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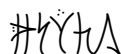
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Gnóma
A brief grammatical sketch of a conlang

by
Jessie Sams

1. The Gnómonei

In the early 8th century, a warlike tribe of Goths began setting out on raids from their home territory on the Crimean Peninsula. These raids, which often involved kidnapping and arson, left neighboring villages and any travelers in dangerous situations. One such band of travelers was a small group of Romani. When the Goths attacked the group, they kidnapped one of the women, killing her husband and sons in the process. The woman they kidnapped was no ordinary woman, though: she was a skilled witch. Instead of exacting revenge by killing the Goths, she turned all of them into small, peaceful creatures who turned to statue in the presence of another human (thus, leaving them unable to harm any other humans). In casting such a powerful spell, she transferred some of her magical powers to the Goths, giving them their own brand of magic that allows them to care for the earth. The witch found her ravished band of fellow travelers and led them back to the Goths' camp so that they could collect all the statues. The Romani continued their travels with the statues and eventually moved into an area with Turkish settlers. The small statues were placed in the Romani's gardens, where lush vegetation grew all around the statues.

Many years later, the Goths lost much of their original culture and their language had morphed, as they were surrounded by the sounds of Romani and Turkish. Though the Goths could still move and speak with each other in the absence of humans, their movements were constrained. Generations of the Romani mingled with the Turks, and the small statues were passed down through families as heirlooms. The Romani/Turk tribe was largely nomadic for a few centuries, coming into contact with many people from various cultures, but around the 11th or 12th century, the tribe became more settled. As the tribe became more settled, the magic that had been passed down through families began to disappear. During the Byzantine-Ottoman Wars (roughly in the 14th century), the small statues were no longer revered and were carelessly left behind as people moved out to join the fights for the expansion of the Ottoman Empire.

Left on their own, a leader emerged among the statue people who called for a revival of their own culture—not the warlike culture they had held onto previously, but a new culture of their own. They left behind their old identities as Goths and adopted a new identity as Gnómonei, a word borrowed from Greek, meaning *the ones that know*; their new tribal name reflected that though humans viewed them only as statues, they had intelligence and wisdom stored from their years of experience as human watchers. They also used this new cultural identity to rename their language, calling it Gnóma.

2. The Sounds of Gnóma

2.1 Phonemic inventory

Gnóma's sound system still bears a close resemblance to its older Gothic sound system,¹ with the addition of a few affricates. The addition of the alveolar affricates were most likely influenced by the Turkish and Romani languages,² but the bilabial affricate may have been a later addition from the influence of other Germanic languages (most notably, German) or may have been a relic from their specific dialect of Gothic. The phonemic consonants in Gnóma are in Table 1 below:

¹ Based on descriptions of the Gothic sound system in Krause and Slocum (2004) and Robinson (1993).

² Based on descriptions of the Turkish and Romani languages in “Structure of Romani” (2015), Göksel and Kerslake (2005), and Rona (1989).

	Bilabial		Dental		Alveolar		Palatal		Velar		Labio-velar	
Plosive	p pp	b	t tt	d					k kk	g	k ^w	g ^w
Fricative	f		θ θθ		s ss	z			x		x ^w	
Affricate	pf				ts	ɖz						
Nasal		m mm		n nn						ŋ		
Trill						r rr						
Approximant						l ll		j				w

Table 1. Phonemic consonants in Gnóma³

As shown in Table 1, Gnóma distinguishes between single consonantal sounds and geminate consonants. For example, in a word like *atta*, the pronunciation is [at-ta] (the hyphen indicates a syllable break and is not otherwise a part of the pronunciation), where both [t] sounds are pronounced. As shown in Table 1, not all consonants can occur as geminates. Not counting the geminate entries, Gnóma has 24 distinct phonemic consonants, so its consonant inventory falls in the high end of the average range when compared to other languages.⁴

The vowels of Gnóma, which are largely consistent with Gothic⁵ (and even Romani⁶), are in Table 2 below.

	Front	Central	Back
Close	i		u, u:
Close-mid			o, o:
Open-mid	ɛ		
Open		a, a:	

Table 2. Phonemic vowels in Gnóma

Three of the five Gnóma vowels can be phonemically lengthened; that is the words [atta] and [a:tta] do not share the same meaning. When presented in Romanized form, these long vowels are represented by an acute accent mark: *áttá*. Along with those monophthongs, Gnóma also has three diphthongs: [ai, au, ei].

³ The non-phonemic consonants [v, ð, ʃ, h, r, ʒ, ʦ, ʧ, dʒ] are discussed later in this section.

⁴ Maddieson (2013a) states that the average consonant inventory size for languages is 19-25.

⁵ Based on descriptions of the Gothic sound system in Krause and Slocum (2004) and Robinson (1993).

⁶ Based on descriptions of the Romani language in “Structure of Romani” (2015).

The vowel inventory of Gnóma is average with its 5 base vowels.⁷ The consonant-to-vowel ratio of Gnóma is 4.8, which puts it at the low end of the “moderately high” category of ratios,⁸ indicating that it is consonant-heavy in comparison to other languages.

2.2 Syllable structure

The basic syllable structure of Gnóma is (C)(C)V(C)(C)(C). The onset consonant cluster is most frequently a voiceless alveolar fricative followed by a stop (1a) or nasal (1b); a fricative followed by a trill (2a) or approximant (2b); or a velar stop followed by a nasal (3):

(1) a. spelan
b. smal

(2) a. frijan
b. θjona

(3) gnóma

If the coda consonant cluster has three consonants, the final consonant is generally an alveolar fricative; for two-consonant clusters in the coda, the basic hierarchy is as follows:

(4) approximant/trill > nasal > fricative > plosive/affricate (> fricative)

Fricatives have the most placement possibilities and can appear before or after plosives in the hierarchy; however, if an affricate (either [tʃ] or [dʒ]) is present, no fricative can follow it. The labio-velar plosives [k^w, g^w] and fricative [x^w] do not occur in syllable-final positions.

2.3 Accent/intonation

Gnóma has a stress accent system; stress is generally indicated through volume (i.e., stressed syllables are louder). The basic rule for stress is that the initial syllable receives primary stress and the final syllable of words with three or more syllables receives secondary stress while the intervening syllable(s) is not or is weakly stressed. In (5), the syllable that receives primary stress is **bolded** while the syllable that receives secondary stress is underlined:

(5) a. **x**agla
b. **batiz**a
c. aweiliθan

When compounding, the initial syllable of the head word receives primary stress while the initial syllable of the other compounded word(s) receives secondary stress, as in (6a). Derivational suffixes are treated like compounds in that the first syllable of a derivational suffix receives the primary stress (rather than the final syllable), as in (6b).

(6) a. **g^wainas**nutras
b. **já**dinakkadzi (-kadzi is a derivational suffix)

Prefixes—even those that are reduplicative—are not stressed, like those in (7).

⁷ Maddieson (2013b) states that the average vowel inventory size is 5-6; he does not include lengthened vowels or diphthongs as unique entries in the vowel system, and so the lengthened vowels and diphthongs are not included here.

⁸ Maddieson (2013c) places the values of 4.5-6.5 in the moderately high category.

- (7) a. un**aud**ags
b. tant**an**ja

2.4 Phonological processes

Within words, there are several phonological processes that produce allophonic variations of the phonemes presented in Table 1. The first set of changes applies to the voiced plosives.

Voiced plosive frication: When a voiced plosive appears intervocalically (or between a vowel and approximant), it is pronounced as a voiced fricative: /b/ → [v], /d/ → [ð], /g/ → [ɣ].

The following examples demonstrate those shifts:⁹

- (8) a. áraba → [a:rava]
b. pá**d**ja → [pa:ðja]
c. bejan → [bejan]

In example (8a), the /b/ occurs between two vowels and so is pronounced as the voiced fricative [v]; in (8b), the voiced plosive occurs between a vowel and an approximant, and so it, too, shifts to a voiced fricative. However, in (8c), the /b/ occurs at the beginning of the word and so is pronounced as a plosive.

Furthermore, the voiced plosives do not appear at the ends of words or before the sounds [t] and [s]; if there is a situation where they would appear in those environments, the devoicing rule applies:

Voiced plosive devoicing: When a voiced plosive occurs in the word-final position or before the sounds [t], [s], or [ts], the plosive is devoiced: /b/ → [p], /d/ → [t], and /g/ → [k].

The examples in (9) demonstrate those allophonic variations:

- (9) a. wigand → [wiɣant]
b. liuθmund → [liuθmunt]
c. dags → [daks]

The examples (9a) and (9b) demonstrate the devoicing in the word-final position while example (9c) demonstrates the process before an [s].

The next set of changes apply to fricatives and affricates. The /x/ undergoes shifts in pronunciation, depending on the phonetic environment:

- (10) a. /x/ → [h] / # ____
b. xija → [hija]
- (11) a. /xw/ → [x^w]
b. axwa → [ax^wa]
- (12) a. /x^w/ → [ɲ] / # ____
b. x^wa → [ɲa]

The voiceless velar fricative /x/ shifts to a glottal fricative when it occurs word-initially, as in (10). When the /x/ occurs before the labio-velar approximant [w], the two consonants come together; the example in (11b) demonstrates the shift from the consonant cluster /xw/ to the single co-articulated consonant [x^w].¹⁰

⁹ In all phonological examples, the word is first presented in its Romanized form and then followed by its IPA realization.

¹⁰ This shift will be discussed in the next section, as it also affects the spelling of the word.

In (12b), the /x/ occurs word-initially and so shifts to the glottal [h]; when the glottalized /h^w/ occurs, it shifts to the voiceless approximant [ʌ].

Through the influence of Romani and Turkish, the post-alveolar fricatives and affricates were introduced into the Gnóma language, but they only appear as allophonic variations:

Palatalization: When the alveolar fricatives and affricates occur before a front vowel, they are palatalized: /s/ → [ʃ], /z/ → [ʒ], /ts/ → [tʃ], /dz/ → dʒ.

The following examples demonstrate those shifts:

- (13) a. sibja → [ʃivja]
 b. atsik → [aʃik]
 c. dze → [dʒε]

As the examples in (13) demonstrate, the palatalization occurs before both the [i] and [ε] front vowels.

The next rule applies to borrowed words that have consonant clusters not found in Gnóma; in those instances, a vowel is inserted:

Insertion: If a borrowed word contains a non-native consonant cluster, the unrounded close-mid front vowel [ε] is inserted to break up the cluster.

For example, Gnóma borrowed the word *sfenks* ‘sphinx’ from Turkish (originally a Greek word), which has the [sf] cluster at the beginning of a syllable. Because that cluster is not found in Gnóma, the vowel [ε] is inserted: *sεfenks*.

Only nine consonants have geminate pronunciations (i.e., pronunciations that are audibly longer in duration than single consonant sounds): the voiceless plosives [p, t, k] (note the exclusion of the labio-velar [k^w]), voiceless dental and alveolar fricatives [θ, s], nasals [m, n], alveolar trill [r], and alveolar approximant [l]. Any other consonantal sound that appears doubled in a word undergoes a process of weakening:

Weakening: Any consonant that does not have a geminate pronunciation but that appears doubled is weakened to a single sound.

The examples in (14) demonstrate this weakening:

- (14) páddau → [pa:dau]

Notice that in (14), the [d] is not fricated, which is a result of sound rule ordering: a doubled consonant that has been weakened is exempt from the voiced plosive frication rule provided above because the weakening rule is applied after the frication rule.

Finally, when the [r] appears by itself, it is pronounced as a flap [ɾ] and is trilled when it appears as a geminate:

- (15) a. dauro → [dauro]
 b. furro → [furo]

As the two examples in (15) demonstrate, the <rr> is pronounced differently than the <r>.

Taking all these variations into account, Gnóma has the following non-phonemic consonants in addition to the consonants provided in Table 1: [v, ð, ʎ, h, ɾ, ʃ, ʒ, tʃ, dʒ].

3. The Writing System of Gnóma

After the Gnómonei were left behind, they hid in the forests to keep from being discovered by more humans, and they spread out in the forested areas so that they could more easily hide their homes. Because of this separation, they created a writing system to send messages (via forest animals) and to

leave inscriptions (such as warnings not to enter a particular area or signs directing them to someone's home). The writing system was not based on any previous system but was heavily inspired by the shapes that had surrounded them for so long.

The writing system is an alphabet and is presented below in its alphabetic order:

Λ	Ϛ	ϛ	Ϝ	ϝ	Ϟ	ϟ	Ϡ	ϡ	Ϣ	ϣ
[a]	[b]	[g]	[d]	[ε]	[z]	[x]	[i]	[k ^w]	[ei]	[θ]
Ϥ	ϥ	Ϧ	ϧ	Ϩ	ϩ	Ϫ	ϫ	Ϭ	ϭ	Ϯ
[ai]	[k]	[l]	[m]	[n]	[j]	[u]	[au]	[p]	[r]	[s]
ϯ	ϰ	ϱ	ϲ	ϳ	ϴ	ϵ	϶	Ϸ		
[t]	[ts]	[dʒ]	[w]	[g ^w]	[f]	[pf]	[x ^w]	[o]		

The alphabet has diacritics to mark long vowels and geminate consonants. The long vowels are marked with three dots above the vowel: Λ̣, Υ̣, Ϛ̣. Geminate consonants are marked with two dots above the consonant: Ϧ̣, ϥ̣, ϧ̣, Ϩ̣, ϩ̣, Ϫ̣, ϫ̣, Ϭ̣, ϭ̣, Ϯ̣. Any consonant that is weakened (and thus not pronounced as a geminate) is simply written with two letters; therefore, *páddau* is written ϡΛϛϛϚ. The velar nasal [ŋ] does not have its own letter; instead, it is represented by the digraph Ϧ̣̣ or by the single letter Ϧ̣ when it occurs before another velar consonant (e.g., Ϧ̣̣̣, Ϧ̣̣̣̣, Ϧ̣̣̣̣̣). The phonological shift from /xw/ to [x^w] affects the spelling of the word, shifting to the single consonantal letter ϶ rather than the digraph ϟϡ.

While Gnóma is typically written horizontally left-to-right, inscriptions indicate creative use of space; the direction is always left-to-right, but the orientation can shift to vertical alignment. Vertical alignment most often occurs when the space for writing is thin but long (such as the side of a tree). The Gnómonei use many tools and surfaces for writing, which can affect the shapes of the letters (e.g., carving into the side of a tree often leaves the letters with far more straight edges than curves while painting with a brush on wood or leaves provides much more delicate lines). The letter shapes presented in this paper are based on the shapes that occur most frequently—paintbrushes and feather quills are the most frequently used writing instruments.

The numbers in Gnóma are based on the alphabet (where Λ equals 1 and each letter counts up from there) with slight variations in the shapes and the addition of a dot in the middle. The numbers are presented below:

Ϛ̣	Λ	Ϛ̣	Ϥ̣	Ϝ̣	ϝ̣	Ϟ̣	ϟ̣	Ϡ̣	ϡ̣
0	1	2	3	4	5	6	7	8	9

The counting system is a base-ten system, which will be discussed more at length in the next section.

4. The Grammar of Gnóma

While Gnóma's vocabulary is primarily rooted in its Gothic origins,¹¹ its grammar is influenced by elements of Turkish and so is primarily an agglutinating language; however, some fusional aspects from Gnóma's Gothic roots are still in the language. The dominant word order in Gnóma is SOV, which is the most common attested word order for world languages.¹²

¹¹ The vocabulary is largely based on the Gothic dictionary provided by Rajki (2004).

¹² Based on Dryer (2013b).

4.1 Nouns

Nouns in Gnóma inflect for two numbers: the singular form is the unmarked form while the plural is marked by a suffix directly after the base word: $-(V)nn$. If the base word ends in a vowel, the suffix is simply $-nn$; if the base word ends in a consonant, the final vowel of the base word is reduplicated in the suffix and added before the final $-nn$. The examples in (16) below demonstrate this difference:¹³

- (16) a. ada ada-*nn*
 egg egg-*PL*
- b. dagsafar dagsafar-*ann*
 next.day next.day-*PL*
- c. aftánstodein aftánstodein-*einn*
 renewal renewal-*PL*

In (16a), the base noun already ends in a vowel, and so the plural suffix only appears as $-nn$. However, the examples in (16b) and (16c) both end in consonants, so the plural suffix is $-Vnn$ with the V slot being filled by the final vowel sound in the base noun. The examples in (16) further demonstrate that nouns are not marked for grammatical gender.

Nouns also inflect for four cases: the nominative form is unmarked while the accusative, genitive, and dative forms are marked by suffixes that follow any number marking. Gnóma's four cases aligns it with only 3% of languages in Iggesen's (2013) study (where no morphological case marking is the highest category). However, its cases are marked as suffixes, which places Gnóma with the majority of languages in Dryer's (2013a) study. In other words, its number of cases is atypical while its placement of morphological case marking is typical.

Table 4 below provides the suffixes for the four cases in Gnóma:

NOM	—
ACC	-(e)s
GEN	-(s)a
DAT	-(i)m

Table 4. Cases

The nominative form is unmarked while the other three cases are marked by suffixes. The letters in parentheses are typically only used in the suffix if, for example, the root noun ends in a consonant and a vowel needs to be inserted before the consonantal $-s$ accusative suffix.

- (17) a. eiwam-s
 home-*ACC*
- b. dags-es
 day-*ACC*

- (18) a. akros-a
 field-*GEN*
- b. manna-sa
 person-*GEN*

¹³ Grammatical examples are provided in a Romanized form for ease of reading.

- (19) a. *jádina-m*
 witch-DAT
 b. *saimann-im*
 farmer-DAT

The typical form of the suffixes in Table 4 are single sounds, as demonstrated in (17a), (18a), and (19a); if however, that single sound is the same as the final sound of the root word (as in (17b) and (18b)) or if it would be difficult to pronounce the resulting combination of sounds (as in (19b)), then the additional sound is inserted for the suffix. If a noun is marked for both number and case, the number marking precedes the case marking: *jádinannim* ('for the witches'). The most common word order is SO_{ACC}O_{DAT}V; however, the dative can precede the accusative to emphasize that object (the genitive is further discussed with adjectives in Section 4.3).

4.2 Determiners

Along with number and case, nouns can also take determiner prefixes; the most common prefixes are the two definite articles and three demonstrative determiners. If the noun is in the nominative case, it can take the *o-* definite article; if the noun is in any other case, it takes *te-* as its definite article:

- (20) *o-manna* *te-dauro-s* *te-jadugra-m* *usluk-a*
 DEF,N-person DEF,NN-door-ACC DEF,NN-wizard-DAT open-PRES
 'The person is opening the door for the wizard'

As seen in (20), only the nominative noun takes the definite *o-* prefix; otherwise, the noun takes *te-* for a definite marker. If a noun is indefinite, it generally appears alone:

- (21) *manna* *dauro-s* *jadugra-m* *usluk-a*
 person door-ACC wizard-DAT open-PRES
 'A person is opening a door for a wizard'

The number 'one' (*ains*) can be used as an indefinite marker for clarity but is, in most cases, unnecessary.

Gnóma has a three-way distinction among the demonstrative determiners: proximal *dza-* ('here'), medial *dzei-* ('that'), and distal *dzeján-* ('that way over there'):

- (22) *dza-manna* *dzeján-dauro-s* *dzei-jadugra-m* *usluk-uka*
 PROX-person DIST-door-ACC MED-wizard-DAT open-FUT
 'This person will open that far-away door for that wizard'

In the scenario presented in (22), the person who will open the door is standing near the speaker, the door is quite far away from the speaker, and the wizard is somewhere in between the door and the person. Demonstratives in Gnóma do not have different forms for cases—the same forms are used regardless of case.

The information in (23) below summarizes the order of grammatical morphemes on nouns:

- (23) DET-noun-NUMBER-CASE

If a noun is used with a postposition, the postposition replaces the case; in other words, case marking never appears when a postposition is used. In Gnóma, postpositions are suffixed:

- (24) a. *eiwam-ek^{wa}*
 home-at
 'at home'
 b. *te-frejjo-nn-mit*
 DEF,NN-friend-PL-with
 'with the friends'

Both examples in (24) demonstrate the placement of postpositions in Gnóma; the example in (24b) further demonstrates that when a postposition is being used, the non-nominative definite article is used for the noun. In this way, it could be argued that Gnóma actually has a rich case morphology rather than postpositions.

4.3 Pronouns

Gnóma pronouns are marked for person, number, and case; along with the singular and plural options that nouns have, first- and second-person pronouns can take dual forms. The four cases distinguished in pronoun forms are the same cases for nouns: nominative, accusative, genitive, and dative. Furthermore, third-person pronouns are marked for semantic gender, with masculine, feminine, and neuter forms.

		1	2	3		
				M	F	NT
SG	NOM	ik	ju	is	si	ita
	ACC	mik	juk	ina	xija	inta
	GEN	meina	jena	isa	xijo:s	itsa
	DAT	mis	jus	imma	xijai	imma
DU	NOM	wit	jut			
	ACC	ugkis	igk ^w is			
	GEN	ugkara	igk ^w ara			
	DAT	ugkis	igk ^w is			
PL	NOM	weis	jus	les		
	ACC	uns	izwis	lins		
	GEN	unsara	izwara	lizei		
	DAT	unsis	izwis	lim		

Table 5. Pronouns

The only suffixes that personal pronouns take are postpositions, which are typically suffixed to the nominative form of the pronoun.

The pronouns can also appear in reflexive forms:

	1	2	3		
			M	F	NT
SG	mesil	jesil	issil	xeisil	itsil
DU	ugkasil	igk ^w asil			
PL	unsil	izwasil	lizesil		

Table 6. Base forms of reflexive pronouns

The following case suffixes for reflexive pronouns are then added to the bases presented in Table 6:

ACC	-ik
GEN	-eina
DAT	-im

Table 7. Reflexive pronoun case suffixes

Putting the information in Tables 6 and 7 together, the accusative form of the singular second person reflexive pronoun is *jesilik* ('yourself').

4.4 Verbs

Verbs in Gnóma can be marked for tense, aspect, and voice. The infinitival form of all verbs is the verb base plus the *-an* suffix. The five tenses of Gnóma appear as suffixes and are provided in Table 8 below:

PRES	-a
PRES.CONT	-(j)or
GEN.PAST	-(V)mut
SPEC.PAST	-(a)dau
FUT	-(V)ka

Table 8. Verb tenses

The present tense is used for habitual actions (e.g., *I run on Mondays*), copular verbs (e.g., *He is happy*), and storytelling (e.g., *She turns around and opens the door*). The present continuous tense, on the other hand, is used to state what the speaker is doing at the moment (e.g., *I am writing a paper*). The general past tense is used for hearsay, reporting, and storytelling (or jokes) while the specific past is used only for eyewitness accounts. Using the specific past indicates a higher level of knowledge and certainty about the event and is not used lightly by the Gnómonei; the general past is the "go-to" past tense that speakers can always use.

For any verb that ends in a vowel, the future tense takes its simplified *-ka* form; if the verb ends in a consonant, the final vowel of the verb is reduplicated and appears in the suffix. The same vowel reduplication occurs for the general past if the verb ends in a *j*:

(25)	a.	pád-an	pád-a	pád-or	pád-mut	pád-dau	pád-áka
	b.	wenj-an	wenj-a	wenj-or	wenj-emut	wenj-adau	wenj-eka
		INF	PRES	PRES.CONT	GEN.PAST	SPEC.PAST	FUT

The verbs in (25) demonstrate how the suffixes can take slightly different forms, depending on the base it is attaching to.

Overt aspect markings can be used with verbs in order to compare the timeframe for two or more events. The perfect aspect is marked with the prefix *g(e)-* and indicates that the action of the verb was completed by the time specified in the rest of the clause; the imperfective aspect for the past and future tenses is marked with the suffix *-nd*, which follows the tense suffix, and indicates that the action is ongoing. In (26) below, the examples demonstrate the difference between the marked aspectual readings and the simple tenses.¹⁴

- (26)
- a. is liuθ-a
he sing-PRES
'he sings (habitually, regularly)'
 - b. is liuθ-or
he sing-PRES
'he is singing (right now)'
 - c. is liuθ-mut
he sing-GEN.PAST
'he sang (at some point in the past)'
 - d. is liuθ-mu-nd
he sing-GEN.PAST-IMPERF
'he was singing (at a specific point in the past, his singing was ongoing)'
 - e. is liuθ-uka-nd
he sing-FUT-IMPERF
'he will be singing (at a specific point in the future, his singing will be ongoing)'
 - d. is ge-liuθ-dau
he PERF-sing-SPEC.PAST
'he had sung (and the singing was completed before some specific point in the past)'
 - e. is ge-liuθ-a
he PERF-sing-PRES
'he has sung (prior to this moment, his singing was completed)'
 - f. is ge-liuθ-or
he PERF-sing-PRES.CONT
'he has been singing (prior to this moment, his singing began and has been ongoing for specified amount of time)'

When the general past tense suffix *-mut* is followed by the imperfective aspect *-nd*, the final *t* from *-mut* is dropped, as exemplified in (26d). The imperfective aspect can only combine with past and future tenses while the perfect aspect can combine with any of the tenses.

The active voice is unmarked for verbs, but the passive voice is indicated by the prefix *fjo(r)-*, which precedes the perfect prefix if both are used:

¹⁴ The appendix provides a summarizing chart for verb prefixes and suffixes.

- (27) a. *fjor-ufekj-a*
PASS-ignore-PRES
'is ignored'
- b. *fjo-g-ufekj-emut*
PASS-PERF-ignore-GEN.PAST
'had been ignored'

Because the verb stem begins with a vowel in (27a), the prefix appears as *fjor-*; in (27b), however, the perfect *g-* results in the *r* from *fjor-* being dropped.

The order of inflectional affixes for verbs is presented in (28):

- (28) VOICE-PERF-verb-TENSE-IMPERF

The ordering of (28) is for main verbs that appear without an auxiliary. If an auxiliary verb is used, the main verb appears in its infinitival form, followed by the inflected auxiliary verb, which then takes the necessary tense suffix (though many auxiliary verbs take irregular conjugations).

- (29) *wasj-an-kunnt*
grow-INF-can,GEN.PAST
'could grow'

The final form is written as one word rather than as two separate words.

When an infinitive is being used in a nominal role (e.g., *to fight is a waste of time*), the prefix *z(u)-* is added before the infinitival verb:

- (30) a. *zu-θaggj-an*
to-think-INF
'to think'
- b. *z-ukukj-an*
to-fight-INF
'to fight'

The *u* from the prefix is dropped when the verb begins with a *u*, as in (30b).

Imperatives are formed by dropping the subject and keeping the verb in its base form, and questions are formed by placing an *-nu* suffix after the inflected verb:

- (31) a. *θragj-an*
walk-INF
'Walk!'
- b. *ju θraj-aka-nu*
2SG,NOM walk-FUT-INT
'Are you going to walk?'

The interrogative *-nu* suffix can show up on other types of words in abbreviated questions, such as *goθnu* ('Are you good?'). These interrogatives are also often spoken in a rising intonation (much like English), and imperatives often have more stress placed on the first syllable of the verb than otherwise used and a declining intonation.

4.5 Adjectives

Adjectives do not inflect for number or case. Attributive adjectives generally occur before the noun they are modifying while predicative adjectives occur after the copular verb.

- (32) a. *lauθ o-bai-nn*
 big DEF,N-tree-PL
 ‘the big trees’
- b. *o-bai bá lauθ*
 DEF,N-tree be,PRES big
 ‘the tree is big’

If a number is also used, it is placed before the adjective:

- (33) *twai lauθ o-bai-nn*
 two big DEF,N-tree-PL
 ‘the two big trees’

An exception to this ordering is if the number one *ains* is being used as an indefinite marker; in that case, *ains* follows any adjective:

- (34) a. *lauθ ains bai*
 big one tree
 ‘a big tree’
- b. *ains lauθ bai*
 one big tree
 ‘one big tree’

The example in (34a) is read as an indefinite noun while the example in (34b) is read as a number and noun, making it possible to also use the definite: *ains lauθ o-bai* ‘the one big tree’.

If the attributive adjective moves after the noun, the emphasis shifts to the adjective (as if to distinguish the object from other ones), and the adjective becomes marked as if it were a noun:

- (35) *twai o-bai-nn lauθ-aunn*
 two DEF,N-tree-PL big-PL
 ‘the two trees—the big ones’

In cases like example in (35), the adjective is marked with the same number and case as the noun it is modifying. Adjectives can function as nouns themselves simply by taking nominal inflections:

- (36) *ik te-lauθ-s undosneiθ-eika*
 1SG,NOM DEF,NN-big.one-ACC cut.down-FUT
 ‘I will cut down the big one’

No surface change other than the nominal inflections are needed to shift an adjective to a noun in instances like (36).

Finally, genitives precede the noun, number, and adjective:

- (37) a. *unsara swistar-ann*
 1PL,GEN sister-PL
 ‘our sisters’

- b. unsara θreis skauneija swistar-ann
 1PL,GEN three beautiful sister-PL
 ‘our three beautiful sisters’
- c. o-jádina-sa swistar
 DEF,N-witch-GEN sister
 ‘the witch’s sister’
- d. jádina-sa o-swistar
 witch-GEN DEF,N-sister
 ‘the sister of a witch’
- e. dza-jádina-sa skauneija o-swistar
 PROXwitch-GEN beautiful DEF,N-sister
 ‘the beautiful sister of this witch’

Pronouns or nouns can be used in the genitive form without changing the placement; as the examples in (37c-e) demonstrate, the placement of determiners in a phrase with a genitive change the interpretation of the phrase overall.

The comparative form of adjectives takes the *-(i/o)s* suffix, and the superlative generally adds *-ta* to the comparative form: *-(i/o)sta*. If the adjective base ends in an *s*, the superlative form will only appear as *-ta*. The vowel in the suffix is dependent on the final vowel of the adjective and is subject to vowel harmony; the front vowels trigger *-i* in the suffix, and the back vowels trigger the *-o*. However, if the adjective ends in a vowel, the vowel is dropped altogether, and the suffix is simply *-s* or *-sta*.

- (38) a. lauθ-os lauθ-osta ‘bigger/biggest’
 b. anreik-is anreik-ista ‘more dangerous/most dangerous’
 c. abro-s abro-sta ‘stronger/strongest’
 d. θasus-os θasus-ta ‘drier/driest’

The examples in (38) show the different forms of the comparative and superlative, depending on the adjectival stem. Some comparative and superlative forms are irregular, such as *goθ*, *batiza*, *batista* (‘good/better/best’).

4.6 Adverbs

Adverbs and adverbial elements can appear anywhere in the sentence (depending on emphasis) but generally appear before the verb. Adjectives can take the *-(V)ba* suffix to indicate ‘in a(n) ADJECTIVE manner’ or the *-(l)e/o* suffix (the vowel depends on vowel harmony with the final vowel of the adjective base) to create a general adverb.

- (39) a. si goθ-oba liuθ-a
 3SG,F,NOM good-ADV sing-PRES
 ‘She sings in a good manner’ (‘She sings well’)
- b. si wiss-e bá audags
 3SG,F,NOM certain-ADV be,PRES happy
 ‘She is certainly happy’
- c. nun si afleiθ-or
 now 3SG,F,NOM leave-PRES.CONT
 ‘Now she is leaving’

The examples in (39a) and (39b) demonstrate the typical placement of adverbs, as well as the derivational process of adding an adverbial suffix to an adjective. The example in (39c) places emphasis on the adverb ('It is now that she is leaving'), using an example of a non-derived adverb.

Other derived adverbs include the use of a noun in its genitive form and adding *-sinθam* (the dative form of the noun *sinθa* 'time') to a number:

- (40) a. o-eimpa dags-a wasj-amut
 DEF,N-plant day-GEN grow-GEN.PAST
 'The plant grew daily'
- b. twai-sinθa-m is mik g-ufekj-adau
 two-time-DAT 3sg,m,nom 1SG,ACC PERF-ignore-SPEC.PAST
 'Twice he had ignored me'

The examples in both (39) and (40) provide the most common forms of derived adverbs. Adverbial elements (such as postpositional phrases) follow the same guidelines above, with the most common placement occurring just before the verb.

To summarize the basic syntactic structures provided above, the general word order is SOV, with oblique elements (including the dative object) most commonly placed directly before the verb (and appearing anywhere else for a shift in the emphasis of meaning). The table below compares Gnóma to Dryer's (1992) findings of word order correlations for OV languages:

Typical feature for OV language	Gnóma
postposition	postposition
GenN	GenN
NArt	ArtN
NPlural	NPlural
PP-V	PP-V
AdvV	AdvV
Pred-Cop	Cop-Pred
absence of articles	use of articles
case on subj/obj	case on subj/obj
suffixing	primarily suffixing

Table 9. Comparison of expected OV features to Gnóma features

The three shaded boxes in Table 9 highlight the differences between the expected OV features and Gnóma's syntax; the other features align with the expectations.

4.7 Numbers

Counting in Gnóma is a base-ten system with ties to its Germanic heritage (the writing system for the numbers is provided in Section 3 above). The first ten numbers (along with 'zero') are presented below:

nailá	‘zero’
ains	‘one’
twai	‘two’
θreis	‘three’
fidwor	‘four’
fimf	‘five’
sais	‘six’
sibun	‘seven’
axtau	‘eight’
niun	‘nine’
tain	‘ten’

In the teens, *eleven* and *twelve* are the only two unpredictable numbers; the others are formed by adding *-tain* ‘ten’:

ainlif	‘eleven’
twalif	‘twelve’
θreitain	‘thirteen’
fidwortain	‘fourteen’
niuntain	‘nineteen’

When combining *θreis* with other numerical forms, the *s* is often dropped (e.g., *θreitain*, not *θreistain*). The tens are formed by adding *-tigju* ‘group of ten’ to the number:

twatigju	‘twenty’	(notice the vowel is shortened for <i>twenty</i>)
θreitigju	‘thirty’	
fidwortigju	‘forty’	
axtautigju	‘eighty’	

For numbers in between, the ones are specified first, followed by *ja* ‘and’ and the tens:

ainjafidwortigju	‘forty-one’
twajafidwortigju	‘forty-two’
θreijafidwortigju	‘forty-three’

Kunda ‘hundred’ is added to form the hundreds, and the order of compound numerals is the following: ones, tens, hundreds.

ainkunda	100
ainjaainkunda	101
twaikunda	200
twalifjatwaikunda	212
θreikunda	300
axtaujaistikjaθreikunda	368

That continues to *θusundi* ‘thousand’, where the pattern continues:

fidworjasaistigjujasibunkundajaniunθusundi 9,764

Because the numbers are compounded, the words can get quite large.

The pattern for forming ordinal numbers is largely predictable, with the suffix *-tsa* turning a cardinal into an ordinal number. However, the pattern does not begin until *θreis*:

frum	‘first’
twaiθ	‘second’
θreitsa	‘third’
fidwortsa	‘fourth’
fimtsa	‘fifth’
saitsa	‘sixth’
sibuntsa	‘seventh’
axtautsa	‘eighth’

As these examples show, the if the final sound of the cardinal number is a fricative, the fricative is deleted before the suffix is added (e.g., ‘third’ is *θreitsa*, not **θreitsa*). Because Gnóma has only a couple suppletive forms along with largely predictable ones, it patterns like 19% of the languages in Stolz and Veselinova’s (2013) study of ordinal numbers.

4.8 Common word-formation processes

Previous sections include information about some common word-formation processes, including conversions (e.g., using adjectives as nouns with nominal inflections) and derivations (e.g., adding an adverbial suffix to an adjective). This section focuses on some other common processes.

Nouns can take two different diminutive suffixes, both of which have vowel harmony: *-tsik/tsuk* indicates size, youth, or cuteness, and *-kedzi/kadzi* indicates compassion, empathy, or sympathy.

- (41) a. *g^waina-tzuk*
 woman-dim
 ‘small/young/cute woman’
- b. *g^waina-kadzi*
 woman-dim
 ‘poor woman’ (not indicating wealth but indicating sad or low circumstances)

Another nominal derivation is *-(o/e)mann*, which is added to verbal stems to create a ‘one who VERBS’ noun:

- (42) a. *swigl-emann* ‘whistler’
 b. *θaggi-omann* ‘thinker’
 c. *sai-mann* ‘sower/farmer’

As with many other suffixes, vowel harmony determines which of the vowels is used if a connecting vowel is needed.

Adjectives and verbs can become intensified by reduplicating the initial syllable:

- (43) a. *tanja* ‘burned’
tantanja ‘very burned’
- b. *snimjan* ‘rush’
snimsnimjan ‘rush a great deal’

This reduplicative process can also be seen in adverbs that are derived from adjectives (e.g., *wisswisse*) but not in adverbs derived from nouns (e.g., **dagsdagsa*) or non-derived adverbs (e.g., **nunnun*).

Compounds are quite pervasive in Gnóma and are often formed by having the head word first; for example, a wise woman is *g^wainasnutras* (‘woman wise’). A pair of compounds that illustrate the initial head word is provided below:

- (44) a. liuθ-fuglo
 song-bird
 ‘birdsong’ (‘song of a bird’)
- b. fuglo-liuθ
 bird-song
 ‘songbird’ (‘bird that can sing’)

As the examples in (44) demonstrate, Gnóma compounds are often formed backwards from many of their English counterparts.

5. Gnómonei Cultural Notes

The Gnómonei live in small communities that are spread out so as to try to avoid bringing too much attention to their presence. Because of their history, they have a strong sense of fear and awe of *jadugrann* ‘wizards’ and *jádinann* ‘witches’ and feature them in many of their fables. A human is called an *insanfá*; they try to avoid *insanfann* altogether because it is rather inconvenient for them to turn to stone, leaving the Gnómonei unable to move, escape, shout for help, or hide.

Because the Gnómonei are now tied to nature through their magical ability to care for vegetation, they separate the agricultural world into categories, based on whether or not it is helpful (or good) for them and for sustaining the life around them. The table below presents some examples:

English	General	Good/Useful	Bad/Unuseful
animal	ampja	wejám	ufwait
plant	pádja	eimpa	gifjo
field	akros	atisk	apfes
water	wato	ax ^w a	umwego

Table 10. Semantic categories of agricultural words

The general terms can be used the quality or character of the entity is unknown; for example, the first time Gnómonei see an animal, they use *ampja* to simply state that it is an animal. If they find out the animal is useful for them (e.g., the animal is friendly, willing to relay messages for them, and/or able to aid in the growth of plants), they use the term *wejám* to describe that animal. If, however, the animal turns out to be dangerous or a nuisance, they call the animal *ufwait*. Only the terms that deal directly with their specific agricultural and communication concerns are broken into these categories. All other nouns are simply described with adjectives.

With their shift from their older warring culture, the Gothic words for terms dealing with war have become taboo for them; they fear that even speaking the words could bring back old desires and customs that they want to leave in the past. They borrowed words primarily from Turkish to use when they discuss human wars:

English	Taboo word	Borrowed term
war	wigand	safas
battle	waijo	safatsuk
fight	driugan	kafgan
soldier	druxt	asker

Table 11. Taboo words in Gnóma

However, the Gnómonei never use these terms when referring to their own struggles or fights. Instead, when they fight amongst themselves, they prefer to use the euphemistic terms *ukukjan* and *ukukjomann*. The word *ukukjan* literally translates as ‘make a lot of noise’ but is used for the verb ‘fight’, and *ukukjomann* literally translates as ‘one who makes a lot of noise’ but is used for the noun ‘fighter.’

When the Gnómonei do get angry with each other, they have many creative expletives and curses in Gnóma that they can use. “Bad” names that they can call each other include the following:

- (45) a. nai-wita
NEG-knower
‘someone who knows nothing’
- b. waidedja
‘evil-doer’ or ‘devil’

Phrases that are curses include these:

- (46) a. insanfa-nn-do leiθ-an
human-PL-to go-INF
‘go to the humans’
- b. gifjo-nn-s alj-an
bad.plant-PL-ACC grow-INF
‘grow bad plants’

The most serious expletive in the language is for one Gnómonei to say to another this phrase:

- (47) juk brik-an
2SG,ACC break-INF
‘break you’

Because being broken is the only way a Gnóme can die, uttering the phrase in (47) is quite a strong curse.

When Gnómonei greet each other, they can say any of the following:

- (48) a. gottags ‘good day’ (most general)
b. gomargin ‘good morning’
c. goθandanakti ‘good evening’
d. gonakt ‘good night’

Those greetings are rather uniform and can be used regardless of the level of formality. A more formal greeting (among Gnómonei who do not know each other well) is *jadweiliθa*, which is based on *tejadu*

aweiliθan ‘thank the magic.’ A very informal greeting among family members or close friends is *jadz*, an abbreviated form of the formal greeting. Yet another potential greeting that is similar to ‘hello’ in other languages is *bejada*, which originally came from the longer greeting *bejan audags* ‘be happy.’ If they would like to extend a welcome, they can also say *godank^wiman* ‘welcome’.

When they leave each other, they say *goθwagja*, which literally translates as ‘move well’ or one of its abbreviated forms: *goθwa*, *wagja*, or *θwa* (this last abbreviation is very informal). The greeting *bejada* can also double as a form of salutation, especially when writing letters. The phrase that best translates as ‘good night’ or ‘sleep tight’ is *goθwakja*, which translates literally as ‘wake well’ (and is very similar to their term for ‘goodbye’).

6. A Common Gnómonei Fable

A common fable in Gnómonei culture is that of the wizard and the two farmers, which is translated in full below.

ጃጃጃጃጃ ጃጃጃጃጃ ጃጃጃ ጃጃጃጃጃ ጃጃጃጃጃ
 jadugra bija-nn-s twai guma-nn-im gib-mut
 wizard seed-PL-ACC two man-PL-DAT give-GEN.PAST

ጃጃጃጃጃ ጃጃጃጃጃ ጃጃ ጃጃጃጃጃ ጃጃጃጃ ጃጃጃጃጃ
 dza-bija-nn wasj-aka ja waiθ-aika jadwa bai-nn
 PROX-seed-PL grow-FUT and become-FUT magical tree-PL
 ‘A wizard gave two men seeds that would grow into magical trees.’

ጃጃ ጃጃጃጃ ጃጃጃጃጃ ጃጃጃጃጃጃጃጃጃ
 is baijo guma-nn-im spel-mut
 3,SG,M,NOM both man-PL-DAT tell-GEN.PAST
 ‘He told both men,’

ጃጃጃ ጃጃጃጃጃጃ ጃጃጃጃ ጃጃጃጃ ጃጃጃጃጃጃጃጃጃ
 jut dza-bija-nn-s θasus airθ-ein pād-an-θarb-a
 2,DU,NOM PROX-seed-PL-ACC dry ground-in plant-INF-must-PRES.
 ‘You must plant these seeds in dry ground’

ጃጃ ጃጃጃ ጃጃጃጃጃጃ ጃጃጃጃጃጃ
 ja θreis dags-ann-sa wenj-eka
 and three day-PL-GEN wait-FUT

ጃጃጃ ጃጃጃጃ ጃጃጃ ጃጃጃጃጃ ጃጃጃ ጃጃጃ ጃጃጃጃጃጃጃጃጃ
 θanu ax^wa-s lim gib-ika aiθθau les nei-wasj-aka
 and.then water-ACC 3, PL, DAT give-FUT or 3,PL,NOM NEG-grow-FUT
 ‘and wait three days before giving them any water, or they will not grow.’

ጃጃጃ ጃጃጃጃ ጃጃጃጃጃጃ ጃጃጃጃጃጃጃጃጃ
 frum o-guma eiwam-ek^wa ank^wim-mut
 first DEF,N-man home-at arrive-GEN.PAST
 ‘When the first man got home,’

ጃጃ ጃጃጃጃጃጃ ጃጃጃጃጃጃጃጃጃ ጃጃጃጃጃጃጃጃጃጃጃ
 is θasus-ta te-airθ-atsik-s finθ-an-kunn-t
 3SG,M,NOM dry-SUPER DEF,NN-land-DIM-ACC find-INF-can-GEN.PAST

ዓለ ብጽብዓላ ልገዳታ፡

ja te-bija-s pád-mut
and DEF,NN-seed-ACC plant-GEN.PAST
'he found the driest patch of land he could find and planted the seed.'

በሃ ጠጋ ገለጻ ለሰላም ልገዳታ፡

is θreis dags-ann-sa gabeid-mut
3SG,M,NOM three day-PL-GEN wait.patiently-GEN.PAST

ታላቅ ልገዳላ ብጽብዓላ ልገዳታ፡

θanu ax^wa-s te-bija-m gib-mut
and.then water-ACC DEF,NN-seed-DAT give-GEN.PAST
'He waited three days and then watered the tree.'

፳ኛውን ዓመት ላይ ስለ ትንሹ ግንብ ልገዳታ፡

fimtsa dags-a smal bai ufarθeij-amu-nd
fifth day-GEN small tree grow-GEN.PAST-IMPERF
'On the fifth day, a small tree had started growing.'

፳ኛውን ዓመት ላይ ስለ ትንሹ ግንብ ልገዳታ፡

twaiθ o-guma eiwam-ek^waank^wim-mut ja θaggj-amut
second DEF,N-man home-at arrive-GEN.PAST and think-GEN.PAST
The second man went home and thought,

፳ኛውን ዓመት ላይ ስለ ትንሹ ግንብ ልገዳታ፡

ik bá saimann wers ja bija-nn-s alj-an-kunn-a
1SG,NOM be,PRES farmer true and seed-PL-ACC grow-INF-can-PRES
'I'm a good farmer and know how to grow seeds.'

ዓለ ብጽብዓላ ተላላቅ ግንብ ላይ ስለ ትንሹ ግንብ ልገዳታ፡

dza-bija-s θasus airθ-ein zu-pád-an bá un-akjei
PROX-seed-ACC dry ground-in to-plant-INF be, PRES NEG-intelligent
'It does not make sense to plant this seed in dry ground.'

ሃላ ስለ ግንብ ላይ ስለ ትንሹ ግንብ ልገዳታ፡

swa ik inta meina batista atisk-ein pád-áka
so 1SG,NOM 3SG,NT,ACC 1SG,GEN best field-in plant-FUT
'so I will plant it in my best field.'

በሃ ብጽብዓላ ልገዳታ ስለ ትንሹ ግንብ ልገዳታ፡

is te-jadugra-s forgagg-ann-s ufekj-amut
3SG,M,NOM DEF,NN-wizard-GEN instruction-PL-ACC ignore-GEN.PAST
'He ignored the wizard's instructions'

ዓለ ብጽብዓላ ልገዳታ ስለ ልገዳላ ልገዳታ፡

ja te-bija-s pád-mut ja ax^wa-s imma gib-mut
and DEF,NN-seed-ACC plant-GEN.PAST and water-ACC 3SG,NT,DAT give-GEN.PAST
'and planted and watered the seed.'

፳ኛውን ዓመት ላይ ስለ ትንሹ ግንብ ልገዳታ፡

dagsafar-sa is te-atisk-ido lewut
next.day-GEN 3SG,M,NOM DEF,NN-field-to go, GEN.PAST
'The next morning, he went to the field'

ያል ሃላጊ ያል ገለጻል ሃሃተ-ሥራ ስለ ማለፊያ ስንጠቅጥ፡

ja smal ja tanja ains-θairo-s itsa státs-ein finθ-mut
 and small and charred one-hole-ACC 3SG,NT,GEN place-in find-GEN.PAST
 ‘and found a small, charred hole where he had planted the seed.’

ከሁሉም ስጦታዎች መካከል ከሁሉም ስጦታዎች፡

nai-θjona dzeja-státs-ein naiwa ge-wasj-aka
 NEG-thing DIST-place-in never PERF-grow-FUT.
 ‘Nothing ever grew from that spot again.’

ይህንን ስላውቅ፡

dza-inta fraθj-an
 PROX-3SG,NT,ACC understand-INF

ሃላጊው ከሁሉም ስጦታዎች፡

ainsun maiza-s ju-nax wit-a
 someone more-ACC 2SG-than know-PRES

ያል እነዚህ ስጦታዎች ስለ ማሳደግ፡

ja lim zu-ljus-an bá snutras
 and 3,PL,DAT to-listen-INF be, PRES wise
 ‘Know this: It is wise to listen to those who know more than you.’

These types of fables are most often shared between parents or teachers and children to teach important lessons about values and attitudes, such as listening to elders, paying attention, understanding the earth, and being grateful for life.

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Appendix: Grammatical charts

NOUNS					
determiner		number		case	
o-	definite, nominative	—	singular	—	nominative
te-	definite, non-nominative	-(V)nn	plural	-(e)s	accusative
demonstratives				-(s)a	genitive
dza-	proximal			-(i)m	dative
dzei-	medial				
dzeján-	distal				

Summary of nouns: DET-noun-NUMBER-CASE

VERBS						
voice		perfect	tense		imperfect	interrogative
—	active	g(e)-	-an	infinitive	-nd	-nu
fjo(r)-	passive		-a	present		
			-(j)or	present continuous		
			-(V)mut	general past		
			-(a)dau	specific past		
			-(V)ka	future		

Summary of verbs: VOICE-PERF-verb-TENSE-IMPERF-INT