

# Lortho Reference Grammar

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# Chapter 1

## About Lortho

Lortho (IPA: [ˈlɔr.tʰo]) is an a priori constructed language conceived by Brian Bourque in the beginning of 2003. It originally started as a prop for a strategy board game where only the script was created for aesthetics. It is an agglutinating language with some minor fusional aspects.

The people (**Kalanune**) who speak Lortho live on **Dhamashi**, a circumbinary planet which is itself one of the two habitable moons of the gas giant **Kus**. The planet's surface has many similarities to Earth where it has oceans, mountains, deserts, and forests. The planet has three major continents: Mashonu, Kashti, and Lamona. The Kalanune live on Lamona.

### 1.1 Inspiration

A friend was creating a board game similar to Risk; however, instead of taking place on Earth, this new game was to take place on an inter-planetary scale. The game creator wanted to develop an extraterrestrial theme and requested a fictional script. The name of the race on this game is "Lortho" (IPA: [ˈlɔ.θo]) and thus the seed was planted. I was unable to work on this piece for quite sometime until I joined the CONLANG mailing list and observed both seasoned and novice conlangers discussing all aspects of linguistics. Since then I decided to move forward and bring Lortho into fruition. The language itself was not invented until the spring of 2016.

Much of the language stems from the languages that I know, namely Persian, French, and Korean. Although the language is a priori, much of its construction resembles that of an Indo-European flavor; albeit unintentionally. The phonology is largely inspired by Persian (Farsi) in that each letter is strictly pronounced regardless of their position in the syllable/word. The agglutinating aspect of the language was largely influenced by Korean; however, the cases were inspired by both Hungarian and Finnish. The orthography was inspired by Central/East Asian orthographies which is further expounded later.

Another source of inspiration is my daughters. Through their development of learning how to make speech sounds leading to coherent speech and communication, she "created" words to communicate her wants and needs. Some of these words found their way

into the Lortho lexicon.

## **1.2 Why?**

Many people have asked me, "Why? What is the goal?" The answer is fairly straightforward: I am an artist and I love languages. So, I merged the two. I have an affinity towards non-Latin writing systems and I truly enjoy calligraphy. Therefore, aesthetics are very important in Lortho. If I am honest with myself, I would love to see this language in a movie or television series, but that isn't the main goal. The goal is to make a functional language and its associated world to where I can create works of art pertaining to this world/culture. I want to instill a sense of awe and wonder as if an old relic of eons past had been discovered and its beauty is unsurpassed by anything compared to contemporary times.

# Chapter 2

# Phonology

## 2.1 Consonants

There are 18 consonants in Lortho and all are strictly pronounced the same regardless of placement.

|                     | Bilabial         |   | Labiodental | Alveolar          |                  | Postalveolar | Velar            | Glottal |
|---------------------|------------------|---|-------------|-------------------|------------------|--------------|------------------|---------|
| Nasal               |                  | m |             | n                 |                  |              |                  |         |
| Plosive             | p p <sup>h</sup> | b |             | t t <sup>h</sup>  | d d <sup>h</sup> |              | k k <sup>h</sup> |         |
| Fricative           |                  | f |             | s                 |                  | ʃ            |                  | h       |
| Lateral Approximant |                  |   |             | l l <sup>h1</sup> |                  |              |                  |         |
| Tap or Flap         |                  |   |             | r                 |                  |              |                  |         |

Table 2.1: Consonants

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<sup>1</sup>The letter <l<sup>h</sup>> is pronounced [hl] if it is at the beginning of a word

## 2.2 Vowels

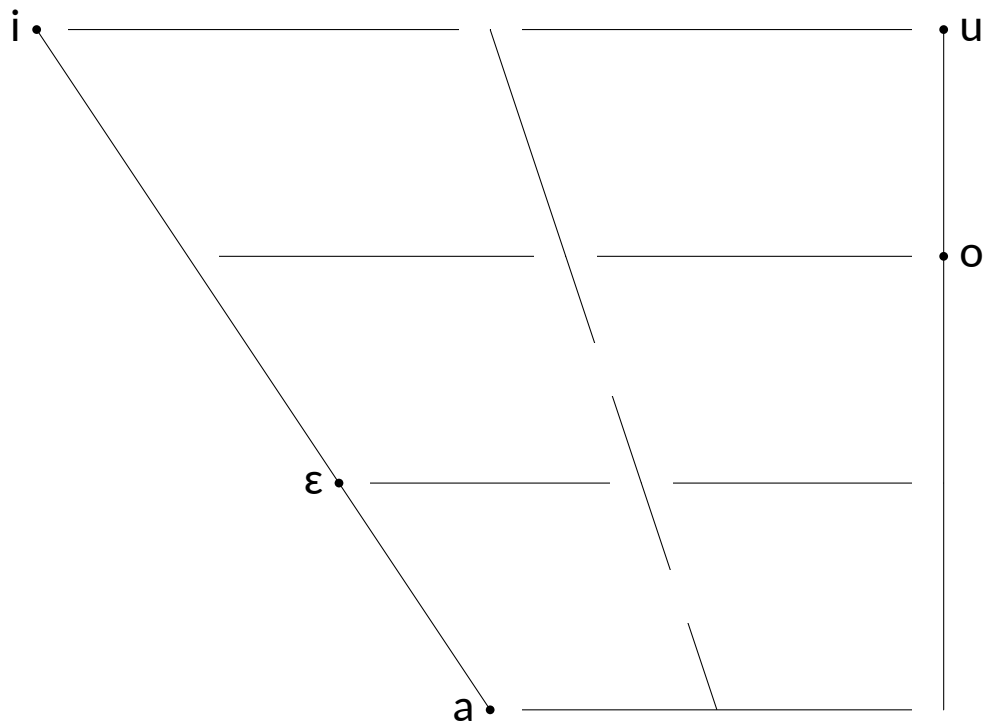


Figure 2.1: Vowels in Lortho

## 2.3 Phonotactics

### 2.3.1 Syllable Structure

The syllable structure is (C)(C)V(V)(C).

How are syllables formed? Here is a quick refresher:

1. A syllable has three parts: onset, nucleus, and coda
  - The **onset** is the consonant sound(s) at the very beginning of the syllable
  - The **nucleus** is the vowel in the middle of the syllable
  - The **coda** is the final consonant sound(s) of the syllable
2. The smallest syllable construct is just the nucleus which can either be a vowel or syllabic consonant (like **m** in **rhythm** and is represented in IPA as [m̩]).

3. The largest syllable depends on the language. For example, the maximum syllable structure in English is CCCVCCCC which represents the longest monosyllabic word in English: *strengths*.
4. The syllable structure encompasses the minimum requirement and the maximum possibility (in which each type of sound is enclosed in parentheses).

### 2.3.2 Consonant Clusters

There are very few consonant clusters allowed; however, clusters formed from adjacent syllables (i.e. *coda* + *onset*) are more common. The clusters discovered at the time of this writing are:

- /nd/
- /nt/
- /nk/ including [ŋk]
- /np/ including [mp]
- /ns/
- /pt/
- /rt/
- /sk/
- /pr/ including [p<sup>h</sup>r]

**NOTE:** Consonant clusters are still being updated as they are discovered. When this language was in its infancy, there were rarely any clusters allowed; however, more information has come to light that clusters are more common than previously thought.

### 2.3.3 Prosody

#### Stress

Stress in Lortho is handled as follows:

1. Stress is always on the penultimate syllable of the noun, adjectival root, or verb infinitive/stem **except**:
  - **-n** verbs will always receive stress on the final syllable of the infinitive/stem
  - Pluraized nouns will shift the stress to the penultimate syllable
2. If the noun is two syllables long, the stress is on the first syllable
3. Stress is neither given to prefixes nor suffixes





# Chapter 3

## Morphology

### 3.1 Nouns

#### 3.1.1 Introduction

Nouns in Lortho have three distinct features:

1. They are one of three genders: **masculine**, **feminine**, or **neuter**
2. All nouns are modified for case
3. Most nouns end in a vowel

#### 3.1.2 Gender

| Masculine                               | Feminine                | Neuter                    |
|---|-------------------------|---------------------------|
| -i                                      | -u                      | -a                        |
| ᠳᠠᠷᠠᠬᠢ                                  | ᠳᠠᠮᠤ                    | ᠬᠠᠳᠢᠬᠠ                    |
| [d <sup>h</sup> a.'ra.k <sup>h</sup> i] | ['d <sup>h</sup> a.m:u] | [ha.'di.k <sup>h</sup> a] |
| dharakh <u>i</u>                        | dhamm <u>u</u>          | hadikh <u>a</u>           |
| <i>mountain</i>                         | <i>chair</i>            | <i>country</i>            |

Table 3.1: Typical nouns

**Exceptions:**

There are a couple nouns that do not follow the above rules for gender (this list will increase as Lorthó's lexicon grows):

| Masculine    | Feminine | Neuter       |
|--------------|----------|--------------|
| tapa         |          | dhi          |
| <i>pasta</i> |          | <i>water</i> |

Table 3.2: Atypical nouns

**3.1.3 Grammatical Case**

Lorthó has ten cases. The letters in parentheses are added if the adjoining affix is at risk of creating an illegal cluster or diphthong. The following word will be used for demonstration:

**kansaptha** [kan. 'sap.t<sup>h</sup>a] *n. neut* • woods, forest

| Case                         | Affix                   | Example       | Translation                             |
|------------------------------|-------------------------|---------------|---|
| <b>Nominative</b>            | ∅                       | kansaptha     | woods, forest                           |
| <b>Accusative</b>            | -me                     | kansapthame   | forest ( <i>dir. obj.</i> )             |
| <b>Dative</b>                | -mela                   | kansapthamela | forest ( <i>indir. obj.</i> )           |
| <b>Genitive</b> <sup>2</sup> | -nau                    | kansapthanau  | <i>of the forest</i>                    |
| <b>Lative</b> <sup>3</sup>   | -ina/ena <sup>4 5</sup> | kansapthaina  | <i>in/into the forest</i>               |
| <b>Ablative</b>              | -nat                    | kansapthanat  | <i>out of/from the forest</i>           |
| <b>Allative</b>              | -dan                    | kansapthadan  | <i>to/towards the forest</i>            |
| <b>Prolative</b>             | -dar                    | kansapthadar  | <i>through/via/by way of the forest</i> |
| <b>Instrumental</b>          | -len                    | kansapthalen  | <i>using the forest</i>                 |
| <b>Vocative</b>              | fa(l)-                  | fakansaptha   | <i>Hey, forest!</i>                     |

Table 3.3: Cases

### 3.1.4 Possessive

The personal possessive is formed using a prefix which is gender and number specific. We will use the following word:

𑌒𑌔 [ˈdʰa.m:u] *n. fem* • chair, seat

| Person     | Singular          |                   |                   |
|------------|-------------------|-------------------|-------------------|
|            | <i>masculine</i>  | <i>feminine</i>   | <i>neuter</i>     |
| 1st person | <b>nidhammu</b>   | <b>nudhammu</b>   | –                 |
| 2nd person | <b>lindhammu</b>  | <b>lundhammu</b>  | –                 |
| 3rd person | <b>lidhammu</b>   | <b>ludhammu</b>   | <b>ladhammu</b>   |
|            | Plural            |                   |                   |
| 1st person | <b>nimadhammu</b> | <b>numadhammu</b> | –                 |
| 2nd person | <b>nanidhammu</b> | <b>nanudhammu</b> | –                 |
| 3rd person | <b>limidhammu</b> | <b>limudhammu</b> | <b>limadhammu</b> |

### 3.1.5 Pluralization

Each noun is pluralized by adding a suffix:

1. Feminine (-u) and neuter (-a) nouns add the plural suffix **-ne**:

- Examples:

**Feminine:** kansaphu (*n. fem*) tree; **pl** kansaphune

**Neuter:** hadikha (*n. neut*) land, country; **pl** hadikhane

2. Masculine nouns (-i):

- Regular masculine nouns will add the infix **-en-** before **-i**
- Masculine nouns that end in **-ni** will add the infix **-em-**
- Examples:

**olakhi** *n. masc* boat; **pl** olakheni

**phorenni** *n. masc* peak, summit; **pl** phorennemi

<sup>2</sup>**-nau** is the alienable genitive whereas **-tho** is the inalienable genitive as seen in the endonym *Lortho*

<sup>3</sup>The lative case also doubles as the locative case

<sup>4</sup>**-ina** is added to feminine and neuter nouns and **-ena** is added to masculine nouns

<sup>5</sup>When **-ina** is added to a feminine noun, the final **u** changes to **o**, e.g. *kansapu* > *kansapoina* in the tree

### 3.1.6 Indefinite Article

In Lortho, the definite article does not exist since the noun is inherently definite; i.e. the absence of the indefinite article indicates definiteness. The indefinite article is handled by using the numeral one, *ikhi*.

## 3.2 Personal Pronouns

|           | 1SG | 2SG   | 3SG | 1PL   | 2PL                | 3PL  |
|-----------|-----|-------|-----|-------|--------------------|------|
| Masculine | hin | manni | i   | minan | namin              | nimi |
| Feminine  | hun | manu  | u   | munan | namun              | nimu |
| Neuter    | –   | –     | a   | –     | naman <sup>6</sup> | nima |

*NOTE: Lortho is a pro-drop language, i.e. the above pronouns are often omitted since the same information is grammatically inferred.*

## 3.3 Verbs

Verbs are conjugated in gender and in number which are governed by the subject (written or implied).

### 3.3.1 Conjugation

There are three main verbs in Lortho: **-o**, **-t**, and **-n** verbs. The following conjugation tables show a preview of how the regular verbs conjugate in each category in the present tense.

#### **-o verbs**

The root is formed by removing the final **o**:

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<sup>6</sup>the 2nd person plural neuter, **naman**, is reserved for addressing crowds or general audiences

| Present Tense                             |                     |                     |          |                     |                     |                    |
|---|---------------------|---------------------|----------|---------------------|---------------------|--------------------|
| ጽጌሮ [kon.'p <sup>h</sup> a.ro] v. • speak |                     |                     |          |                     |                     |                    |
| root: <b>konphar-</b>                     |                     |                     |          |                     |                     |                    |
|   | Singular            |                     |          | Plural              |                     |                    |
|   | masc                | fem                 | neut     | masc                | fem                 | neut               |
| 1st pers                                  | konphar <b>in</b>   | konphar <b>un</b>   | –        | konphar <b>inan</b> | konphar <b>unan</b> | –                  |
| 2nd pers                                  | konphar <b>anni</b> | konphar <b>annu</b> | –        | konphar <b>amin</b> | konphar <b>amun</b> | –                  |
| 3rd pers                                  | konphari            | konpharu            | konphara | konphar <b>imi</b>  | konphar <b>imu</b>  | konphar <b>ima</b> |

**-t verbs**

The root is formed by changing the final **t** to **d**.

| Present Tense   |                     |                     |          |                     |                     |                    |
|---|---------------------|---------------------|----------|---------------------|---------------------|--------------------|
| ጽጌሮ [p <sup>h</sup> ra.mit] v.t. • push s.t., antagonize; move, place |                     |                     |          |                     |                     |                    |
| root: <b>phramid-</b>   |                     |                     |          |                     |                     |                    |
|   | Singular            |                     |          | Plural              |                     |                    |
|   | masc                | fem                 | neut     | masc                | fem                 | neut               |
| 1st pers  | phramid <b>in</b>   | phramid <b>un</b>   | –        | phramid <b>inan</b> | phramid <b>unan</b> | –                  |
| 2nd pers  | phramid <b>anni</b> | phramid <b>annu</b> | –        | phramid <b>amin</b> | phramid <b>amun</b> | –                  |
| 3rd pers  | phramidi            | phramidu            | phramida | phramid <b>imi</b>  | phramid <b>imu</b>  | phramid <b>ima</b> |

**-n verbs**

The infinitive of these verbs is also the root.

| Present Tense            |             |             |          |             |             |            |
|--------------------------|-------------|-------------|----------|-------------|-------------|------------|
| 𐎧𐎠𐎢𐎡 [ʃai.'lan] v. • sit |             |             |          |             |             |            |
| root: <b>shailan-</b>    |             |             |          |             |             |            |
|                          | Singular    |             |          | Plural      |             |            |
| 1st pers                 | shailanin   | shailanun   | –        | shailaninan | shailanunan | –          |
| 2nd pers                 | shailananni | shailanannu | –        | shailanamin | shailanamun | –          |
| 3rd pers                 | shailani    | shailanu    | shailana | shailanimi  | shailanimu  | shailanima |

### Irregular Verbs

Although labelled irregular, these verbs are still conjugated in the normal pattern; however, the root is irregular.

| Present Tense                 |          |         |      |         |         |        |
|-------------------------------|----------|---------|------|---------|---------|--------|
| 𐎧𐎠𐎢𐎡 ['tu.met] v. • can, able |          |         |      |         |         |        |
| root: <b>tum-</b>             |          |         |      |         |         |        |
|                               | Singular |         |      | Plural  |         |        |
| 1st pers                      | tumin    | tumun   | –    | tuminan | tumunan | –      |
| 2nd pers                      | tumanni  | tumannu | –    | tumamin | tumamun | –      |
| 3rd pers                      | tumi     | tumu    | tuma | tumimi  | tumimu  | tumima |

## 3.3.2 Moods

### Imperative

The imperative form of the verb is simply the root with no additional suffix and, optionally, a noun in the vocative case. This is still being researched. I still have yet to discover what other instances of the imperative occur.

- Examples:

1. **𑌕𑌃 𑌕𑌃𑌃**  
fa -mannu konphar  
VOC-PN.2FSG speak.IMP  
*Hey you, speak!*
2. **𑌕𑌃𑌃 𑌕𑌃𑌃 𑌕𑌃𑌃**  
fa -namin nathar namin =e -me  
VOC-PN.2MPL quiet.IMP PN.2MPL=CONN-ACC  
*Hey you, be quiet! (lit. quiet yourselves)*
3. **𑌕𑌃𑌃**  
shailan  
sit.IMP  
*Sit!*

### Subjunctive

The subjunctive mood has many different facets. At the time of this writing, I have only been able to uncover wants and wishes. In the present tense, this expression is handled by using the verb **hankhan** *want, wish* + the infinitive.

- Example:

1. **𑌕𑌃𑌃𑌃 𑌕𑌃𑌃𑌃𑌃 𑌕𑌃𑌃**  
hankhan-in kansaptha-me kilo  
want -1MSG forest.N -ACC see.INF  
*I want to see the forest.*

### Passive Voice

The passive voice is gained by adding the suffix **-im** after the root before any other additional suffixes.

- Examples:

1. **𑌕𑌃𑌃** ['ma.d<sup>h</sup>it] v. • give, transfer, put  
**𑌕𑌃𑌃𑌃 𑌕𑌃𑌃𑌃 𑌕𑌃𑌃**  
madhid-ikh-i i khanishu-me u -mela  
give -PST-3MSG PN.3MSG book.F -ACC PN.3FSG-DAT  
*He gave the book to her*
2. **𑌕𑌃𑌃𑌃 𑌕𑌃𑌃𑌃 𑌕𑌃𑌃**  
madhid-im-ikh-u khanishu-me u-mela  
give-PASS-PST-3FSG book.F-ACC PN.3FSG-DAT  
*The book was given to her*

### Negation

Negation is accomplished by adding the prefix dha(k)-. The phoneme /k/ is added before a vowel or /h/. If the latter occurs, the letter will be written as [k<sup>h</sup>].

- Examples:

1. **ႱႰႰႰ** [kon. 'p<sup>h</sup>a.ro] v. • speak, say
  - **ႱႰႰႰႰ**  
konphar -in  
speak -1MSG  
*I speak*
  - ႱႰႰႰႰ**  
dhakonpharin  
dha-konphar -in  
NEG-speak -1MSG  
*I do not speak*
2. **ႱႰႰႰ** [han. 'k<sup>h</sup>an] v. • want, wish
  - **ႱႰႰႰႰ**  
hankhan-in  
want -1MSG  
*I want*
  - ႱႰႰႰႰ**  
dha=k =hankhan-in  
NEG=CONN=want -1MSG  
*I do not want*
3. **ႱႰႰႰႰ** [ar. 'tɛ.mit] v. • continue, keep going, restart
  - **ႱႰႰႰႰႰ**  
artemid -in  
continue-1MSG  
*I continue*
  - ႱႰႰႰႰႰ**  
dhā=k =artemid -in  
NEG=CONN=continue-1MSG  
*I do not continue*

## 3.4 Adjectives

Adjectives are listed as roots in dictionaries because they must agree in gender with the noun they modify. They do *not* agree in number. They are placed *before* the noun.

- Examples:

1. **ႱႰႰႰ-** [tɪrl] *adj.* • old, ancient (*animate*)



ṭhṃḥḥ ḥḥḥḥ ḥḥḥḥ

thomid-i tirl -i dharati-ena  
 reside-3MSG old.ADJ-M house -LAT  
*He lives in the old house*

2. ḥḥḥḥ- [pʰikʰ] *adj.* • rough, coarse, unrefined, raw, prototypical (*rare*)

ḥḥḥḥḥ ḥḥḥ ḥḥḥḥḥḥ

palhan-ikh-imi phikh -u lerithu-ne-me  
 repair-PST-3MPL coarse.ADJ-F edge.F -PL-ACC  
*They repaired the rough edges*



# Chapter 4

## Syntax

### 4.1 Morphosyntactic Alignment

The morphosyntactic alignment of Lortho is Nominative–Accusative.

### 4.2 Word Order

The basic word order is Verb-Subject-Object (VOS). Lortho contains a lot of information in the verb and the noun or noun phrase. The verb (as discussed earlier) is conjugated by person and gender and thus pronouns are largely unnecessary except for emphasis or clarification. The nouns are altered to denote case, greatly diminishing the need for prepositions. Below are the basic syntax rules of the language:

1. The word order changes to Subject-Verb-Object only in the vocative case; however, this is optional.
2. Adjectives are placed *before* the noun which they modify.
3. Adverbs are placed *after* the verb.
4. Interrogatives (who, what, et al.) are placed *before* the verb.
5. The question particle (represented in the Leipzig glossing rules as **Q**) is placed at the *beginning* of the sentence to mark it as a question.

### 4.3 Word Agreement

There are four basic rules which govern agreement between words:

1. Verbs must agree in gender and number with the subject (explicit or implied)
2. Cardinal numbers do not change (no case, number, nor gender)

3. Nouns are **not** pluralized when counted