

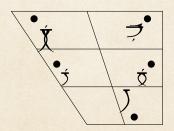
Beginner's Guide to Tovian

ALPHABET

Romanization	Pronunciation	Symbol
A	/a/)
В	/b/	3
D	/d/	Ó
E	/e/	Ź
F	/f/	×
G	/g/	3
Н	/h/	0
I	/i/	X
K	/k/	4
LH	/ ⁴ /	5
L	/1/-	न
M	/m/	工
N	/n/	Ť
0	/o/	Ó

Romanization	Pronunciation	Symbol
	/n /	7
Р	/p/	
R	/r/	5
S	/s/	7
Т	/t/	ス
U	/u/	ラ
V	/v/	Ć
W	/M/	Ć
X	/ks/	3
Y	/j/	Ć
EA	/e.a/	Ź
SS	/s ː /	
SH	/ʃ/	7
ТН	/θ/	र्

Romanized Vowe	l Pronunciation	Glyph
A	/a/)
A	/a/	Í
E	/e/	Ź
I	/i/	X
O	/o/	Ź
U	/u/	ラ



Consonant and Vowel Inventory

• Consonants: /b/, /d/, f, /g/, /h/, /k/, /ł/, /l/, /m/, /ŋ/, /n/, /p/, /r/, /s/, /t/, /v/, /w/, /j/, /ʃ/, /θ/

• Vowels: /a/, /a/, /e/, /i/, /o/, /u/

• Dipthongs: /ai/, /uj/

SYLLABLE STRUCTURE

• Basic Structure: Each syllable should follow the general structure of (C)(C)V(C)(C), where:

• C = Consonant

• V = Vowel

· Consonant Clusters:

 At the beginning of a syllable, allow a maximum of two consonants.

• At the end of a syllable, allow a single consonant or specific consonant clusters.

SYLLABLE PATTERNS

TODO: CONFIRM WITH DICTIONARY

1. V (Vowel Only): Rare but can occur in specific cases, especially with prefix and suffix modifications.

• /a/, /e/, /i/

2. CV (Consonant + Vowel): The most common syllable pattern.

• Example: /la/, /me/, /ti/

3. CVC (Consonant + Vowel + Consonant):
Also common, adding a consonant to the end.

• Example: /lan/, /mujl/, /tir/

4. CCV (Consonant Cluster + Vowel): Allowed at the beginning of words.

• Example: /tla/, /fre/, /tru/

5. CCVC (Consonant Cluster + Vowel + Consonant): Complex but permissible.

• Example: /tlan/, /frel/, /trus/

6. CVCC (Consonant + Vowel + Consonant Cluster): Possible only at the end of words or as whole words, and only including $/\theta$ / or $/\int$ /.

• Example: /feθr/, /paθr/, /lorʃ/

STRESS PATTERNS

1. Primary Stress: On the penultimate syllable.

• Example: /la-dri-el/, /lo-pe-lor/

2. Secondary Stress: On the third to last syllable if the word has more than three.

• Example: /ti-la-dri-el/, /ti-lo-pe-lor/, /mel-or-e-ra-e/

DIPHTHONGS AND VOWEL CLUSTERS

Clearly enunciate most vowel clusters to maintain the phonetic distinctiveness and breathy quality.

• Diphthongs: Diphthongs are combinations of two vowel sounds within the same syllable, gliding smoothly from one vowel to the other. The primary diphthongs in are:

• /ai/: Pronounced as in "eye."

• /uj/: Pronounced as in "buoy."

• Vowel Clusters: When two vowels appear together but do not form a diphthong, they must be clearly enunciated to distinguish them as separate sounds.

• Example: /ea/ similar to "idea", where both vowels are pronounced distinctly.

EXAMPLES

/la-dri-el ya-lo-pe-lor lo-re em-ril si-neʃ/ The person quickly sees the city.

Lefethr is an *agglutanative* language, meaning morphemes do not change form

PLURALS

-e indicates plurality. Verbs do not agree with number. Singular nouns therefore never end in -e.

lothr $lothre$	river rivers
nor	sea
nore	seas

VERBS

Verbs are constructed around a consonant root that denotes its aspect. This root is combined with a suffix to indicate tense. The tense suffixes are -e for past, -a for present, and -o for future. Optional prefixes can be added to denote mood and voice. This final conjugated auxiliary verb is placed in front of the infinitive. The verb that indicates the action is never conjugated, only the auxiliary verb changes form to show aspect, tense, mood, and voice.

Tense	Auxiliary Verb Suffix
Past	-e
Present	-a
Future	-О

For example, to say "the person is speaking", start with the verb "to speak": fethr. Use the continuous aspect consonantsh (from the verb shotl, "to flow") to form the auxiliary verb sha. The auxiliary verb goes before the infinitive, resulting in sha fethr, "is speaking". Driel is "the person", resulting in the final sentence: driel sha fethr, "the person is speaking". A

very literal translation could be "The person flows speaking".

ASPECTS WITH PRESENT TENSE EXAMPLES

Aspect	Root	Aux.	Pres. tense		
Aspect	Verb	root	Example		
Cimple	fethr	f-	fa mrila		
Simple	speak	1-	"sees"		
Imperfective	thraf	th-	tha mrila		
Imperiective	wonder	611-	"is seeing"		
Perfect	lhara	lh-	lha mrila		
1 effect	know	111-	"has seen"		
Near	tlun	tl-	tla mrila		
IVCai	share	01-	"is about to see"		
Immediate	kesh	k-	ka mrila		
	burn	K	"is seeing right now"		
Habitual	mel	m-	ma mrila		
Habituai	live	111-	"sees regularly"		
Progressive sethr		S-	sa mrila		
Trogressive	run	5-	"is seeing now"		
Continuous	shotl	sh-	sha mrila		
Continuous	flow	511-	"is seeing"		
Iterative	nalh	n-	na mrila		
Iterative	think	111-	"sees repeatedly"		
Inceptive	yalor	37-	ya mrila		
inceptive	begin	у-	"begins seeing"		
Cessative	panor	n-	pa mrila		
Cessaure	end	p-	"stops seeing"		
Remote	huysh	h-	ha mrila		
пешосе	throw	11-	"sees (distant)" ¹		

¹ In past and future tenses, the remote aspect refers to actions that took place long ago or far in the future, but the meaning in present tense is more nuanced. Elves tend to use the rare present remote aspect as an insult, for example wele ha fethr: "they speak but it is irrelevant"

MOOD AND VOICE

Mood

unmarked \rightarrow indicative

wi- \rightarrow subjunctive

 $se- \rightarrow imperative$

 \mathbf{ko} \rightarrow conditional

xo- → counterfactual

 $hle- \rightarrow optative$

tlo- \rightarrow obligative

ef- \rightarrow necessative

 $sho- \rightarrow potential$

Voices

unmarked \rightarrow active

 $\mathbf{te} \longrightarrow \text{reflexive}$

 $pa- \rightarrow passive$

 $\mathbf{mo-} \rightarrow \mathbf{middle}$

 $ke- \rightarrow causative$

 $ra- \rightarrow reciprocal$

Mood and voice can be combined by adding the mood prefix before the voice prefix. For example,

adding the obligative mood marker *tlo*- and the reflexive voice marker *te*- to the habitual aspect auxiliary root stem *m*- with the present tense conjugation -*a*, the final auxiliary verb is *tlotema*.

(1) idriel tlotema
NOM-person OBLIG-REFL-HAB.PRES
lorsel
wash-INF

"She should habitually wash herself."

UNUSED COMBINATIONS

Tovian is very flexible when it comes to combining different tenses, aspects, moods, and voices. However, certain verb conjugations result in combinations that are unlikely or never used due to their impractical or nonsensical nature. For example, the Past Imperative is very rare because commands most often refer to actions in the present or future.

COPULAS

Copulas are formed by combining verbs and nouns to describe states and qualities. For example the word "mel" (life/living) can be used as a copula: "i-la-driel fa mela" means "The person is alive," or equally "The person lives" This method applies to various attributes by changing the verb root and noun. For instance, "driel fe araya" translates to "The person was wise."

COMPARATIVE CONSTRUCTIONS

Tovian uses comparative constructions to express excessiveness, for example: "bigger than appropriate." The ablative case is often used for this comparison: "the tree is too big" could be expressed as *ilo-glar di-le-velar fa mota* ("The tree is big away-from-worthiness" or simply "The tree is bigger than what is worthy/right").

ADJECTIVES

Tovian does not use a separate class of adjectives. Instead, all descriptive qualities are expressed through nouns. These attributive nouns follow the noun they modify in a fixed noun–noun structure. For example, the phrase *driel aray* translates literally as "person wisdom," conveying the meaning "the wise person." To convey "people wisdom" or "the wisdom of people," one would switch the order to: *aray driel*. This structure does not need inflection or agreement between adjectives and nouns, for example "the wise people" would simply be *driele aray*. In cases requiring emphasis or clarification, a copular construction can be used instead: *i-la-driel fa araya* ("The person is wise"). Many commonly used

descriptive terms—such as colors, emotional states, or physical traits—exist as standalone nouns and follow the same syntactic pattern. This noun-only system reinforces the conceptual unity of properties and entities, treating attributes not as modifiers but as qualities with independent substance.

AGREEMENT

Suffixes are added to verbs to indicate the person of the subject.

Person	Suffix
1st person	i
2nd person	0
3rd person	a

Phrase	Translation	Person
ilane sa nalh i	"We think"	1st
ilana sa nalh i	"I think"	1st
ilawa sa nalh o	"You think"	2nd
ilawe sa nalho	"You (plural) think"	2nd
ilata sa nalh a	"He/she/they think"	3rd
ilate sa nalh a	"They (plural) think"	3rd

DEFINITENESS, CLASSES, AND CASES

Speakers usually on context to convey definiteness or indefiniteness. In situations where there is ambiguity or in very formal communication, there are different prefixes:

	Subject	Non-subject
Definite	i-	a-
Indefinite	e -	0-

The sun shines in the sky	i-lo-efol fa ana ati-rithil
A sun shines in the sky	e-lo-efol fa ana ati-rithil
The sun shines in a sky	i-lo-efol fa ana oti-rithil
A sun shines in a sky	e-lo-efol fa ana oti-rithil

Nouns are categorized into three distinct classes, each identified by a unique prefix: la- for animate beings, lo- for inanimate objects and places, and le- for abstract concepts and ideas. Nouns can also be inflected for grammatical cases to indicate their role within a sentence. Classes are not always used when the meaning is obvious, for example "the person sees" would be written formally as la-driel fa mrila, but in informal communication, the class might be dropped to create *driel fa mrila*, since the subject is obviously not a dead person (lo-driel) or the abstract concept of people (le-driel). When both cases and classes are required, cases are added before classes. For example lo-nume lhu-le-aray is "the paths for wisdom", where lhu represents "for", le represents "abstract concept of", and ara is "wisdom." In formal or educational

contexts, hyphens (romanization: "-", Tovian: "-") are used to separate prefixes from their nouns. For example, in this document, a sentence could be written as *i-la-driel yu-lo-tel fa mrila* (the person sees the lake), but in practice one might use *driel yulotel fa mrila*, dropping the hyphens, the nomative case, and the animate class.

Noun Classes

- Animate (living beings, includes plants)
 - Prefix: la
 - Example: la-driel (person)
- Inanimate (objects and places)
 - · Prefix: lo-
 - Example: lo-pelor (city)
- Abstract (concepts and ideas)
 - · Prefix: le-
 - Example: le-ara (wisdom)

Noun Cases

- Nominative (subject)
 - Prefix: i- (default case, often omitted)
 - Example: *i-la-driel* (the person as the subject)
- Accusative (direct object)
 - · Prefix: yu-
 - Example: yu-la-driel (the person as the direct object)
 - Sentence: yu-lo-tel fa mrila i-la-driel (the person sees the lake)
- Genitive (possession)
 - · Prefix: hi-
 - Example: hi-la-driel (of the person)
- Dative (indirect object)
 - · Prefix: mi-
 - Example: mi-la-driel (to/for the person)
- Locative (location)
 - Prefix: ti-
 - Example: *ti-lo-pelor* (in the city)
- Temporal (time)
 - Prefix: tu-
 - Example: tu-le-loe (at two o'clock)
- Instrumental (means or tool)
 - · Prefix: si-
 - Example: si-lo-rith (with the air)
- Purpose (goal or reason)
 - Prefix: lhu-
 - Example: *lhu-le-aray* (for the purpose of wisdom)
- Ablative (away)
 - Prefix: di-
 - Example: di-le-loe (before 2)
- Comlative (together)
 - Prefix: yi-
 - Example: yi-la-ta (together with him/her/them)

- Allative (towards)
 - · Prefix: su-
 - Example: su-la-tal (towards the east)
- Essive (time or state)
 - · Prefix: pu-
 - Example: pu-la-ninadriel (as a child)

COMBINING CLASSES AND CASES

To use these prefixes effectively, the structure would be Case + Class + Noun.

• Example: yu-driel (the animate person as the direct object)

EXAMPLES

- The person (subject): la-driel or i-la-driel
- The person (direct object): yu-la-driel
- Of the person (possession): hi-la-driel
- To/for the person (indirect object): mi-la-driel
- In the city (location): ti-lo-pelor
- With the air (instrumental): si-lo-rith

PRONOUNS

na \rightarrow me, I

hina \rightarrow my, mine

ne \rightarrow us or we

hine \rightarrow ours

wa \rightarrow you or your

hiwa \rightarrow yours

> \rightarrow you or (plural) we

hiwe \rightarrow yours (plural)

 $lata \rightarrow them/she/he (animate)$

lahita → theirs/her/his

 \rightarrow them (plural, animate) late

habite \rightarrow theirs (plural)

 $loda \rightarrow it (inanimate)$

lohita \rightarrow theirs

 \rightarrow them (inanimate)

lohite → theirs (plural, inanimate)

WORD ORDER

Sentences historically used a Subject-Object-Verb (SOV) word order. In this structure, the subject of the sentence comes first, followed by the object, and then the verb. For instance, "The person lives in the city" would be structured as "la-driel ti-lo-pelor fa mela", where "la-driel" (the person) is the subject, "ti-lo-pelor" (the city) is the direct (locative) object, and "fa mela" (lives) is the verb.

For emphasis, modern Tovian allows flexibility in word order. Elements can be fronted to the beginning of the sentence to add emphasis or focus. For example, to emphasize the city being lived in by the person, one might say "ti-lo-pelor la-driel fa mela," placing the object "ti-lo-pelor" (the city) at the beginning of the sentence. This doesn't introduce ambiguity only because of the locative

marker (ti-) on the object of the sentence, which indicates it is never the subject despite coming first in word-order.

When changing word order, it is important to leave adjectives (remember, they are unmarked nouns) directly after the noun they modify. For example, "the person lives in the big city" would be either "la-driel ti-lo-pelor mot fa mela" or "ti-lo-pelor mot la-driel fa mela." Separating "mot" (big) and "pelor" (city) changes the meaning of the sentence. For example: "ti-lo-pelor la-driel mot fa mela" would be "the big person lives in the city."

QUESTIONS

YES/NO QUESTIONS

To turn a declarative statement into a yes or no question, *lhan* is added to the front of the sentence.

Example: lhan ila-we yalo-ta fa mrila?

"Do you see it?"

Response: ila-na yalo-ta fa mrila

"I see it"

In response to a question, declarative statements are sometimes simplified to just the conjugated auxiliary + infinative, for example na yalo-ta fa mrila could be shortened to fa mrila, literally: "sees", but the subject and object are inferred to be the same as the question since they are left out of the response.

WH- QUESTIONS

To form a non-yes/no question, add the question marker *lhan* to the beginning of the sentence with a case-marking prefix to specify what question is being asked. Examples:

"Where did he speak" ti-lhan ta fe fethra to-lhan ta fe fethra "when did he speak?" "how did he speak?" si-lhan ta fe fethra ya-lhan ta fe fethra "to what/whom did he speak?"

EXAMPLE CONVERSATION

A: lhan driel se kwilora tolon?

B: ilata se nikwilora tolon, shan ilata lho kwilora ditom hitirlhon. lhan ilawa yata fo mrilo?

A: na yata fo mrili, tolhan ta fo kwilora?

B: tolerep tohethn

كال لويكيا من فيلكنون كوفور

प्राप्त के प्रिक्तिरिक्त प्रक्रित और प्राप्त के हिर्परिक्त विपर्व के प्रिप्तिक्त विपर्व के विप्रक्रिक विपर्व व्यान्त्रं क्रिल

ए जिस के प्रतिसं तक्षां से हेर्परकी

त्रंडिं त्रंडिंदि

(2)lhan kwiloradrielPROG.PAST Q person dance.1SG to-lon? LOC-yesterday

"Was the person dancing yesterday?"

(3) ilata se nikwilora
SBJ.ANIM.3SG PROG.PAST NEG-dance.1SG
tolon, shan ilata lho kwilora
LOC-yesterday, but 3SG PERF dance.1SG
ditom hitirlhon. lhan ilawa yata
ABL-end GEN-week. Q 2SG ACC-3SG
fo mrilo?
FUT see.2SG?

"She was not dancing yesterday, but she will have danced by the end of the week. Will you see her?"

(4) ila-na ya-ta fo mrili, to-lhan ta
1SG ACC-3SG FUT see.1SG, when-Q 3SG
fo kwilora?
FUT dance.1SG?

"I will see her, what time will she dance?"

Sentence D

 $\begin{array}{ccc} \hbox{(5)} & tole\text{-}rep & to\text{-}hethn \\ & \hbox{LOC-five LOC-tomorrow} \end{array}$

"At five o'clock tomorrow."

PHONETIC INVENTORY

	Bilabial	Labiodental	Dental	Alveolar	Palatal	Postalveolar	Velar	Glottal
Plosive	рb			t d	J		k g	
Nasal	m			n			ŋ	
Trill				r				
Fricative	ф	f v	θ <mark>ð</mark>	S Z		∫ <mark>3</mark>		h
Lateral Fricative				4				
Approximant					j			
Lateral Approximant				l				

other: w. Sounds in red were in Ancient Lefethr but have since been lost.

HISTORY OF SOUND CHANGES

Year	Change	
1000	Vowel loss between voiceless consonants in unstressed syllables	
	$(p t f \theta s \int h k m n \eta)$	
2000	Assimilation: Voiceless stop between voiced sounds become voiced	
	$\{p t k\} \to \{b d g\}$	
2300	ə lost	
3000	No voiceless stops in clusters,	
	e.g., ttelama \rightarrow telama	
3500	$\mathfrak{z} o \mathfrak{z}$	
3500	Rhotacism GsG \rightarrow GrG and G G \rightarrow GrG	
3501	Rhotacism $VsV \rightarrow VrV$ to $V V \rightarrow VrV$	
4500	No stops after fricatives	
4501	No stops after liquids	
4502	No fricative clusters	
4503	No stops after glides	
5000	h is lost between vowel and at the end of words,	
	e.g., drihel \rightarrow diel	
5500	$ai \rightarrow i / C$, $aa \rightarrow a \rightarrow a \rightarrow ei \rightarrow e$	
6000	Nasal assimilation:	
	$md \rightarrow nd, np \rightarrow mp, nk \rightarrow ng$	
6500	No consonant reduplication	
7500	Word-initial vowel loss:	
	$\#V \to \# \emptyset$	
8000	Vowel loss $\theta Vr \to \theta r$ unless stressed	
8500	No stops after nasals:	
	$\eta k \to \eta, mp \to m, \eta g \to g, etc.$	
8750	No stops after any sonorant	
9500	Word-final vowel loss, unless stressed:	
	$\#V \to \emptyset$	
10000	$ae \rightarrow a$	
11000	No coda stops:	
	e.g., $\{p, b\} \rightarrow m / V_{\underline{\hspace{1cm}}}$	
12000	$3 \to 1$ $\delta \to \theta$	
12001	$\theta \to \theta$	
12003, No repeated vowels		
12004	No word-final e	
13000	No fricative clusters	
14000	No fricatives after affricates	
14001	No affricates after fricatives	

PHRASES

good morning wishe-lhano yi-aray

DICTIONARY

di- ABL/ablative case marker (CASE)

(d'i/
History:

istory: θ /di-/

narker (CASE)

nan ancient/old (N)

/n'an/
History:

0 /nan/

le- abstract noun class (CLASS) \nearrow /l'e/ History: θ /le-/

yu- ACC/accusative case marker (CASE)

/'u/
History:

0 /yu-/

rith air (N)(/r'iθ/
History: $0 / rai\theta / \rightarrow 5500 / riθ /$

Su- ALL/allative case marker (CASE)
/s'u/
History:

0 /su-/

la- animate noun class (CLASS)

| Class |
| C

Wen beauty (N)
/w'en/
History:

0 /wen/

kthan becoming (N)

/k θ 'an/
lit. arriving+change

History:

0 /ki θ sakana/ \rightarrow 1000 /k θ skana/ \rightarrow 3000 /k θ sana/ \rightarrow 4502 /k θ ana/ \rightarrow 9500 /k θ an/

tith beginning/start (N)

/t̪'iθ/
History:

0 /tiθ/

yalor beginning/starting (N)

र्ज्ड

/y'alor/ History:

0 /yalor/

hul behind (N)

/h'ul/

History:

0 /hul/

Sil being/existance/created thing (N)

र्पूर

/s'il/

History:

0 /sil/

mot big/large (N)

域

/m'ot/ History:

 θ /mot/

driks blood (N)

45/60

/dr'iks/ History:

0 /driks/

dor blueness/blue (N)

CÓD

/d'or/

History:

0 /dora/ -9500 /dor/ selith boat/ship/canoe (N)

/s'eliθ/

lit. water+traveling

History:

3000 /zdelki θ sa/ \rightarrow 3000 /zdeli θ sa/ \rightarrow 4500 /zeli θ sa/ \rightarrow 4502 /zeli θ a/ \rightarrow 9500 /zeli θ / \rightarrow 12000 /seli θ /

sul bottom (N)

/s'ul/

History:

 $\begin{array}{cc}
0 & /\text{zul}/ & \rightarrow \\
12000 & /\text{sul}/
\end{array}$

lhel center (N)

प्रंट

/4'el/

History:

0 /\fel/

kan change (N)

श्रें

/k'an/

History:

0 /kana/ – 9500 /kan/

ninadriel child (N)

جگزکانیکانخ

/ninadr'iel/ lit. small+person

History:

 $\begin{array}{ccc} 0 & /\mathrm{ninadrihela}/ & \rightarrow \\ 5000 & /\mathrm{ninadriela}/ & \rightarrow \\ 9500 & /\mathrm{ninadriel}/ \end{array}$

Shithil city (N)

$$\finite{N}$$
 \finite{N}

lit. wakefulness+place

History:

$$6000 \quad /3i\theta ile/ \rightarrow 6500 \quad /3i\theta ile/ \rightarrow 9500 \quad /3i\theta il/ \rightarrow 12001 \quad /5i\theta il/$$

tush coldness/cold (N)

/t̪'uʃ/
History:

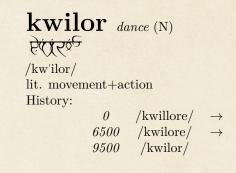
$$0$$
 /t̪kuʃu/ \rightarrow
 3000 /t̪uʃu/ \rightarrow
 9500 /t̪uʃ/

Om completeness/wholeness (N)
$$\circ$$
 \(\text{\formal} \)
/'om/
History:
$$\begin{array}{ccc}
0 & /\text{oma}/ & \rightarrow \\
9500 & /\text{om}/
\end{array}$$

$$\begin{array}{ccc} \textbf{ilor} & conflict/fighting (N) \\ \textbf{(Your Second Conflict)} & \\ \textbf{(Note that is a conflict of the property)} & \\ \textbf{(Note that$$

$$\begin{array}{c} \textbf{leth} \\ \nearrow \nearrow & \\ /\text{l'e}\theta/\\ \text{History:} \\ \\ 0 & /\text{aleda}/ \rightarrow \\ 7500 & /\text{leda}/ \rightarrow \\ 9500 & /\text{led}/ \rightarrow \\ 12002 & /\text{le}\theta/ \\ \end{array}$$







mi- DAT/dative case marker (CASE) /m'i/ History: 0 /mi-/

lhonum day (N)

/4'onum/
Period of time
History:

0 /lonum/

shil desert (N)

JÍT |

/ʃ'il/ |

lit. sand+p

lit. sand+place

History:

/ʃotłθkʃtθile/ 1000 1000 /ʃtłθkʃtθile/ /ʃtłθkʃθile/ 3000 /stabsbile/ 4500 /statele/ 4502 6500 /ʃtłθile/ 9500 /ʃtłθil/ /ʃt͡til/ 14000 14001 /ʃil/

silaray discovery (N)

শ্বতি

/sil'aray/

lit. make+wisdom

History:

 $\begin{array}{cccc} 50 & /\mathrm{silahetaray}/ & \rightarrow \\ 1000 & /\mathrm{silahtaray}/ & \rightarrow \\ 3000 & /\mathrm{silaharay}/ & \rightarrow \\ 5000 & /\mathrm{silaaray}/ & \rightarrow \\ 5500 & /\mathrm{silaray}/ & \end{array}$

norin dog (N)

torje

/n'orin/ History:

0 /amtorin/ = 2000 /amdorin/ = 2000 /andorin/ = 2500 /ndorin/ = 2500 /norin/

thok down (N)

उठ्हे

/θ'ok/ History:

 $\theta / \theta o k /$

lhen dream (N)

550

/len/ History:

0 / $\frac{1}{9500}$ / $\frac{1}{4}$ en/

thek ear (N)

संक्र

/θ'ek/ History:

 $\theta / \theta ek / \theta$

tal east (N)

/+'a1

/t'al/

History: $\theta / \text{tal} / \theta$

ath eight (N)

A

 $/a\theta/$

History:

 $\theta / a\theta /$

335

/b'ear/

History:

 $\begin{array}{cc}
0 & \text{/beyar/} \\
1000 & \text{/bear/}
\end{array}$

remen empty/hollow (N)

Siguic

/r'emen/ History:

0 /oremen/ –
7500 /remen/

panor end/final (N)

Dicos

/p'anor/ History:

0 /panor/

pu- ESS/essive case marker (CASE)

(

/p'u/ History:

0 /pu-/

mril eye/sight/seeing/watching (N)

X-XS

/mr'il/ History:

> 0 /emərila/ — 2300 /emrila/ — 7500 /mrila/ — 9500 /mril/

المعدادا

/r'uy/ History:

 $\begin{array}{ccc} 0 & /\mathrm{aruya}/ & \rightarrow \\ 7500 & /\mathrm{ruya}/ & \rightarrow \\ 9500 & /\mathrm{ruy}/ \end{array}$

lhifem fifteen/15 (N)

5000

/l'ifem/

lit. twelve+three

History:

14000 /lifem/

kesh fire/burning (N)

ट्रांडि

/k'eʃ/

History:

 θ /keʃ/

pul first (N)

كخو

/p'ul/

lit. ESS+one

History:

 $\begin{array}{ccc} 0 & /\mathrm{pu\text{-}lo/} & \rightarrow \\ 1000 & /\mathrm{pulo/} & \rightarrow \\ 9500 & /\mathrm{pul/} \end{array}$

rem five (N)

Six

/r'em/

History:

 $\begin{array}{cc} 0 & /\text{rep}/ \rightarrow \\ 11000 & /\text{rem}/ \end{array}$

tum flatness (N) /t'um/ History: θ /tum/

thoksh floor/ground (N)

त्रवंदे $/\theta'okf/$ lit. down+foot History: /00kfot/ 10 1000 /00kst/ /0oks/ 3000

$$\theta$$
 / $\int otile/$

drem flower (N) (Six

/dr'em/
History:
$$\begin{array}{ccc} 0 & /\mathrm{drenpok}/ & \rightarrow \\ 1000 & /\mathrm{drenpk}/ & \rightarrow \\ 3000 & /\mathrm{drenp}/ & \rightarrow \\ 6000 & /\mathrm{dremp}/ & \rightarrow \\ 8500 & /\mathrm{drem}/ & \end{array}$$

sialeth food (N)

1) Sign /si'aleθ/ lit. INS+eating History: /si-aleða/ 10 1000 /sialeða/ /sialeð/

9500

12002

/sialeθ/

shot foot (N) DÓN

 $/\int \cot /$ History:

 θ / $\int ot$ /

glarethil forest (N)

हराजिकार /glar'e0il/ lit. tree+place History: /aklare0ile/ 1000 2000 /aglare@ile/ 7500 /glareθile/ 9500 /glare0il/

tevlhi forty eight/48 (N)

79X /t'evli/ lit. four+twelve History: 14000 /tevli/

tev four (N) त्रं

/t'ev/ History:

 θ /tev/

lhiloe fourteen/14 (N)

५१र०

/\fil'oe/

lit. twelve+two

History:

14000 /\filee/

heth front (N)

कर्त

 $/h'e\theta/$

History:

 $\theta / he\theta /$

luraolan frown (N)

रंक्श्रेट्र

/lura'olan/

lit. sad+mouth

History:

400 /luraeolan/ -10000 /luraolan/

doremen full (N)

((designicial)

/dor'emen/

lit. not+empty

History:

0 /dooremen/ \rightarrow 12003 /doremen/

hethnum future (Ns)

عزج نهرن

/h'eθnum/

lit. front+path

History:

 $10 / \text{he}\theta \text{num}/$

hi- GEN/genitive case marker (CASE)

DX

/h'i/

History:

0 /hi-/

elakorim god of memory (N)

र्मुहेर्क्न्र्र्र

/elak'orim/

History:

0 /elakorim/

$lothr \ \mathit{grasp/grabbing} \ (\mathrm{N})$

र्वेर्

 $/l'o\theta r/$

History:

 $\frac{0}{8000}$ /loθir/ -

klat greenness/green (N)

हेरात

/kl'at/

History:

0 /klat/

malur hair/person hair (N)

SEPCIK

/m'alur/ History:

ry: $\theta = -\frac{1}{2}$

0 /amalur/ -7500 /malur/

thang hand/leaf (N)

क्षंद

/θ'aŋ/

History:

 $\begin{array}{ccc} 0 & \text{/aðange/} & \rightarrow \\ 6000 & \text{/aðange/} & \rightarrow \end{array}$

7500 /ðange/ –

8500 /ðaŋe/ \rightarrow 9500 /ðaŋ/ \rightarrow

12002 / θ aŋ/

bum hiding ()

/b'um/
lit. bbu

History:

$$\begin{array}{cccc}
220 & \text{/bubu/} \rightarrow \\
9500 & \text{/bub/} \rightarrow \\
11000 & \text{/bum/}
\end{array}$$

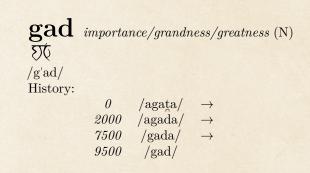
melorethan hoe (N)

/melor'e
$$\theta$$
an/
lit. plant+tool

History:

2000 /əmellore θ an/ \rightarrow
2300 /mellore θ an/ \rightarrow
6500 /melore θ an/ \rightarrow
12002 /melore θ an/





lo- inanimate noun class (CLASS)
$$eq 0$$
/l'o/
History:
 $\theta \quad /\text{lo-}/$

teshan instrument (N)

रंगं

/tˈe∫an/

lit. sound+tool

History:

1500 /tteʒahðan/ —
3000 /tteʒahðan/ —
4502 /tteʒahan/ —
5000 /tteʒaan/ —
5500 /tteʒan/ —
12001 /tteʃan/

$\underset{\text{post}}{lod} \ \textit{it/it (inanimate) (P)}$

र्ष्

/l'od/ History:

 $\begin{array}{ccc} 0 & /\mathrm{lota}/ & \rightarrow \\ 2000 & /\mathrm{loda}/ & \rightarrow \\ 9500 & /\mathrm{lod}/ \end{array}$

tlun joining/sharing (N)

त्ररंट

/t͡ɬ'un/ History:

 $egin{array}{ccc} 0 & /\widehat{ ext{t4}} ext{una}/ &
ightarrow \ 9500 & /\widehat{ ext{t4}} ext{un}/ \end{array}$

vek killing (N)

छंटे

/v'ek/ History:

0 / vekh/ - 5000 / vek/

rishel kindness (N)

200 je

/r'ifel/ History:

0 /raiſel/ - 5500 /riſel/

ninashithan knife (N)

خرنىزم

/nina∫'iθan/

lit. small+sharpness+tool

History:

50 /ninaʒiθðan/ \rightarrow 4502 /ninaʒiθan/ \rightarrow 12001 /ninaʃiθan/

lhar knowledge (N)

र्गु

/l'ar/ History:

0 /łara/ – 9500 /łar/

tel lake (N)

तरंर

/t̪ˈel/ History:

 $\begin{array}{ccc} 0 & \text{/otkele/} & \rightarrow \\ 3000 & \text{/otele/} & \rightarrow \\ 7500 & \text{/tele/} & \rightarrow \\ 9500 & \text{/tel/} \end{array}$

falor leader (N)

3

/f'alor/ History:

0 /falor/

hed left (N)

JY6

/h'ed/ History:

 $\begin{array}{ccc} 0 & /\text{heta}/ & \rightarrow \\ 2000 & /\text{heda}/ & \rightarrow \\ 9500 & /\text{hed}/ \end{array}$

kel leg/limb/branch (N) /k'el/ History: /kelu/ 9500

mel

$$\text{bife (N)}$$

/m'el/
History: 0
 2300 /əmel/
/mel/

/kel/

an light (N)
$$\int$$
C /'an/ History: 0 /ahana/ \rightarrow 5000 /aana/ \rightarrow 5500 /ana/ \rightarrow 9500 /an/

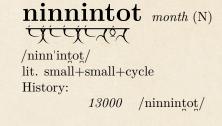
Sil make/create (N)
/s'il/
History:

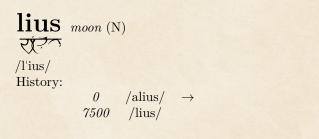
$$0$$
 /silahet/ \rightarrow
 1000 /silaht/ \rightarrow
 3000 /silah/ \rightarrow
 5000 /sila/ \rightarrow
 9500 /sil/

```
\mathbf{na} me/I (P)
C
/n'a/
History:
             \theta /na/
```

lethidriks meat (N) रांश्रहें /leθ'idriks/ lit. tasting+GEN+blood History: 1000 /aleðahi-driks/ 1000 /aleðahidriks/ 5000 /aleðaidriks/ /aleðidriks/ 5500 7500 /leðidriks/ 12002 /leθidriks/







History:

 $\begin{array}{ccc} 0 & /\mathrm{colan}/ & \rightarrow \\ 7500 & /\mathrm{olan}/ & \end{array}$

kwil movement (N)

हेर्प्रर

/kw'il/ History:

0 /kwil/

ki nine (N)

ह्य

/k'i/

History:

0 /ki/

i- NOM/nomative case marker (CASE)

Ý.

/'i/

History:

0 /i-/

nadur non-person hair/fur/hide/skin/scales

(N

500

/n'adur/ History:

 $\begin{array}{ccc} 0 & /\mathrm{anatur}/ & \rightarrow \\ 2000 & /\mathrm{anadur}/ & \rightarrow \\ 7500 & /\mathrm{nadur}/ & \end{array}$

lar north (N)

र्

/l'ar/

History:

0 /lare/ --9500 /lar/

ö5≠€

/v'erun/ History:

0 /verun/

lo one (N)

र्ष

/l'o/

History:

0 /lo/

lhilhi one hundred forty four/144 (N)

XXX

/4'i4i/

lit. twelve+twelve

History:

14000 /łiłi/

do opposite/not/un-(N)

QQ

/d'o/

History:

 θ /do/

har pain (N)

/h'ar/

History:

0 / hara/ - 9500 / har/

hulnum past (Ns)

/h'ulnum/

lit. behind+path

History:

10 /hulnum/

tlaf peace (N)

$$\overrightarrow{(t^{1})} = 1$$
History:

 $0 / \widehat{(t^{1})} = 1$
 $7501 / \widehat{(t^{1})} = 1$

driel person (N)

(dr'iel/
History:

$$0$$
 /drihela/ \rightarrow
 5000 /driela/ \rightarrow
 9500 /driel/

drielathil person-place/home (N)

(driel'a
$$\theta$$
il/
lit. person+place

History:

10 /drihela θ ile/ \rightarrow

5000 /driela θ ile/ \rightarrow

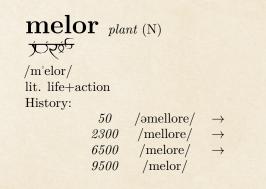
9500 /driela θ il/

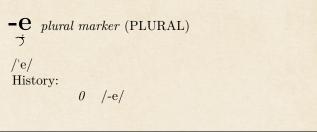
thil place (N)

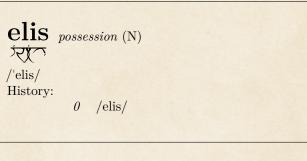
$$\overrightarrow{QY}$$
/ θ 'il/
History:

 $0 /\theta$ ile/
 $9500 /\theta$ il/





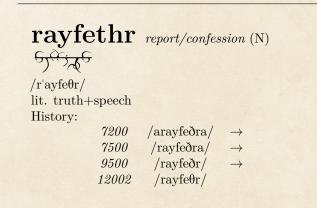


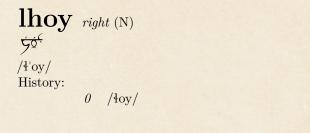


$$\begin{array}{ccc} 0 & /\mathrm{fohe}/ & \rightarrow \\ 5000 & /\mathrm{foe}/ & \rightarrow \\ 9500 & /\mathrm{fo}/ \end{array}$$

lhelnum present (Ns) /l'elnum/ lit. center+path History: 10 /lelnum/

```
\begin{array}{ccc} \textbf{kith} & \textit{reaching/arriving/traveling} \text{ (N)} \\ \hline \\ \text{/k'i}\theta/\\ \text{History:} & \\ & 0 & /\text{ki}\theta\text{sa}/ \rightarrow \\ & 4502 & /\text{ki}\theta\text{a}/ \rightarrow \\ & 9500 & /\text{ki}\theta/ \end{array}
```





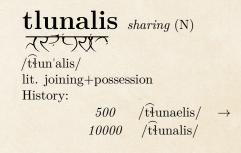
Sethr running/moving quickly/rushing (N) /s'e
$$\theta$$
r/ History:

 0 /se θ ir/ \rightarrow 8000 /se θ r/

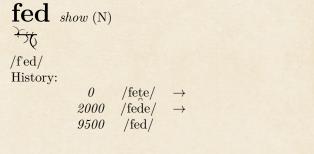
lur sad (N)
/l'ur/
History:

$$0$$
 /lura/ \rightarrow
 9500 /lur/

pulosecond (N)/p'ulo/
lit. ESS+two
$$\theta$$
/pu-loe/ θ History: θ /pu-loe/ θ 1000/puloe/ θ 9500/pulo/



$$\begin{array}{c} \textbf{shith} & \textit{sharpness/alertness/wakefulness} \text{ (N)} \\ \hline \textbf{)} \textbf{)} \textbf{)} \\ \hline \textbf{)} \textbf{)} \textbf{)} \\ \textbf{/} \textbf{)} \textbf{i} \theta / \\ \textbf{History:} \\ 0 & /3i\theta / \rightarrow \\ 12001 & /5i\theta / \\ \hline \textbf{)} \\ \textbf{+} \\ \textbf{+} \\ \textbf{-} \\$$



tem
$$six$$
 (N)

/them/
History:

 0
/tep/
 11000
/tem/

lhitev sixteen/16 (N)

/l'itev/

lit. twelve+four

History:

14000 /litev/

rithil sky (N)

च्रिक्रांर

/r'iθil/

lit. air+place

History:

10 /raiθθile/ — 4502 /raiθile/ — 5500 /riθile/ — 9500 /riθil/

nin small (N)

CIC

/n'in/ History:

 $\begin{array}{cc} 0 & /\mathrm{nina}/ & \rightarrow \\ 9500 & /\mathrm{nin}/ \end{array}$

mataolan smile (N)

DADOTE

/mata'olan/

lit. happy+mouth

History:

400 /mattaeolan/ — 3000 /mataeolan/ — 10000 /mataolan/

tesh sound (N)

べつ

/t̪ˈeʃ/ History:

 $\begin{array}{ccc} 0 & /\texttt{tete3ah}/ & \rightarrow \\ 1000 & /\texttt{teta3h}/ & \rightarrow \\ 3000 & /\texttt{te3ah}/ & \rightarrow \\ 5000 & /\texttt{te3a}/ & \rightarrow \\ 9500 & /\texttt{te3}/ & \rightarrow \\ 12001 & /\texttt{tef}/ \end{array}$

/r'ar/

History:

 θ /rar/

fethr speaking (N)

3

 $/f'e\theta r/$

lit. show+thought

History:

 $\begin{array}{ccc} 100 & /\mathrm{fe}\underline{\mathrm{rei}}\theta\mathrm{ir}/ & \rightarrow \\ 1000 & /\mathrm{f}\underline{\mathrm{rei}}\theta\mathrm{ir}/ & \rightarrow \\ 3000 & /\mathrm{fe}\theta\mathrm{ir}/ & \rightarrow \\ 5500 & /\mathrm{fe}\theta\mathrm{r}/ & \rightarrow \\ 8000 & /\mathrm{fe}\theta\mathrm{r}/ & \end{array}$

fethr speech (N)

3

/f'eθr/ History:

 $\begin{array}{ccc} 0 & /\text{feðra}/ & \rightarrow \\ 9500 & /\text{feðr}/ & \rightarrow \\ 12002 & /\text{feðr}/ & \end{array}$

tlesh speed (N)

えぞう

/td'e∫/ History:

 $\begin{array}{ccc} 0 & /\widehat{\text{t4e}}_3/ & \rightarrow \\ 12001 & /\widehat{\text{t4e}}// \end{array}$

ing stickiness (N)

XCE

/ˈiŋ/ History:

 $\begin{array}{ccc} 0 & /\mathrm{inga/} & \rightarrow \\ 6000 & /\mathrm{inga/} & \rightarrow \\ 8500 & /\mathrm{inga/} & \rightarrow \\ 9500 & /\mathrm{inj/} \end{array}$

silabor stomach (N)

्रांराउंक्

/sil'abor/ History:

 $\begin{array}{ccc} 0 & /\mathrm{sildabore}/ & \rightarrow \\ 4501 & /\mathrm{silabore}/ & \rightarrow \\ 9500 & /\mathrm{silabor}/ \end{array}$

meron stone/rock (N)

DOSE

/m'eron/ History:

0 /meron/

palor stopping/ceasing (N)

क्रिक्ट

/p'alor/ History:

0 /palor/

efol sun (N)

भेड़र

/'efol/ History:

0 /eifol/ — 5500 /efol/

vekhan sword (N)

एंट्रेग्रं

/v'ekhan/

lit. killing+tool

History:

50 /vekhðan/ – 4502 /vekhan/

ngatlun tar (N)

र्गुत्स्र्रं

/ŋˈat͡łun/

lit. stickiness+joining

History:

lharafed teaching (N)

प्रिक्टिल्

/łar'afed/

lit. knowledge+show

History:

 $\begin{array}{ccc} 0 & /\text{tarafete}/ & \rightarrow \\ 2000 & /\text{tarafede}/ & \rightarrow \\ 9500 & /\text{tarafed}/ \end{array}$

tu- TEMP/temporal case marker (CASE)

77

/t'u/

History:

0 /tu-/

tir ten (N)

त्रंड

/tˈir/

History:

0 /tir/

$lod \ \mathit{them} \ \mathit{(inanimate)} \ (\mathrm{Ps})$

र्ष

/l'od/ History:

 $\begin{array}{ccc}
0 & /lote/ & \rightarrow \\
2000 & /lode/ & \rightarrow \\
9500 & /lod/
\end{array}$

tiel thing (N) /tˈiel/ History: 0 /tihel/ \rightarrow

5000

/tiel/

/n'ał/
History:
$$0$$
 /nał/

femlhi thirty six/36 (N)

/f'emłi/ lit. three+twelve History: 14000 /femłi/

loelhitem thirty/30 (N)

lit. twenty four+six History: 14000 /loelitem/

ithr thought (N)

/i\text{ifr}

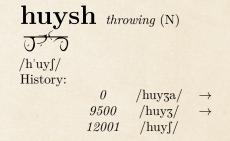
/i\text{ifr}

History:

$$0$$
/i\text{ifir}

 8000
/i\text{ifr}

 \rightarrow



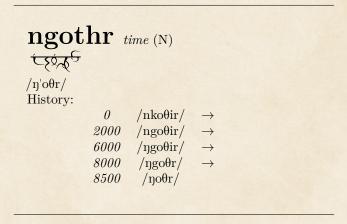
tlunalor
$$tie/bind/knot$$
 (N)

/tlun'alor/
lit. joining+action

History:

10 /tlunalor/

9500 /tlunalor/



than tool (N)

Die

 $/\theta'$ an/

History: $\begin{array}{ccc} 0 & /\eth an/ \\ 12002 & /\theta an/ \end{array}$

thul top (N)

उंस्क्र

/θ'ul/ History:

0 /ðul/ -12002 /θul/

pelor town/village (N)

रें रेड्ड

/p'elor/ History:

0 /pelor/

lhethel trance/sleep (N)

प्रकार

/l'eθel/ History:

 $\begin{array}{ccc} 0 & /\text{le}\text{del}/ & \rightarrow \\ 12002 & /\text{le}\text{del}/ & \end{array}$

glar tree (N)

र्स्र

/gl'ar/ History:

 $\begin{array}{ccc} 0 & /\text{aklare}/ & \rightarrow \\ 2000 & /\text{aglare}/ & \rightarrow \\ 7500 & /\text{glare}/ & \rightarrow \\ 9500 & /\text{glar}/ & \end{array}$

lhi twelve (N)

ダ

/l'i/ History:

 $\begin{array}{ccc} 0 & /\text{liya}/ & \rightarrow \\ 1000 & /\text{lia}/ & \rightarrow \\ 9500 & /\text{li}/ & \end{array}$

loelhilo twenty five/25 (N)

र्थिर्प्रर्थ

/loef'ilo/

lit. twenty four+one

History:

14000 /loelilo/

loelhi twenty four/24 (N)

र्थंद्रं

/loˈełi/

lit. two+twelve

History:

14000 /loeli/

loelhiloe twenty six/26 (N)

र्थंद्रंप्र

/loelil'oe/

lit. twenty four+two

History:

14000 /loeliloe/

lhiath twenty/20 (N)

مرزخ

 $/4'ia\theta/$

lit. twelve+eight

History:

14000 /\fiaθ/

lo two (Ns)

र्ष्

/l'o/

History:

0 /lo/

History:
$$\frac{\theta}{9500}$$
 / $\frac{\theta}{\theta}$ era/ - $\frac{\theta}{\theta}$

/n/ History:

$$\begin{array}{ccc} 0 & /\mathrm{ne/} & \rightarrow \\ 12004 & /\mathrm{n/} \end{array}$$

velar value (N)

एंग्री

/v'elar/ History:

$$\begin{array}{ccc} 0 & /\mathrm{velare}/ & \rightarrow \\ 9500 & /\mathrm{velar}/ \end{array}$$

nolhen waking dreamer (N)

CÓSÍC

/n'olen/

lit. walking+dream

History:

$$\begin{array}{ccc} 10 & /\mathrm{nollena}/ & \rightarrow \\ 4502 & /\mathrm{nolena}/ & \rightarrow \\ 9500 & /\mathrm{nolen}/ & \end{array}$$

nolh walking (N)

CÓS

/n'oł/ History:

$$\theta$$
 /noł/

selor washing (N)

/s'elor/

lit. water+action

History:

0	/ztellore/	_
2000	/zdellore/	_
4500	/zellore/	-
6500	/zelore/	_
9500	/zelor/	_
12000	/selor/	

sel water (N)

/s'el/ History:

0 /ztel/ /zdel/ 2000 /zel/ 4500 12000

/sel/

tirlhonum week (N)

A SOCOLO

/tirtonum/ lit. ten+day

History:

14000 /tirtonum/

tlem weight (N)

त्रंप्र /tem/

History:

0 /atlemo/ /tlemo/ 7500 /tem/ 9500

fil west (N)

र्रेर

/f'il/ History:

0 /fil/

lhan what (INT)

/l'an/ History:

0 /\fan/

lhan when (INT)

5)

/l'an/ History:

0 /\flan/

lhan where (INT)

55

/4'an/ History:

0 /\flan/

lhan who (INT)

SIC

/4'an/ History:

0 /\fan/

lhan why (INT)

5)C

/l'an/ History:

0 /\fan/

shilad width (N)

ार्टि

/ʃˈilad/ History:

0 /3ilate/ – 2000 /3ilade/ – 9500 /3ilad/ – 12001 /filad/ rithwil wind/breath (N)

ज्रिक्ट्र

 $/r'i\theta wil/$

lit. air+movement

History:

10 /rai θ kwil/ – 3000 /rai θ wil/ – 5500 /ri θ wil/

aray wisdom/truth (N)

25

/'aray/

History:

 θ /aray/

thraf wondering (N)

(2)

/θr'af/

History:

 $\begin{array}{ccc} 0 & /\theta \mathrm{irafa}/ & \rightarrow \\ 8000 & /\theta \mathrm{rafa}/ & \rightarrow \\ 9500 & /\theta \mathrm{raf}/ & \end{array}$

 $thraf \it \ wondering/curiosity \ (N)$

19°

/θr'af/ History:

 $\begin{array}{ccc} 0 & /\theta \mathrm{rafa}/ & \rightarrow \\ 9500 & /\theta \mathrm{raf}/ & \end{array}$

glar woods (N)

रस्र

/gl'ar/

History: θ /glar/

```
felor writing/painting (N)

/f elor/
lit. show+action

History:

\begin{array}{cccc}
10 & \text{/fetelore/} & \rightarrow \\
1000 & \text{/ftelore/} & \rightarrow \\
3000 & \text{/felore/} & \rightarrow \\
9500 & \text{/felor/}
\end{array}
```

$$\begin{array}{c} \textbf{ninat} \quad \textit{year} \; (N) \\ \hline \text{/n'inat/} \\ \text{lit. small+cycle} \\ \text{History:} \\ \hline 10 \quad /\text{ninatot/} \quad \rightarrow \\ 1000 \quad /\text{ninatt/} \quad \rightarrow \\ 3000 \quad /\text{ninat/} \end{array}$$

$$\mathbf{W}$$
 you (plural) (Ps) $\dot{\mathbf{Y}}$
/w/
History:
$$\begin{array}{ccc} 0 & /\mathrm{we}/ & \rightarrow \\ 12004 & /\mathrm{w}/ \end{array}$$