

**ORTHOGRAPHY
OF THE
CHUGACH DIALECT
OF SUGPIAQ ALUTIIQ**



Orthography of the Chugach Dialect of Sugpiaq Alutiiq

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with the help of many Elders and Speakers of Sugt'stun

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INTRODUCTION: SUGT`STUN ORTHOGRAPHY

Some people prefer to ethnically identify as Sugpiaq, while others prefer to identify as Alutiiq. Because we do not wish to alienate folks on either side of the debate, we use the name Sugpiaq Alutiiq for this group, combining both terms. Most people however, when referring to the language, speak of it as **Sugt`stun**. We will use this as a convenient way of referring to the language itself.

An *orthography* is a writing system for a language. It is much more than just an alphabet. An orthography includes the alphabet or characters used to represent a language through a written form, as well as special symbols, spelling or writing rules, and any exceptions to those rules. It is separate from *grammar*, which is a generally accepted set of rules for how to properly put together words, phrases, and sentences for proper meaning and understandability (not a set of rules for spelling a word).

The Sugt`stun orthography is designed to minimize exceptions to its rules. It is designed as a truly phonetic writing system, meaning one sound is assigned to each letter – a person familiar with the orthography should be able to determine how a word sounds just by sounding it out. The rules that have been developed to write the sounds have also been designed to show how and where each syllable of a word should be stressed and which vowels or vowel pairs should be lengthened. This orthography is also designed to minimize the use of special symbols and entirely eliminate marks such as accents and underlines, which can be lost in email and cannot be printed in newspapers or on official maps.

Jeff Leer, Derenty Tabios, and Dick Dauenhauer developed an initial version of this orthography in the 1970s. It is similar to orthographies used by Central Yup'ik and Iñupiaq languages (Counciller & Leer, 2006). The Sugt`stun orthography went through a series of changes before reverting – for the sake of simplicity – back to a form very similar to the original 1970s version. This booklet will make note of any significant changes that have occurred to different spelling rules and letters in the chapters where each letter is discussed, and summarize notable changes in Chapter 10.

See Appendix I for a chart on various orthographies used through time and in neighboring languages.

The Orthography Guide Development

Efforts to create a guide that could be used to guide materials development for Sugt`stun language teaching began in the 1990s with an earlier variation on today's writing system. Chugachmiut, Inc. was conducting a curriculum development project, and participants in the project determined that a resource was needed that could guide developers in the creation of written materials following a “consistent, concise set of rules” (Leer, 1999). Participants in that effort included Jeff Leer, Derenty Tabios, Arthur Moonin, Feona Sawden, Seraphim Ukatish, Rhoda Moonin, and others. Their work would be referenced and built upon in subsequent years.

As changes were made to the orthography to accommodate increases in computer communication, it again became apparent that the work initially begun a decade earlier would need to be expanded and published. Chugachmiut brought together fluent speakers from around the Chugach Dialect region in January of 2011. This Sugt`stun orthography was revised to:

- 1) Simplify teaching Sugt`stun;
- 2) Eliminate accents and underlines, making it easy to type on any platform; and
- 3) Make the rules consistent while the language training material is developed; and
- 4) Help ensure all dialects from Prince William Sound to Kodiak Island, and the Alaska Peninsula can use the same basic orthography (with minor differences based on dialect).

The speakers participating in the 2011 workshop included Rhoda Moonin, Regional Language Coordinator, Nanwalek; Derenty Tabios, Anchorage; Mary Kompkoff, Chenega Bay; Leona Olsen, Tatitlek/Cordova; Nancy Pullam, Port Graham/ Ninilchik; Diane Selanoff, Port Graham/Valdez; Sally Ash, Nanwalek; Marie Meade, University of Alaska, Anchorage; Agatha John Shields, University of Alaska, Anchorage; and Bernice Tetpon, Anchorage. Jeff Leer led discussions about the writing system's changes and sought feedback and examples from speakers. Leer was assisted by April Laktonen Counciller, Ph.D., then the Alutiiq Museum Language Manager, and a second-language Sugt`stun/Alutiiq speaker from the Koniag Dialect. Work continued throughout 2011, and the first draft of the guide was completed in early 2012. Chugachmiut's efforts spurred interest in the development of a similar guide in the Kodiak region, but the Chugach dialect's orthography document was not finalized for a number of years. In 2020-2021 Chugachmiut worked with the Alutiiq Museum in Kodiak to re-start the process, and this publication was completed in 2022.

How to Use this Guide

The purpose of this guide is to provide speakers and language learners with a comprehensive guide to the Sugt`stun writing system. Users will understand the sounds of the Sugt`stun alphabet, the meanings and uses of symbols such as the apostrophe and hyphen, and determination of syllable breaks. Readers will gain a basic understanding of emphasis and lengthening of sounds within words, which can be used in sounding out written words or in aiding the accurate writing of spoken language samples. Exceptions and pronunciation rules that alter sounds of letters will also be addressed.

The value of this writing system and guide is limited for those with no prior exposure to the language. While those with linguistic training in other languages may be able to understand and apply the concepts and rules described here, those without formal linguistic training should have some access and exposure to the language. Fluent speakers and advanced learners should be able to understand and use the rules of the writing system, but should carefully read the information presented here, since the writing system is based at least partly on the underlying structure of the word. Decisions on the writing system that seem arbitrary at first might have important motivations, which this guide will attempt to explain.

Anyone who plans to use the Sugt`stun writing system should carefully study the orthography as confusing aspects of the system are explained in the details. As popular community use of the Sugt`stun orthography is in its early decades, minor changes may occur over time as popular uses are standardized and integrated by other writers. This guide is therefore a primary community-use orthography, which will offer a standard reference, while acknowledging that long-term literacy may result in changes in popular usage.

Dialectical and Sub-dialectical Variation

There are two major dialects of Sugt`stun/Alutiit`stun, and the name used for the language is connected to whether people refer to their cultural group as Sugpiaq or Alutiiq. Chugach Sugt`stun (C) is spoken on the lower Kenai Peninsula (KP) and Prince William Sound (PWS). Koniag Alutiit`stun (K) is spoken on the Alaska Peninsula (AP) and Kodiak Island (KOD). The Chugach and Koniag dialects each can be broken down into the sub-dialects identified above: KP, PWS, AP, and KOD. This guide covers the Chugach (C) dialect, including the KP and PWS sub-dialects.

Distinctions between dialects and styles have been important to many speakers and learners, so in publications like this, we do our best to identify when a word is used specifically in one dialect or style. If the difference is heard in one specific village, the village name will be listed in the parenthesis (e.g., Nanwalek). Sometimes, a word is known to be used in part of the dialect, but not all communities – In these cases, the abbreviation for the subdialect is used (e.g., PWS). If there is no special notation after the word, it means that the word is generally used throughout the dialect covered by this publication (C); speakers from various parts (but perhaps not all) of the region use the word.

It is important to also remember that no publication will ever fully document every word or variation that occurs within Sugt`stun, as the full lexicon of a language is simply too large (and ever changing) to completely document. The only guarantee when a word is used in a book like this, is that one speaker said the word at least one time to a linguist or learner, and it was recorded or written down. The appearance of a written word does not negate the existence of other words in the language that might have the same meaning. Example words in this book are often chosen for their use of specific letters or letter combinations, and it is not the intent of the authors to provide an exhaustive list of all other words with the same or similar meaning — especially as alternate words may not include the particular letter to be illustrated or syllable composition.

Writing Conventions and Abbreviations

Throughout this book various writing conventions (such as **bold** for Sugt`stun words within paragraphs, or # to designate the beginning or end of a hypothetical example word boundary) and abbreviations (such as (KP) for the Kenai Peninsula) are used to aid explanation and avoid lengthy repetitions. Sometimes these conventions are noted in text, but not thereafter.

All of the abbreviations and writing conventions used in this book are summarized in Appendix II (Abbreviations) and Appendix III (Conventions). Important vocabulary, which is *italicized* upon first major use in text, is compiled in the glossary. Terms made up of a combination of linguistic terms (like voiced fricative) are generally not defined on their own if the individual terms have already been defined.

PART I: SUGT`STUN ALPHABET

CHAPTER 1: SUGT`STUN ALPHABET

1.1 Introduction

An alphabet are characters or written symbols used to represent different sounds for a language. There are other languages whose writing systems use symbols that refer to whole words or syllables, rather than individual sounds. The Sugt`stun writing system is alphabet based, using symbols to represent each sound.

Our writing system uses letters from English alphabet, using what is known as the Roman or Latin alphabet. Letters (also known as characters or symbols) from the Roman alphabet are used to represent various Sugt`stun sounds. Some letters represent the same or almost the same sounds as in the English language, while other letters represent sounds not found in English. Some sounds are similar to English sounds, but are represented with different letters than in English, as we will see later in this chapter.

The main thing to remember when looking at the Sugt`stun alphabet is that although it looks like the English alphabet, it often sounds much different. This is why it is impossible to try to write Sugt`stun words in English alphabet “phonetics”. Many Sugt`stun sounds cannot be correctly expressed with combinations of English letters. For example, the word **llaami** (outside) contains a **ll** sound that is impossible to write with English letters. Writing that sound as a ‘sh’, ‘th’, or ‘shl’ using the English alphabet would confuse learners even more, and teach them to say our words incorrectly. When you get requests for writing words in “phonetics” you should explain these issues, because very few words in Sugt`stun can be written in English letters while preserving the proper pronunciation. Continuing to use “phonetics” continues to place our language and writing system in a subservient position to English and the English writing system. The popular use of the term “writing phonetically” – which actually means writing approximately using makeshift English-style syllable chunks – is not at all phonetic, since it does not (and cannot) capture the actual sounds of the language.

There is a very good reason to use the Sugt`stun alphabet. Written Sugt`stun is consistent – what you say is what you write. There are very few exceptions. In written English, however:

- The same characters can represent many different sounds (e. g., in ‘machine’, ‘church’, and ‘Christ’ “ch” represents three different sounds);
- The same sounds can be represented by different letters (e. g., in ‘beet’, ‘beat’, ‘machine’, ‘ee’, ‘ea’, and ‘i’ represent the same sound of ‘e’ that is called “long e” in English; and
- There are silent letters (e. g., “ease” where ‘a’ is silent, or “add”, where the second ‘d’ is silent; and “daughter” where ‘gh’ is silent, “knife” where ‘k’ is silent, and ‘ptarmigan’ where ‘p’ is silent, etc.)

Those who have studied English might remember having difficulty with these irregularities. The current Sugt`stun orthography is far more regular than English. In fact, if the writer understands and applies the orthographic rules presented here, the orthography is completely internally consistent, quite unlike the English orthography.

1.2 Letters

The following 29 letters and letter combinations are used to represent the sounds of the Sugt`stun orthography:

a, c, e, f, g, gg, ggw, gw, hm, hn, hng, i, k, kw, l, ll, m, n, ng, p, q, r, R, rr, s, t, u, w, y

These examples will give some idea of the sound it represents for those familiar with the language. The sound and use of each letter will be covered in detail in the next two chapters.

Letter	Sugt`stun	English
a	amiq	skin
c	Ca.	I don't know.
e	ena	house
f	futii	Phew!, It stinks!
g	gaaleq	window
gg	ggiinaq	face
gw	uqgwik	alder
ggw	ggwani	here
hm	ahm`akuuq	pinecone
hn	p`hnaq	cliff
hng	p`hnguq	hill
i	iqsak	hook
k	keneq	fire
kw	kwegluku	to lift it
l	lapaat`kaa	shovel
ll	iqalluk	fish
m	meq	water
n	nasquq	head
ng	ngaqngaaq	puffin (KP)
p	puyuq	smoke
q	qugyuk	swan
r	qaryat	fish eggs
R	wiit`Ruuq	pail, bucket
rr	rraakiq	basket
s	saeq	wing
t	tegliliq	moose
u	ul`uk	pants
w	wek	grass
y	yaasiik	box

Multi-character sounds: When **n** and **g** are combined (**ng**) and when **g** or **k** are combined with **w** (**gw**, **ggw**, and **kw**), they represent single sounds. The alphabet also has voiceless nasals beginning with **h** (**hm**, **hm**, **hng**) and doubled consonants **gg**, **ll**, and **rr**, all of which represent single sounds. These sounds, although represented with two or more Roman characters, are considered one letter in Sugt`stun.

1.2.1 Borrowed Letters

The characters **R** and **f** are used in words “borrowed” from Russian and occasionally from English. Any word containing these letters is a borrowed word, but not all borrowed words contain these letters. The borrowed letters **R** and **f** are apparently not used in the PWS subdialect, except in proper names.

1.2.2 Alphabet Example Words

Below are some additional example words to familiarize you with each letter. Pronounce, or have a fluent speaker pronounce the following words:

a

allaneq	stranger
Agelriik.	They(2) left.
Asiituq.	It is bad.

c

caayuq	tea
ciiwak	fly
cacaq	what?, thing

e

emaa	grandmother
ena	house (KP also enek)
ellma	almost

g

agi	go
Aga'un	God
igluku	to swallow it

f

familiaq	surname, last name
Futii!	Phew!, It stinks!
fRuuk`taq	fruit

NOTE: F is apparently not used in Prince William Sound, except in personal names.

gg

Ggagtuq.	It is rough, coarse.
----------	----------------------

ggiinaq face
 ggun this way, by way of here

ggw
 ggwani here
 ggwamiliaq last name, surname
 ggwall'u maybe, perhaps

gw
 uqgwik alder
 elgwia his/her place
 Agwartuq. He (just now) moved over.

hm
 ahm'akuuq pinecone
 unerhmigluku to hold it under the arm (in the armpit)
 keghmarluku to bite it repeatedly

hn
 Ehn'ikiiten. S/he said you were there.
 P'hnaq cliff
 Tang`rhniititan. You will not see it.

hng
 p'hnguq hill
 arrighnguarluni to rummage through things
 ighngan when s/he fell

i
 ik eye
 ing'iq mountain
 ikna that one

k
 kuik river
 ketiini down below it (further down towards the shore from it)
 kanani down there

kw
 kwegluku to lift it up
 sugkwarluku to give birth to it
 Aqlligkwaraa. They let her get her clothing and accessories ready to go. (PWS)

l
 laam`paaq lamp

laakaq	pit
luus`kaa	spoon

ll	
lla	outside or world
lliiqurluni	to settle, relocate
llangcarluku	to punish him/her (so as to make them aware of proper behavior)

m	
macaq	sun
maraq	swamp, bog, wetland
Makten!	Get up!

n	
nuna	land, town, village
napaq	tree
Naama	Where is it?

Ng	
angun	old man
anga`uka	my partner, my buddy
ngigluku	to put one's weight on it, to weigh or pin it down

p	
pisurta	hunter
palurggwik	plank
panaq	spear

q	
qulen, qula	ten
qaryat	fish eggs
quta	beach

r	
arnaq	woman
erneq	day
erinaq/riinaq	voice

R	
wiitRuuq	pail (KP)
tRupa	stovepipe (KP)
aRtuusaaq	holy bread, host (KP)

NOTE: "Russian R" is not used in Prince William Sound, except in personal names.

rr

rraamaqaq	hollow
Rrirtuq.	It is shiny.
rruq	arrow
s	
salaq	clam
suk	person
siinaq	arctic entryway, kellidor
t	
tekeq	index finger (PWS), finger (KP)
tanqik	light, moon
tartuq	kidney
u	
uutuk	sea urchin
ukineq	hole
uksuq	winter, year
w	
wiika	my husband
wamqutaq	toy
wiinaq	sealion
y	
yaani	next door
yaasiik	box
yuaquq	neck (in KP this is usually yaaquq, but some older people have said yuaquq)

1.3 Special Characters

Two characters are used to guide readers to the correct pronunciation of a word: the hyphen and the apostrophe. Chapter 8 provides a more in-depth presentation of the use of these special characters.

1.3.1 Hyphen (-)

The hyphen is used for a number of purposes in the Sugt`stun orthography.

One of the uses of the hyphen is to separate an enclitic from a base word. An enclitic is a short particle attached to a word and pronounced as part of it. A hyphen is put after the word to which the enclitic is attached.

The most common enclitics are: **-ggem** (indicates contrast), **-rruq** (indicates emphasis), **-llu** (this has various functions), **-qaa** (indicates a yes/no question), **-mi** ("how about..."), **-tuq** ("I hope"), and **-tanem** ("[what] in the world"). More than one enclitic can be attached to a word. The combination **-llu-qaa** translates as "or what?".

Pit'uten-qaa? Did you get something (hunting)?

Nani-mi piturciqt'sta? Where should we eat?
Asirtuq-rruq! It's good, I tell you!

Agnguarciquten-llu-qaa? Are you going to dance or what?

In the first example above, the **-qaa** enclitic changes a statement into a yes/no question. The second example uses **-mi**, which in this case is used to ask the listener's opinion. The **-rruq** enclitic in the third example serves as an exclamation of emphasis.

Another use of a hyphen (-) is to separate an ending from a foreign word especially an English word. Compare the following:

Hula hoop-ertuq. He is hula hooping.

Mars-rem sug'i the people of Mars

The first example contains the English word "call", which should be pronounced as such, followed by the Sugt'stun suffixes **-(e)r-**, which converts an English word into a Sugt'stun verb; and **-tuq**, which designates that the subject is third person singular (he/she/it). The second example contains the English word Mars, which is the "possessor" of something (people). The possessor is the person or thing that owns or possesses something else, written in English followed by an apostrophe plus s ('s), such as with the phrases "Bob's dog", "the bear's tooth", or "the priest's book". As the possessor, the planet Mars takes the suffix **-rem** which designates it as the noun in the sentence that "owns" the other noun. Here are some more examples of hyphen use for loan words:

Ag'kutartuq Seattle-men. He is about to leave for Seattle.

Town-mi ell'artukut. We are living in "town".

Popcorn-nek pituryuumirtua. I would like to eat "popcorn".

Loan words which have been accepted into the Sugt'stun vocabulary for some time are pronounced as Sugt'stun words, and are written in the Sugt'stun orthography. Because they are now considered Sugt'stun words (adopted rather than loaned), they are not separated with a hyphen from a Sugt'stun ending.

Klistaaliqsiitat. They have not put a cross on it yet.

Klistaaq cross (from Russian krest)

The final use of the hyphen is for line breaks. As in written English, a hyphen is used to separate a word at the end of a line, to be continued on the next line. This is rarely needed in modern word processing, as programs such as Microsoft Word can be set to not use hyphenated line breaks, but it is useful to know the rules if continuing a word on the next line is necessary. The basic rule is to break a word between syllables. In the following examples, we must pretend that a line break is needed due to space running out at the end of a line.

Pehnaik- The big goat is bothering them.
ciim tungitai.

Ankutarngama enem- Before I left the house, I tried to let my dog out.
nek piugta anciniag`gka.

Anyuu- He didn't want to leave.
minenguq.

A word should be cut only at the syllable division, but not within a syllable. Thus the word **i / qa / llug / sur / yuu / mir / lan / ' / tuq** (**iqallugsuryuumirlan'tuq** "s/he doesn't like to fish") should be cut at any one of the slashes, but not between them. Syllabification will be discussed more thoroughly in Chapter 4.

1.3.2 Apostrophe (')

An apostrophe (') is used to separate the letters into two syllables. It is used to differentiate between the single letter **ng** and the separate letters **n** and **g** when they occasionally appear together in a word. In the case of separate letters **n** and **g** (**n'g**), each letter is pronounced separately, the **n** at the end of a syllable and the **g** at the beginning of the next syllable. The single letter **ng** is one sound, like the 'ng' in the English word "song".

For example:

n'g	un'gani	out there (in the direction of the mouth of the bay)
ng	ungani	his own whiskers/beard

The apostrophe is also used between vowels when they are next to each other, but the vowels fall in different syllables.

a'a	
Kana'artuten.	You are dreaming.
Ila'aqikut.	Join us.
cugcua'aq	black oystercatcher

i'i

ini'iluni	hanging clothes (to dry)
Cali'it?	What are you doing?
Kui'it	rivers

a'i	
uka'iq	rabbit
kula'irluku	visiting him/her
ggua'i	here (it is)

a'u	
ika'ut	that way
Qia'ut	They're crying.
Cua'artuq.	It burnt out.

u'u	
Iqu'ut.	They are falling over, toppling.
Atuu'ut.	They are useful.
Nau'uq.	It is growing.

1.4 Sentence punctuation

As in English, a capital letter is used at the beginning of the first word of a sentence and at the beginning of a proper name (person, place, a day of week, or month). The period (.) question mark (?) and the exclamation mark (!) are used in the same way as in English.

Angun pekciiquq akguuwaqu.	The old man will work tonight.
----------------------------	--------------------------------

Pekciiquq Paluwigmi.	He will work at Port Graham.
----------------------	------------------------------

Maama, naklleng tai!	Mother, please come!
----------------------	----------------------

Kinam ukut pi?	Whose are these?
----------------	------------------

In all examples, the first word of the sentence is capitalized, and also the proper name Port Graham is also capitalized. The sentences end with a period, exclamation mark, or question mark as needed for the intent of the sentence.

CHAPTER 2: CONSONANTS

2.1 Introduction

Of the 29 letters and letter combinations used in the Sugt`stun Orthography, 25 are consonants, and four are vowels. Most of the consonants are represented by single characters, but ten consonants are represented by symbol combinations (**gg**, **gw**, **ggw**, **hm**, **hn**, **hng**, **kw**, **ll**, **ng**, **rr**).

Consonants differ from vowels in that consonants always involve some degree of obstruction of airflow in the mouth. With vowels, there is no obstruction of airflow. Vowels will be discussed further in Chapter 3.

Depending on the manner and in which they are produced in your mouth, consonants can be classified as stops, fricatives, or nasals. A stop means that the air coming out of your mouth is stopped briefly, and then released, as with the letter **p**. A fricative consonant is produced by constricting airflow, or as the name implies, producing friction (but not a full stop) in the airflow. An example of a fricative consonant is the letter **s**. A nasal consonant is produced by forcing air through the nasal passages rather than the mouth. The letter **m** is a nasal consonant. This chapter will go over each consonant type by describing how and where they are produced in the mouth.

2.2 Consonant Chart

The chart on the following page contains all of the Sugt`stun consonants. They are categorized by their method of production as a stop, fricative, or nasal (see first vertical column), and also by location of production in the mouth (see first horizontal row). The numbers following each location term in the first row correspond to the tongue placement figure that follows the consonant chart.

Location of Production ► Consonant Type ▼	Labial: lips (1)	Apical: tip of tongue (2)	Laminal: blade of tongue (3)	Velar: roof of mouth (4)	Rounded Velar: roof of mouth & rounded lips (4, 1)	Uvular: back of mouth (5)
Stops <i>Napneret</i>	p	t	c	k	kw	q
Voiced fricatives <i>Erinalet</i> <i>ullagneret</i>		l	y	g	w, gw	r
Voiceless fricatives <i>Erinailngut</i> <i>ullagneret</i>	f	ll	s	gg	ggw	rr
Voiced nasals <i>Erinalet</i> <i>qengakualriit</i>	m	n		ng		
Voiceless nasals <i>Erinailngut</i> <i>qengakualriit</i>	hm	hn		hng		
Russian <i>Kasaakarllaq</i>		R				

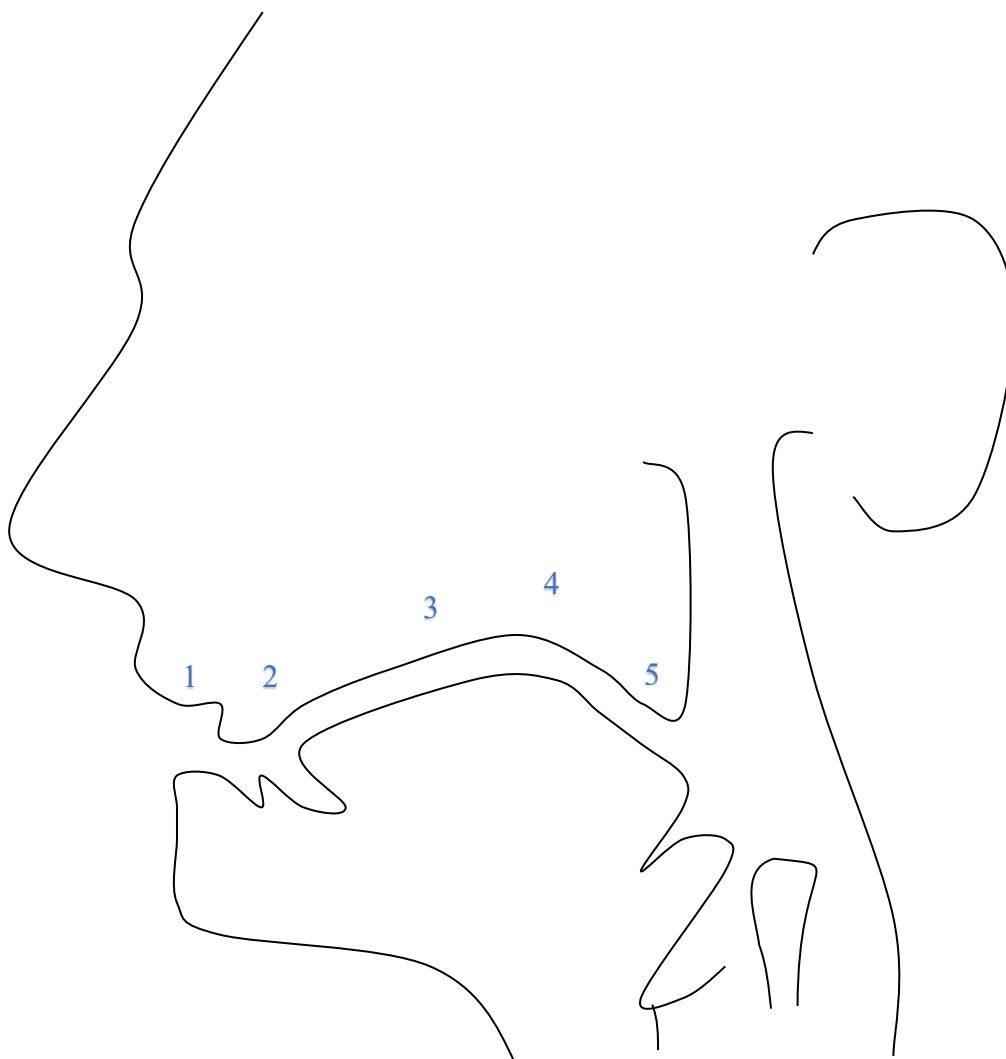


Figure 1: Location of Production for Consonants

1. Labial: lips
2. Apical: tip of tongue
3. Laminal: middle of tongue
4. Velar: roof of mouth
- 4/1. Rounded Velar: roof of mouth & rounded lips
5. Uvular: back of mouth

2.3 Stop Consonants

The Sugt`stun language has 5 stop consonants: **p**, **t**, **c**, **k**, and **q**. In pronouncing these sounds, the passage of air is blocked at some point inside the mouth, and then the pent-up air is released by opening the blockage. These sounds are called ‘stops’ because the air stream is stopped for an instant in the mouth when they are produced.

It is important for the reader to understand upfront that Sugt`stun stops are *unaspirated*. This is to say that Sugt`stun stops are not released with a large puff of breath. For example the Sugt`stun word **pin** (yours) has the same spelling as the English word "pin" but it sounds the pin of "spin". If you hold your hand close to your mouth while saying "pin" in English, you will feel a puff of air following the release of the stop, i.e., when the lips open after pronouncing "p". In Sugt`stun **pin** on the other hand, there is no puff of air after the **p**.

After a vowel or voiced consonant, and before a single vowel, these stops can sound lightly voiced; for example, the **p** of **tepa** (smell) sounds almost like an English "b". The same is true of the voiceless fricative **s**, as in **asirtuq** (It is good), where the **s** sounds almost like an English "z", but not as voiced as English "z". See Section 3.4 for more on this topic.

The five stop sounds are described in terms of the parts of the mouth where the blockage is made. If you pronounce **p**, **t**, **c**, **k**, and **q** in that order, the point of contact will move from the lips all the way to the back of the mouth. This is the order we will examine the stops in this section.

Location of Production ► Consonant Type ▼	Labial: lips (1)	Apical: tip of tongue (2)	Laminal: blade of tongue (3)	Velar: roof of mouth (4)	Rounded Velar: roof of mouth & rounded lips (4, 1)	Uvular: back of mouth (5)
Stops <i>Napneret</i>	p	t	c	k	kw	q

P is produced by blocking the air passage at the lips and is accordingly called a labial stop ("labial" means "having to do with the lips"). Feel (or see in the mirror) the closure of the lips during the production of **p** as in the words:

pi his things
tepa smell, fermented fish head
pupik sore, pimple
tepka my smell

T is produced by blocking the airflow with the tip of the tongue touching the alveolar ridge, which is the technical term for the ridge behind the upper teeth. Feel this point of contact while you pronounce **t** the words:

tamarmeng all of them

Tekitut. They arrived.

taakuu later

tunuka my back

The letter **c** is produced by blocking the airflow a little farther back in the mouth than **t**. It is called an apical stop, referring to the apex or tip of the tongue. Try to feel the point of contact during the production of **c** in the following words:

cacat what things

callmak patch for clothing

ciiwak (house) fly

puckaq barrel

Compare the tongue position of **c** in **cacat** with that of **t** in **taakuu** and you will notice that **t** is pronounced with the tip of the tongue touching behind the teeth, whereas **c** is pronounced with the blade of the tongue touching the front of the palate. The **c** sound of **cacat** and **ciiwak** is similar to the English sound represented by ‘ch’ as in ‘chat’, ‘church’, ‘chair’, ‘chime’ and so on. However, English ‘ch’ is released with a puff of breath, whereas Sugt`stun **c** is released smoothly with no puff of breath.

An important characteristic of Sugt`stun is that there are two kinds of *k-like* sounds. One is represented by **k**, and the other by **q** in the orthography. In the case of **k**, the back of the tongue contacts the roof of the mouth, which is technically called the hard palate. Feel the point of contact during the pronunciation of **k** in the following words:

kemek meat

iruk (both) legs

kulickik (two) sandpipers

kinkuk who (referring to 2 people)

In case of the stop **q**, the back of the tongue is raised so that it touches the uvula (#5 on the chart, the small flap of flesh that hangs at the back of the mouth). So, **q** is called a uvular stop. Try to feel the point of contact during the pronunciation of **q** in the words:

Qaluten! Dip some out!

Meqciuq. S/he is plucking.

iruq leg

Qia'uq. S/he is crying.

Qam'uq. (The fire) is going out.

Compare **q** in **qayaq**, which means kayak in PWS and boat in KP, with the *k* in English “kayak”, and you will notice the difference in the point of contact. The difference in the Sugt`stun language between **k** and **q** is important, since replacement of one with the other often brings a difference in meaning, as we see in **iruq** “leg” vs. **iruk** “(both) legs”. This is why these two sounds in Sugt`stun are represented by different letters. See the following pairs of words:

ukuk these two
uquq oil

Ekciquq. S/he will get in.
Eqyuciiquk. They (2) will hug each other.

kalikaq paper
qaliq blanket

kiliq a cut (on the body)
qiq gray hair

The stops **k**, **t**, and **q** can occur at the beginning, in the middle, or at the end of a word. The stops **p** and **c** never occur at the end of a word. If the letter occurs at the beginning of a word, it is in an initial position. If it is in the middle, it is known as medial. If the letter appears at the end of a word, it is considered final.

Stop consonant	INITIAL		MEDIAL		FINAL
p	panaq	spear	napaq	tree	-----
t	taqmak	dress	ateq	name	irut legs
c	cacaq	what	macaq	sun	-----
k	kumak	two lights	akit	money	uutuk sea urchin
q	quyanaa	thank you	yuaquq	neck	iruq leg

Sugt`stun stops are not released with a large puff of breath. The Sugt`stun word **pin** (yours) has the same spelling as the English “pin”, but the pronunciations are quite different. If you hold your palm close to your mouth while saying “pin” in English, you will feel a puff of air following the release of the stop (i.e. the opening of the closed lips after p). In Sugt`stun the pronunciation of **pin** is softer, without a noticeable puff of air, similar to the ‘pin’ in English ‘spin’, not like the ‘pin’ of English ‘pin’.

2.4 Fricatives

A fricative is a consonant produced by the forcing of breath through a constricted passage. In the Sugt'stun language there are 12 fricatives: **f, g, gg, ggw, gw, l, ll, r, rr, s, w, y**¹. Fricatives are either voiced or voiceless. Voiced means that the vocal cords are vibrating while the sound is being produced. Voiceless means that the vocal cords do not vibrate. Try touching your voicebox while you compare **l** (voiced) and **ll** (voiceless). When you pronounce **l** you will feel vibration in the voicebox, but when you pronounce **ll** there is no vibration.

A fricative is a continuing sound that can be held as long as the breath lasts, while a stop is an instantaneous sound, which cannot be continued. In pronouncing a fricative, the passage of air in the mouth is narrowed to various degrees, so that more or less audible friction is produced. In the case of a stop, the passage of air is completely blocked for an instant. In the case of voiceless fricatives, the friction is quite noticeable, so that voiceless fricatives sound like hissing, hushing, or rasping sounds. In the case of voiced fricatives, there tends to be less friction. Again, compare the pronunciation of **l** and **ll**.

2.4.1 Voiced Fricatives

Location of Production ► Consonant Type ▼	Labial: lips (1)	Apical: tip of tongue (2)	Laminal: blade of tongue (3)	Velar: roof of mouth (4)	Rounded Velar: roof of mouth & rounded lips (4, 1)	Uvular: back of mouth (5)
Voiced fricatives Erinalet ullagneret		l	y	g	w, gw	r

Just as the blockage is made in different places in the mouth for the stop consonants, the narrowing is made in different places in the mouth for fricatives. In terms of the points of articulation (where the sounds are produced in the mouth), the voiced fricatives **l, y, g, w/gw**, and **r** correspond respectively to **t, c, k**, and **q**.

The labial fricative **w** is made by bringing the lips close together and rounding them. The Sugt'stun **w** sounds like English 'w' in 'we'.

¹ 6 Phonetically, **l, w** and **y** (as well as **R**) are actually *sonorants*: sounds produced with a long continuous (relatively unobstructed) airflow through the vocal tract. **L** is a lateral sonorant, produced along the sides of the mouth, while **w** and **y** are approximants, produced with only a minor narrowing of airflow. These consonants, plus Russian **R** are the weakest consonants in the language. They are categorized as fricatives here due to similar categorization in related orthographies, such as Yup'ik.

wiinaq	sea lion
tawani	there
wiinga	her husband
qawani	up the bay or upriver
Wiituq.	S/he is opening his/her eyes.
saawigmi	on the bed
kawirqaq	red
Wertuq.	He got something in his eye.

Voiced **gw** is quite rare. When **w** precedes a double vowel, it is automatically changed to **gw**. Compare the following:

elwik	dwelling, residence, where a person is living or staying
elgwia	his/her residence, where s/he is living or staying

The apical voiced fricative **l** is produced with the tongue tip touching the upper ridge behind the teeth to let the air escape through the opening by the sides of the tongue. It is similar to English “l” as pronounced in the word “long” or “lip”.

uluq	tongue
Liituq.	S/he is learning.
iluani	inside it
laatanaq	incense

The **y** is produced almost at the same place as **c**. The Sugt`stun **y** sounds like the English ‘y’ as in ‘you’.

qayaq	kayak/boat
tuyuq	chief
yaani	next door
yartuliq	owl

The front velar fricative **g**, like the stop **k**, is produced by raising the back of the tongue towards the roof of the mouth to narrow the passage of air. Compare the difference between **k** and **g** in the following.

Ikani	over there
Igan''tuq.	S/he isn't writing.

akitek	your (2) money
Agitek!	(You both) go!

The Sugt`stun **g** is not the same sound as English 'g'. Remember Sugt`stun **g** is a fricative, while English 'g' is a stop. Sugt`stun **g** is comparable with Spanish 'g' between vowels, or Greek γ. Compare the Sugt`stun **g** in **kagin** (broom) with English 'g' in 'again'.

Raising the back of the tongue toward the uvula (which hangs from the soft palate) narrows the passage of air to produce the uvular voiced fricative **r**, which is pronounced in the same place as the stop **q**. Since English has no uvular sounds, it has no direct equivalents for **q**, **r**, and **rr**. However, like **k**, Sugt`stun **q** is not released with a puff of breath. Sugt`stun **r** is quite similar to the 'r' of French and German.

iqua	the end of it
irua	its leg

uquq	oil
uruq	diaper

pituqa	my food
Pituraa.	S/he is eating it.

maraq	swamp
-------	-------

erinaq	voice (also riinaq)
--------	---------------------

erneq	a day
-------	-------

arnaq	woman
-------	-------

As **k** and **q** are different sounds to be clearly distinguished in Sugt`stun, so are **g** and **r**. Replacement of one with the other changes the meaning, as we find in **ag'uq** (S/he is going) vs. KP **ar'uq** (whale). Compare also the following pairs:

Agitek.	You two go.
aritek	pair of mittens/gloves

agna	that area over there
arnaq	woman

2.4.2 Voiceless Fricatives

Location of Production ► Consonant Type ▼	Labial: lips (1)	Apical: tip of tongue (2)	Laminal: blade of tongue (3)	Velar: roof of mouth (4)	Rounded Velar: roof of mouth & rounded lips (4, 1)	Uvular: back of mouth (5)
Voiceless fricatives <i>Erinailngut ullagneret</i>	f	ll	s	gg	ggw	rr

The voiceless fricatives **ll**, **s**, **gg**, **ggw**, and **rr**, correspond to the voiced fricatives **l**, **y**, **g**, **w/gw**, and **r**. When producing a voiceless fricative, the vocal cords do not vibrate. Only the air that escapes around the tongue makes the sound.

F is a rare sound used in words borrowed from Russian and sometimes English. It is apparently not used in Prince William Sound. It is used on the Kenai Peninsula on Kodiak, and the Alaska Peninsula. (In the Port Heiden subdialect of AK Peninsula Sugt`stun, **fk** occurs in some words where other dialects have **gkw**, e.g., **anefkaraa**, "s/he lets him/her/it go out", which is **anegkwaraa** in the rest of Sugt`stun).

Compare the voiceless fricatives in the left column with the voiced fricatives in the right:

Voiceless Fricative	Voiced Fricatives
ll	l
s	y
gg	g
ggw	w/gw
rr	r

Compare the pronunciation of the following minimal pairs:

ll	kalliq	thunder
l	aliq	sleeve
gg	Iggagtuq.	It's steep.
g	Igartuq.	S/he is writing.
ggw	ggwani	here

gw aqum'agwia his/her sitting place, his/her couch

rr urriitaq bidarki/chiton

r Ur'uq. It's decaying.

Note that the word for couch or sofa is **aqum'awik**, but when a double vowel occurs after the **w**, the **w** is "strengthened" to **gw**, hence **aqum'agwia** in the above example.

The Sugt`stun **s** is produced with the sides of the tongue touching the sides of the teeth leaving an opening in the front through which the air escapes. It sounds like 's' as in English 'sit' or 'master'.

salaq clam

saapek hat

Sagtua. I raise my hand.

Taisgu. Bring it.

The letter **gw** occurs only at the beginning of a syllable. For example in the word **aqum'agwia** (his/her sitting place), the **gw** is the first letter of the fourth syllable.

2.5 Nasals

The last group of consonants to be introduced are *nasals*. Sugt`stun has three voiced nasal sounds **m**, **n**, and **ng**, as well as three voiceless nasal sounds: **hm**, **hn**, and **hng**. Remember that **ng**, **hm**, **hn**, and **hng** are single sounds and are considered single letters.

Nasals differ from other consonants in that they are produced with air going through the nasal passage. The airway is partially blocked from entering the oral passage by relaxing the uvula so that it keeps the air from passing through the mouth, and instead passes through the nose. Nasals, like fricatives, are divided into two categories: *voiced* and *voiceless*.

2.5.1 Voiced Nasals

Location of Production ► Consonant Type ▼	Labial: lips (1)	Apical: tip of tongue (2)	Laminal: blade of tongue (3)	Velar: roof of mouth (4)	Rounded Velar: roof of mouth & rounded lips (4, 1)	Uvular: back of mouth (5)
Voiced nasals <i>Erinalet</i> <i>qengakualriit</i>	m	n		ng		

The voice nasals **m**, **n**, and **ng** have the same sounds as English ‘m’, ‘n’, and ‘ng’ as in the words ‘sum’, ‘sun’, and ‘sung’, respectively. They correspond to **p**, **t**, and **k** in terms of the point of blockage made inside the mouth. The letters **m** and **p** are both labial letters, produced at the lips. The stop letter **t** and nasal **n** are apical sounds produced by putting the tip of the tongue against the ridge behind the upper teeth. Like the stop letter **k**, the nasal letter **ng** is a velar sound produced by putting the middle of the tongue against the roof of the mouth. Try pronouncing these letter pairs to feel how they are produced in the same location in the mouth.

m

Mingqiuq. S/he is sewing.
 Maqiyuq. S/he is taking a steambath.
 minutaq minute (from English ‘minute’)

n

nuliq wife
 Nutyuuq. S/he’s a good shot (with a gun).
 napaq tree

ng

Ngayaunga. I’m in need.
 Ngiigaa. He’s leaning against it.
 ngaqngaag puffin

Nasals can occur at the beginning (initial), the middle (medial) or end of the word (final).

voiced nasal consonant	INITIAL	MEDIAL	FINAL
m	mal’uk two	emaa grandma	enem of the house
n	naliak which one of them	anaanaa aunt	naken where from
ng	ngigta den (KP)	angaa uncle	tamarmeng all of them

2.5.2 Voiceless Nasals

Location of Production ► Consonant Type ▼	Labial: lips (1)	Apical: tip of tongue (2)	Laminal: blade of tongue (3)	Velar: roof of mouth (4)	Rounded Velar: roof of mouth & rounded lips (4, 1)	Uvular: back of mouth (5)
Voiceless nasals	hm	hn		hng		

<i>Erinailngut qengakualriit</i>						
--------------------------------------	--	--	--	--	--	--

A nasal letter with an **h** at the beginning is always voiceless – the vocal cords do not vibrate when producing these sounds. The voiceless nasals are **hm**, **hn**, and **hng**. In an earlier version of the Sugt`stun orthography, these letters were written as underlined m, n, and ng. Underlined characters are no longer used in the Sugt`stun alphabet.

These voiceless nasals correspond naturally to voiced nasals **m**, **n**, and **ng**. As with the voiceless fricatives, the vocal cords do not vibrate when producing a voiceless nasal, the sound is made only by air that passes through the nose. When pronouncing these letters, a puff of air should be felt coming out of the nose.

Voiceless nasals only occur in the middle of a word and only at the beginning of a syllable. With the exception of where they are doubled, voiceless nasals do not occur at the end of the syllable.

hm

ahm`akuuq	pinecone
Ehm`in`tuq.	S/he is no longer there.

hn

p`hnaq	cliff
pehnaiq	mountain goat

hng

p`hnguq	hill
qahnguq	kelp

2.6 Russian ‘R’

As the name implies, **R** is found in a few Russian loan words and personal names. Most speakers pronounce **R** like the English ‘r’. Some older speakers “trill” or roll the **R** following another consonant. In word processing programs like Microsoft word, the Russian **R** must first be written as a regular ‘r’, then converted to a small caps **R** using the format/font menu. Some word processing programs have shortcuts that you can program to make the typing of the **R** easier through a special keystroke combination rather than having to go into a menu (these are sometimes referred to as “macros”). On a Mac computer in Word, you can highlight a lowercase letter and then make it “small caps” by entering command+shift+k (the letter k). On a PC, you can do this with control+shift+k when you have highlighted the desired small caps letter.

Since it is so easy to miss the **R** and type an ‘r’, special care and rechecking is needed when using words containing this letter, especially if a document is forwarded to a graphic designer or other person unfamiliar with our writing system. Since most email programs do not allow special characters, or will drop them in transit, if a "small caps" **R** is not possible, a "regular caps" **R** can be used.

pitRuus'kaa	pitrushki (beach loveage)
saaRiaq	tsar, king
tRupa	stove pipe
tRupa	stove pipe (as written in an email using the capital R)

2.7 Undoubling

In order to shorten the spellings of some words, certain voiceless consonants will be written in a shorter form when they are written next to other voiceless consonants. The voiceless **gg** and **rr** are often found next to voiceless consonants **p, t, c, k, kw, q, ll,** and **s**. When this happens, the **gg** and **rr** are written simply as **g** and **r**. This orthographic rule is called *undoubling* (Leer, 1978b).

Itra.	Come in.	(not ^x Itrra)
sapga	his hat	(not ^x sapgga)
Tagtaa.	He is putting it up.	(not ^x Taggtaa)
arlluk	orca/killer whale	(not ^x arrlluk)

The double consonants **gg** and **rr** are never found at the end of a syllable unless they are geminated, in which case we will write **gg'** or **rr'** followed by a vowel. If they are followed by a voiced consonant they will be voiced, and if they are followed by a voiceless consonant they will be voiceless. There are a few exceptions where voiced **g** or **r** are followed by a voiceless consonant; in these cases we use an apostrophe to separate the voiced **g** or **r** from the following voiceless consonant. See Section 8.2.10.

iqallugmen	to the fish (voiced g preceding voiced m)
Iqallugtuq.	S/he caught a fish. (voiceless g preceding voiceless t)

It is not problematic to undouble **gg** and **rr** like this, because the voiced **g** and **r** do not often occur next to other voiceless consonants, but **gg** and **rr** do often occur next to voiceless consonants (Leer, 1978b). Thus, it is easy to remember that if you see a **g** or **r** next to a voiceless consonant, it is pronounced unvoiced.

2.8 H-Dropping

The initial 'h' of the voiceless nasals (**hm, hn, hng**) is sometimes dropped according to a rule called h-dropping. H-dropping, like undoubling, occurs because it is desirable to shorten the

spelling of words in a predictable manner. The voiceless consonants **hm**, **hn**, and **hng** will be written without the ‘h’ (that is, they become written as **m**, **n**, or **ng**) when they appear after voiceless consonants. The voiceless consonants after which ‘h’ is dropped are: **p**, **t**, **k**, **q**, **ll**, and **s** (Leer, 1978a).

taqmak	dress	(not [×] taqhmak)
ikna	that one	(not [×] ikhna)
kakngaa	the tip of it	(not [×] kakhngaa)

The pronunciation of the voiceless nasal consonants does not change from h-dropping. This is simply done to shorten the spelling of words in letter combinations that frequently occur.

The combinations of **sm**, **sn**, and **sng** are therefore by default to be interpreted as voiceless **s** followed by voiceless **hm**, **hn**, **hng**. However, there are two very important exceptions in the KP dialect that the language learner should understand and internalize. The first is the combination **snga** when it is formed by adding the stative suffix **-nga-** to a stem ending in ...**te-**. In this case, both the **s** and the **ng** are voiced. So, for example, if we add the stative suffix **-nga-** to the stem **tekite-** (to arrive) we get the extended stem **tekisnga-**, as in **tekisngaunga** (I have arrived, I am in a state of having arrived), where both the **s** and the **ng** are voiced. The corresponding PWS form is **tekiynguunga**. The second exception is the KP word **kasnaaq** (government), based on Russian ‘kazná’ (treasury, the State) where again the **s** and the **n** are voiced. The corresponding PWS form is **kaynaaq**.

2.9 Summary: Consonants

The table of consonants can now be finalized as follows:

Location of Production ► Consonant Type ▼	Labial: lips (1)	Apical: tip of tongue (2)	Laminal: blade of tongue (3)	Velar: roof of mouth (4)	Rounded Velar: roof of mouth & rounded lips (4, 1)	Uvular: back of mouth (5)
Stops <i>Napneret</i>	p	t	c	k	kw	q
Voiced fricatives <i>Erinalet</i> <i>ullagneret</i>		l	y	g	w, gw	r
Voiceless fricatives	f	ll	s	gg	ggw	rr

<i>Erinailngut ullagneret</i>						
Voiced nasals <i>Erinalet qengakualriit</i>	m	n		ng		
Voiceless nasals <i>Erinailngut qengakualriit</i>	hm	hn		hng		
Russian <i>Kasaakarllaq</i>		R				

CHAPTER 3: VOWELS

3.1 Introduction

The Sugt`stun orthography has four vowels/sounds: **a**, **e**, **i**, **u**. The vowels are grouped into (a) the prime vowels **a**, **i**, and **u**, and (b) the reduced vowel **e**. Pronounce the following words in order to understand the difference of the vowels, and try to feel in the mouth how the tongue is shaped for each vowel:

ataka my father

kemek meat

Inikii. Hang them up.

unuku later on tonight

You will notice this from the examples above: the back of the tongue pushes toward the front of the mouth and the lips are retracted to produce the vowel **i** of **inikii** (hang them up). The tongue is maximally lowered for the vowel **a** of **ataka** (my father), and slightly raised for the **e** of **kemek** (meat), and the back of the tongue is lowered and the lips are rounded for the vowel **u** of **unuku** (tonight). In addition to moving the tongue front or back, the tongue also moves up and down when producing the different vowels.

The tongue is at its highest to produce the vowels **i** and **u** but at the lowest for **a**. This is because the jaw is opened more when producing the **a**.

imaq ocean

uqgwik alder

aana mother

The lips are retracted for **i** but rounded for **u**.

3.2 Vowel Chart

The Sugt`stun vowels can be organized as in the chart below according to where they are produced in the speaker's mouth:

Location of Production	Front	Central	Back
High	i		u
Mid		e	

Low		a	
-----	--	---	--

The Sugt'stun vowel **a** has the sound of English 'a' as in 'father'.

Aglita!	Let's all go!
aanii	her mother
anwik	exit

The reduced vowel **e** is relatively close to the indistinct English sound represented by the schwa sound in 'ticket' or 'open'.

ellpet	you
ermiutaq	towel
Ep'artuq.	S/he suffocated, lost his/her breath.

The vowel **i** has a sound much like the English long 'e' much like the 'i' in 'ski'.

itemquutaq	screwdriver
ikam'aq	sea otter
ima-tuq	I wonder if

The vowel **u** has a sound much like the English long 'oo' much like the 'u' sound in 'blue'.

Unaituq.	It is soft.
uglluni	to get up on top of something
unuk	night

3.3 Changes in Vowel Pronunciation

If a vowel precedes a uvular consonant (**q**, **r**, or **rr**), the sound changes slightly because the location of production of the **q**, **r** and **rr** is so far back in the mouth. When a vowel precedes the uvular consonant, this uvular consonant (**q**, **r** or **rr**) pulls the location where the vowel is produced more towards the back of the mouth, creating a slight difference in pronunciation. This sound change is most noticeable when the high vowels **i** and **u** precede a uvular consonant. In the word **amiq**, for example, the vowel **i** sounds almost like English "short e" before the uvular consonant; and in the word **uquq** both instances of the vowel **u** sound almost like English "long o", but shorter.

Comparing the following series of word pairs. Read each row left to right to hear how the pronunciation of vowels change when next to **k** vs. **q**, **g** vs. **r**.

Before a k , g , or gg			Before a q , r , or rr		
ak	makak	2 checkers	aq	maqaq	heat
ek	kemek	meat	eq	keneq	fire

ik	akik	2 dollars	iq	akiq	money, a dollar
uk	ukuk	these two	uq	uquq	oil
ag	agna	that area across	ar	arnaq	woman
eg	egaaq	cooking	er	erneq	day
ig	igluku	swallowing it	ir	irua	her leg
ug	ugyuuteq	wild celery	ur	uruq	diaper

You will notice that the back of the tongue is somewhat lower in the vowels featured in the right half of the chart. In general, all vowels are pronounced with the back of the tongue a little lowered when they precede the **q**, **r**, and **rr** than when followed by other consonants.

3.3.1 Distinguishing e and i before a Uvular Consonant

Because the **i** becomes pronounced further back in the mouth when next to a uvular consonant (**q**, **r**, or **rr**), it may sound a bit like the shortened vowel **e**.

iqlluq lie

Irrirtuq. It is slanted.

Ircugtuq. S/he is making a face.

iqalluk fish

iruq leg

3.4 Prime Vowels

There are a total of 3 prime vowels in Sugt`stun, (**a**, **i**, and **u**). They can occur at the beginning of a word (initial position), in the middle of a word (medial), or at the end of the word (final position).

The following are the same examples at each position.

Initial		Medial		Final	
a	Anartuq. S/he defecates.	pilaku	may I do it	ataka	my father
i	Inartuq. S/he lay down.	akiq	coin	llaami	outside
u	ungak beard	unuk	last night	piluku	doing it

Note that the change of one vowel may distinguish two or three words from each other which Otherwise have the same sounds: **Anartuq** vs. **Inartuq**, **pilaku** vs. **piluku**; etc.

3.4.1 Semi-voicing of Voiceless Consonants Between Prime Vowels

The voiceless consonants (**p**, **t**, **c**, **k**, **q**, **s**) can be *semi-voiced* if they meet two conditions. Semi-voiced, also known as *lax pronunciation* means that they sound almost like English voiced consonants ‘b’, ‘d’, ‘j’, ‘g’, and ‘z’, but they are not as heavily voiced as these English consonants.

The conditions causing semi-voicing are twofold: (1) the consonant in question must follow a vowel or a voiced consonant, and (b) the consonant is not foot-initial. Note that any consonant that is followed by a vowel pair is foot-initial, but there are other environments where a consonant followed by a single vowel may also be foot-initial. The concept of a foot will be introduced later in Chapter 7.

In the following pairs of examples, the first example has a consonant followed by a single vowel, and the second is followed by a double vowel, which means that the consonant in question is foot-initial.

napaq	tree	[na / PAQ]
napaa	his/her tree	[NAP / PAA]
Aturtuq.	S/he is singing.	[a / TURRE] / tuq
Atuun	song	[AT / TUUN]
macaq	sun	[ma / CAQ]
Macaituq.	There is no sun.	[MAC] / [CAI] / tuq
akit	money	[a / KIT]
akii	his/her money	[AK] / [KII]
uquq	oil	[u / QUQ]
uqua	his/her/its oil	[UQ] / [QUA]
Asirtuq.	It is good.	[a / sirr] / tuq
Asiituq.	It is bad.	[AS] / [SII] / tuq

Note that in the first example of each pair, the consonant between vowels is semi-voiced, so that the **p** of **napaq** sounds something like English ‘b’, the **t** of **Aturtuq** sounds something like English ‘d’, the **c** of **macaq** sounds something like English ‘j’, the **k** of **akit** and the **q** of **uquq** sound something like English ‘g’, and the **s** of **Asirtuq** sounds something like English ‘z’.

3.5 The Reduced Vowel e

The vowel **e** is known as a *reduced vowel*. The reduced vowel **e** only appears in the initial and/or medial position of a word, never at the end of a word.

locations of reduced vowel e	INITIAL	MEDIAL	FINAL
e	ena house	ateq name	-----

The broken line (-----) indicates that there is no word which ends in the vowel **e** in Sugt`stun.

All four vowels occur at the beginning and in the middle of a word. You may sometimes find a prime vowel (**a**, **i** or **u**) at the end of a word, but **e** never occurs at the end of a word. The vowel **e** is always a short indistinct vowel, relatively close to the English sound represented by the schwa sound in ‘open’ or ‘ticket’. The vowel **e** is sometimes devoiced between voiceless consonants; in this case it sounds like a puff of breath. This vowel may also be absorbed into a preceding voiced nasal (**m**, **n**, or **ng**) or **l**, in which case it makes the nasal or **l** sound longer than normal. In the latter case, we say that the vowel **e** is quiescent. See Section 7.6.3 for further discussion.

When **e** is used at the beginning of a word, it is always audible.

ena	house (KP also enek)
emaa	grandma
elkiaq	squirrel
Eqtaa.	S/he is embracing/hugging/squeezing her/him.

When the vowel **e** occurs between voiceless consonants, it can be either voiced or voiceless. In earlier versions of the orthography, the “voiceless **e**” was written as an underlined e, but it is now generally written as an apostrophe ('). However, in reference materials like this one, a voiceless **e** will sometimes be represented as a backtick (`) to assist with foot identification. Dialects vary as to whether an **e** between voiceless consonants is voiced or voiceless, so you cannot assume that if an instance of the vowel **e** is voiceless in the Koniag dialect, that it will also be voiceless in the Chugach dialect.

Sugt`stun	In the Sugpiaq language/way
piugt`llra	his/her former dog
Saqengq`rtuq	It has wings.
Isk`gtuq.	S/he has good hearing.

The vowel **e** is always devoiced and written as an apostrophe in the syllables **t`s** and **t`ll**. It is almost always devoiced in the syllables **k`g**, **q`g**, and **q`r** where the **g** or **r** is voiceless because it is followed by a voiceless consonant. We do find exceptions where **keg(g)**, **qeg(g)**, and **qer(r)** occur with voiced **e** in the first or second syllable of the word.

Keggaa. He/she/it is biting him/her/it.

Qerqautaa. It pinched his flesh. It slammed shut on him.

maqegluku to carry him/her/it over the shoulder

This backtick (written as an apostrophe in everyday writing) is a short indistinct puff of air, which is not audible to a non-speaker. However, even though it cannot be heard, we can tell it is present because of the effect it has on syllable structure and the rhythm of the words.

Sugt`stun in the Sugpiaq language/way, literally, "like a real person"

Egt`staa. S/he made me throw it.

Pekt`sta worker

Mat`staaq coal

Angq`rtaa. It hurts.

Tangq`gka. (KP) I saw it.

Tang`rk`gka. (PWS) I saw it.

Tunk`gka. I gave it away.

In general, the vowel **e** tends to become voiceless when it has voiceless consonants on both sides of it, but this not always the case. You cannot always predict whether an **e** will be voiced or voiceless depending on the consonants next to it. Compare for example:

ariteka my mitten

arit`gka my pair of mittens

Tekit`kutartuq. S/he is going to arrive. (KP also Tekitekutartuq.)

tekitegkunani to not have arrived

3.6 Vowel Pairs

Vowel pairs are a pairing of two prime vowels (**a, i, u**). There are nine possible combinations: **aa, ii, uu; ai, au, ia, iu, ua, and ui**. The first three combinations of identical vowels (**aa, ii, uu**) are called *double vowels*. The last six combinations of different vowels (**ai, au, ia, iu, ua, and ui**) are called *diphthongs*.

3.6.1 Double Vowels

Double vowels are vowel pairs that consist of two identical vowels. As noted above, only prime vowels (**a**, **i**, and **u**) can pair with other vowels. Therefore, the only double vowels possible are **aa**, **ii**, and **uu**. The short vowel **e** cannot be doubled.

aanaka	my mother
Anartuq.	It is defecating.

iika	my eye
ikani	over there

cuungani	in front of it
cungani	his/her own gallbladder

In the first example of each pair above, the double vowel is pronounced long. In fact, vowel pairs in open syllables (syllables ending with a vowel) are always long. However, if the first syllable of the word is closed (ending in a consonant), then the double vowel is always pronounced short, and there is no way to tell if the vowel should be single or double. Therefore, we always write a single vowel in a closed initial syllable whether there is an underlying single or double vowel in that syllable. For example, we can tell by the form **iika** (my eye) that the stem for eye is /**ii**-. But compare the following forms, where the initial syllable is open in the first example of each pair, but the initial syllable is closed in the second example of each pair.

iika	my eye
igka	my (two) eyes

cuungani	in front of it
cumni	in front of me

3.6.2 Diphthongs

A prime vowel can combine with a different prime vowel. The vowel pairs that combine this way are **ai**, **au**, **ia**, **iu**, **ua**, and **ui**. The resulting combination is called a diphthong. Note that all these diphthongs have two vowels. No clusters of three or more vowels occur in Sugt`stun. The vowel **e** can never be combined with a prime vowel.

Instead of each vowel sound being pronounced one after the other in rapid succession, the sounds make up a combined sound that has the sounds of both letters. When you pronounce these two letters quickly together, though, they have a shared sound.

The diphthong **ai** sounds much like the ‘ay’ in the Canadian pronunciation of the word ‘bay’.

aipaq	partner
-------	---------

tai come

The diphthong **au** sounds much like the ‘ou’ in the Canadian pronunciation of the word ‘out’.

auk blood

taugna that one

The diphthong **ia** sounds much like the ‘ya’ in English ‘yacht’ when it is long, but like the ‘yu’ of English ‘yum’ when it is short.

kiak summer

piani up there

The diphthong **iu** sounds much like the English word ‘you’, but it can be pronounced short or long.

kiugwerluki to load them

Kiukii. She answered him.

The diphthong **ua** sounds much like the ‘wa’ in English ‘walk’ when it is long, but like the ‘wo’ of English ‘won’ when it is short.

patua its cover/lid

akuani on the hem of it

The diphthong **ui** sounds much like the English word ‘we’ when it is long, and like ‘wi’ in English ‘wick’ when it is short.

kuik river

kuiget rivers

Ggui-mi? How about me?

Notice that the diphthongs **ai** and **au** may appear in any position of word, initial (beginning), medial (middle), or final (end), but the diphthongs **ia**, **iu**, **ua**, and **ui** only appear in the medial or final positions.

3.6.3 Syllable Weight with Doubled Vowels and Diphthongs

A syllable that contains a vowel pair (a double vowel or diphthong) is always heavy. This means that the onset, or first letter of the syllable is emphasized and there is more “weight” to the syllable. See Section 4.6, Light and Heavy Syllables for more information.

3.7 Use of Apostrophe to Separate Vowels

The apostrophe can be used to indicate syllable division either between consonants or vowels in the Sugt`stun orthography. When a single vowel or vowel pair is not pronounced in the same syllable as a following single vowel, we put an apostrophe between them to indicate that they are in different syllables. A full discussion of this issue can be found in Section 8.2.

3.8 Summary: Vowels

This chapter has covered the sounds made by vowels and vowel combinations. The three prime vowels are **a**, which sounds like the ‘a’ in ‘father’, **i**, which sounds much like the ‘e’ sound in ‘eel’ and **u**, which sounds much like the ‘oo’ sound in English ‘too’. There is an additional reduced vowel **e**, which is the shortest of the vowels and sounds like the ‘e’ in English ‘ticket’ or ‘open’.

The sound of these vowels changes slightly when the vowel precedes a uvular consonant (**q**, **r**, or **rr**). Sugt`stun vowels also combine into vowel pairs, which occur together in the same syllable. We distinguish two types. First are diphthongs, which are combinations of two different prime vowels. Next are double vowels, which are combinations of two identical prime vowels. The next two chapters will help show how to determine syllable breaks, and which syllables in a word are stressed.

PART II: SYLLABLES, GEMINATION, & DROPPING

CHAPTER 4: SYLLABIFICATION

4.1 Introduction to Syllabification

Identifying the syllables in a Sugt'stun word is the first step in pronouncing a written word, once one knows the sounds of each letter. A syllable is a part of a word – or sometimes a full word – that contains one “beat”. For example, the English word ‘sun’ contains one syllable, whereas the English word ‘peanut’ contains two syllables. The Sugt'stun word **piinaq** (aged fish eggs) contains two syllables. This chapter will outline the way Sugt'stun words are broken into syllables. This will help in figuring out how to spell a word, or sound a word out when reading.

In Sugt'stun, as in other strictly phonetic writing systems, the first step in reading or spelling a word is to break it into syllables. Then the reader or writer can determine the sounds that combine to form each syllable. The break between two syllables is called the syllable boundary. In this chapter we will use a slash (/) to mark syllable boundaries – thus, every portion of a word separated by a slash (/) is a separate syllable. The capitalized letter V represents a vowel, and the capitalized C represents a consonant.

4.1.1 Rule 1: Between Two Consonants

Any two consonants next to each other belong to separate syllables. The first of these two consonants belong to the same syllable as the previous vowel. The second consonant appears in the same syllable as the following vowel. This rule is symbolized in the following way: VC/CV

natmen	to where	nat / hmen
elwik	place to stay	el / wik
nukget	roots	nuk / gget
Qistuq.	He is having a fit.	qis / tuq

4.1.2 Rule 2: Before a Single Consonant (Except with Gemination)

If a consonant occurs between two vowels, normally the consonant goes with the second syllable, (that is, the consonant belongs to the same syllable as the following vowel) unless the consonant is geminated by a special rule called automatic gemination, in which case the consonant is shared between both syllables (See Chapter 6). Normally, syllable boundaries come before a single consonant. This rule is symbolized as follows: V/CV

piinaq	aged fish eggs	pii / naq
Qaku?	When?	qa / ku
Naama?	Where is it?	naa / ma

patuq	cover/lid	pa / tuq
-------	-----------	----------

However, in the related word **patua** (its lid) the **t** is automatically geminated (See Rule 4), so the syllables are as follows:

patua	its cover/lid	pat / tua
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4.1.3 Rule 3: At an Apostrophe (')

Any apostrophe not representing a silent e indicates a syllable break. We can break this down into three subcases. First, an apostrophe between vowels simply indicates a syllable break between the vowels. Second, as we have noted above in Section 1.3, if two consonants would normally form a single letter of the alphabet but they refer to separate sounds, an apostrophe is placed between them, as in **un'gani** (out there, towards the open ocean). Third, an apostrophe after a consonant and before a vowel indicates that the consonant is geminated, and therefore will occur both before and after the syllable break; for further information see the following section.

aa'a	yes	aa / a
cama'i	hello	ca / ma / i
ikam'aq	sea otter	i / kam / maq
Ling'anaa.	No offense.	ling / nga / naa

Note that in the last two examples above, the consonant immediately preceding the apostrophe (**m** in **ikam'aq** and **ng** in **Ling'anaa**) appears both at the end of one syllable and at the beginning of the next. This is due to *gemination*, which will be discussed more in the next subsection and in even more depth in Chapter 5.

Silent **e** (written in this book as a backtick `) counts as an **e** (a vowel) for purposes of syllabification, so the backtick representing silent **e** will not indicate a syllable break. The examples below use syllabification Rule 2 because their apostrophes represent silent **e**. Read more about this in Section 8.2.13.

Ert`kutartuq.	It's going to dawn.	err / t` / ku / tarr / tuq
kak`glluk	snot	ka / k`gg / lluk

4.1.4 Rule 4: Gemination – Regular & Automatic

An apostrophe after a consonant and before a vowel represents a doubling of the consonant (gemination). This means that the same consonant sound occurs at the end of a syllable and the beginning of the next syllable. Remember that in cases like this, the apostrophe represents a

prolonging of the consonant, so that it in effect amounts to two instances of the same consonant, even though the consonant is only written once. Gemination is discussed fully in Chapter 5, but is introduced here due to its role in syllabification. This rule is symbolized like this: VC/'V

kas'aq	priest	kas / saq
mal'uk	two	mal / luk
all'uku	to fight with him/her	all / llu / ku

In the examples above, the third column shows the double-sounding consonant in the syllable breakdown, even though the doubled consonant is indicated by an apostrophe in the correctly written word unless the automatic gemination rule applies. This will be discussed in the following paragraph.

The reason gemination requires its own syllabification rule, rather than simply fitting under Rule 3, is because gemination is not always marked with an apostrophe. Automatic gemination occurs when the geminated consonant comes at the end of the first syllable, and the second syllable contains two vowels. When this happens, the apostrophe is not used, but the geminated sound still occurs (See Section 5.2)

patua	its cover; its lid	pat / tua
iluani	inside of it	il / lua / ni
tamuuq	dried fish	tam / muuq
Allaurtuq.	It changed.	all / llaurr / tuq

Other facts to remember are:

Every syllable must contain at least one vowel. As discussed above, voiceless e is in fact a vowel, it is represented as a 'backtick' (`) in this reference book. A syllable may or may not begin with a consonant; it may or may not end with a consonant; but it must contain a vowel.

A consonant will never appear in the middle of a syllable, such as between two vowels, because the syllable break will occur before the consonant, as in Rule 2 (above). A vowel can appear at the beginning, middle, or end of a syllable.

4.2 Open and Closed syllables

In Sugt`stun it is useful to divide syllables into two types: *open* and *closed syllables*. An open syllable is one that ends with a vowel. A closed syllable is one that ends with consonant. As we will see later in the discussion of prosodic rules (rules of rhythm, stress, and lengthening), whether a syllable is open or closed affects the pronunciation of the word.

4.2.1 Open Syllables

A syllable is open if it ends with a vowel. It can contain one or two vowels. It can be stressed or unstressed. In prosodic analysis in this book, stressed syllables are written in UPPERCASE while unstressed syllables are written in lowercase. Prosodic rules and syllable stress are discussed fully in Chapter 7. In the two examples below, the first syllable is open. In the second example, both syllables are open.

saawik	bed	saa / wik	SAA / wik
--------	-----	-----------	-----------

cali	more, again	ca / li	ca / LI
------	-------------	---------	---------

4.2.2 Length of Open Syllables

The vowel or vowel pair of an open, stressed syllable ending with a prime vowel (anything but **e**) is pronounced long unless it is the last syllable of the word.

For example, in the word **qayakun** (by boat) is broken up as follows: **qa** / **ya** / **kun**. The second syllable is open, and according to the prosodic rules given in Section 7.3, this syllable is also stressed. Therefore, the **a** of **ya** sounds long. In contrast, the word **qayatgun** (by boats) is syllabified as: **qa** / **yat** / **gun**. The syllable **yat** is stressed, but the vowel **a** is not lengthened, because the syllable **yat** is closed. Likewise compare:

kuskaanun	to his cat	kus / kaa / nun	KUS / KAA / nun
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kuskaatnun	to their cat	kus / kaat / hnun	KUS / KAAT / hnun
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In both cases above, the second syllable is stressed because it has a vowel pair and is therefore heavy. The vowel pair **aa** in **kuskaanun** is lengthened because the syllable **kaa** is open, whereas the vowel pair **aa** in **kuskaatnun** is not lengthened because the syllable **kaat** is closed. For more on stress and lengthening in open syllables, see Chapter 7.

4.2.3 Closed Syllables

A syllable is closed if it ends with a consonant. It can contain one or two vowels. Following Syllabification Rule 2 above, a syllable boundary falls between two consonants, making the first syllable closed. In the examples below, the syllable boundary falls between the two middle consonants, forming two closed syllables.

taqmak	dress	taq / hmak	TAQ / hmak
--------	-------	------------	------------

augmek	some blood	aug / mek	AUG / mek
--------	------------	-----------	-----------

atkuk	parka	at / kuk	AT / kuk
-------	-------	----------	----------

atmak	pack	at / hmak	AT / hmak
-------	------	-----------	-----------

Notice that there is no rule for division between three consonants. Three consonants never occur together in the middle of a word. However, a word may begin with one, two, or rarely, three consonants. Most words beginning with two or three consonants are Russian in origin, like the first 3 examples below. There are examples of Sugt`stun origin words with two initial consonants, but not three initial consonants like the final two examples below. In all of these these cases, there is no syllable break within the initial consonant cluster.

skRiip`kaaQ	violin (from Russian skrípka)	skRiip / kaaQ	SKRII / p` / KAAQ
stuuluq	table (from Russian stol)	stuu / luq	STUU / luq
tRuPaq	stovepipe (from Russian trubá)	tRu / paq	tRu / PAQ
staaman ²	four	staa / man	STAA / man
sniq ³	beaver	shniq	SHNIQ

4.3 Syllabification with Multi-character Letters

The letters **gg, rr, ll, ng, hm, hn, hng, gw**, and **ggw** all represent single sounds. They are considered single letters, and are treated as such in making syllable divisions. You cannot place a syllable break within one of these multi-character letters. The following words should be syllabified as shown in the third column.

angun	man, male	a / ngun	a / NGUN
angeq	gum	a / ngeq	a / NGEQ
ang`uq	big	ang / nguq	ANG / nguq
qahnguq	kelp	qa / hnguq	qa / HNGUQ
aiggaq	hand	ai / ggaq	AI / ggaq
allamek	another one	a / lla / mek	a / LLA / mek
uqgwik	alder	uq / ggwik	UQ / ggwik

² compare Central Alaskan Yup'ik cetaman

³ compare Central Alaskan Yup'ik ceñair 'western sandpiper, yellowlegs', literally "that which goes about the beach"

Kaggwagtuq. S/he is walking. ka / ggwagg / tuq ka / GGWAGG / tuq

In the few cases where **n** and **g** appear next to each other as separate sounds, or where **g** and **w** appear next to each other as separate sounds, an apostrophe separates them. In this case, the apostrophe represents the syllable boundary.

un'gani	out towards the open water	un / ga / ni	UN / ga / NI
Ag'wartuq.	S/he moved aside.	ag / warr / tuq	AG / warr / TUQ

For more on this topic, see Section 8.2.11.

4.4 Apostrophe Between Vowels

An apostrophe is used to separate vowels that belong in separate syllables. This is done to show that the vowels are not a double vowel (such as **aa**) or a diphthong (such as **ai**), which occur only within a syllable. Here again, the apostrophe represents the syllable boundary.

Cali'it	what are you doing	ca / li / it	ca / LI / it
kula'irluku	visiting him/her	ku / la / ir / lu / ku	ku / LA / ir / lu / KU
ika'ut	(going) over to there	i / ka / ut	i / KA / ut
Cama'i.	Hello.	ca / ma / i	ca / MA / i

Compare **Cama'i** above, where the syllable break occurs between the vowels, with the word **camai** ('something must have happened to them'). **Camai** is syllabified **cam** / **mai** due to automatic gemination (See Section 5.2).

A syllable may contain one or two vowels but never three vowels. In a few cases, three vowels may occur in a row without a consonant separating them, but in these cases an apostrophe goes between the second and the third vowel separating the three vowels into two syllables. You will never see three vowels in a row without an apostrophe after the first two vowels.

Qia'uq.	S/he is crying.	qia / uq	QIA / uq
Aa'a.	Yes.	aa / a	AA / a

As you can see from the above two sets of examples, there may be one or two vowels before the apostrophe, but there is always only one vowel after the apostrophe. For example, we could not get such a word as ^xqia'ua. Instead, what we find is **Qiagua** (I am crying). What happens here is that the consonant **g** is dropped in **qia'uq**, but cannot be dropped in **qiagua** because there would be two vowels after the apostrophe, creating an unpronounceable Sugt'stun word. See Chapter 6 for discussion of fricative dropping.

Division between vowels with an apostrophe is discussed in greater depth in Chapter 8.

4.5 Heavy and Light Syllables

Syllable weight—that is, determining whether a syllable is light or heavy—is a crucial step in determining the rhythmic structure of a word. It is easy to determine whether a syllable is heavy or light just by looking at the written form. If the syllable contains one vowel, it is light. If the syllable contains two vowels, it is heavy. Syllable weight helps us determine if a syllable forms a foot on its own, or becomes part of a foot along with an adjoining syllable, as will be discussed in depth in Chapter 7. Describing a syllable as heavy or light does not automatically determine whether the syllable is stressed or unstressed, since heavy syllables are always stressed, but light syllables can also sometimes be stressed.

4.5.1 Heavy Syllables

A heavy syllable has two vowels. It is always stressed. It can be open (ending in a vowel) or closed (ending in a consonant). The initial consonant of a heavy syllable is emphasized.

kiikia	the other one emphasized)	kii / kia	KII / KIA	("k" of both syllables
akuliitni	among them syllable emphasized)	a / ku / liit / hni	a / KU / LIIT / hni	("l" of third
Kaasaitua.	I have no gas.	kaa / sai / tua	KAA / SAI / TUA	("k" of first syllable, "s" of second syllable, and "t" of third syllable emphasized)

4.5.2 Light Syllables

A syllable is light if it contains only one vowel. They are often unstressed. Some light syllables are stressed when the rhythmic structure of a word calls for it, as will be explained in Chapter 7. Below are examples of words made up of light syllables.

atmak	backpack	at / hmak	AT / hmak
iqalluk	fish	i / qa / lluk	i / QA / lluk
ilanka	my family	i / lan / ka	i / LAN / ka
Aciwaqutartuq.	S/he is going to go down to the beach.	a / ci / wa / qu / tarr / tuq	a / CI / wa / qu / TARR / tuq

4.6 Summary: Syllabification

Visually determining what parts of a Sugt`stun word fall into syllables is the first step in determining the rhythm of its pronunciation. The Syllabification Rules 1-4 help show where the syllabification boundary occurs between each syllable.

Rule 1: Between two consonants

Rule 2: Before a single consonant

Rule 3: At an apostrophe between vowels or between two consonants. However, you should remember that voiceless or quiescent *e* is written as a backtick (`) and still counts as a vowel in a syllable, so should not be confused with the regular apostrophe.

Rule 4: Gemination– regular and automatic

Syllables are designated as open or closed depending on whether they end with a vowel (open) or a consonant (closed). Syllables are categorized as light if they contain one vowel, and heavy if they contain two vowels. Heavy and light vowels can be open or closed. These categories are useful as we will discover in the next chapter when we determine the rhythm of a word by dividing syllables and syllable pairs into different types of feet.

Syllable type	Characteristics	Stressed?	Initial consonant emphasized?	Lengthened?
Heavy	Contains two vowels	Yes, always.	Yes, if there is one.	If open*
Light	Contains one vowel	If the syllable is the head of a foot (See Ch. 7)	If the syllable is the head of a foot.	If open and stressed*
Open	Ends in a vowel			If stressed*
Closed	Ends in a consonant			Never.

* If an open syllable is both stressed and non-final, it is also lengthened. This syllable cannot end in *e*, as syllables containing *e* cannot be lengthened.

CHAPTER 5: GEMINATION

5.1 Introduction

Gemination is when a consonant sound is lengthened, so that it is shared between two syllables. The consonant sound is not “released” before progressing to the next syllable. If there is a “release” between the two consonants, it is not considered gemination.

An example in English of a geminated consonant sound is the phrase ‘night time’, where the ‘t’ at the end of ‘night’ and beginning of ‘time’ share the same lengthened ‘t’ sound, shared between two syllables. Notice how there is no release of the ‘t’ sound at the end of ‘night’, before proceeding to ‘time’. If you were to pronounce the phrase ‘night time’ in an exaggerated fashion, as in teaching spelling, you might release the ‘t’ in ‘night’ before proceeding on to the ‘t’ in ‘time’.

This is contrasted with the English phrase ‘night rain’, where there is no repeated consonant sound between the second syllable of ‘night’ and the first syllable of ‘rain’. Another example of gemination in English is the word ‘unnerve’, where the ‘n’ sound occurs in both the first and second syllables. While the ‘n’ is doubled in ‘unnerve’, the Sugt`stun orthography does not use doubled consonants to indicate gemination.

In the Sugt`stun orthography, we have a special way of indicating geminated consonants. Rather than writing the consonant twice, gemination is usually indicated by putting an apostrophe after the consonant (C').

mal'uk	two	mal / luk	MAL / luk
suq'arluni	to catch on fire	suq / qar / lu / ni	SUQ / qar / lu / NI

For example, the word **ul'uk**, (pants) contains the syllables **ul/** and **/luk**, both containing the **l** sound. The **l** here is a geminated consonant, which means that it sounds like a long **l** rather than two separate **l** sounds⁴.

Although you can have two (or with Russian borrowings, rarely three) non-identical consonants together in a word, a consonant is never double in Sugt`stun (for example, "mm"). The only double consonants you will see are **ll**, **gg**, **ggw**, and **rr**, which represent only one consonant sound. They are not geminated consonants. However, it should be noted that in some earlier forms of the Sugt`stun orthography, geminated letters were written as double letters. This was during the time when today's multiple character consonants were written as underlined consonants (or example, when the **gg** was written as underlined **g**). During that time, the word **ul'uk** (pants) in the example above would have been written as ^x**ulluk**. See Chapter 10 for more on outdated orthographic conventions.

⁴ Some dialects of Sugt`stun differentiate between a geminated consonant and two separate instances of the same consonant. For example, in the Chugach dialect, the word **ul'uni** (to flood/overflow) sounds exactly like **ul'uni** (his/her own pants), but some Koniag speakers distinguish between **ul'uni** (his/her own pants) with a geminated consonant on one hand, and on the other hand **ul'luni** (to flood/overflow), where the two **l**'s are pronounced separately.

This practice of using the apostrophe dovetails nicely with the use of the apostrophe to indicate where a weak consonant has been dropped after another consonant. See Chapter 6 on Fricative Dropping. For example, **ul'uk** (pants) comes from the earlier form **ulruk**, which is still found with some Alaska Peninsula speakers. In Chugach, the weak **r** is always dropped before a single vowel as with **ul'uk**, but shows up when followed by a doubled vowel, as **Ulruituq** (S/he has no pants). So we can think of the apostrophe in **ul'uk** as representing the dropped weak **r**, while at the same time indicating gemination.

If you examine the examples above, you will find that gemination only occurs after a stressed vowel. This will be discussed in Section 5.3.

5.2 Automatic Gemination

Sometimes the first syllable of a word ends with a geminated consonant, but the gemination is not indicated with an apostrophe. This is called *automatic gemination*, because under set conditions, the gemination of the consonant will always occur automatically. Automatic gemination occurs when a geminated consonant comes at the end of the first syllable, and the second syllable is heavy (i.e., has two vowels).

In the case of automatic gemination, the apostrophe is left out (Leer, 1990). The gemination does not need to be shown with an apostrophe, because it is always predictable. If we did include apostrophes in all cases where we experience automatic gemination, there would simply be too many apostrophes in the written language.

The rule for Automatic gemination is clear-cut. If a word starts with CVCVV or VCVV (where C is a consonant and V is a vowel), then the consonant between vowels is automatically geminated. There is no apostrophe after the geminated consonant. This rule may be symbolized as follows: **#(C)VCCVV**, where the # indicates the beginning of the word.

ilua	its inside	il / lua	IL / LUA
atuun	song	at / tuun	AT / TUUN
Nepaituq.	It is silent.	nep / pai / tuq	NEP / PAI / tuq

By comparing different words formed from the same stem, we can see how this rule works, and why it is intuitively obvious for speakers of the language. Compare the following examples, where in the first column there is no gemination, but in the second column, gemination does occur, because a vowel pair occurs in the second syllable.

No Gemination	Gemination
---------------	------------

palika	my (piece of) smoked fish	palia	his (piece of) smoked fish
palinka	my (pieces of) smoked fish	palii	her (pieces of) smoked fish
paliten	your pieces of smoked fish	Paliituq.	She has no smoked fish.

No Geminatation		Geminatation	
qayaqa	my kayak	qayaa	his/her kayak
qayanka	my kayaks	qayai	his/her kayaks
qayan	your kayak	Qayaituq.	S/he has no kayak.

No Geminatation		Geminatation	
patuq	cover/lid	patua	its cover
patuluku	to cover it	patuirluku	to uncover it (to remove the cover/lid from it)

Automatic gemination in Sugt`stun is not marked with an apostrophe because there are so many words where this occurs. Without applying the rule of automatic gemination, writers would be forced to use the apostrophe much too often. Many readers of Sugt`stun may have internalized this rule already when sounding out Sugt`stun words without realizing it.

5.3 Neutralization of Geminatation

Since geminated consonants occur only after stressed vowels, a normally geminated consonant will become un-geminated after an unstressed vowel. In the following examples, which both contain the postbase **-n`ir-** (to stop V-ing, to no longer V), the first example word retains its gemination, whereas gemination is neutralized in the second example word (Leer 1990, p. 48-9).

pisun`irtua	I stopped hunting.	pi / SUN / nirr / TUA
qaigyasunirtua	I stopped hunting seal.	QAIG / ya / su / NIRR / TUA

Because neutralization of gemination occurs due to prosodic (rhythm & stress) rules that are covered in the next chapter, the reason why the second example does not have gemination is difficult to explain here. In Section 7.5 we will explain how you can predict for yourself which vowels are stressed in any given case.

5.4 Summary

Geminatation is the sharing of a consonant sound between two syllables. In Sugt`stun it is generally marked with the use of an apostrophe, except where the automatic gemination rule applies, in which case the apostrophe is omitted. A consonant that is geminated after a stressed

vowel will become un-geminated after an unstressed vowel. This is called *neutralization of gemination*.

CHAPTER 6: DROPPED CONSONANTS – FRICATIVE DROPPING

6.1 Introduction

Sometimes in words, certain “weak” consonants will drop out in the middle of words at the beginning of a light syllable. This is called fricative dropping. Consonant that can drop include **g** or **r** (and rarely **y** in the KP subdialect). This type of consonant dropping always occurs before a single vowel, never before a vowel pair. When a fricative is dropped, it is then represented by an apostrophe.

The fact that dropped consonants reappear before a vowel pair shows that we must be aware of what letter is missing in common words that use fricative dropping. Some reference materials will indicate the dropped fricative with a superscript version of that letter (^{g, r, y, w}) in place of the apostrophe. This is helpful when a writer needs to return the dropped fricative to a word upon addition of a suffix.

ul^ruk pants (root ul^rur-)

In this example, the word would normally be written as **ul^ruk**, but in the reference document, the word is shown with the missing **r** so that when a suffix is added, you will know what letter is added back in. This is not done in normal everyday writing.

ulruituq s/he has no pants

As you can see in this example, the **r** is restored because the addition of the suffix **-(ng)ite-** (not to have N) results in a double vowel after the fricative.

6.2 Fricative Dropping after a Vowel

After a vowel or vowel pair, and before a single vowel, the consonants **g** and **r** are regularly dropped. In the PWS subdialect, **y** and **w** are also regularly dropped in this way; but in the KP subdialect, **y** may optionally be dropped in this environment, whereas **w** is never dropped. In the breakdown to the examples below, we write the dropped fricative as a superscript letter.

Uksua'urtuq.	It is getting to be fall.	(Uksua ^r urtuq)
Taqua'itua.	I have no provision for the trip.	(Taqua ^r itua)
Puqi'imuuq.	S/he must be getting smart.	(Puqi ^g imuuq)
Aga'un	God (KP also Agayun)	(Aga ^y un)
Qia'ik (PWS)	Place of Weeping (place name)	(Qia ^w ik)

The KP version of **qia'ik** is **qia^wik** (place of weeping). The place name **Qia^wik** is also found on Kodiak. The fact that we find dropping of **w** in unanalyzable place names on the KP, such as **Arrulaa'ik** (Portlock), which appears to be from original **Arulawik** "Place of Quaking", where **w** has dropped between **a** and **i**. The evidence from this fossilized name seems to imply that the KP subdialect originally had regular dropping of **y** and **w** in this environment like PWS, but the KP subdialect has been heavily influenced by the Russian-era practice of marrying Kodiak women to Chugach men on the Kenai Peninsula.

It is important to note that in both Chugach subdialects, these weak consonants **g**, **r**, **y**, and **w** never drop out in the environment $\#(C)VC_wV$, where C_w is the weak consonant. Compare the following examples:

maraq	swamp, bog (never \times ma'aq)
tagulluku	to carry it up (never \times ta'ulluku)
ayagluni	to pull (never \times a'agluni)
awa	now, already, enough (never \times a'a)

6.3 Fricative Dropping after a Consonant

The voiced fricatives **g** and **r** may also be erased at the beginning of a light syllable following a voiced consonant; that is, they lose their distinguishing features. Having no features of their own, they borrow the features of the preceding voiced consonant. In other words, the preceding voiced consonant becomes geminated. So, for example:

ul'uk	pants	(ul ^r uk)
kem'a	its flesh (KP also kemga)	(kem ^g a)
qan'a	his/her mouth	(qan ^r a)

The use of the apostrophe to represent gemination in Sugt'stun is shared in common with the Yup'ik orthography. In Sugt'stun, the apostrophe may represent any dropped consonant, whether this consonant is dropped after a consonant or after a vowel.

6.4 Reappearing Consonants

Because fricative dropping occurs only before a single vowel, the dropped consonant will reappear when a vowel pair follows it. If the addition of a different ending or suffix changes a previously single vowel to a vowel pair, the dropped fricative will reappear. In the examples

below, the ending has been changed in the second word of the pair to create a vowel pair after the weak consonant. Thus, the consonant that was originally dropped is restored.

As mentioned above, fricative dropping can occur both after a vowel and after a consonant. In the following pairs, we illustrate fricative dropping after a vowel or vowel pair.

pinga'un	three
pingayuat	the third one
Kana'alraa.	She dreamed.
Kanaraumalraa.	He must have been dreaming.
Kula'iraa.	S/he is visiting him/her.
Kulariumaa.	S/he must be visiting him/her.
Qia'uq.	He is crying.
Qiagua.	I am crying.

In the following example pairs, we will illustrate fricative dropping after a consonant.

it'anka	my feet
it'gai ⁵	his/her feet
mal'uk	two
malruutaarluki	to do (bring, take, etc.) them two at a time

6.5 Restrictions on Fricative Dropping in the Kenai Peninsula Subdialect

As we have shown above in Section 6.4, dropped fricatives are forced to reappear before a double vowel. However, in the Kenai Peninsula subdialect most speakers nowadays try to avoid situations where the dropped fricative may reappear. We can illustrate this situation with a few examples.

Older form: kulariumakai s/he must have visited them
[ku / LA] / [RIU] / ma / [KAI]

Newer Form: kula'irumakai [ku / LA] / i / [ru / MA] / [KAI]

In the older form, the postbase **+(u)ma-** is added according to the old rules where the final **r** of the stem **kula'ir-** (to visit) is deleted and the final vowel of the stem combines with the **u** of **+(u)ma-**, giving the syllable **riu**. In the newer form, on the other hand, the droppable **r** does not combine with the **u** of **+(u)ma-**, and is therefore written with an apostrophe. However, in such

⁵ The apostrophe between the **t** and the **g** here is used to indicate that the **g** is not devoiced after **t**, but remains voiced **g**. It is this voiced **g** that is dropped in **it'anka** (my feet).

cases a different rule specific to the Chugach dialect is applied, which specifies that the second of two droppable consonants in a row cannot be dropped. Therefore, if the droppable **r** of the stem **kula^rir-** is dropped, then the final **r** of this stem cannot be dropped before the **u** of **+(u)ma-**. In this case, the rule means that we cannot get a form like ^xkula'iyumakai; instead, the second droppable consonant must be restored, giving **kula'irumakai**.

This rule is also applied in cases where the older form and the newer form are the same, for example:

Takunia'araqa. I am about to check on him/her/it. [ta / KU] / [NIA] / a / [ra / QA]

Here the postbase **+nia^rar-** (to be about to V) is followed by the ending **+(g)aqqa** (I...him/her/it), which does not cause the final **r** of the postbase to drop. Here again we cannot say

^xTakunia'a'aqqa due to the rule that prohibits the second of two droppable consonants in a row from being dropped.

6.6 Summary: Fricative Dropping

Fricative dropping refers to the fact that weak consonants (**g, r, y, w**) are dropped at the beginning of a light syllable (a syllable containing one vowel). All of these weak consonants may be dropped in the PWS subdialect, but in the KP dialect, only **g** and **r** are regularly dropped, whereas **y** is dropped only in a few examples, and **w** is never dropped. These weak consonants are never dropped in the environment **#(C)VC₂V**, where **C₂** is the weak consonant.

In normal writing, dropped fricatives are marked with an apostrophe. Dropped fricatives are sometimes restored when a suffix addition changes the following light syllable to a heavy syllable. Reference materials will sometimes indicate the missing letter with a superscript version of that letter to aid learners, but this is not done in normal writing

PART III: PROSODY, PUNCTUATION & CONVENTIONS

CHAPTER 7: PROSODY – RHYTHM, STRESS AND LENGTHENING

7.1 Introduction

Students of language use the word *prosody* to refer to the rhythmic structure of a word or group of words. This term is best known in the context of poetry, but linguists are increasingly turning to the concept of prosody in order to explain the natural groupings in the way a word is pronounced. Much poetry involves rhythmic patterning of stressed and unstressed syllables.

Sugt`stun is a language where the rhythm and stress as well as length of a syllable are very important in pronouncing a word properly. A given syllable within a word can be either stressed or unstressed. Some stressed syllables are also lengthened. As many learners have experienced, a lack of awareness about which syllables to stress and lengthen in a word can result in pronunciation of a different word altogether!

aa-naq	mother	AA / naq
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anaq	excrement	a / NAQ
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Fluent speakers of Sugt`stun know the rhythmic patterns of the language subconsciously. Learners must be exposed to a lot of spoken Sugt`stun and hear many examples, or they must memorize and internalize the prosodic rules of the language through academic study. Those who have not studied Sugt`stun prosody may easily become confused over why all double vowels are stressed, but some single vowels are also stressed, whereas some are unstressed. They may also wonder why the final vowels of some syllables sound long, no matter whether there are one or two vowels in the syllable. The answers are to be found in the prosody (rhythm) of the words.

Rhythm in Sugt`stun is divided into prosodic units called *feet*. In Sugt`stun, all feet are composed of one or two syllables, with the final syllable always being stressed. Remember: all feet contain a stressed syllable. Some unstressed syllables exist outside of a foot – we call these *stray syllables*.

Determining the feet in a written word will show you which syllables to stress. Knowing these rules will also help you spell a word correctly after you hear it spoken.

7.2 Foot Types: Iambic and Monosyllabic

There are two types of feet in Sugt`stun words. They both contain a stressed syllable.

7.2.1 Monosyllabic Foot

As the name implies, monosyllabic feet are comprised of a single stressed syllable. Monosyllabic feet, as we will see in “Rule 0”, are mostly heavy syllables (containing two vowels).

7.2.3 Iambic Foot

The iambic foot, which is common in Sugt`stun, consists of an unstressed syllable followed by a stressed syllable. Within a stressed syllable it is actually the final vowel that is stressed, but for ease of description we will refer to the syllable as stressed. A common example of iambic feet occurs in the following line of poetry: ‘The boy stood on the burning deck’.

This line can be divided into four iambic feet. Syllables are divided, as in the previous chapter, with a forward slash (/). Feet are identified within brackets, with the stressed syllable of the foot shown in CAPS:

[The / BOY] / [stood / ON] / [the / BURN] / [ing / DECK].

Notice that a foot may start in the middle of a word. Syllable breaks occur within and between feet in the example above, as iambic feet are made up of two syllables: an unstressed syllable followed by a stressed syllable.

We can get a feel for how the prosodic system works in Sugt`stun by listening carefully to how we would say a sequence of nonsense syllables, grouping them by iambic feet. Consider the following:

[ta / DA] / [ta / DA] / [ta / DA] / [ta / DA]

Note first that it is natural for an English speaker to lengthen the ‘A’ of stressed ‘DA’ but not the ‘a’ of unstressed ‘ta’. Note also that if the ‘DA’ were replaced by ‘DOT’ in the above string of nonsense syllables, i.e., if the sequence were [ta / DOT] / [ta / DOT] / [ta / DOT] / [ta / DOT], an English speaker would not be inclined to lengthen the vowel of ‘DOT’, because it is a closed syllable.

Note also that the initial consonant ‘t’ of the foot is emphasized so that it stays voiceless, whereas the ‘D’ of the following syllable is not emphasized so that it sounds like a voiced ‘D’ when we pronounce it normally.

So we see that both lengthening of an open stressed syllable and emphasizing the initial consonant of a foot are so cross-linguistically natural that we automatically apply this to our groupings of nonsense syllables in English.

Pituqiki! Eat them (in future)! [pi / TU] / [qi / KI]

Note that **p** and **q** each begin an iambic foot, and since they begin a foot, they are emphasized and fully voiceless. In contrast, the **T** and **K** are not foot-initial, and are pronounced semi-voiced, so that the **T** sounds something like an English ‘d’ (but not fully voiced), and the **K** sounds something like an English ‘g’ (but not fully voiced). Note also that the **U** of **TU** is lengthened, but the **I** of **KI** is not lengthened, as described in the next section.

7.3 Lengthening Rule

The rule for lengthening vowels applies to both monosyllabic feet and iambic feet. If the final syllable of a foot is open (i.e., it ends with a vowel) and it is not the last syllable of the word, this vowel is both stressed and lengthened. If a foot ends with a consonant, the vowel before the consonant is stressed but not lengthened. Also, vowels are never lengthened in the last syllable of a word.

Niigaa.	He is leaning against it.	[NII] / [GAA]	(NII is lengthened, but GAA is not since it is the last syllable in the word)
amatiini	the area/place behind it	[a / MA] / [TII] / ni	(MA and TII are lengthened)
nunamini	in his/her own town	[nu / NA] / [mi / NI]	(NA is lengthened, but NI is not since it is the last syllable in the word)

Only syllables with the vowels **a**, **i**, and **u** (and vowel pairs formed with these three vowels) can be lengthened. The vowel **e** can never be lengthened. Where any other vowel will be lengthened, in the same circumstances, the vowel **e** causes the following consonant to be geminated. This will be discussed further in Section 7.5.5.

7.4 Initial Foot Assignment Rules

This section describes how to assign the first foot in a word, starting from the beginning of the word working left to right. To determine the foot structure of a word, you need to start with the first one or two syllables of the word, using the skills from the previous chapter to first identify the syllable breaks.

Since some words contain only one or two syllables, the initial foot assignment rules may be all that are needed. Initial foot assignment rules apply only to the first one or two syllables of a word because some feet are one syllable, and some are two syllables. For longer words, there are additional rules that will be covered in the next section. After determining syllable breaks, the next step is to use these rules starting with the beginning of a word.

7.4.1 Rule 0 ("Rule Zero")

Rule 0 - All heavy syllables (syllables containing two vowels) form a monosyllabic foot. Rule Zero therefore applies both to the initial foot assignment, and foot assignment throughout the word. This construction can be symbolized as follows:

(C)VV(C)

A letter in parenthesis indicates that it may or may not be present, depending on the word – it is optional. C is a consonant, and V is a prime vowel (**a**, **i**, **u**). The forward slash / shows a syllable break. These conventions will be used throughout the chapter.

In the example above, the initial consonant is optional, and the syllable may or may not end in a consonant. The only requirement for “Rule 0” is that the syllable contains two vowels. Remember: all syllables containing two vowels are heavy. As we will see later, “Rule 0” can be used anywhere in a word, but if it is not in the first syllable, it must begin with a consonant.

Here are some examples of words beginning with monosyllabic feet identified through “Rule 0”. In these examples, the single light syllable at the end of the word becomes a stray syllable. Stray syllables are syllables that do not belong to a foot after all possible feet have been identified.

cuuteq ear [CUU] / teq

siinaq entryway [SII] / naq

aiggaq hand [AI] / ggaq

kuiget rivers [KUI] / get

Notice that the first syllables in these examples are also lengthened, because they are open (ending in a vowel) and stressed. Remember: all stressed syllables that are open are also lengthened (except at the end of a word).

kuikcak big river [KUIK] / cak

In the above example, the first syllable is heavy, and therefore as a monosyllabic foot it is stressed, but being a closed syllable, it is not lengthened.

7.4.2 Initial Foot Assignment Rule A

Initial Foot Assignment Rule A – If the first syllable of the word is closed (ending in a consonant), it forms a monosyllabic foot.

This construction can be symbolized as follows:

#(C)VC/...

Here again, the # symbolizes the beginning of the word. The first consonant is optional. Of course, the initial closed syllable can be heavy (it can contain two vowels), that is to say, it could be represented #(C)VVC/... but initial heavy syllables are already covered by “Rule 0”.

cutmen forward [CUT] / hmen

atmak backpack [AT] / hmak

iqmik snoose [IQ] / hmik

sungcarwik hospital [SUNG] / [car / WIK]

Kaigtukut. We are hungry. [KAIGG] / [tu / KUT]

ciqlluaq sod house [CIQ] / [LLUAQ]

In the first three examples, the final syllables form stray feet (they don't fit into a foot as later rules will demonstrate). In the final three examples, the final syllables form a foot. In **sungcarwik** and **kaigtukut**, the initial syllable is followed by an iambic foot, but in **ciqlluaq**, the initial syllable is followed by a monosyllabic foot.

7.4.3 Initial Foot Assignment Rule B

Initial Foot Assignment Rule B – This rule is the most complex of the initial Foot Assignment Rules, and results in two monosyllabic feet. The construction can be symbolized as follows:

$$\#(C_1)VC_2VV\ldots$$

The consonants have been numbered for the sake of clearer discussion and description. The first consonant (C_1) is optional. Since the second consonant is followed by two vowels, it is automatically geminated. Therefore, the letter combination above will be written as follows when broken into syllables:

$$\#(C_1)VC_2 / C_2VV\ldots$$

C_2 is geminated (shared between two syllables), but due to the rule of automatic germination, the example words below do not have an apostrophe after C_2 . This pattern results in two monosyllabic feet. The first syllable is closed, and therefore forms a monosyllabic foot because of Initial Foot Assignment Rule A, and the second syllable is heavy and therefore forms a monosyllabic foot due to Rule 0.

akiani across from it [AK] / [KIA] / ni

qukaani in the middle of it [QUK] / [KAA] / ni

iluani in it [IL] / [LUA] / ni

Patuituq. It has no lid. [PAT] / [TUI] / tuq

The above examples repeat the geminated consonant in the syllable breakdown in order to highlight the gemination, even though the consonant appears only once in the written word. Also notice in the above examples that the first two syllables are stressed, but only the second syllable is lengthened because in these examples the second syllable is also open (ending in a vowel) and not at the end of the word. Below are examples illustrating this rule where the second syllable is closed, and therefore not lengthened:

qukaatni in the middle of them [QUK] / [KAAT] / hni

iluitni inside them [IL] / [LUIT] / hni

7.4.4 Initial Foot Assignment Rule C

Initial Foot Assignment Rule C – If the first syllable of a word ends with a single vowel, and the second syllable begins with a consonant followed by a single vowel, the two syllables will form an iambic foot. The construction looks like this:

$$\#(C)V/CV(C)/$$

The initial consonant of the first syllable and final consonant of the second syllable are optional. The first syllable is the unstressed syllable, and the second syllable is stressed, so that together they form an iambic foot.

qayaqa	my boats	[qa / YA] / qa
akimi	across	[a / KI] / mi
ilumi	inside	[i / LU] / mi
qayanka	my boats	[qa / YAN] / ka
patuq	lid	[pa / TUQ]

Notice that the first three examples above contain a stray foot. They also have an open, stressed second syllable, so the second syllable is lengthened. Contrast these with the last two examples, where the second syllable is closed and therefore not lengthened.

In this section we have discussed four rules that can be used to determine feet in the first one or two syllables of a word: Rule 0, and Initial Foot Assignment Rules A-C. In the next section, we will cover three new rules that determine further foot assignments in words long enough to contain multiple feet.

7.5 Non-Initial Foot Assignment Rules

The first rule in determining feet in words that contain more than one foot is already known. As mentioned in the previous section, “Rule 0” can be used for the initial foot of a word, but can also be used throughout the word. It is your first step in identifying multiple feet in a word.

7.5.1 Rule 0 (“Rule Zero”, Again)

Rule 0 - As we know, Rule 0 says that any heavy syllable (containing two vowels) will create a monosyllabic foot, anywhere in a word. This is why Rule 0 is listed in both the initial and non-initial Foot Assignment Rules. Working left to right in a multi-foot word, you should first identify the monosyllabic feet using Rule 0.

kuuggiaq	coffee	[KUU] / [GGIAQ]
piicalraa	he asked for some.	[PII] / cal / [RAA]
suitalaa	his/her sweater	[SUI] / ta / [LAA]

The above examples each contain two monosyllabic feet, as the first and last syllables each are heavy. The second syllable in the last two examples above forms a stray foot, under the 1-Syllable Rule explained next. The following rules should be understood to apply immediately after a foot. This foot might be a result of an initial or non-initial foot assignment.

7.5.2 1-Syllable Rule

1-Syllable Rule – If only one light syllable remains before a heavy syllable, or at the end of a word, it is left alone, forming a stray syllable (not in a foot).

suituq	there is nobody (there)	[SUI] / tuq
--------	-------------------------	-------------

In **suituq**, the first syllable is a monosyllabic foot due to Rule 0, while the second syllable becomes stray (unstressed and not part of a foot) due to the 1-Syllable Rule.

7.5.3 2-Syllable Rule

2-Syllable Rule – If there are two light syllables before a heavy syllable or at the end of a word, they form an iambic foot.

aalukaq	namesake, mentor	[AA] / [lu / KAQ]
---------	------------------	-------------------

In **aalukaq**, the first syllable is a monosyllabic foot due to Rule 0, while the second and third syllables form an iambic foot due to the 2-Syllable Rule. In the additional examples below, identify which feet are monosyllabic through Rule 0, and which are iambic through the 2-Syllable Rule.

Aalukaqaa.	He is her namesake.	[AA] / [lu / KA] / [QAA]
suitalaq	sweater	[SUI] / [ta / LAQ]
Suitalaqaa.	It is his sweater.	[SUI] / [ta / LA] / [QAA]
aakanaq	old dying fish	[AA] / [ka / NAQ]
aakanaquuguaq	crummy old dying fish	[AA] / [ka / NA] / [QUU] / [GUAQ]

It should be easy to see that the feet containing two syllables are the iambic feet, explained by the 2-Syllable Rule. The monosyllabic feet are explained by Rule 0

7.5.4 3-Syllable Rule

3-Syllable Rule – If there are three light syllables in a row within a word, then the first syllable is skipped over, and the 2nd and 3rd syllables form an iambic foot⁶.

suitalamek from the sweater [SUI] / ta / [la / MEK]

suitalarkaqaq thing that will be a sweater [SUI] / ta / [larr / KAAQ]

suitalarkaqaqa thing that will be my sweater [SUI] / ta / [larr / KA] / qa

Suitalarkaqaqa It will be his sweater. [SUI] / ta / [larr / KA] / [QAA]

This rule can be reapplied within a word until the sequence of light syllables runs out. The example below means, “after he had almost fallen overboard”.

aq’alarpayallrungami [AQ] / qa / [larr / PA] / yall / [rru / NGA] / mi

In the above example, the first syllable is monosyllabic, according to Rule 0. The next two clusters of three syllables are using the 3-Syllable Rule. The final syllable is stray according to the 1-Syllable Rule.

The next example illustrating multiple use of the 3-Syllable Rule translates as “You seem to be very scary”.

Alingnarpakaryanartuten. [a / LING] / narr / [pa / KAR] / ya / [narr / TU] / ten

The first foot in the above example is identified using the Initial Foot Assignment Rule C. The next two clusters of three syllables follow the 3-Syllable Rule. The final syllable is stray according to the 1-Syllable Rule.

The next example illustrating multiple use of the 3-Syllable Rule translates as “Saying that he was going to pick highbush blueberries”.

atsasuqutarniluni [AT] / sa / [su / QU] / tar / [ni / LU] / ni

The next example illustrating multiple use of the 3-Syllable Rule translates as “saying that she was going to go hunting”.

pisuqutarniluni [pi / SU] / qu / [tar / NI] / [lu / NI]

⁶ Note that this rule is the primary area of difference between the rhythmic patterns of Chugach and Kodiak Sugt’stun. Kodiak Alutiiq tends to not skip over the first syllable as is done in Chugach, but there are other complexities as well, which are explained in the Kodiak Alutiiq Orthography Book.

curarsuqutarniluni [cu / RARR] / su / [qu / TAR] / ni / [lu / NI]

(tawaten) pikutarniluni [pi / KU] / tar / [ni / LU] / ni

The prosodic results of the three-syllable rule can be seen to generate three separate prosodic patterns when applied to a postbase like ~**kutar-**. This contrasts starkly with the results of the Koniag prosodic rules, where disyllabic postbases with only light syllables almost always form a foot. The Chugach prosodic rules, when compared with the Koniag prosodic rules, produce the impression of speaking in leaps and bounds.

When the three-syllable rule assigns stress to an open syllable ending in the reduced vowel **e**, this vowel cannot be lengthened as the prime vowels (**a**, **i**, **u**) would be in this situation (see Section 7.3). Instead, the single consonant following **e** is geminated. The following word is composed of the stem **waame-** (to play) plus **-l'ute-** (co-doer) plus **~ke-** (to have as one's N) plus the ending **+(g)aq̣a** (I...him/her/it). Note that not only is the **k** geminated in this word, but also that the inherent gemination of **-l'ute-** is neutralized since **l** does not follow a stressed vowel (see further Section 7.7).

Waamelutek'aqa. S/he is my playmate. [WAA] / me / [lu / TEK] / [ka / QA]

Iqllyukel'aayagaanga. That darn person thinks I'm lying.
[IQ] / llu / [yu / KEL] / [LAA] / ya / [GAA] / nga

Note that neither the **k** of the postbase ~**ke-** (to have as one's N) nor the **l** of the postbase **-laayag-** (in a terrible or disrespectful way) is inherently geminated, but they become geminated due to the rule introduced in this section.

7.6 Three-Syllable-Rule Exceptions

7.6.1 Three-Syllable Rule with Apostrophe at Head of the Third Light Syllable

With regard to the three-syllable rule, if there is an apostrophe representing a dropped consonant at the head of the third light syllable, then the second and the third syllables contract to form a heavy syllable, which is therefore treated as a monosyllabic foot.

Patukutaaqa. I am going to cover it. [pa / TU] / ku / [TAA] / qa

Sarsaliaqa. I am making tea for him/her. [SARR] / sa / [LIA] / qa

The first example **Patukutaaqa** is composed of stem **patu-** (to cover), postbase **~kutar-** (to be about to V), and ending **+(g)aq**a (I...him/her/it). If the contraction rule discussed above did not apply here, we would expect the form ^xPatukuta'aqa [pa / TU] / ku / [ta / A] / qa. However, the rules of the language do not allow feet like [ta / A]; instead, these two syllables are required to coalesce into a heavy syllable, namely [TAA]. Likewise, in the second example, the **i** of the postbase **-li-** (to make N) combines with the **a** of the ending **+(g)aq**a (I...him/her/it), since a foot like [li / A] is not allowed.

We also need to note that this contraction of an iambic foot into a monosyllabic foot occurs not only when the second syllable of an iambic foot has no initial consonant, but also where the initial consonant does not contrast with a zero onset, namely in the sequences **(C)iya**, **(C)iyu**, **(C)uwa**, and **(C)uwi**. For example, in **Pinga'unek erneq sarsaliarlartua** (I drink tea three times per day), the verb **sarsaliarlartua** is composed of **sarsa-** (tea), **-li-** (to make), **+yar-** (doing action so many times), **+lar-** (habitually), and **+(t)ua** (I). Based on this morphological analysis, we would expect the following prosodic breakdown: ^x[SAR] / sa / [li / YAR] / lar / [TUA]. However, the combination [li / YAR] contracts to [LIAR] just as hypothetical [li / AR] would, so we end up with the correct prosodic analysis: [SAR] / sa / [LIAR] / lar / [TUA].

Some postbases consisting of two light syllables and endings consisting of light syllables do not conform to this rule. One such postbase is **+ya²ute-** (to finally V), which never contracts to ^x+yaute- under any circumstances, as in **saaniya'utukut** (we are finally sleepy) [SAA] / ni / [ya / U] / [tu / KUT]. Although the prosodic representation indicates that the **u** of **ya'u** is to be stressed, what we hear is unstressed **u** here. Other examples are found with 3pl-3pl verb endings, meaning "they...them", e.g., **+nga'it'ki**, as in **piturnga'it'ki** (when they ate them) [pi / TUR] / nga / [i / T'] / ki; here none of the three syllables **nga**, **i**, and **ki** are stressed.

7.6.2 Three-Syllable Rule with Enclitic Boundary

When three light syllables are found after a foot at the end of a word, normally the Three-Syllable Rule applies, as we have seen above. However, if an enclitic boundary occurs before the last of these three syllables, the first two syllables form an iambic foot. Compare:

aanaminun to his/her own mother [AA] / na / [mi / NUN]

(John-kuk) aanani-llu

(John) and his mother

[AA] / [na / NI] / llu

In the first example, there are three light syllables after the initial foot [AA], and these are footed according to the Three-Syllable Rule, so that the final pair of light syllables [mi / NUN] form an iambic foot. In the second example, however, there is an enclitic boundary before the last syllable -llu, so that the first pair of light syllables [na / NI] forms an iambic foot.

7.6.3 Stress Repulsion from Stressed Voiceless or Quiescent e

A major exception to the three-syllable rule occurs when the third of the three light syllables contains voiceless or quiescent *e*. The language "does not approve of" a stressed voiceless or quiescent syllable, since there is no way to hear the stress on the syllable. Therefore in the Chugach dialect, an exception to the three-syllable rule is encountered in these cases. The rule dealing with these exceptions throws back the stress from the voiceless or quiescent syllable onto the preceding light syllable—that is, the second of the three light syllables—and in the process, converting this light syllable into a monosyllabic foot. Then the counting of light syllables proceeds from this monosyllabic foot forward, not from the voiceless or quiescent syllable that would otherwise be stressed.

Aq'alart'stan.

You made him fall overboard.

[AQ] / qa / [LARR] / [t's / TAN]

incorrect: [×][AQ] / qa / [larr / T'S] / tan

aq'alart'staqamiki

whenever s/he makes them fall overboard

[AQ] / qa / [LARR] / t's / [ta / QA] / [mi / KI]

incorrect: [×][AQ] / qa / [larr / T'S] / ta / [qa / MI] / ki

Ag'kutan''tua.

I am not going to go.

[AG] / ku / [TAN] / n' / [TUA]

incorrect: [×][AG] / ku / [tan / N'] / [TUA]

ag'kutan''taqama

whenever I'm not going to go

[AG] / ku / [TAN] / n' / [ta / QA] / ma

incorrect: [×][AG] / ku / [tan / N'] / ta / [qa / MA]

The reason why we indicate geminated *n* in the final two examples above is that the syllable **TAN** is stressed, and after a stressed vowel, gemination is always heard; but in the incorrect prosodic breakdown that follows the correct prosodic breakdown, the syllable **ta** does not have a stressed vowel, so that gemination is not heard, as will be discussed further in Section 7.8.

7.6.4 Prosodic Irregularities with the Negative Postbase -n''te- (not to V)

In the Kenai Peninsula subdialect we find variability in the prosodic treatment of an ending consisting solely of light syllables after the negative postbase -n''te-. If the syllable following the negative postbase is not stressed according to the usual prosodic rules, the speaker has an option to stress this syllable or not to stress it, as we can see in the first two of the following examples.

In the third example, the ordinary prosodic rules apply stress to the light syllable following the negative postbase, so we find only one possible prosodic breakdown.

ag'kutan''tukut	We are not going to go.	[AG] / ku / [TAN] / n' / [tu / KUT] <i>or</i> [AG] / ku / [TAN] / n' / [TU] / kut
atraqutan''tukut	We are not going to go down.	[AT] / rra / [qu / TAN] / n' / [tu / KUT] <i>or</i> [AT] / rra / [qu / TAN] / n' / [TU] / kut
aq'alaqutan''tukut	We are not going to fall overboard.	[AQ] / qa / [la / QU] / tan / [n' / TU] / kut

Another striking irregularity associated with the negative postbase concerns the combination of the negative postbase plus the concessive verb endings (generally denoting "even though" or "even if"). This combination appears as **-n'eraa(r)-** (even though not V-ing; instead of V-ing), where the syllable with **e** is always stressed, i.e., it forms a monosyllabic foot.

Qian'eraarpet (ani). Instead of crying, (go outside). [QIAN] / [NE] / [RAARR] / pet

There are other examples of syllables with the vowel **e** forming monosyllabic feet which do not involve the negative postbase. These concern the behavior of a syllable with the vowel **e** before a couple of postbases. The first is **~q'ar-** (to V suddenly, in a jerking manner), e.g., **qetgeq'artuq** (s/he jumped up suddenly) [QET] / [GGEQ] / [qarr / TUQ] or **qetgeq'araa'uq** (s/he keeps jumping up suddenly at intervals) [QET] / [GGEQ] / qa / [RAA] / uq. The second is **+yar-** (to V in an uncontrolled and sudden manner), e.g., **ceqmeryartuq** (it sloshed, in an uncontrolled manner) [CEQ] / [HMER] / [yarr / TUQ] (never ^x[CEQ] / hmer / [yarr / TUQ] !).

7.7 Stress Dampening

Word final feet (both monosyllabic and iambic) tend to be “dampened”, that is to say, the stress is less apparent, and the pitch tends to remain low. This is apparent in the word **pisurluni**, which is made up of two iambic feet, but the last syllable of the word (**ni**) is not as obviously stressed as is the second syllable of the word.

pisurluni hunting [pi / SUR] / [lu / NI]

However, the stress is not dampened when the foot is no longer word-final, so if we add the enclitic **-llu** to the word **pisurluni**, we get:

pisurluni-llu and hunting [pi / SUR] / [lu / NI] / llu

Here the syllable **ni** is stressed and also lengthened, because it is no longer word-final and the Lengthening Rule applies (See Section 7.3).

7.8 Neutralization of Gemination

Gemination (repetition or “sharing” of a consonant sound between two syllables) is affected by the prosodic rules discussed above. Gemination can occur only if the vowel preceding the consonant in question is stressed. Neutralization of gemination occurs when the prosodic rules result in an unstressed vowel before the consonant that would otherwise be geminated. Some postbases that contain geminated consonants will become degeminated depending on the stress patterns of the word they are attached to. An example of this neutralization of germination occurs with the postbase **-n’ir-** (to stop V-ing⁷).

In the following example, the germination in the postbase is preserved, because according to Initial Foot Assignment Rule C, the vowel of the second syllable is stressed. The second foot is formed according to the 2-Syllable Rule.

Pitun’irtuq. He stopped eating. [pi / TUN] / [nirr / TUQ]

In the following examples, the prosodic rules do not assign stress to the vowel preceding the consonant would otherwise be geminated, so that the gemination is neutralized, i.e., the consonant in question is not geminated and only appears once in the syllable breakdown. The × before the “attempted” word shows that the word is incorrect – it cannot exist.

×Iqsan’irtuq. He stopped fishing. [IQ] / sa / [nirr / TUQ]
correct: Iqsanirtuq.

×Pisuryatunirtuq. He stopped going hunting. [pi / SUR] / ya / [tu / NIRR] / tuq
correct: Pisuryatunirtuq.

×Sarsan’irtuq. She stopped having tea. [SARR] / sa / [nirr / TUQ]
correct: Sarsanirtuq.

×Sarsayan’irtuq. S/he stopped going for tea. [SARR] / sa / [ya / NIRR] / tuq
correct: Sarsayanirtuq.

The above examples would be easy for a fluent speaker without knowledge of this rule, because if they don’t hear it, they simply would not write it. Since learners expect to see the gemination due to the normally written postbase, we must be aware of situations when gemination is neutralized so as to ensure correct spelling.

7.8.1 Foot Depiction Conventions

In this publication, feet are depicted using capital letters and enclosing brackets. In a number of Leer’s publications (Leer, 1990, 1994), foot and emphasis are depicted with modified tree diagrams. When writing a foot on the whiteboard or when handwritten foot notation is possible,

⁷ V here refers to a verb.

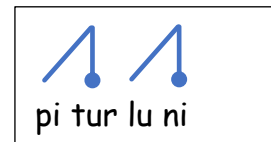
it is often done as such: A monosyllabic foot is indicated by a vertical line with a dot at the bottom, showing the stress on that syllable. For an iambic foot, the unstressed syllable is marked with a slanted line connected to the stressed syllable marker (vertical line with dot at bottom). If the syllable is a stray syllable, it receives no mark. While our modern use of word processing software may usually require the capital letters and brackets technique used in most of this guide, it is important to know the other methods that have been used for handwritten foot depiction.

cuuteq ear handwritten foot depiction:



Word processing depiction as used in this book: [CUU] / teq

piturluni to eat, drink handwritten foot depiction:



Word processing depiction as used in this book: [pi / TUR] / [lu / NI]

7.9 Summary

Rhythm in Sugt`stun is analyzed through prosodic units called feet. Sugt`stun words contain iambic feet, which have an unstressed followed by a stressed syllable, and/or monosyllabic feet, which contain a single stressed syllable. To determine the stress pattern in a word, you should first use the initial foot assignment rules, which apply to the first one or two syllables in a word, and then the non-initial foot assignment rules, which apply to the remaining syllables of a word. The lengthening rule assists the learner by determining whether stressed syllables are also lengthened.

CHAPTER 8: APOSTROPHE AND HYPHEN

8.1 Introduction

The hyphen and apostrophe were introduced in Chapter 1. They are characters used in the Sugt`stun writing system that are not letters but serve a number of important functions. This chapter will outline each of the functions of these two characters.

8.2 Apostrophe

The apostrophe is used for a number of different purposes within Sugt`stun words. These include:

1. To indicate a syllable boundary between vowels: (V)V'V
2. Gemination: VC'V
3. Representing a dropped weak consonant : (V)V'V or VC'V.
These are subcases of (1) and (2).
4. Separating letters otherwise interpreted as a multi-character letter: VC'CV
5. Separating a voiced fricative from a neighboring voiceless consonant: VC'CV
6. Representing voiceless or quiescent e: C'C

8.2.1 Syllable Boundary

An apostrophe (') marks a boundary between two syllables. No matter what purpose it is used for, you will never find an apostrophe within a syllable unless the apostrophe is representing a voiceless or quiescent e (indicated in this publication by the backwards apostrophe called a *backtick*, or `).

8.2.2 Special Apostrophe Conventions Used in this Book

In general writing, all of the above apostrophes are written just as a normal apostrophe. In reference materials like this one, the voiceless or quiescent e is marked as a backtick (`), where the hanging tail points down to the right like the tail of the absent e. This backtick is different from the opening and closing apostrophes (') generated by Microsoft Word auto-formatting. This character is located on most keyboards on the top left, sharing a key with the tilde (~). In ordinary writing, the backtick is represented simply as an apostrophe, e.g., in the word **Sugt`stun**. We use the backtick in reference materials to show that it represents a vowel for the purpose of predicting the foot assignment of a word; it is not to be confused with the apostrophe as used elsewhere.

8.2.3 To Indicate a Syllable Boundary Between Vowels: (V)V'V

The apostrophe can be used to indicate syllable division between consonants or vowels in the Sugt`stun orthography. In order to designate when adjacent vowels are not in the same syllable, an apostrophe is used to mark the syllable boundary. The apostrophe may occur between two

single prime vowels, or between a vowel pair and a prime vowel. This generalization can be symbolized as follows:

$$(V)V'V \text{ (never } \times V'VV)$$

This means that you can have one or two vowels before the syllable break marked by an apostrophe, and only one vowel after the apostrophe. The following subsections will examine the various scenarios where an apostrophe indicates a syllable boundary between vowels.

8.2.4 Syllable Separation Between Single Vowels

In five cases the apostrophe is used to indicate syllable division between two single vowels: **a'a**, **i'i**, **u'u**, **a'i**, and **a'u**. Below are examples of these combinations appearing within words:

a'a

nuta'aq	new one
Ila'aqikut.	Join us (in the future).
qila'aq	roof of mouth

i'i

Kawi'illria.	It turned red.
Cali'it?	What are you doing?
Asi'iciquq.	It will get better.

u'u

Aru'uq.	It (wood) is rotting.
Picu'uten.	You are good at catching animals/fish.

a'i

Cama'i.	Hello.
kula'irluku	to visit him or her

a'u

Awa'uq.	It is numb
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ika'ut that way

Qia'ut. They are crying.

8.2.5 Syllable Separation Between Vowel Pairs and a Single Vowel

As with all uses of the apostrophe, its presence between a vowel pair and single vowel marks a syllable division. Both double vowels (**aa**, **ii**, and **uu**) and diphthongs (**ai**, **au**, **ia**, **iu**, **ua**, and **ui**) can combine with an additional vowel, though some vowel combinations combine with other vowels without an apostrophe. This will be discussed in the next section.

Vowel Pairs will only be separated from another vowel in the following way:

VV'V

Aa'a. Yes.

Raa'ucirtuq. He is sailing.

Mecuu'uq. It is wet.

Aigartuu'uskii. He shook her hand.

Cukii'itua. I have no socks.

Ii'i! Yuck!; How awful! (interjection)

In four cases the apostrophe is used to show a syllable division between a diphthong and a single vowel: **ai'i**, **au'u**, **ia'i**, and **ia'u**. This follows the general rule that three vowels do not appear together in succession within one word.

ai'i

nerutai'ista dentist

iqai'isuun washing machine; washboard

au'u

Allau'uq. It is a different one

Nau'ut. They are growing.

ia'i

kia'iwik summer camp

ilarpia'i his/her true relatives

ia'u

Ipgia'utuq. It is getting dull.

Qia'uq. She is crying.

8.2.6 Prosthetic Y and W

There are some vowel combinations that are never divided by an apostrophe. Instead, these letter combinations are divided by a **w** or **y** rather than the apostrophe. Combinations that are not allowed are $\times(V)i'a$, $\times(V)i'u$, $\times(V)u'a$, and $\times(V)u'i$.

The proper way to write these sounds is as follows: (V)**iya**, (V)**iyu**, (V)**uwa**, and (V)**uwi**. The **y** and **w** here are called “prosthetic y” and “prosthetic w”. These rules can be more specifically formulated as follows:

$\times(V)i'a \Rightarrow (V)iya$

$\times(V)i'u \Rightarrow (V)iyu$

$\times(V)u'a \Rightarrow (V)uwa$

$\times(V)u'i \Rightarrow (V)uwi$

As you can see, the **i** and **u** before the apostrophe can stand alone, but can also be part of a vowel pair ending in **i** or **u**.

iya

kangiyaq bay (underlyingly kangi'aq)

smiiyaq snake (underlyingly smii'aq, from Russian *zmeyá*)

Qat'gaiyartuq. S/he is weak from hunger. (underlyingly qat'gai'artuq)

iyu

Maqiyut. They are taking a steambath/banya; It is Saturday. (underlyingly maqi^sut; older form maqiut)

Taiyuq. S/he is coming. (underlyingly tai^suq)

uwa

iluwaq	cousin (underlyingly ilu ^a aq; compare iluraa "his/her cousin")
kenerkiuwat	chopped-up alders (underlyingly kenerkiu ^a t; compare kenerkiurai "his/her chopped-up alders")
unguwaq.	life (underlyingly ungu ^a aq; compare ungugaa "his/her life")

uwi

uuwiluni	to wash one's hands (underlyingly uu ⁱ iluni; compare uuriuq "S/he is washing her/his hands")
litnauwiluni	to teach (underlyingly litnau ⁱ iluni; compare litnauriuq "S/he is teaching".)
suuwin	floor rag; mop (underlyingly suu ⁱ in; compare sugluku "to scrub/mop it")

8.2.7 Gemination

As discussed more completely in Chapter 5, *gemination* is the sharing of a consonant sound between two syllables. It is usually marked with the use of an apostrophe, except in cases where gemination is predictable, due to the rule of automatic gemination.

ul'uk	pants	ul / luk	[UL] / luk
Ag'ut.	They are going.	ag / gut	[AG] / gut
patua	its cover; its lid	pat / tua	[PAT] / [TUA]

In **patua** above, an apostrophe is not used according to the rule of automatic gemination, which applies to the initial sequence #(C)VCVV. According to this rule, the geminated consonant (in this case, the **t** of **patua**) is not marked with an apostrophe. It is important to remember that the consonant **t** is still geminated — it is shared between both syllables. For more on gemination and when to use an apostrophe to mark it, refer to Chapter 5.

8.2.8 Representing a Dropped Weak Consonant - Fricative Dropping

Fricative dropping, as discussed in Chapter 6, is when a weak fricative (**g** or **r**) will drop at the beginning of a light syllable. In more precise linguistic terminology, we say that the underlying fricative has been replaced by *zero onset*⁸.

⁸ Note to linguists unfamiliar with Eskaleut: the apostrophe never denotes glottal closure. The transition between vowels is completely smooth, with no interruption.

Fricative dropping will only occur before a single vowel — not a vowel pair. The dropped consonant is marked with an apostrophe. When the form of the word changes, and the dropped fricative is followed by a double vowel, it can return.

aryaa'aq	young woman (of marriageable age)
aryagaat	young women (plural)
quliyarluku	to tell on him/her
Quliraumakiiten.	S/he must have told on you.
litnauwat	studies
litnaurait	their studies

Note that in the second pair, the dropped consonant is represented as a prosthetic **y** rather than an apostrophe because the dropped consonant (**r**) occurs between the vowels **i** and **a**. Likewise, in the third pair, the dropped consonant (**r**) is represented as a prosthetic **w** rather than as an apostrophe since it occurs between the vowels **u** and **a**.

8.2.9 Separating Letters Otherwise Interpreted as a Multi-character Letter

The apostrophe is used to differentiate between the single letter **ng** and the separate letters **n** and **g** when they occasionally appear together in a word. In the case of separate letters **n** and **g** (**n'g**), each letter is pronounced separately, the **n** at the end of a syllable and the **g** at the beginning of the next syllable. The single letter **ng** is one sound, like the 'ng' in the English word 'song'.

n'g	un'gani	out there (in the direction of the mouth of the bay)
ng	ungani	his own whiskers; his own beard
n'g	Tun'gaa.	He is giving it to another; He is giving it away. (also Tunaa)
ng	tungiinun	in the direction of it

8.2.10 Separating a Voiced g or r from a Neighboring Voiceless Consonant

In Section 2.7 we introduced the undoubling rule, which states that a voiceless **gg** or **rr** is undoubled to single **g** or **r** next to a voiceless consonant (i.e., either before or after the voiceless consonant). However, in a few cases, we do find voiced **g** or **r** next to a voiceless consonant. This is almost always the result of the dropping of the reduced vowel **e** in certain environments.

it'gai	his/her feet (from underlying itegai)
Ag'kutartuq.	S/he is going to go. (from underlying Agekutartuq)

nar`lleqa the one I smelled (from underlying narelleqa)

8.2.11 Representing Voiceless and Quiescent e

As discussed in Chapter 3: Vowels, the **e** is called a reduced vowel. There are instances where the **e** is voiceless or quiescent. Even though voiceless and quiescent **e** are not clearly audible even to a trained phonetician, they take up the same space as a voiced **e** in a word. Voiceless **e** is a whispered **e** that occurs between two voiceless consonants. Quiescent **e** is a suppressed **e** that occurs between a voiced and a voiceless consonant.

Whether the **e** is voiceless or quiescent, it is treated the same. In previous versions of this orthography, both voiceless and quiescent **e** were written as underlined **e** in order to preserve the **e**'s spot in the word. We now use a backtick instead.

It is important to remember that even though voiceless and quiescent **e** are replaced by a backtick, they do represent an actual vowel for the purpose of determining the prosodic pattern of the rest of the word. Therefore, marking the location with an apostrophe rather than just dropping the mark entirely from the word is important. If the reader sees the backtick (`) they will understand that there is a voiceless or quiescent **e** between the consonants, and this backtick must be included in counting syllables.

8.2.12 Voiceless e

A voiceless **e** may occur between two voiceless consonants. It may be difficult to absolutely predict when it is voiceless, and it sometimes varies between speaking styles.

Agut`kutaraa.	She is going to take him along.
pisurt`hmen	to the hunter
kak`glluk	snot; nasal mucus
Sugt`stun	like a Sugpiaq; in the Sugpiaq language (not [×] Sugtestun)
minq`lluku	to sew it

In some instances speakers may pronounce the **e** as either voiced or voiceless, on a random basis.

tekit`gkunaku	not to arrive at it
tekitegkunaku	not to arrive at it (tekite- "arrive" plus -(g)kunaku "not doing V to it")

Compare the following example, where **e** consistently remains voiced:

ulutegkunaku	not to watch him/her/it (uluteg- "watch" plus -(g)kunaku "not doing V to him/her/it")
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8.2.13 Quiescent e

A quiescent **e** occurs between a voiced consonant (**l, m, n, ng, R**) and a following voiceless consonant. It is identical in its treatment to voiceless **e**.

Tang`rtuq. S/he sees. [ta / NG`RR] / tuq

paan`kaa can [PAA] / n` / [KAAQ]

It is important to know whether an **e** is “silent”, that is devoiced or quiescent, and when the **e** is deleted, because even though an **e** is silent, it still forms a syllable with the preceding consonant. This syllable must be counted in order to properly identify the feet in the word. For example, in the word **paan`kaa** (can, from Russian *bánka*), the first syllable **paa** is long. If we were to write the word as ^xpaankaa, the reader would be confused because the first syllable is closed and therefore we would expect the vowel to be automatically shortened, so that the word would be pronounced ^xpankaa. On the other hand, if we write this word with the backtick representing the quiescent **e**, the word must be broken into three syllables: **paa / n` / kaa**, which correctly predicts that the first syllable is open and therefore long.

A very important general rule is that three consonants cannot occur together in the middle of a word. Whenever you hear what sounds like a sequence of three consonants, the sequence will always be broken up by inserting a voiceless **e** between them, usually between the last two consonants. For example, when you hear **pisurt`hmen** (to the hunter), you at first only hear three syllables: **pi, sur,** and **tmen**, but knowing that the three consonant cluster must be broken up with a voiceless **e**, it is easy to see that the ` goes between the **t** and the **hm**. On the other hand, if you take the word **mingqutmen** (to the needle), which likewise has voiceless **t** followed by voiceless **hm**, there is no consonant cluster. In this case, the ‘h’ is dropped from **hm** because it follows voiceless **t**.

The most important source of quiescent **e** is the negative postbase **-n`te-**. Note that it contains both a regular apostrophe to signify the gemination of the letter **n**, and also a backtick for the quiescent **e** before the **t**. We show both in this reference document, but in ordinary writing we use only one apostrophe.

Neren``tuq. He is not eating. (S) [ne / REN] / [n` / TUQ]
(standard spelling: Neren`tuq.)

Mit``llraa. It landed. [MIT] / t`ll / [LLRAA]
(standard spelling: Mit`llraa.)

Seren``tukut. We are not sweating. [se / REN] / n` / [tu / KUT]
(standard spelling: Seren`tukut.)

seren``llkumta if we do not sweat... [se / REN] / n`ll / [kum / TA]
(standard spelling: seren`llkumta.)

In the final example above, the final **te-** of **-n''te-** has changed to **ll** giving **-n''ll-**. This variant is fairly common, so you can expect to see **-n''ll-...** as well as **-n't-...** in numerous words.

8.3 Hyphen (-)

The hyphen is used for a number of purposes in the Sugt`stun orthography. These include:

1. Enclitics (such as **-qaa?**, **-ruq!**, etc.)
2. Loan words (when adding Sugt`stun endings, as in Benny Benson-**rrem**)
3. Line breaks (when space runs out at the end of a line, placed between syllables)
4. Glottal stop between vowels in interjections (**na-aa'i!** and **aa-aa!**)

Each of these uses will be examined in the following subsections.

8.3.1 Enclitics

One of the uses of the hyphen is to separate an enclitic from a base word. An enclitic is a short particle attached to a word, and pronounced as part of it. It adds or changes the meaning of a word, such as making it into a yes or no question, or adding emphasis. A hyphen is put after the word to which the enclitic is attached.

The most common enclitics are: **-llu**, **-qaa**, **-mi**, **-rruq**, **-tuq**, and **-tanem**. More than one enclitic can be attached to a word.

Pit'uten-qaa?	Did you get something (hunting)?
Llaa-llu asirpagta?	How come the weather is so nice?
Asirtuq-rruq!	It is indeed all right. (It is good, I tell you!)
Taili-tuq.	I wish he would come.

In the first example above, the enclitic **-qaa** changes a statement into a yes or no question. The second example uses the enclitic **-llu**, which means something like 'why', or 'I wonder'. The enclitic **-rruq** in the third example denotes emphasis. In the final example, the enclitic **-tuq** together with the optative/imperative ending denote a hope or wish. For more on enclitics, see (Leer, 1990).

8.3.2 Loan Words

A hyphen is used in a word to separate an ending from a foreign word, especially an English word. Compare the following:

Call-ertuq.	He is calling.
Mars-rem sug'i	the people of Mars

The first example contains the English word ‘call’, which should be pronounced as such, followed by the Alutiiq suffixes **-er** and **-tuq**, which designate the verb as being conducted by a singular subject (he; she; it). The second example contains the English word Mars, which is the “possessor” of something (people). The possessor is the person or thing that owns or possesses something else, written in English followed by an apostrophe and ‘s’ (’s) such as with the phrases ‘Bob’s dog’, ‘the bear’s fur’, or ‘the priest’s book’. As the possessor, the planet Mars takes the Sugt`stun suffix **-rrem** which designates it as the noun in the sentence that “owns” the other noun. Here are some more examples of hyphen use for loan words:

Ag`kutartuq Fairbanks-men. He is about to leave for Fairbanks.

Town-mi ell`artukut. We are living in “town”.

Popcorn-nek pituryuumirtua. I would like to eat “popcorn”.

Many foreign words have been fully adopted (rather than borrowed) into the Sugt`stun language. In these cases, a hyphen is not used to attach a Sugt`stun ending. For example, ‘Fairbanks’ (above) contains the English letter ‘b’, which does not exist in Sugt`stun, and is clearly a borrowing. Sometimes English words will be made up of letters that also exist in Sugt`stun, so writers will have to rely on knowledge of the languages to determine if the word has been integrated and pronounced as an Sugt`stun word. See Chapter 9 for further information on Russian loan words.

klistaaq cross (from Russian крест (krest), “cross”)

Klistaaliqsiitaat. They have not put a cross on it yet.

8.3.3 Line Breaks

The final use of the hyphen is for line breaks. As in written English, a hyphen is used to separate a word at the end of a line, to be continued on the next line. This is rarely needed in modern word processing, as programs such as Microsoft Word can be set to not use hyphenated line breaks, but it is useful to know the rules if continuing a word on the next line is necessary. The basic rule is to break a word between syllables. In the following examples, we must pretend that a line break is needed due to space running out at the end of a line.

Tamamta ila`ar- We will all join her.
ciqarpet.

Ankutarngama plit- When I was going to go out, I turned off the stove.
aaq qamesk`gka.

Unuaqu agciqua Kicarwig- Tomorrow I will go to Anchorage.
men.

A word should be cut only at the syllable division, but not within a syllable. Thus, the word **iqallugsuryugtaan'ituq** (he never wants to go fishing) could be cut at any one of the slashes: **i / qa / llug / sur / yug / taan / ni / tuq**, between any two syllables, but not anywhere else. Note that in the word **plitaaq**, the consonant **t** is automatically geminated, i.e., the word is pronounced [PLIT] / [TAAQ]; here we put the hyphen after the **t** of the first syllable. For more on syllable identification, see Chapter 4, Syllabification.

8.3.4 Glottal Stop Between Vowels in Interjections

In some rare cases, a hyphen is used to indicate a glottal stop in interjections such as **aa-aa!**, or **na-aa'i!**

8.4 Summary: Apostrophe and Hyphen

The apostrophe and hyphen are the only “special characters” in the everyday Sugt`stun orthography. Each is used for several specific purposes. They are not letters, but serve important functions in the writing system, as described in this chapter. As described above, the backtick (`) is used for voiceless or quiescent **e** in reference materials, including this book; but in the everyday orthography, this backtick is replaced by an ordinary apostrophe.

CHAPTER 9: CONVENTIONS FOR RUSSIAN LOAN WORDS

9.1 Introduction

The Sugt`stun orthography has specific ways of dealing with loan words of Russian origin. There are many Russian words that have been integrated into Sugt`stun due to the long history of Russian settlement in our region, and the continued prevalence of Russian Orthodoxy. This section will discuss the special writing conventions for these Russian borrowings.

9.2 Borrowing vs. Integration

As discussed in Section 8.3.2, borrowed words that retain the original loan language's pronunciation, and have not taken on the sound system of Sugt`stun, are not fully integrated into our language. These words are written in the English alphabet, and joined to Sugt`stun suffixes and endings with a hyphen. This is different than words that have been “borrowed for so long that they are now ours”.

For example:

wiil`kaaƷ fork (integrated, from Russian вилка (vilka), “fork”)

[WII] / I' / [KAAQ]

Fairbanks-men to Fairbanks (not integrated, from English “Fairbanks”)

Because most Russian borrowings have been in our language for much longer than the English borrowings, they are more likely to have been integrated into Sugt`stun. When writing a word known to use the foreign pronunciation, endings should be added with a hyphen to show the reader they are not integrated into Sugt`stun alphabet.

9.4 Russian ei

The Russian E sound is written in as **ei** in all Sugt`stun. This **ei** is always long, but it may be heavy or light. It sounds much like English ‘ei’ in ‘vein’. The Kenai Peninsula dialect has **ei** only in a couple of interjections and personal names, for example, **Aq’alei’i!** (Man overboard!, or Fish jumping!)

9.5 Russian ou

The Russian vowel O is written as **ou** in the Chugach dialect, where it occurs only in personal names taken from the Russian language, e.g., **DouRa**. Note also that the first consonant of this name is actually voiced, as in the original Russian version.

9.6 Rhythmic Structure in Russian Borrowed Words

Russian borrowed words that are otherwise integrated into Sugt`stun pronunciation will sometimes retain foreign rhythmic structures. In order to show the reader what syllables should be stressed, unstressed, and lengthened, and to avoid breaking the rules of the orthography, it is necessary to have a way of depicting the pronunciation.

Previous versions of this orthography used accent marks. Since this orthography has eliminated accent marks, a voiceless or quiescent e is now inserted in these words, written as an apostrophe ('). As described in previous sections on Prosody: Rhythm, Stress and Lengthening (Chapter 5), and also summarized in Section 8.2.5, the apostrophe here allows the word to be written as it actually sounds in Sugt`stun (See below).

maam`kaa	my godmother	[MAA] / m` / [KAA] (formerly maámkaa)
tRuup`kaaQ	pipe (for smoking)	[TRUU] / p` / [KAAQ] (formerly tŕuúpkaaQ)
laugg`kaamen	to the store	[LAU] / gg` / [kaa / MEN] (formerly laúgkaamen)
alip`kaaQ	radish	[a / LI] / p` / [KAAQ] (formerly alípkaaQ)
Alas`tuaQ	Christmas	[a / LA] / s` / [TUAQ] (formerly AlástuaQ)

In some cases this allows us to solve two problems at the same time. Without the use of the apostrophe (below), the word for “dock” would have an unaccounted-for long **ii** sound, and would also violate the 3-syllable rule as described in Chapter 7 when combined with suffix **-mek** (of/from). As written in this orthography, both issues are resolved:

pliis`tanaQ	dock	[PLII] / s` / [ta / NAQ],
pliis`tanamek	from the dock	[PLII] / s` / [ta / NA] / mek

Use of the quiescent e (written as a backtick `) accounts not only for the long **ii** in the first (seemingly closed but underlyingly open) syllable, but also for the seeming violation of the 3-Syllable Rule: if the first syllable were really closed, the 3-Syllable Rule would yield:

×plistanamek	from the dock	×[PLIS] / ta / [na / MEK] (incorrect stress pattern; incorrect shortening of plii...)
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This is a normal rhythmic structure we regularly find for example, in **aakanaQ** ‘old fish’. This word is broken down as follows:

aakanaQ	old fish	[AA] / ka / naQ
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The addition of suffix **-mek** creates:

aakanamek	from the old fish	[AA] / ka / na / [MEK]
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You can see how the stress pattern that works in **aakanamek** does not work with the ^xplistanamek spelling, as forgetting the backtick and applying the Sugt`stun stress pattern would result in the emphasis being placed on **-MEK** (incorrect) rather than on / **NA** / (correct). Inserting the backtick (**pliis`tanamek**) allows the word to be written to correctly show the intended stress pattern.

9.6.1 Irregular Footing.

There are rare cases of irregular footing in Chugach Sugt`stun, which are confined to words of Russian origin, or in one case, in a word borrowed from Kodiak Alutiiq. We will first consider the case of KP **apaa`sinaq** (priest), derived from Koniag **apaasinaq** (big grandfather). (Note that the postbase **-sinaq** (big) does not occur in the Chugach dialect.)

apaa`sinaq priest [AP] / [PAA] / ` / [si / NAQ]

apaa`sinamen to the priest [AP] / [PAA] / ` / [si / NA] / men

Compare the foot assignment in the native word **apaacungaq** (little grandpa).

apaacungaq	little grandpa	[AP] / [PAA] / [cu / NGAQ]
apaacungamen	to little grandpa	[AP] / [PAA] / cu / [nga / MEN]

There are few examples of this pattern. They include:

al`ggiliyaq	bishop	[AL] / [ggi / LI] / yaq (From Russian arkhierý)
al`ggiliyamen	to the bishop	[AL] / [ggi / LI] / [ya / MEN]
ucii`tilaq	teacher	[UC] / [CII] / [ti / LAQ] (From Russian uchítel')
ucii`tilamen	to the teacher	[UC] / [CII] / ti / [la / MEN]
uk``ulutaq	garden	[UK] / [ku / LU] / taq (from Russian ogoród)
tik``ulunaq	perfume	[TIK] / [ku / LU] / naq
atik``ulunaq	perfume	[a / TIK] / [ku / LU] / naq
		(from Russ. odekolón' 'eau de cologne')

In all these cases, the backtick can be thought of as representing an unexpressed syllable that serves as the first of three light syllables for the purpose of applying the Three-Syllable Rule (See Section 7.5.4). So, for example, in **apaa`sinamen** (to the priest), the backtick is counted as the first of three light syllables after the heavy syllable PAA, so that [si / NA] forms an iambic foot according to the Three-Syllable Rule. In the last two examples, you will note that there is a curved apostrophe representing the fact that the consonant in question is geminated, followed by the backtick. Here again, the backtick represents an unexpressed light syllable.

We recommend that in ordinary writing, the backtick be eliminated in these few cases where it

simply indicates that the two following syllables will automatically be treated as a foot. However, we intend to use the backtick even in these cases in reference materials in order to clue the reader in to the prosodic patterns to be expected with these words.

9.7 Summary: Conventions for Russian Loan Words

Many Russian borrowings have been integrated into the Sugt`stun language, particularly on Kodiak Island, and especially in the Kodiak Island Northern style. The use of borrowed words in our language is shared with many indigenous languages that have come into contact with new items and concepts introduced by western cultures. In many cases, the borrowed words have been “Sugt`stunized” and given characteristics of the Sugt`stun sound system, while in other cases certain vowel sounds have retained a Russian flavor. This does not make these words less legitimate as Sugt`stun words. They have been part of our language for decades, if not centuries, and are simply a reflection of our complex and eventful history.

CHAPTER 10: ORTHOGRAPHY OVER TIME

10.1 Introduction

Sugt`stun written communication in the form of pictographs existed even before contact, but it was not precisely a written language because it did not achieve a one-to-one correlation between word and symbol (Hoffman, 1882). The very first Sugt`stun writing system used the Russian Cyrillic alphabet, and was developed by the late 18th Century (Black, 2001). A notable expert in the writing system was Church Reader Emil Kosbruk of Perryville, who translated not only readings but also music, which he personally scored, into Sugt`stun.

The modern Sugt`stun writing system has undergone a number of changes since it was first developed in the 1970s by Jeff Leer and Derenty Tabios in collaboration with the Yup`ik language workshop established by Irene Reed, Michael Krauss, and others. This chapter summarizes the changes that have occurred in the writing system since the first version was developed. In many ways, the writing system has returned to being mostly the same as the original 1970s orthography. Efforts have been made to simplify the writing system and eliminate special characters, accented letters, and underlines or other special formatting which are difficult to type on a regular keyboard, or which become lost in email transit or due to human error. A chart that summarizes many of these changes, as well as the relationship of our writing system to others is available in Appendix I.

10.2 Changes to Letters

The letter changes described in this section refer to both the Chugach and Kodiak letters; some letters discussed are not used on Kodiak. When using older texts from the late 1970s through the 1990s, the letter equivalencies described here are useful to know.

In one of the earliest versions of the modern writing system, multi character letters like **gg**, and **rr** (in the Chugach dialect) and **ll** (in both dialects) were written with ‘h’ as the first letter: hg, hr, hl, hng, etc.. Later, these letters, with the exception of the nasal consonants **hm**, **hn**, and **hng** which remained the same, were changed to doubled versions like we have now: **gg**, **ggw**, **rr**, and **ll**. For a time, in what is sometimes called the “underlining orthography”, the **ll**, **gg**, **ggw**, **hm**, **hn**, and **hng**, were written as l, g, gw, m, n, and ng, respectively, while **r** was written as an ‘h’ and **rr** as ‘h’. These letter uses roughly coincided with the advent of widespread email, and it quickly became evident that there would be problems with losing formatting like underlining in email transit. Therefore, the underlining method was dropped, and **ll**, **gg**, **ggw**, **r**, **rr**, **hm**, **hn**, and **hng** were reinstated.

Russian **R** was at one time written as ř (with hacek over a roman r). However, since the hacek is difficult to produce on a regular keyboard, and because special characters like these are easily dropped in email, the orthography now uses a small cap **R**. The small cap **R** does require special formatting, but a regular capital **R** may be used in its place when necessary.

10.3 Spelling Equivalencies: ggwV(V) and gguV; kwV(V) and kuV

Over time, the method of writing certain sound combinations has been refined and regularized. In certain words, the same sequence of sounds can sometimes be interpreted in two ways, so there can be two valid spellings for the same word. For example, the sequences **ggwi** and **ggui** (me; I) are pronounced exactly the same; so in short, there is no one “correct” way to spell the word. We have to pick one way over another, or we can allow them to coexist.

The Chugach dialect has generally chosen **ggwi(i)** over **ggui**. Materials developers on Kodiak have sometimes followed suit, but have also used the **ggui** spelling. As this affects only a small number of words, the authors believe individuals should choose what spellings work best for them. If a writer chooses **ggui** (me; I) then it would be best if they also used the corresponding **gguangkunuk** (we two; us two) and **gguangkuta** (we all; us) spellings, rather than switching between **ggu**... and **ggw**... versions of these words.

ggwi = ggui	I; me
Ggwii-mi = Ggui-mi	How about me?
ggwangkunuk = gguangkunuk	we two; us two
ggwangkuta = gguangkuta	we all; us

While either is correct, the **ggwi** spelling requires a little more work on the writer’s part, because the writer must know that in order to spell words like **Ggwii-mi?** (How about me?), an extra vowel (V) must be inserted to account for the long vowel sound. In contrast, if using the **ggui** spelling, the syllable is already heavy and no additional vowel needs to be added to properly depict the vowel lengthening (See Section 7.3).

However, the solution with **ggwV(V)** may look more attractive in some respects, considering for example the fact that we must use the spelling **ggw** in words like **ggwani** (here), **ggwaken** (from here), and **ggwaten** (like this); and we note that there is an emphatic locative form **ggwagguani** (right here), which can be spelled out prosodically as [GGWAGG] / [GGUA] / ni. Since the **gg** in the middle of the word is geminated, it is easier to spell the first syllable with a short vowel; otherwise, we would have to write [×]gguagg’uani.

We face a similar decision in writing words like **kuik** (stream, river, creek), which could also be written **kwik**, with no difference in pronunciation. Consider the plural form **kuiget** (streams), which could also be written **kwiiget**. Using the **kwik** spelling, therefore, will require the writer to remember that the stem (**kwiig-**) underlyingly has a double vowel, whereas using the **kuik** spelling does not impose this burden on the writer. Finally, note that the Central Alaskan Yup’ik language uses the spellings *wii* (= Sugt’sun **ggwii**) for “I” and *kuik* for “stream”.

10.4 Letter Combination ces becomes t's

In earlier versions of the Sugt`stun orthography, we followed the Yup'ik practice of writing 'ces' in words like Sugt`stun (old way: ^xSugcestun). Since then, however, we have realized that Sugt`stun speakers simply do not pronounce these sequences with a 'ch' sound before the s, but rather, a plain 't' sound. Therefore, we write -t`s- for this sound combination.

Sugt`stun in the Sugpiaq way or language [SUGG] / t`s / tun

naut`staaq plant [NAU] / t`s / [TAAQ]

Alutiit`stun in the Alutiiq way or language [a / LU] / [TIIT] / t`s / tun

Notice that Kodiak word **cestun** (how), which does contain the **ces** combination (with voiced e), has a totally different sound than the **t`s** combination used in words like **Sugt`stun**.

This sound combination is especially noticeable the causative postbase + **t`ste-** (to make one V, to cause one to V, to let one V).

Piturt`staqa. I am feeding him/her/it. [pi / Turr] / t`s / [ta / QA]

Atrart`starpenga. You are making/letting me go down.

[AT] / rrarr / [t`s / TARR] / [pe / NGA]

10.5 Summary: Changes Over Time

The Sugt`stun orthography has changed over time, and will change in the future based on increasing literacy in the modern Sugt`stun writing system. Future changes may be initiated by users intentionally or by accident, much as changes have occurred over time in the English writing system. Adhering to a single orthography as outlined in this book will help prevent the unintentional introduction of unhelpful changes.

CHAPTER 11: PROOFREADING RULES

11.1 Introduction

This section summarizes, without lengthy explanation, many of the important concepts covered in previous chapters of this orthography text. For further explanation of these rules, refer back to the sections referenced.

This chapter can be used as a proofreading guide, by comparing these rules to a sample of Sugt`stun text. As in previous sections of this book, words or samples that are incorrect or could not exist within the Sugt`stun writing system will be marked with a superscript [×].

11.2 Simple Rules

This section should be relatively obvious to anyone who has studied the Sugt`stun orthography. The first round of proofreading for an Sugt`stun language document should begin with these rules.

11.2.1 Letters That Do Not Exist

Although these words may appear in English or other language borrowings, these letters do not exist in the Sugt`stun alphabet. The letters ‘b’, ‘d’, ‘h’, ‘j’, ‘o’, and ‘v’ should never appear in written Sugt`stun words (except ‘h’, if it is part of multi-character letters **hm**, **hn**, or **hng**). (See Chapter 1 on the Sugt`stun alphabet and Chapter 9 for discussion of conventions for borrowed vs. integrated words)

11.2.2 Letters That Cannot Be Doubled

Consonants cannot be doubled in Sugt`stun writing. Multi-character letters that appear to be doubled, like **rr**, **ll**, and **gg** are not considered doubled, as they are considered one letter.

The shortened vowel **e** can never be doubled.

11.2.3 Letters and Marks That Have Changed

There are no letters in the current orthography that contain special marks. Therefore any words written with l, m, n, ng, or e in the previous “underlining” orthography should be written as **ll**, **hm**, **hn**, **hng**, and ‘ (apostrophe) respectively. The previously used Russian R written as an ‘r’ with a hacek (ˇ) over it: ř, is now written as **R** (See Chapter 10).

11.3 Letter Combinations

In Sugt`stun, there are certain letter combinations you will see frequently, and there are certain combinations of letters that you will never see, because they are not allowed (or are allowed

under rare conditions). When proofreading text in Sugt`stun, it is important to keep these letter combinations in mind.

11.3.1 Consecutive Consonants

There cannot be three different consonants together in a word unless they appear at the beginning. This occurs in certain Russian-origin words such as **skriip`kaaq** (violin).

11.3.2 Consecutive Vowels

There can never be more than two vowels together in a word, unless the third is preceded by an apostrophe (See Section 8.2.1). An apostrophe can come after one or two vowels, but can only be followed by one vowel. If there are three vowels together in a word, the apostrophe will come before the final vowel.

11.3.3 Vowel, Apostrophe Combinations

The following vowel and apostrophe combinations do not exist: $\times i'a$, $\times i'u$, $\times u'a$, and $\times u'i$. Instead, the apostrophes are replaced with either a **y** (following **i**) or a **w** (following **u**). For further discussion, see Section 8.2.8.

11.4 Editing Protocol for Learners

Learners may feel overwhelmed by editing Sugt`stun writing, especially if they have a limited understanding of the full writing system. There is a series of steps that can be used to reduce the number of mistakes in a writing sample. Even if the editing project is intended to be handed over to a more experienced proofreader, the following steps will allow you to provide them a product with fewer mistakes.

1. Be sure that your **g**'s and **q**'s are not mixed up. This is a very common mistake.
2. Look up the word in the dictionary (really!). Simple words can be found in the printed or digital versions of the dictionary, so simply checking against an existing resource will help greatly. Even if a word has a different ending than in the dictionary or has had postbases or suffixes added to it, the root form can be compared to the dictionary, which can greatly aid in accuracy.
3. Within a word, word parts like the root or suffix can be checked for accuracy. You can find a different form of the word by searching a digital file, and identifying the correct spelling of the root or of a commonly used suffix. For example, it would be easy to edit the spelling of the word **naruyagpak** (big seagull) by looking for the root **naruyag-** (seagull) in the dictionary, and also browsing for the suffix **+pak** in the postbase list at the end of Leer's 1990 grammar book. Learning about the three types of endings (plus +, minus -, and assimilating ~) can also help in figuring out the proper spelling of words when suffixes are added.

4. Verb endings can also be checked against others that are in the same case. For example, the ending of **nangarngauq** (he is standing) can be compared to **inarngauq** (he is laying down) to verify that the spelling of the endings match. There are charts with the various verb endings available in some of Leer's publications or as handouts.
5. When spellings differ in previously produced materials, rely more heavily on those that were edited by more advanced learners, or by learners aided by Jeff Leer. When sources from Leer differ, rely on those produced more recently, as these may reflect more recent documentation or modifications to spelling rules.
6. When the word, root, and any postbases or predictable endings simply do not exist in any written material, try to compare the needed word to a similar word whose spelling is known.
7. Be aware of the spell check and auto-correct features on your software or email program. It may be a good idea to turn off auto correct completely to avoid "correcting" your Sugt`stun words to English ones. If you program the feature by teaching it to ignore commonly-used Sugt`stun words, monitor all changes carefully.

GLOSSARY

alphabet: Characters or symbols used to represent individual sounds in a language (See Chapter 1).

apical: A letter pronounced at tip or apex of tongue (See Section 2.2).

approximants: Sounds produced with only a minor narrowing of airflow through the vocal tract, such as the letters w and y (See Section 2.4).

automatic gemination: When a geminated consonant comes at the end of the first syllable, and the second syllable is heavy (i.e., has two vowels), the apostrophe is left out. This apostrophe dropping is called automatic gemination (See Chapter 5).

alveolar ridge: The bony ridge behind the front upper teeth, also known as the teeth ridge (See Chapter 2).

beat: A single rhythmic unit in language or music (See Chapter 4).

closed syllable: A syllable that ends with a consonant.

diphthong: A vowel pair that is not the same, such as ai, that are pronounced in quick succession to make a combined sound (See Section 3.6).

disyllabic light postbase: A postbase made up of two light syllables (See Section 7.5.4).

enclitic: A short particle attached to a word, and pronounced as part of it, which is joined to the word with a hyphen (-) rather than joining the word as a suffix. An example in Sugt`stun is -**qaa?**, which changes the previous statement into a yes or no question (See Section 8.3).

foot: A prosodic (rhythmic) unit in a word. In Sugt`stun, all feet are composed of one or two syllables, with the final syllable always being stressed (See Chapter 7).

foot advancement: When the foot (and its stress) advance toward the end of the word “leaving” a stray syllable behind; in other words, a stray syllable followed by an iambic foot (See Section 7.4.4).

fricative consonant: A consonant produced by the forcing of breath through a constricted passage, without totally cutting it off as with a stop (See Chapters 2 and 6).

gemination: When a consonant is lengthened, so that it is shared between two syllables (See Chapter 5).

head of the foot: The head is the stressed syllable of a foot (See Section 4.6).

h-dropping: The voiceless consonants **hm**, **hn**, and **hng** will be written without the ‘h’ (that is, they become written as m, n, or ng) when they appear after voiceless consonants, to help reduce word length (See Section 2.8).

initial Foot Assignment Rules: A series of syllable stress rules that apply only to the first one or two syllables of a word (See Section 7.4).

labial: A letter pronounced at the lips (See Section 2.2).

laminal: A letter pronounced at the blade (middle) of tongue (See Section 2.2).

lax pronunciation: A softening in pronunciation marked by the slight voicing of the consonant, also known as semi-voiced (See Section 3.3).

nasal consonant: These consonants are produced by forcing air through the nasal passages rather than the mouth, such as the English letters ‘m’ and ‘n’ (See Section 2.5).

open syllable: A syllable that ends with a vowel (See Section 4.2).

orthography: A writing system for a language.

phonetic: A type of writing system where there is a direct correspondence between symbol and speech. Not to be confused with writing in “phonetics”, which is attempting to use another alphabet’s phonetic symbols (such as English) to approximate pronunciation sounds.

postbase: A particle added to the end of a root word which changes its meaning (See Chapters 5 and 7 for examples of postbases in use).

prosodic rules: Rules that deal with the rhythm, stress and lengthening of sounds within words. Prosody is the pattern of rhythm and sound or stress and intonation in a language (See Chapter 7).

quiescent e: A non-pronounced e that occurs between a voiced and a voiceless consonant, which is represented by an apostrophe ‘`’ (See Section 8.2.13).

reduced vowel: A vowel that is short by nature and cannot be lengthened or combined with other vowels like prime vowels (See Section 3.5).

rounded velar: A letter pronounced at the roof of mouth and rounded lips (See Section 2.2).

sonorants: Sounds produced with a long continuous (relatively unobstructed) airflow through the vocal tract, such as the letter ‘l’ (See Section 2.4).

stop consonant: Also known as a “stop”. These consonants involve a brief stop of the outflowing breath by constricting airflow completely at various locations in the mouth or at the lips (See Section 2.2).

stray syllable: A syllable that is unstressed and does not belong to a foot (See Chapter 7).

syllabification: The process of dividing words into syllables, either in speech or writing (See Chapter 4).

syllable: A part of a word — or sometimes a full word — that contains one “beat”.

syllable boundary: The break or boundary between two syllables (See Chapter 4).

syllable weight: The designation of a syllable as heavy or light depending on whether it has two or one vowel, respectively (See Chapter 4).

unaspirated: A letter sound produced without a puff of air being released. For example, the Sugt`stun stop consonants **p**, **t**, and **k** (See Section 2.3).

undoubling: The voiceless letters **gg** and **rr** in the Chugach dialect are written as **g** or **r** when they occur next to another voiceless consonant, to help reduce word length (See Section 2.7).

uvular: A letter pronounced at the back of mouth (See Section 2.2).

velar: A letter pronounced at the roof of mouth (See Section 2.2).

voiced letter: A letter that is produced with sound (and vibration) from the vocal cords, such as English letter ‘l’ (See Section 2.4).

voiceless letter: A letter that is produced without sound from the vocal cords, such as English letter ‘s’ (See Section 2.4).

voiceless e: non-pronounced **e** that occurs between two voiceless consonants, which is represented by an apostrophe (‘) (See Section 8.2.12).

voiced nasal: A letter that is produced with air going through the nasal passage and vibration through the vocal cords: **m**, **n**, and **ng** (See Section 2.5).

voiceless nasal: A letter that is produced with air going through the nasal passage without vibration through the vocal cords: **hm**, **hn**, and **hng** (See Section 2.5).

zero onset: When a weak fricative (such as **g** or **r**) drops at the beginning of a light syllable, also known as fricative dropping (See Chapter 6 and Section 8.2.8).

APPENDIX I - RELATED ORTHOGRAPHIES

The chart below illustrates how the letters correspond among various related orthographies used for Sugt`stun and Central Alaskan Yup`ik through time. It is modified from a chart that appears in Leer's (1999) paper on the Sugt`stun orthography, including both Koniag and Chugach dialects.

Orthodox/Cyrillic (Tyzhnev 1840s, Kosbruk early 20 th C.)	Moravian (Yup`ik early 20 th C.)	Central Alaskan Yup`ik (Mid 20 th C. – Present)	Leer/Tabios (Sugt`stun 1970s)	Present Sugt`stun Orthography (21 st Century)
Vowels а и у ы	а i/e u/o i/e i/e	а и у е е	а и у е е => <u>е</u>	а и у е '
Stops п т ч к к	р т ts к K => k	р т с к q	р т с к q	р т с к q
<u>Voiced Fricatives</u> л г г й y/B р	л г r/g и v -	л г r y/s v -	л г r => h y w ř	л г r y w R
<u>Voiceless Fricatives</u> Л ш/c х х	tl s g r/g	ll/l ss/s gg/g rr/r	hl/l => ll/l s hg/g => gg/g hr/r => rr/r	ll s gg rr f
<u>Voiced Nasals</u> м н н	м н ng	м н ng	м н ng	м н ng
<u>Voiceless Nasals</u> м н н	м н ng	м п пг	hm/m => <u>м</u> /m hn/n => <u>н</u> /n hng/ng => <u>ng</u> /ng	hm hn hng
<u>Russian Loans</u>			ř f	R f

APPENDIX II - DIALECT ABBREVIATION GUIDE

C	Chugach dialect (also in hypothetical example words, represents a consonant)
K	Koniag dialect
PWS	Prince William Sound sub-dialect of Chugach Sugt`stun
KP	Kenai Peninsula sub-dialect of Chugach Sugt`stun
KOD	Kodiak Island sub-dialect of Koniag Alutiiq
AP	Alaska Peninsula sub-dialect of Koniag Alutiiq

APPENDIX III - WRITING CONVENTIONS

Sugt`stun and English Word Conventions

Sugt`stun words, individual letters or letter clusters in discussion are in bold; English letters and words are in regular font surrounded a single quote. (Alutiiq **l** sounds like English ‘l’ as in ‘light’). For clarity purposes, Koniag or Kodiak Alutiiq/Sugt`stun letters also appear non-bolded although they are Sugt`stun letters. Due to frequency of use in discussion, the word Sugt`stun is not bolded.

English translations of Sugt`stun words will appear in parenthesis, as in **amikuq** (octopus), within paragraphs, but set apart by one or more tabs when in example lists. Sugt`stun words in example lists are non-bold. For example:

amikuq octopus

English example letters, words, or word parts will appear in single quotes (sounds like ‘l’ in ‘light’, or ‘pin’ in English ‘spin’).

English words needing a definition (such as *velar*) will appear in italics when defined (usually at or close to first occurrence within the document), then in regular font thereafter. All defined words will appear in the glossary at the end of the book.

The use of punctuation in relation to parenthesis and quotes is different than in some English writing conventions. If there is punctuation in a sentence using a portion of quoted text, the period will be placed outside the quote to provide clarity that the punctuation is not part of the quote.

Words using a silent or quiescent e use a “backtick” (`) in this publication rather than the regular apostrophe (’). This is done to flag these words for learners, but in regular writing it is recommended to just use the regular apostrophe.

Symbols Used in This Book

Various symbols and special conventions are used in the later parts of the book when illustrating various spelling, rhythm, and stress rules. These symbols are compiled below for reference:

- | | |
|---|--|
| # | The # symbol indicates a word boundary, i.e., the beginning or end of a word within an illustrative formula. This is important when a letter combination or rule applies only to the beginning or end of a word. |
| / | The forward slash / is used throughout to indicate a syllable division within a word breakdown or a rule-illustrating formula. |

×	A superscript × immediately before a word or letter combination is an indication that the word or spelling is incorrect, and is being used for explanation or comparative purposes.
[]	Brackets are used to indicate the beginning and end of a foot within a word breakdown or a rule-illustrating formula.
...	Ellipses are used to indicate the remainder of a word in an illustrative formula when the sole section of the word where the rule applies has already been illustrated.
C	A capitalized C indicates a consonant within rule-illustrating formulas.
S	A capitalized S indicates a syllable within a rule-illustrating formula, not to be confused with the (S) symbol below.
V	A capitalized V indicates a vowel in rule- illustrating formulas, or in other cases, to refer to a verb.
(C), (V)	A C or V in parenthesis can be used in rule-illustrating formulas to show that a consonant or vowel is optional within a word construction — words with or without the optional letter will still follow the rule. Similarly, within an example word (usually at the end), a letter or series of letters can be put within parenthesis to indicate that they are optional, for example, asirtua(nga) (I am good), where the ending nga is optional.
C ₁ , C ₂ , etc.	In cases where rules are illustrated with multiple vowels or consonants, subscript numbers may be used to differentiate them for clarity purposes. Subscript may also be used in sentence translations to clarify which subject is being referred to in each part of the sentence.
CAPS	Capitalized letters within an example word indicate stress on that syllable, or the stressed syllable of a disyllabic foot.
g, r	Superscript letters, usually only g and r, can be used in cases of dropped fricatives within reference texts to indicate which letter has been dropped, in case alternate endings or postbases can cause that fricative to return to the word.

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Jeff Leer, Ph.D. is Professor Emeritus of the Alaska Native Language Center (ANLC) of the University of Alaska Fairbanks. His commitment to Alaska Native languages began at age seven when he started to study Tlingit in his hometown, Juneau. In 1973 he became a linguist and teacher at ANLC, and in 1991 he completed his Ph.D. dissertation, *The Schetic Categories of the Tlingit Verb*, at the University of Chicago. He learned to speak both Tlingit and Alutiiq, and he has done extensive linguistic work in other languages, as well as in the field of comparative Athabaskan-Eyak- Tlingit. Jeff has authored numerous publications on Alutiiq, Tlingit and Athabaskan languages, including the *Tlingit Bilingual Teacher's Handbook* (1975), *A Conversational Dictionary of Kodiak Alutiiq* (1978), *Nanwalegmiut Paluwigmiut-llu Nupugnerit, Conversational Alutiiq Dictionary, Kenai Peninsula Alutiiq* (1978), as well as co-authoring the *Kodiak Alutiiq Conversational Phrasebook with CD* (2006), with April Counciller, and the *Interior Tlingit Noun Dictionary* (2001), with Doug Hitch and John Ritter. His teaching and research continue since his retirement in 2011.