therefore some people also made the sun a kachina long ago. It is also a kachina, the Sun kachina.'

168. The recent discovery of a unique timekeeping device in the form of a solar marking construct on Fajada Butte, Chaco Canyon, New Mexico, provides striking evidence for the highly developed astronomical knowledge among the prehistoric Southwestern Indians. The function of the construct is summarized by its discoverers as follows:

An assembly of stone slabs on an isolated butte in New Mexico collimates sunlight onto spiral petroglyphs carved on a cliff face. The light illuminates the spirals in a changing pattern throughout the year and marks the solstices and equinoxes with particular images. The assembly can also be used to observe lunar phenomena. It is unique in archeoastronomy in utilizing the changing height of the midday sun throughout the year rather than its rising and setting points. The construct appears to be the result of deliberate work of the Anasazi Indians, the builders of the great pueblos in the area (Sofaer et al. 1979:283).

To date, no archeoastronomical site of such sophistication has been established for Hopi.

169. For some reason, the counting of stars is taboo. The punitive consequences for someone who would attempt such an undertaking are given in the two following variants:

(1) *hak yaw soo-tu-y qa pòotoyla-n-ta-ngwu;*
 someone QUOT star-PL-ACC NEG count-n-IMPRF-HAB

hak yaw pumu-y qa sòosokmu-y
 someone QUOT those-ACC NEG all-ACC
 AN

pòotoyla-qw puma yaw haki-y a-w lóhō-k-ngwu
 count-SUBR those QUOT someone-ACC he-to fall-k-HAB
 DS PL

'One doesn't count the stars; if one doesn't count all of them, they fall down on him.'

(2) *hak soo-tu-y qa pòotoyla-n-ta-ngwu; hak*
 someone star-PL-ACC NEG count-n-IMPRF-HAB someone

pumu-y qa sòosokmu-y pòotoyl-e' mok-ngwu
 those-ACC NEG all-ACC count-COND die-HAB
 AN SS

'One doesn't count the stars; if someone doesn't count all of them, he dies.'

170. In nights of overcast skies, the crowing of the rooster was a fairly reliable 'back-up' signal for temporal orientation.

- (1) *om-q* *pu'* *haki-m* *soo-tu-y* *qa*
 overcast-SUBR then someone-PL star-PL-ACC NEG
 DS
- tuwà-y'-yungwu;* *pàasat* *pay* *oovi* *kowaako-m*
 see-POSS-IMPRF that ASSR therefore chicken-PL
 PL time
 HAB
- töq-tot-e'* *haki-mu-y* *taa-tay-na-ya-ngwu;*
 crow-R-COND someone-PL-ACC RDP-awake-CAUS-PL-HAB
 PL SS
- puma* *pay* *kur* *hi-n* *hisat* *qa* *töq-toti-ngwu*
 those ASSR EV some-way at NEG crow-R-HAB
 some PL
 time

'When it's overcast, people don't see the stars. So when the chicken [i.e., roosters] crow, then they wake people up. They always have to crow.'

Example (2) demonstrates how a 'crowing reference' was actually used in temporal orientation. Note that again preference is given to the term *kowaako* 'chicken,' although *taqawe'e* 'rooster' is a well-attested expression in the inventory of Hopi domestic animals.

- (2) *kowaako-t* *suu-s* *töq-ti-qw* *pu'* *yaw* *pam* *qatuptu*
 chicken-ACC one-times crow-R-SUBR then QUOT that get
 DS up

'When the cock crowed the first time he got up.'

171. The conjunction *niiyangw* 'and:SIMUL,' which may also take on the value 'but,' may be truncated to *kyangw* in clause initial position. The same applies to *niiqe* 'and:CAUSAL' which can be heard as *qe* (see fn. 172).
172. The conjunction *niiqe* 'and:CAUSAL' may be truncated to *qe* in clause initial position. See also fn. 171.
173. For some comparative notes on the Hopi ceremonial cycles as established at the various Hopi villages around 1960 see Eiseman.
174. McCluskey provides a tabulation of the days of the week on which the Snake dance was performed at Walpi Pueblo between 1870-1929 and 1930-1970 and makes the following observation:

From 1870 to 1929 the distribution is essentially random, but from 1930 on, the concentration on the weekends is obvious. Since the last two days of the Snake festival involve public ceremonies of primary importance, the scheduling of the Snake dance on Sunday places both these days on the weekend, allowing most Hopi to attend both public ceremonies. (1979:11)

175. This timing practice is confirmed by Titiev: "The Oraibi performance of the Tribal Initiation starts when the Ai (Horn) chief, in his capacity as Sun Watcher

- . . . , announces that the sun has risen at a point on the horizon which is known as Dingapi (sic)” (1944:131).
176. The coming of the Soyalkatsina used to signal the start of the kachina season on Third Mesa. “Annually, at Oraibi, kachina activities begin very late in November with the appearance of a solitary Soyalkatsina whose coming announces the start of the open season” (Titiev 1958:536). With the breakdown of the elaborate Soyalkatsina ritual, the function of initiating the kachina season has shifted in Hotvela to the Qööqöqlöm who are said to *kivâa-pa* (kiva-at:DIF) *hõtâa-tota-ngwu* (open-CAUS:PL:OBJ:PL-HAB), i.e., ‘open the kivas (ceremonially).’ According to Titiev it already was their primary responsibility to reinforce the work of the Soyalkatsina in ‘opening’ the kivas (1944:111).
 177. Cf. Nequatewa, who describes the timing of Soyalangw, which he characterizes as a “Prayer-Offering Ceremony” and a “Winter Solstice Ceremony”: “After this ceremony (i.e., Wuwtsim) is over, they again watch the sun on the western horizon. They just know on a certain day that it will take the sun eight days to reach its most southern point, and they announce the ceremony for eight days ahead” (1931:2).
 178. Titiev reports that the name Qööqöqlöm “is supposed to refer to holes on mesa tops (*qöqlöm*) (sic) in which water is caught” (1944:111). The proper plural of the inanimate nominal *qölö* ‘hole/depression’ is *qö-qlö* (RDP-hole), however. The suffix *-m* symbolizes the animation of this plural term. If the kachina name should indeed be traceable to this form, it would be characterized by double reduplication: *qöö-qö-qlö-m* (RDP-RDP-hole-PL).
 179. See fn. 130.
 180. As a reaction to the silence that had to prevail during the preceding dreaded month of Kyaamuya, people are now said ‘to become crazy’ with dancing exuberance. Accordingly, Paamuya is characterized as *honaq-muyaw* (crazy-moon).

(1) <i>paamuy-ti-qw</i>	<i>pu’</i>	<i>haki-m</i>	<i>honaq-toti-ngwu;</i>
paamuya-R-SUBR	then	someone-PL	crazy-R-HAB
month	DS		PL
 <i>tiiva-ngwu,</i>	 <i>masa-sa-tota-ngwu</i>		
dance-HAB	motion-RDP-IMPRF-HAB		
PL	hands	PL	

‘When it gets Paamuya then people become crazy. They dance, [and] they motion [with their hands while dancing the various social dances].’
 181. Contrary to the custom at Orayvi, where the kachinas used to return in December with the arrival of the Soyalkatsina, Powamuya marks the opening of the kachina season on First and Second Mesa.
 182. Because the ritual is associated with the germination of beans, Fewkes offers the following etymological analysis of *powamuya*:

This process [i.e., of germination] in the primitive mind is akin to sorcery or brought about by the arts of wizards; consequently [it] occurs in the *Powako* or wizard’s moon, *Powako muiyawû*, which gives us by syncopation *Powamû*. (1897b:139).

183. In the case of possessed kin terms, elderly Hopi consistently give preference to locutions marked by the plural possessive affixes, even if the speaker is the only child. Thus *itàa-kwa* (our-grandfather) is preferred to *i-kwa* (my-grandfather), *umu-ngu* (your:PL-mother) to *u-ngu* (your-mother).
184. By adding the diminutive suffix *-wya*, the immediately preceding vowel automatically receives falling tone if it is stressed. Thus, *qõtò-wya* (head-DIM) 'little head' is marked by the suprasegmental feature of falling tone while *qö-qötö-wya* (RDP-head-person) 'person with a little head' is not, due to the main stress on the second syllable.
185. Titiev lists Nevenwehe as one of the changes that affect the ceremonial calendar in a year when novices are introduced into Wuwtsim. "There occurs in the month of May a celebration called Nevenwehe ('spinach'-gathering), during which the tyros load their Tribal Initiation garments with freshly-plucked blossoms of edible plants" (1944:139).
186. In the interplay with *kur hin* 'cannot' the modal particle *nawus* 'must' here takes on a semantic coloration that Voegelin and Voegelin have characterized as "reluctant acquiescence" (1957:53).
187. After a lapse of nearly twenty years, a Somaykoli ceremony was staged again in the village of Musangnuvi on September 22, 1979. However, no whites were permitted to witness the public performance.
188. Occasionally, the 'announcer' is also referred to as *tii-tingap-qa* (RDP-announce-REL).
189. Among the chanted announcements that Voegelin and Euler sample are several which relate to ritual topics (1957:123-127). Unfortunately, the original Hopi recordings are not transcribed.
190. The complex adverbial *kuwan'ew'unangway* 'pureheartedly' consists of individually attested *kuwan'ew* 'beautifully/happily' featuring the adverbializer *-ew*, the nominal *unangwa* 'heart,' and the final element *-y*, for whose function I have no synchronic explanation.
191. Elderly speakers prefer the phonological shape *-qey* to that of *-qay* for the subordinator sequence featuring identical subjects. No such observation can be made for the subordinator sequence featuring nonidentical subjects, which is always attested as *-qat*.

That there is a definite phonological trend for *e* to change to *a* in modern Hopi is evidenced by such forms as *amungem* > *amungam* 'for them,' *kyeteynawakna* > *kyataynawakna* 'he wants someone right away,' *àngqe* > *àngqa* 'along there/around it,' the causal subordinator suffix *-qe* > *-qa*, etc. Strangely enough though, exactly the reverse trend from *a* to *e* is also observed. Thus, the postposition *amuqlap* 'next to them' is heard as *amuqlep*, *tumá* 'let's go' as *tumé* and even *tumí* most recently.

Inter-dialectally, one observes a great deal of fluctuation, such as Third Mesa *kya* 'maybe' and *yayva* 'they climbed up' versus Second Mesa *kya* and *yeyva*. Third Mesa *pepeq* 'there (EX),' on the other hand, occurs as *papiq* in the Second Mesa and *paapiq* in the First Mesa dialect region.

192. As a tentative morphological breakdown of the adjectival quantifier *so-p-kya-wa-t* 'each and everyone/all' I suggest the gloss (all-p:(?)-person-SPEC-PL).
193. Hopi cosmogonic tradition has it that since the creation of mankind three world stages have preceded the present fourth world. While this time frame may be

termed rather gigantic and nebulous, it does provide the Hopi with an important sense of temporal perspective. This perspective loses some of its mistiness with the event of the Hopi emergence into the present world, the subsequent formation of the individual clans, their migrations and eventual convergence on a destined land.

Although Hopis familiar with their clan history are quite positive about the relative sequence of these events, none of them are dated, as is probably universally true for any mytho-historical account. It is therefore somewhat of a surprise to come across an exact date in one recently published version of the Hopi emergence myth. According to its author White Bear Fredericks, the beginning of the actual exodus from the then submerging Third World continent to the newly emerging continent of South America occurred some 80,000 years ago. Unfortunately the expression "80 Soomody" (correctly *soomori*), which he uses to refer to this time span (Blumrich 1979:37), is semantically unattested with this content in pre-contact Hopi. As I mentioned in HR (1248), the term *soo-mori* (star-bean (?)) originally denoted something like 'incredibly many/millions' but was then used for the numerical concept 'one thousand' when a Hopi term became necessary for the latter notion after increasing contact with the white world. In the days before this contact the concept 'one thousand' was totally alien to Hopi because there simply was no need for it.

194. Cf. also the entry 'Knots' in Hodge 1907:718.
195. From Talayesva's account in *Sun Chief* one gets the impression, however, that it was also used to time the sun's progression along the horizon: "Old Talasemptewa . . . would sit out on the housetop of the special Sun Clan house and watch the sun's progress toward its summer house. He untied a knot in a string for each day" (1942:58).
196. For *-ta* (PL *-tota*) embracing the semantic force of 'plural object' see the Hopi suffix inventory in Malotki 1979b:369. To motivate *-ta* in this sense of 'plural object,' the underlying notion must be strongly distributive, that is, a plurality of objects must be envisaged as 'one at a time.'
197. The possessed nominal *itàa-tingav-i* (our-announce:ceremony-NR) is interpreted as 'our announced ceremony.'
198. Cf. Pinkley and Pinkley who theorize about the apparently calendric function of such a hole alignment in the walls of Casa Grande:

We might go so far as to say that the Hohokam had in this a seasonal clock and a very accurate method of determining the year . . . These two holes, one thru the outer wall and one thru the wall of the inner room are so placed that on the seventh of March and on the seventh of October at sunrise, the sun shines thru the outer hole and strikes . . . the inner hole (1931:15).

199. See also Reyman who surveys some of the ethnographic literature dealing with architectural features which are aligned to "the sun's apparent movement along the eastern (sunrise) and western (sunset) horizons" (1976:959). He himself cites evidence to support his hypothesis that "two exterior corner windows at Pueblo Bonito were used to record the winter solstice sunrise" (1976:961). I am indebted to Peter Pilles for bringing this article to my attention.
200. Generally, the term *paho-ki* (prayer:stick-house) designates a 'shrine.' None of my other informants used this term in conjunction with the opening in the wall.

as um tuwì-y'-va
 IMPOT you knowledge-POSS-INCHO

'Maybe if you had not quit you would have learned it.'

208. The clitic =*'awú* is best glossed ATTEN for 'attenuative' because it lessens the force of the element on which it 'leans.' In addition to *ason*, the following particles are encountered in conjunction with the clitic: *as'á* 'yes:OVERNEG' (*as'awú*), *owí* 'yes' (*owí'awú*), *pay* 'right now' (*pay'awú*), *piw* 'again' (*piw'awú*), *ta'á* 'all right' (*ta'wú*). *Qa'wú* 'no way' is the only example in which the force of the cliticized element (in this case *qa'é* 'no') is actually heightened. And quite logically so if one considers the Hopi semantic rule according to which two negative elements are usually the equivalent of a strong affirmative. =*'awú* may also attach clitically to all personal pronouns, e.g., *nu'awú* 'maybe I,' *um'awú* 'perhaps you,' etc.
209. The durative pendant of perfective *wunu-ptu* (stand-arrive) 'he got into a standing position' is *wungwnuptu*. Instead of expected **wu-wnuptu*, the partially reduplicated form of *wunuptu*, the labial *w* has given way to the labialized nasal *ngw*.
210. *Is* 'oh' may be considered an intensive interjection. The intensifying ingredient seems to be located in the *s*, which also figures in the intensifiers *pas* 'very' and *tis* 'even.'
211. The causal conjunction *taq* 'because' projects a very subjective reason which may be characterized as 'concern for the negative or opposite consequences of an action, state, event, etc.' 'Because' is therefore not always the idiomatically fitting equivalent in English. Sometimes the conjunction is best left untranslated, at other times 'because' with the addition 'I am concerned' comes closer to its semantic thrust. The causal conjunction introducing a very objective reason is *ispi*.
212. The emphatic force of the admonitory particle *paapu* clearly appears to be a modern Hopi reflex of PUA **pa* which Langacker reconstructs as an element with emphatic and assertive value (1977b:32).
213. For *-manta* with the value 'PREGR:HAB' see HR:349.
214. Both modal and temporal *pay* need to be differentiated from quantifying *pay* denoting 'fair/satisfactory amount.'

(1) *pay pi nu' pay nöösa*
 well FACT I fair eat
 amount meal

'Well, I ate a fair amount.'

(2) *pay nu' pay yú-kyi-q=haqa-mi*
 well I fair here-to-EX=INDEF-to
 amount

'I'm just going [to this fair distance] here.'

215. The PUA motion suffix **-ki* that Langacker reconstructs with the content 'come' (1977b:147) is probably reflected in *pos-ki* (eye-come) 'it got/flew into the eye.' In addition to *paki* 'he entered' (cf. the spatial base *àapa-* 'inside of house'), another likely candidate for **-ki* is *siiki* 'he let air escape/farted.'

216. The emphatic exclamatory suffix *-y*, which is used by male speakers only, is possibly a reflex of PUA **-y* and may represent the verb **-yɨ* 'be.' See Langacker 1977b:33.
217. In a complex sentence featuring conjoined clauses with nonidentical subjects, the subject in the lower sentence whose predicate is marked with the obviative or switch reference marker *-q(w)*, frequently occurs in accusative shape. I suggest the label '*accusativus cum obviativo*' or 'obviative with subject accusative' for this syntactic idiosyncrasy.
218. Langacker reconstructs a PUA passive/impersonal suffix **-ti-wa* (1975:181) which seems to be fully reflected here in *naawakin-tiwa*. Generally, *k*-class verbs do not show *-iwa* passives. The form is therefore highly irregular. For a full survey of paradigmatic suffix combinations in conjunction with *k*-class verbs see Malotki 1979b:338.
219. Note that the vowel in causative *-na* is generally ablauted to *i* before the possessive marker *-y*'.
220. The sound change *ö* > *i*, observable in *söwti* > *siwti* or *söwtoyna* > *siwtoyna*, is also attested in such forms as *qötö* > *qöti* 'head,' *koysö* > *koysi* 'pit oven,' *pöhö* > *pöhi* 'downy feather/wool,' *naqsövu* > *naqsivu* 'deaf,' etc., which reflect the established pronunciation of these terms among the speakers of the present generation. Interestingly enough, it constitutes the very reversal of the sound change trend *i* > *ö* pointed out in fn. 102.
221. Among the suffixes deriving nouns from nouns in UA is one that Langacker characterizes "former/deceased" (1977b:60). His suggested proto form is **-k^waya-pɨ*, which shares the final element *-pu* with the modern Hopi equivalent *-niipu*. The Hopi verbal relating to **-k^waya-pɨ* is *kwahi* (PL *kway-ya*) 'he lost it' and may be used in regard to both persons and things.
222. The terms were created by Hopi students as part of an assignment during a Hopi language class taught by the author at Northern Arizona University in the summer of 1979.
223. The notion of 'giving' is conveyed in Hopi by suppletive stems depending on whether a singular or plural recipient is involved. While *huyvana* (durative pendant *huyvanta*) refers to many recipients, *maqa* (durative pendant *mamqa*) refers to only one.
224. Traugott, who investigates the spatial features of tense, describes the deictic structure of tense as "basically a Proximal-Distal relation, formalizable as [\pm Proximal]" (1978:374).
225. Traugott does not believe that a ternary tense system can be considered universal. "The ternary past-present-future system of Latin is in fact rather rare and certainly not original in Indo-European (even in Latin an asymmetry shows up in the subjunctive – indicative distinguishes past, present and future completives and incompletives inflectionally, but the subjunctive distinguishes only past and non-past)" (1978:376).
226. The modal notions expressed by *-ni* are generally accompanied by additional modal particles. Thus, it is the interplay of modal particle plus *-ni* that brings about the various semantic nuances in the category mode.
227. Ultan divides the tense systems which single out the moment of speech (MOS) as a point of reference, into a prospective and retrospective type. "If a present tense may ordinarily mark an MOS future or if the latter may be unmarked, the system

is prospective . . . If a present tense may ordinarily mark an MOS past or if the latter may be unmarked, the system is retrospective" (1978:88). Thus, while most Indo-European languages belong to the prospective type, Hopi qualifies for the retrospective type.

228. Note that by using the qualifying addition 'generally' we concede that these statements represent oversimplifications. As was pointed out above, both non-future perfective and imperfective verbs can be rendered with past and present tense equivalents in English. For the 'correct' temporal interpretation of a Hopi predicate a host of additional factors have to be taken into account, which are too numerous to be detailed here and warrant a study of their own. Also, the categorization of the suffixes listed under the headings of perfective and imperfective is not as neat as it would appear. *-na* 'CAUS' is generally understood to be perfective in conjunction with nondurative verb stems. In connection with a reduplicated, i.e., durative stem, its perfect aspect affiliation is lost, however. *-to* 'PREGR,' for example, will switch its aspect affiliation when the stem that it attaches to belongs to a verb of motion. In the latter case it is imperfective. While most of the listed markers can be used in future time reference by suffixing the future tense marker *-ni*, *-ma* 'POSTGR' cannot, and *-ngwu* 'HAB' changes its shape to *-mantani*. For more information on the individual suffixes in Figure 9 see the suffix inventory in HR:328-383 under the respective entries.

Appendices

Appendix A: Graphic symbols

- * nonattested or reconstructed forms
- marks morpheme boundaries and separates glosses in the interlinear glossing stage
- : morpheme boundaries within line-internal glossing
- = clitic boundaries
- primary stress
- ˘ falling tone
- › indicates a developmental path
- / separates glossing variants
- ‘ ’ designates English equivalents of Hopi words and texts and sets off a quotation within a quotation
- “ ” designates passages cited from other works, also identifies dialogue portions in Hopi examples
- () set off glosses in line-internal glossing
- [] contain culture or context-relevant additions in the translation stage

Appendix B: List of abbreviations

ABS = absolutive	ASSR = assertive
ABSTR = abstract	ATTEN = attenuative
ACC = accusative	ATTENT = attention
ADJR = adjectivalizer	CAUS = causative
ADMIR = admiration	CAUSAL = causal
ADMON = admonition	CESS = cessative
ADVR = adverbializer	CFIRM = confirmation
AN = animate	CIRCUMGR = circumgressive
APPROX = approximation	COLL = collective

COMPASS = compassion	M = male speech
COND = conditional	MANIP = manipulable
CONJECT = conjecture	MEMO = memorial
CONN = connective	MULTI = multiple
CONT = continuous	NEG = negative
CONTRA = contradiction	NEO = neologism
DIF = diffuse	NEX = nexus
DIM = diminutive	NH = nonhuman
DISCONT = discontinuous	NMANIP = nonmanipulable
DISPROB = disapprobation	NOM = nominative
DL = dual	NR = nominalizer
DS = different subject	NSG = nonsingular
DUB = dubitative	NUM = number
EFF = effective	OBJ = object
EMPH = emphatic	ONOM = onomastic
EV = evidential	OVERNEG = overruling negative
EX = extreme distance and/or position	yes/no question
EXCLM = exclamation	PN = proper name
EXHRT = exhortative	PS = pausal
F = female speech	PASS = passive
FACT = factual	PERF = perfective
FORTUN = fortunate	PL = plural
FUT = future	POSS = possessive
H = human	POSSD = possessed
HAB = habitual	POSTGR = postgressive
HR = Hopi-Raum (Malotki 1979b)	PREGR = pregressive
IGNOR = ignorance	PRIOR = priority
IMP = imperative	PROGR = progressive
IMPOT = impotential	PROPOS = proposition
IMPRF = imperfective	PRTC = participle
IMPRS = impersonal	PUA = Proto-Uto-Aztecan
INAN = inanimate	Q = question
INCHO = inchoative	QNT = quantity
INCOMPR = incomprehensible	QTAG = question tag
INDEF = indefinite	QUOT = quotative
INSTR = instrument	R = realized
INTNS = intensifier	RCPR = reciprocal
INTR = introducer	RDP = reduplication
IRREV = irreverence	REF = reference
	REFL = reflexive

REL = relative	SUBR = subordinator
S = space	SUPER = superlative
SAE = Standard Average European	T = time
SI = sentence introducer	UA = Uto-Aztecan
SIMUL = simultaneous	UNSPEC = unspecified
SG = singular	1P = first person
SPEC = specifier	2P = second person
SPECUL = speculation	3P = third person
SS = same subject	3-DIM = three-dimensional
STAT = stative	

Appendix C: Orthography of Hopi village names

Hopi village names will be rendered in standardized orthography, both in the Hopi text stage and the translation stage. The following tabulation lists the villages according to Mesa affiliation. Some of the distorted spellings encountered in the literature, which often bear only slight resemblance to their acoustic reality, are given in parentheses. First Mesa: *Sitsom'ovi* (Sichomovi), *Wàlpi* (Walpi). Second Mesa: *Musangnuvi* (Mishongnovi), *Songòopavi* (Shungopavi, Shongopavi, Chimopovy), *Supawlavi* (Shipaulovi). Third Mesa: *Hotvela* (Hotevilla), *Kiqötsmovi* (Kiakochomovi, Kikötsmovi, Kyakotsmovi), *Mùnqapi* (Moenkopi), *Orayvi* (Oraibi), *Paaqavi* (Bakobi, Bakabi).

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