# Kymna and Moluma 

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## Contents

## Introduction

Kymna and Moluma are a closely related and mutually interacting pair of languages from the Tallic family.

## 1 Historical phonology

### 1.1 Overview

### 1.1.1 Consonants

|  | bilabial | labiodental | dental \& c. | velar \& c. | glottal~pharyngeal |
| :--- | :--- | :--- | :--- | :--- | :--- |
| plosive | $\mathbf{p}\left[\mathrm{p}^{\mathrm{h}}\right]$ |  | $\mathbf{t}\left[\mathrm{t}^{\mathrm{h}}, \mathrm{t}\right], \mathbf{d}$ | $\mathbf{k}\left[\mathrm{k}^{\mathrm{h}}, \mathrm{k}\right], \mathbf{g}$ |  |
| affricate |  |  | $\mathbf{d z}[\mathrm{k}]$ |  |  |
| fricative |  | $\mathbf{f}, \mathbf{v}$ | $\mathbf{s}$ | $\mathbf{c h}[\mathrm{x}]$ | $\mathbf{h}[\mathrm{h}, \mathrm{\hbar}]$ |
| nasal | $\mathbf{m}[\mathrm{m}]$ |  | $\mathbf{n}$ | $\mathbf{n}[\mathrm{n}]$ |  |
| liquid |  | $\mathbf{l}\left[\mathrm{l}^{\mathrm{j}}\right], \mathbf{r}[\mathrm{r}, \mathrm{r}]$ |  |  |  |
| prelabialized liquid |  |  | $\mathbf{w r}, \mathbf{w l}[\mathrm{wr}, \mathrm{wl}]$ |  |  |
|  |  |  |  |  |  |

Phonotactical restriction include:

- $\mathbf{f}$ only before $\mathbf{o}, \mathbf{u}, \mathbf{r}, \mathbf{l}$
- д, ch only medially
- medial $\mathbf{g}$, $\mathbf{d}$ only in $\mathbf{n g}$, nd, medial $\mathbf{p}$ only in $\mathbf{p p}$ and in transparent compounds, otherwise $\mathbf{p -}$, $\mathbf{d}-$, $\mathbf{g}$ only initially
- wr-, wl- only initially
- $\mathbf{n}=[\mathrm{n}]$ before $\mathbf{k}, \mathbf{g}$
- $\mathbf{r}$ is trilled $[\mathrm{r}]$ initially (by compensatory lengthening of the sound change ${ }^{*}\left[\mathrm{pr}-, \mathrm{k}^{\mathrm{h}} \mathrm{r}-, \mathrm{gr}-\right]>[\mathrm{r}]$ ), otherwise [r]

Anaptyxis in consonant clusters:

- num for ${ }^{*} \mathrm{~nm}$
- sum/dzum for ${ }^{*}$ sm
- mul, mur for ${ }^{*} \mathbf{m l}, *_{m r}$
- lin, rin for *ln, *rn
- lip, rip, bin for *lp, *rb, *bn
- in Moluma also lum, rum for ${ }^{*} \operatorname{lm}$, *rm $^{\text {rm }}$

Positional change of $\mathbf{s}$ to $\mathbf{h}$ :

- hi, hy for *si, *sy
- $\mathbf{l h}, \mathbf{r h}[\mathrm{l} \hbar, \mathrm{r} \hbar]$ for ${ }^{*} \mathbf{l s},{ }^{*} \mathbf{r s}(\mathrm{cf}$. the ruki sound shift)

There is a twofold lenis-fortis distinction:

- voiceless aspirated stops $\mathbf{p}, \mathbf{t}, \mathbf{k}$ (lenis) vs. voiced unaspirated $\mathbf{d}, \mathbf{g}$ (as in English) or voiced spirant $\mathbf{v}$ (fortis)
- voiceless fricative $\mathbf{s}$ (lenis) vs. voiced affricate $\mathbf{d z}$ (fortis)
- no aspiration in st, sk (again as in English)


## Stress:

- on antepenultimate if it has a long vowel (wránende 'fought') or the last three syllables are short (tálena 'warm')
- otherwise on penultimate (sechrénde 'wrote')
- some exceptions with stress on the ultimate, e.g. predicative adjectives: kronumón 'is powerful'; and and preverbs: pyrúm 'is below'
- the imperfective prefix $\mathbf{a}$ - is never stressed: aléy $\mathbf{y}(\mathbf{u}) \mathbf{m}$ 'to shine' (ipf.) from pf. lëy $\mathbf{y}(\mathbf{u}) \mathbf{m}$


### 1.1.2 Vowels

$\mathbf{i}, \overline{\mathbf{1}}[\mathrm{i}, \mathrm{i}:]$
$\mathbf{e}[\varepsilon]$
$\mathbf{y}, \overline{\mathbf{y}}[\mathrm{r}, \mathrm{y}:]$
$\mathbf{u}, \overline{\mathbf{u}}[\mathrm{u}, \mathrm{u}:]$
ё [œ]
$\mathbf{o}, \overline{\mathbf{o}}[\mathrm{o}, \mathrm{o}:]$
a, $\overline{\mathbf{a}}[\mathrm{a}, \mathrm{a}:]$

The diphthongs can be represented in a neat little diagram. Kymna only employs 'homorganic' diphthongs:

 not appear in the language, although long $\overline{\mathbf{o}}$ has been recreated by other changes. The diphthong ae [aæ્ર]~[a^] only appears in Moluma where it is the result of long [a:]~[a:].

### 1.2 Development of vowels and diphthongs

Kymna organizes its vowels based on a rounded/unrounded distinction. The most prominent change is umutation - it is triggered by $\mathbf{u}$ and causes vowels to gain roundness, as in Old Norse. But unlike Old Norse, it only affects the immediately preceding vowel (e.g. salis 'happiness', salydzuma 'happy'). The changes are:

| basic | a | e | i | ei | ae |
| :--- | :--- | :--- | :--- | :--- | :--- |
| u-mutated | o | ë | y | ëy | ou |

Posttonic vowels usually lose their roundness: $o, y>\mathbf{a}$, $\mathbf{i}$. This change is resisted when these vowels are preceded by dominant labials like $\mathbf{m}, \mathbf{v}$ and stressed $\mathbf{o}, \mathbf{u}:{ }^{*}$ plepswin $>{ }^{*}$ lessyn $>$ lessin 'baby', but *tobor $>$ tovor 'horse'. Hence also $\mathbf{a}>\mathbf{o}$ in proximity to dominant labials: ${ }^{*} k u Q m a>\mathbf{k} \bar{m} m o$ 'bear'.
The vowel $\mathbf{u}$, on the other hand, rarely loses its roundness; and develops $u>{ }^{*}[\Lambda]>\mathbf{a}$ if it does. In colloquial speech, it laxens in pronounciation posttonically, i.e. it is centralized to $[\mathrm{u}]$.

Before $\mathbf{m}$ (and less commonly before $\mathbf{n}$ ) one finds $\mathbf{a}>\mathbf{o}$ and $\mathbf{o}>\mathbf{u}$. Sometimes $\mathbf{e}>\mathbf{i}$ before nasals (*be-ma ta 'bleating one' > vimata 'sheep').

The Proto-Tallic i-diphthongs changed in the following way: ${ }^{*} a i,{ }^{*} e i,{ }^{*} \partial i>\mathbf{e i}, \mathbf{e i}, \overline{\mathbf{1}}$ with unstressed $\mathbf{e i}>\mathbf{e}$, while ${ }^{*} o i,{ }^{*} u i$ were a source of the new vowel $\mathbf{y}$. In Moluma, ${ }^{*} a i$ becomes ae and is distinct from ei:

- $\sqrt{\text { PODDJ: K. pyða 'river' (T. póida) }}$
- $\sqrt{\text { Plumj: K. lyma 'rain', lȳum 'to rain' (T. plúima 'tear, teardrop') }}$
- $\sqrt{\text { Kobj: K. kyva 'fruit' (T. kóiba 'apple') }}$
- $\sqrt{\text { KhatJ: K. seita 'seed', M. shaeta (T. háita 'germ, bud') }}$

The Proto-Tallic u-diphthongs changed in the following way: ${ }^{*} a u,{ }^{*} o u,{ }^{*} e u,{ }^{*} \partial u,{ }^{*} i u>\mathbf{o u}, \mathbf{o u}, ~ e ̈ y, \overline{\mathbf{u}}, \overline{\mathbf{y}}$, essentially undergoing u-mutation.

The schwa from the Proto-Tallic e-grade became e after dentals (the most common situation), a after velars, and $\mathbf{i}$ after labials. It had no influence on the preceding vowel as it is the case in Talmit and was subsequently lost after $\mathbf{n}$ :

- $\sqrt{\text { BRADN: }}$ wrān 'battle' $<{ }^{*}$ wraðne $<$ bradnə
- VKHAG: saha 'meal' < khagə
- $\sqrt{\text { KHAB: savi }}$ 'clothes' $<k h a b ə$


### 1.3 Development of consonants

Speakers of Kymna must have regarded lip articulation as too arduous. Therefore, parallel to the rounded/unrounded classification of vowels, labial consonants were changed in several stages of delabialization.

### 1.3.1 unvoiced stops

- P

Proto-Tallic ${ }^{*} p$ was a very productive consonant, in particular initially, and suffered most changes in Kymna. Similar to the development in Celtic, it was lost medially, before and after sonorants ( ${ }^{*} p s>{ }^{*} k s$ $>\mathbf{s s}$ ), although it was retained initially before vowels (aspirated in the modern language).

- $\sqrt{\text { PRAN: K. ranna 'lying across', ranga 'bridge' (T. pran, prangá) }}$
- $\sqrt{ }$ PRU: K. poru 'up, above', pyru 'down, below' (T. parú, pirú)
- $\sqrt{\text { TAPL: }} \mathrm{K}$. toulum 'to speak, say' (T. táplun)
$-\sqrt{ }$ PRUBS: K. orudza 'tower' $<{ }^{*} a$-prusba (T. parúzba)
- T

Proto-Tallic ${ }^{*} t$ spirantizes before and after sonorants to $\mathbf{p}$, disappears before $\mathbf{l}$, and remains unchanged otherwise (aspirated in the modern language). Moluma eliminates interdental spirants in a fashion similar to Latin: ${ }^{*} b>\mathbf{f},{ }^{*} n p>\mathbf{n d}$.

- $\sqrt{\text { ThATN: K. sopynum 'elapse, to take (of time)', dissim. of *bopnum, M. sofnum }}$
- VTAZL: K. tadzal 'blood' (T. tálza)
- $\sqrt{\text { TLEP: K. lëyum, lëym 'to shine' (T. tlépun 'blink') }}$
- K

Proto-Tallic ${ }^{*} k$ spirantizes before sonorants to $\mathbf{c h}$, after sonorants to $\mathbf{h}$, disappears initially before $\mathbf{s}$ (medially ${ }^{*}[\mathrm{ks}]>{ }^{*}[\mathrm{xs}]>\mathbf{s s}$, occasionally $>\mathbf{c h}$ ); and remains unchanged otherwise (aspirated in the modern language).

- $\sqrt{ } \mathrm{KWA}: \mathrm{K} . \operatorname{achva}$ 'red' $<{ }^{*} a-k w a$ (T. kawá)
$-\sqrt{ }$ KHEKR: K. sëchrum 'to write' (T. hékrun)
- $\sqrt{\text { KSATR: }}$ K. sobrum 'to fly', M. sofrum (T. xátrun)
- لPRUKS: K. poruch 'head' (T. parúx, paróxe)


### 1.3.2 voiced stops

- B

Proto-Tallic ${ }^{*} b$ early underwent betacism to $\mathbf{v}$ (first bilabial, eventually labio-dental) in all positions. A later weakening led to vr-, vl- > wr-, wl-.
$-\sqrt{\text { BRADN: K. wrounum 'to fight' (T. bráznun) }}$

- $\sqrt{\text { BWO: K. vō 'mouth' (T. bno) }}$
$-\sqrt{\text { POBL: }}$ K. povle 'language' (T. póble 'speech')
Hence the phoneme $\mathbf{b}$ does not exist in classical Kymna. There is however an irregular exception: K. eble 'lip' $<$ *ai-peple (originally dual). It might be a dialectal loan from Moluma (where it takes the form aeble) which does have $\mathbf{b}$, but can be in any case attributed to the suggestive quality of a labial sound in the word for 'lip'.
- D

Proto-Tallic ${ }^{*} d$ becomes $\boldsymbol{\partial}$ medially, disappears before l, but remains initially and in the combination nd. The cluster $\mathbf{d n}$ changed $\mathbf{d n}>*$ дn $>\mathbf{n}$ with compensatory lengthening. Moluma elminates interdental spirants after the fashion of Latin: $\boldsymbol{\partial}>\mathbf{b}$ in proximity to $\mathbf{r}$, otherwise $>\mathbf{d}$.

- $\sqrt{\text { KHODR: K. soðrum 'to kill, destroy', M. sobrum (T. hódrun 'to destroy') }}$

- لDAQ: K. dālin 'stone' (T. dat 'stone', daklin 'pebble')
- VDLON: K. ilonna 'asleep' < *i-dlon-na (T. dilón 'state of being asleep')
- G

Proto-Tallic ${ }^{*} g$ was retained initially, but became a velar spirant ${ }^{*} y$ medially, except for ng. It fell away with compensatory lengthening before consonants, but was retained as $\mathbf{h}$ after sonorants and often between vowels, although in colloquial speech it usually drops between vowels as well.

- $\sqrt{\text { POGGN: K. pounum 'to decide' (T. pógnun) }}$
- $\sqrt{\text { GAM }}$ : K. gom(i) 'nose' (T. gáme)
- $\sqrt{\text { KHAG: K. sohum, soum 'to eat' (T. axágun 'to eat, consume, absorb') }}$


### 1.3.3 unvoiced aspirated stops

- PH

Proto-Tallic aspirated ${ }^{*} p h$ early became the spirant ${ }^{*} f$ (by the same time ${ }^{*} b,{ }^{*} d,{ }^{*} g$ became spirants), but during the delabialization process it changed to -ch- medially, h- initially and was only retained before and after $\mathbf{u}$ (sometimes $\mathbf{o}$ ) and in initial fl-, fr-.

- $\sqrt{\text { PHOKS: K. hoss 'hair' (T. фóska 'a single hair') }}$
- VGAPHN: K. gacha 'fish' (T. gámфa)

- TH

Proto-Tallic aspirated ${ }^{*}$ th $>\mathbf{p}$, but sometimes $>$ fr-, fl- instead or beside pr-, pl- (similar to Gothic). Moluma eliminates the interdental spirants: ${ }^{*} b>\mathbf{f},{ }^{*} n p>\mathbf{n d}$.

- VTETHR: K. tëfrum 'to find' (T. atéӨrun 'to find unexpectedly')
$-\sqrt{\text { this: }}$ K. bydzum 'to show', M. fydzum (T. 日íssun 'to show')
- KH

Aspiration was a modificational technique in Proto-Tallic, but it seems that it was coupled with palatalization in Kymna in the case of *k. Hence only palatal [ $\mathrm{k}^{\mathrm{jh}}$ ] appeared, spirantized to [¢] rather than [x] and later usually progressed to $\mathbf{s}$, but to $\mathbf{h}$ before $\mathbf{i}, \mathbf{y}$ and after $\mathbf{l}, \mathbf{r}$ (cf. the ruki sound shift). In Moluma,

$-\sqrt{\text { KHOMN: }} \mathrm{K}$. sumun 'sound', M. shumun (T. hómne)
$-\sqrt{ }$ Khlob: K. lovum 'to get wet' ( T . hlóbun 'to drink')

- $\sqrt{\text { KhatJ: K. sasa 'egg', seita 'bud', M. shasa, shaeta (T. háti, háita) }}$
- $\sqrt{\text { KhwETN: K. hynta 'leaf' (T. hwénta) }}$
$-\sqrt{ }$ KWOR: K. korhorum 'to grow (ipf.)' $<{ }^{*}$ kworkhworun, M. korshorum (T. kwor 'plant')


## $1.4 \mathrm{w}, \mathrm{j}, \mathrm{Q}, \mathrm{s}, \mathrm{z}$

- W

Proto-Tallic ${ }^{*} w$ is one of the sources for the new vowel $\mathbf{y}$ in Kymna. In the course of delabialization, the combinations ${ }^{*} w e,{ }^{*} w i$ early became $\mathbf{y} ;{ }^{*} w o,{ }^{*} w u>\mathbf{o}, \mathbf{u}$; and only ${ }^{*} w a$ was retained for a while before becoming va (cf. Japanese we, wi, wo, wa $>e, i, o, w a)$.

- $\sqrt{\text { TWI: K. tymna 'lively' (T. twi 'degree of speed') }}$
$-\sqrt{ }$ DWOGR: K. dourum 'to work' (T. dwógrun)
The final combinations *- $t w,{ }^{*}-d w$ were shifted into labial position pp (the latter probably via ${ }^{*} b b$ ) with addition of the vowel -a. Similarly a velar $+w$ was shifted into dental position: ${ }^{*}-k w,{ }^{*}-g w>\mathbf{t t}$. The preceding vowel may be rounded by the influence of * $w$.
- $\sqrt{ }$ KATW: K. kappa, koppa 'tree' (T. kátu)
- VBLIDW: K. wlippa, wlyppa 'sickness' (T. blídu)
$-\sqrt{\text { BEGW: K. vetta, vëtta 'barrier' (T. bégu 'vertical surface') }}$
This change only happened in monosyllables. In polysyllables, final ${ }^{*}$ - $w$ becomes -o:
$-\sqrt{ }$ KATW: akoto 'forest', M. moto 'forest' $<{ }^{*}$ nkatw
- J

Proto-Tallic ${ }^{*} j$ was another source for the vowel $\mathbf{y}$, one finds ${ }^{*} j o,{ }^{*} j u,{ }^{*} j e,{ }^{*} j i>\mathbf{y}, \mathbf{y}, \mathbf{e}, \mathbf{i}$ in combination with stops. As with ${ }^{*} w a,{ }^{*} j a$ was retained for some time before becoming dza between vowels. Combinations of stop $+{ }^{*} j a$ were fortitioned in the following way: ${ }^{*} p j a,{ }^{*} t j a,{ }^{*} k j a,{ }^{*} p h j a,{ }^{*} t h j a, ~ * k h j a>{ }^{*} p s j a$, ${ }^{*} t s j a,{ }^{*} k s j a>s \mathbf{s a}$ and ${ }^{*} b j a,{ }^{*} d j a,{ }^{*} g j a>{ }^{*} b z j a,{ }^{*} d z j a,{ }^{*} g z j a>d z a$.

$-\sqrt{\mathrm{KJU}}$ : K. kȳme 'land, area, region', kymna 'national, regional' (T. kju 'part, division')
$-\sqrt{\mathrm{P}}(\mathrm{J}) \mathrm{AL}:$ salme 'water' $<{ }^{*}$ pjal-mne (T. pal)


- Q

The Proto-Tallic velar/uvular phoneme ${ }^{*} Q$ has disappeared in Kymna altogether with lengthening of the preceding vowel. Of the long vowels, $\overline{\mathbf{a}}, \overline{\mathbf{1}}, \overline{\mathbf{u}}$ remained, while ${ }^{*} \bar{e}>\mathbf{e i},{ }^{*} \bar{o}>\mathbf{o u}$. In Moluma, ${ }^{*} \bar{a}>\mathbf{a e}$.

- $\sqrt{\text { KRAQ: K. krāmen 'mountain', M. kraemen (T. krat 'mountain', kragmen 'large mountain') }}$
- $\sqrt{T A Q}:$ K. tātā 'rhythm, beat', M. taetae (T. tat 'point in time', tá $\boldsymbol{x}$ ta 'time in counting') originally probably onomatopoetic for the beating of the heart
- S, Z

Medial ${ }^{*} s$ - became voiced ${ }^{*} z$ and then the affricate $\mathbf{d z}$. Original ${ }^{*} z,{ }^{*} s d,{ }^{*} d s,{ }^{*} s b,{ }^{*} b s$ all merged in $\mathbf{d z}$ as well. On the other hand ${ }^{*} z r>$ дr.

- ل TWEZR: K. tyðrum 'to move (trans.), give', M. tybrum (T. twézrun 'twitch, jerk')
- $\sqrt{\text { TAZL: }}$ K. tadzal 'blood' (T. tálza)
$-\sqrt{\text { KAS: }}$ K. kodzum 'to burn' (T. kas 'fire')
- M

Proto-Tallic * $m$ mostly remains unchanged. In the verbs gūlum 'to swim' $<{ }^{*}$ gwumlun and koulum 'to wash' $<{ }^{*}$ komlun it disappears by dissimilation with the final nasal. The combinations ${ }^{*} s m$, ${ }^{*} m l$, ${ }^{*} m r$, ${ }^{*} n m$ develop an anaptyctic vowel $\mathbf{u}$, changing to dzum, mul, mur, num. In Moluma, additionally ${ }^{*} r m$, ${ }^{*} l m>$ rum, lum.

- لGWUML: K. gūlum 'to swim', p.t. gumulende (T. gwímlun 'to sail, swim')
- $\sqrt{\text { KOML: }}$ K. koulum 'to wash', p.t. komulende (T. kómlun)
- $\sqrt{ }$ GROS: K. *rodzuma 'strong' (see ??) (T. gros 'degree of strength')
$-\sqrt{\text { KIN: }}$ K. kinna, kynuma 'hard' (T. kin 'degree of hardness')
- N

Proto-Tallic syllabic ${ }^{*} n$ became a in Kymna (as in Greek). There was also a late loss of final ${ }^{*}$-e after $\mathbf{n}$, leading to a second wave of syllabic - * $n$, which became -un. Adjectival -na appended to -ne led to metathesis *-nena $>$-enna.
$-\sqrt{\text { BAMN: }} \mathrm{K}$. vomun 'sky' $<{ }^{*}$ vomn $<{ }^{*}$ bamne (T. bámne 'sky')
$-\sqrt{\text { GAPHN-: }}$ K. gacha 'fish' $<{ }^{*}$ gafa $<{ }^{*}$ gaphṇ (T. gámфa 'fish' $<{ }^{*}$ ganpha)
Proto-Tallic final ${ }^{*}$-un, ${ }^{*}$-on became -um, in particular the conclusive verb ending -un in Talmit corresponds to -um in Kymna.
In Moluma, ${ }^{*} n$ also became a, but initial ${ }^{*} n$ - caused a shift of $p, t / d, k / g$ to the nasals $m, n, \eta$. Of these, $\eta$ became $\mathbf{m}$ before $\mathbf{o}, \mathbf{u}, \mathbf{y}$ and $\mathbf{n}$ before $\mathbf{e}, \mathbf{i}$, perhaps via developing glides: ${ }^{*} \eta o>{ }^{*} \eta w o>\mathbf{m o}$ and ${ }^{*} \eta i$ $>{ }^{*} \eta j i>n i$.
The resulting prefix a- coincided with a- from signum marking in adjectives. The latter became an intensive prefix in Kymna and Moluma and was later dropped in ordinary forms. This dropping affected the nouns by analogy, which then often dropped their initial a- as well, but the nasal shift in Moluma remained.
$-\sqrt{ }$ KATW: M. moto 'forest' $<{ }^{*}$ aŋoto $<{ }^{*} n k a t w$, K. akoto

- $\sqrt{\text { TWEZR: M. anybrum 'to give' (ipf.) < *ntwezrun, K. atyðrum }}$
$-\sqrt{ }$ PLUMJ: M. amulȳum 'to rain' (ipf.) < *nplujam(a)-un (derived from *plujəma 'rain' instead of *plumjun from the root), K. aly $\mathbf{u m}$

Some words of this kind are dialect loans in Kymna, where loss of p would have lead to phonetically unsatisfactory forms, e.g. ame, amei- 'town, city' $<{ }^{*} n$ pel ( $\left.\sqrt{\mathrm{PEL}}\right)$, mona 'round' $<{ }^{*}$ nko-mo ( $\sqrt{\mathrm{KO}}$ ).

- L \& R

An ${ }^{*} l$ in the coda after the front vowels $e, i(l$ exilis $)$ became vocalized to $\mathbf{i}$, hence ${ }^{*} e l,{ }^{*} i l>\mathbf{e i}, \overline{\mathbf{1}}$ and ${ }^{*}$ wel, ${ }^{*}$ wil $>$ ëy; while ${ }^{*} l$ after ${ }^{*} a,{ }^{*} o,{ }^{*} u(l$ pinguis) became palatalized (the new $l$ exilis) by a chain shift.

- $\sqrt{\text { KWEPL: K. këya }}$ 'plant' $<{ }^{*}$ kwelpa (T. kwéple 'twine, ivy')

- $\sqrt{\text { KHWIL: K. hëy 'feather' (T. hwil 'feather') }}$

Initially, ${ }^{*} g,{ }^{*} p$ and ${ }^{*} k h$ were lost before $\mathbf{r}$, $\mathbf{l}$. In the case of $\mathbf{r}$, it led to a compensatory lengthening, with an initial trill [r] instead of an alveolar flap [r]. Moluma, on the other hand, uses anaptyctic vowels to avoid initial clusters:
$-\sqrt{ }$ GRos: K. *rodzuma 'strong', M. *gorodzuma (T. gros 'degree of strength') - but the actual word used in both dialects is blended grodzuma

- $\sqrt{\text { KRAQ: K. krāmen 'mountain', M. karaemen (T. krat) }}$
- VGLOPHN: K. lochnum 'to hear', M. golochnum (T. glóфnun)


### 1.5 Reduplicated monosyllables

Monosyllabic roots of the form CVS (C - stop, V - vowel, S - sonorant), so-called "monoplosive roots", were often reduplicated in Kymna. This served both the purpose of intensification and avoidance of too short words. They all developed after the manner CVSCVS $>(\mathrm{C})$ SVCVS (cf. Old Church Slavonic глаголъ $<$ *galgal) and thus often led to palindromes. If the second stop was voiceless unaspirated, it became aspirated very early on and thus developed like an original aspirated stop.

- $\sqrt{\text { Phos: K. sofos }}$ 'wind' $<{ }^{*}$ phosphos (T. фos)
- $\sqrt{ }$ KAS: K. sachas 'fire' $<{ }^{*}$ kaskhas (T. kas); from ${ }^{*}$ saças by dissimilation for expected ${ }^{*}$ sasas
- $\sqrt{\text { BAN: K. navan 'sun' < *banban (T. bánat, bármen) }}$
- $\sqrt{\text { PER: K. }}$.
- $\sqrt{\text { THAR: K. prapar, frapar 'powder' } ~<~ * t h a r t h a r ~(T . ~ \theta a ́ r m i) ~}$
- $\sqrt{\text { TAL: }}$ K. lapal 'speech', M. lafal $<{ }^{*}$ talthal (T. tálmit 'all the words, language')
- $\sqrt{\text { KAR: K. akrasar }}$ 'good luck' $<{ }^{*} a$-karkhar (T. kára 'state of good luck'); note no change $k r>\mathbf{c h r}$, as metathesis postdated this spirantization
- $\sqrt{\text { KaL: K. klasal }}$ 'dirt' < *kalkhal (T. kal 'mud, clay')


## 2 Grammar

### 2.1 Adjectives

Proto-Tallic had no adjectives, but rather abstract measurable nouns that could receive an intensive suffix *-mne or a mollitive suffix ${ }^{*}$-we which denoted an abstract notion of strength or intensity. For example, *tra 'size' could become *tra-mne 'large size', *tra-we 'small size'. Nouns of this kind in Talmit became states, a new part of speech; but Kymna developed adjectives out of them.

After $r, l$ the intensive suffix ${ }^{*}$-mne became -me, merging with collective ${ }^{*}$-mai $>\mathbf{- m e}$ and was resubstituted by analogy after vowels where historically *-mne would have been retained. From *-mne, two adjectival suffixes originated. After a vowel, by influence of the attributive verb ending *-una, words like *twi-m(ne)-na> tymna 'lively', *pwi-m(ne)-na > pymna 'full' have developed and were reinterpreted as adjectival formations with -na of the abstract nouns tyme, pyme. Since ${ }^{*} m n$ gave $\mathbf{m}$ after $\mathbf{r}$, $\mathbf{l}$, this new adjectival ending -na has a positional variant -ma (itself having merged with the genitive -ma $<{ }^{*} m o$ ) after these consonants. Thus the following correspondence can be found:

- abstr. -Vme, adj. -Vmna, e.g. *kju-m(ne)- > kȳme 'land, area, region, country' for hist. *kymne; kymna 'national, belonging to the country'
- abstr. -rme, -lme, adj. -rma, -lma, e.g. *blur-mn(e) > wlurme 'density, thickness', wlurma 'dense, thick'
- abstr. -nume, -dzume, adj. -nna/-numa, -dzuma (with anaptyctic u and u-mutation), e.g. *kran$m(n e)->$ kronume 'power', kranna, kronuma 'powerful', *gros-m(ne)-> *rodzume 'strength', *rodzuma 'strong' (replaced by grodzume, grodzuma - see ??)

Where the original root had a signum distinction, -Vna is used instead of -Vmna, probably because *-mne was not very frequent with these roots. Thus $\sqrt{\text { TLE }}>\mathrm{K}$. talena 'warm' (T. taléwe 'warm state', talémne 'hot state', but talé is enough to indicate a not further quantified warmness), $\sqrt{\mathrm{PLA}}{ }^{*} a-p l a-n a>\bar{a} l a n a$ 'good' ( T . palá 'state of being liked').

The mollitive ending *-we would have given *-y/*-i in Kymna, but it mostly disappeared. Small values on the scale are therefore derived from different roots, sometimes unrecorded in Talmit or loaned from other languages. For example, $\sqrt{ }$ TRA 'size' becomes K. tramna 'large', while tysta 'small' seems to be from the same root $\sqrt{\text { TWETS }}$ as T. twésta 'berry'. The root $\sqrt{\text { TLE }}$ 'temperature' yields K. talena 'warm', but sosolma 'cold' $<\sqrt{ }$ KHODL, whence T. hódol 'ice'. Thus the intensive/mollitive pattern dissolves, making way for purely lexical differences.

The positive signum marker a- was more often a prefix than an infix in Kymna. Because of the arising lexical differences it often became superfluous, and was reinterpreted as an intensive prefix in the usual sense. For example, $\sqrt{\text { PHRLL }}$ yields K. frı̄ma 'open', afrīma 'very open' (T. $\Phi$ ríl or $\phi$ aríl 'degree of openness'). By analogy, it expanded beyond the original usage and so a word like atalena 'very warm' actually has the same signum morpheme twice, first as an infix -a- ( $\sqrt{\text { TLE }}>$ talena 'warm'), lexically fixed and no longer regarded as a morpheme; then as an analogical intensive prefix a-.
Similarly, the negative signum marker i- became a simple negative prefix 'un-, dis-': ل $\mathrm{KLUN}>$ klunna 'clothed', ychlunna 'naked, unclothed' (T. kalún 'clothed state', kilún 'naked state').
The comparative in Kymna has become analytical and is formed with the modifiers emne 'more' and evi 'less' $<{ }^{*} e$-wә.

Adverbs are formed by replacing final -a of adjectives by -eidze (grodzumeidze 'strongly', taleneidze 'warmly'). This is a reflex of the Proto-Tallic comitative ending *jesə (jésse in Talmit). Since the protolanguage had only abstract nouns, adverbs were formed by the comitative: 'warmly $=$ with warmth' and so on.

### 2.2 Nouns

### 2.2.1 Number

Proto-Tallic had the plural suffix ${ }^{*}$-mi. It shifted towards a greater plural in Talmit, but was retained in Kymna. A preceding a changes to o, hence pyða 'river', pyðomi 'rivers', sasa 'egg', sasomi 'eggs' and so on.

In Proto-Tallic *te( $n$ ) was an element denoting a value on a scale, ${ }^{*} t e(n) m n e$ was an independent word for the abstract notion 'strong, intense', *te(n)we for the abstract notion of 'weak' ( *parus-te(n)mne 'great height', *parus-te(n)we 'small height'). This was retained in Talmit, but as the difference between count and mass nouns became blurry in Kymna and the -mne/-we distinction dissolved, -te was also attatched to count nouns and became a second plural suffix. This development also might have been influenced by *dan-te(n)mne 'large number $\rightarrow$ many'.
In Proto-Tallic, collections of count nouns or volumes of mass nouns could be expressed in two ways. The prefix ${ }^{*} n$ - properly denoted a certain volume of a mass noun, or an area where a number of count nouns is situated (the same prefix was also applied to verbs adding a sense of prolonged duration in Kymna), while the suffix *-mai, probably derived from plural ${ }^{*}-m i$, properly denoted a certain set of count nouns. Thus ${ }^{*} n$ - usually referred to something randomly shaped or without a clear border, while *-mai referred to something purposefully arranged and ordered.
In Talmit, -mi became a greater plural, while an- $<{ }^{*}$ n- filled the place of the ordinary plural; and ${ }^{*}$-mai was extended to collections of all kinds. In Kymna, ${ }^{*}$-mai became -me and fell together with -mne after r, l, being reinterpreted as an abstract noun suffix (although it retains its older meaning in some fossilized forms). Therefore, a- $<{ }^{*}$ ?- began to denote collections of all kind.
So for example:

| PT | *katw 'tree' | *katwmi 'trees' | *nkatw 'forest' | *katwmai 'orchard' |
| :---: | :---: | :---: | :---: | :---: |
| T. | kátu 'tree' | kátumi 'many trees, forest' | ankátu 'trees' | kátumai 'forest' (as opposed to other forests) |
| $\begin{aligned} & \text { K. } \\ & \text { M. } \end{aligned}$ | kappa, koppa 'tree' | koppami 'trees' | akoto 'forest' moto 'forest' | komme, kommei- 'orchard, garden' |

The paucal ending *-jo 'some, few, a couple' is productive in Talmit, but not in Kymna, although it can be traced in some words, e.g. ledza 'dew' $<{ }^{*}$ ples-jo (cf. T. ples 'drop').

### 2.3 Cases

### 2.3.1 General overview

Kymna has five cases, four of which appear in two variants: neutral and affected. Marking for affectedness is not determined by the type or meaning of the verb or noun involved ${ }^{1}$, but is rather akin to topic marking or

[^0]the definite/indefinite distinction. Instead of using the arguments of a verb (subject and object) as formal slots, the speaker puts emphasis on what actually matters in the context as the affected quality.
Taking a simple example:

- Panva kyvon sahende 'boy-NOM.AFF apple-ACC eat.PF-PST'
'The boy ate an apple'
would imply that the boy needed sustenance or was maybe poisoned, and thus was somehow affected by the eating. The fate of the apple itself is irrelevant, probably it was not mentioned before and hence the translation is 'an apple'.
- Pan kyvanas sahende 'boy-NOM apple-ACC.AFF eat.PF-PST'
'A boy ate the apple'
would imply that the apple is now gone and thus could be an answer to 'Where did the apple go?'. It is not important in the context who ate it, so the translation has an indefinite article: 'a boy'.

On the other hand, if the eating of an apple had a lasting effect on the boy, then the resulting state is exactly what is normally described by the perfect. So in a different narrative context, one could translate the above sentences in the following way:

- Panva kyvon sahende 'boy-NOM.AFF apple-ACC eat.PF-PST'
'The boy has eaten an apple'
- Pan kyvanas sahende 'boy-NOM apple-ACC.AFF eat.PF-PST'
'The apple has been eaten by the boy'

Affectedness also works with ditransitive verbs:

- Esse pachon haventes, savin ychluntes tyðrende 'I-NOM.AFF bread-ACC hungry-PL-DAT, clothes-ACC naked-Pl-DAT give.PF-PST'
'I [AFF] gave bread to the hungry and clothes to the naked'
could be claimed as merit in a discussion of one's vices and virtues ${ }^{2}$.
- E pachnas haventes, savenas ychluntes tyðrende 'I-NOM bread-ACC.AFF hungry-PL-DAT, clothesACC.AFF naked-PL-DAT give.PF-PST' 'I gave bread [AFF] to the hungry and clothes [AFF] to the naked'
could be a measure taken to utilize surplus bread and clothes.
- E pachon haventedzon, savin ychluntedzon tyðrende 'I-NOM bread-ACC hungry-PL-DAT.AFF, clothesACC naked-PL-DAT.AFF give.PF-PST' 'I gave bread to the hungry [AFF] and clothes to the naked [AFF]'
could be answered to a question about what has been done to help the hungry and naked.
Intransitive verbs can have an accusative affected and a dative affected argument beside the subject. It marks a further nuance of a positive or negative affection:
- Nanas lymende 'me-ACC.AFF rain.PF-PST'
'I was adversely affected by rain' (lit. 'It rained me', equivalent to the Japanese adversative passive (watashi wa) ame ni furareta
- Nadzon lymende 'me-DAT.AFF rain.PF-PST'
'I was positively affected by rain' (lit. 'It rained for me')

[^1]Of course, it is also possible to mark several objects as affected, so that a simple sentence like 'I love you' has four possible formulations. One would mark both the subject and the object as affected for mutual love, and only the subject as affected for unrequited love.
A noun in the genitive can be a verbal argument as well, the subject of a stative verb, or a verb where it has rather the role of a patient (e.g. ilollonum 'to be asleep', gȳrum 'to see'). The reason for this is mainly phonetic - the confusion of the conclusive verb ending ${ }^{*}$-un and the verbal noun ${ }^{*}$-on, both resulting in -um in Kymna. But it is very likely that semantic considerations of distinguishing a patient came into play, instead of 'I see' constructions like *'there is my seeing' might have been more common. Hence for example *pan-mo idlondlonon 'the child's sleeping' became ponuma ilollonum 'the child is asleep', *i-mo gwimron 'my seeing' became ima gȳrum 'I see'.
This can also be put into the genitive affected. From here, the genitive affected was actually resubstituted back to nouns in order to denote inalienable possession: ima savi 'my clothes', but namon āra 'my arm'.
The fifth case is the resultative and is used whenever something is created. For example, the direct object of a verb like 'write' may be 'ink', of a verb like 'build' may be 'bricks', but 'letter' or 'house' will stand in the resultative case, thus literally 'write ink into a letter', 'build bricks into a house'. For historical reasons, resultative -man is always in the affected form. It traces back to a modification of dative ${ }^{*} m a$. The Talmit cognate mére denotes changing into a state.

Example:

- E serhoman sechrende 'I-NOM document-RES.AFF write.PF-PST'
'I wrote a document'


### 2.3.2 Endings, noun classes, etymologies

The case endings in Kymna derive from agglutinated Proto-Tallic postpositions. The following table gives a general overview of the endings, but variations appear depending on the final consonant of a noun:

|  | sg. neutral | pl. neutral | sg. affected | pl. affected |
| :---: | :---: | :---: | :---: | :---: |
| nom. | -ø | -mi | -va | -mīva |
|  |  | -te (after s, n) |  | -tva (after s, n) |
| gen. | -ma | -mīa | -mon | -mīon |
|  |  | -tma (after s, n) | -umon (after s, n) | -tmon (after s, n) |
| dat. | -s | -mis | -dzon | -mīdzon |
|  | -as (after cons.) | -tes (after s, n) | -sson (after s) | -tedzon (after s, n) |
| acc. | -n + u-mut. | -myn/-min | -nas | -mīnas |
|  | -on (after cons.) | -tin (after s, n) | -inas (after s) | -tenas (after s, n) |
| res. |  |  | -man | -mīan |
|  |  |  | -uman (after s, n) | -tman (after s, n) |

Note that gen. ${ }^{*} m o>$ ma in Kymna fell together with dat. ${ }^{*} m a$. Therefore, instrumental ${ }^{*} z o$ became the new dative.

Etymologies:

- gen. -ma $<{ }^{*} m o$, aff. -mon $<{ }^{*}$ monə
- dat. -s $<{ }^{*} z o$, aff. -son/-dzon $<{ }^{*}$-zonə
- acc. $-\mathbf{n}<{ }^{*} n u$ (hence u-mutation of preceding consonant), aff. -nas perhaps from ${ }^{*}$-nadz(e) $<{ }^{*} n a j e<$ ${ }^{*} n u j$, although the unstressed loss of roundness ${ }^{*} u>\mathbf{a}$ (originally $=?[\Lambda]$ ) is not usual
- res. -man $<{ }^{*} m a R ə$

The dat. and acc. sg. neutral -as and -on after consonants are substituted by analogy from the very common nouns ending in -a.

The plural affected suffixes are straightforward pl. ${ }^{*}-m i$ or ${ }^{*}-t e+$ affected singular. The $m$ of ${ }^{*}-m i$ fell away with compensatory lengthening by dissimilation with a following $\mathbf{m}$, hence mīon $<{ }^{*}$-mimon, -mīa $<{ }^{*}$-mima. The long vowel was by analogy extended to -mīva for ${ }^{*}$-miva $<{ }^{*}$-miwa, -mīdzon for ${ }^{*}$-midzon $<{ }^{*}$-mizon
and -minas for ${ }^{*}$-minas $<{ }^{*}$-minaja.
The plural ending -te is preferred after -s, $\mathbf{- n}$ to prevent adding a syllable by an anaptyctic vowel. In colloquial speech, contractions -teva $>$-tva, -temon $>$-tmon are common. Since this is a very late development, there is no further change of consonants.

A special class of nouns are those with final -n hailing from syllabic *- $n$, like sumun 'sound', vomun 'sky', vuchun 'spine', hymun 'light' (cf. T. hómne, bámne, búkne, фjómne). They take plural endings with -t- (sumunte, sumuntva, sumuntmon etc.), but behave like vocalic stems sumnu-, vomnu-, vuchnu, hymnu- in the singular (sumnuma, sumnus etc.; exception: acc. sg. aff. sumunnas). Compare the ager-type second declension in Latin.

Nominalized adjectives also use the t-scheme by analogy to their nominalization suffix $\mathbf{- t}(\mathbf{a})$. Thus grodzuma 'strong', grodzumat(a) 'strong one', pl. grodzumate 'strong ones' and so on. A common contraction is *-enna-t- > -ent- (havenna 'hungry', haventa 'hungry one', pl. havente).
Nouns in -e form the accusative by -in rather than *-ën, with loss of rounding in unstressed position, e.g. roume 'language' $>$ acc. sg. neutr. roumin.

Nouns with $\mathbf{m}$ in the last syllable receive dissimilated suffixes with $\mathbf{n}$ instead of $\mathbf{m}$, and those in $\mathbf{- m e / - m i}$ usually lose the last vowel, e.g. gomi 'nose' is declined in the plural neutral as follows: gomni, gomnīa, gomnis, gomnin and in the plural affected: gomnīva, gomnīon, gomnīdzon, gomnīnas.

In words which end in -e, where final -e is a shortening of -ei in unstressed position, -ei- reappears when a whole syllable is attatched as an ending, e.g. ame 'city' > acc. sg. neutr. amin, but acc. sg. aff. ameinas. This includes the large group of abstract nouns ending in -me $<{ }^{*}$-mai, but not those ending in -me $<{ }^{*}$-mne (as salme 'water'), although the two groups are often confused towards one or the other by analogy.

## 3 Pronouns

### 3.1 1st person

Proto-Tallic had several roots for the 1st person singular. The commonest was $\sqrt{\mathrm{I}}$. $\sqrt{\mathrm{EZ}}$ was used in formal situations or when dissociated from the narrative and was more noun-like, whereas $\sqrt{ } \mathrm{NA}$ was used in the reverse case, where personal involvement was emphasized.
Talmit, with its development towards a state/event distinction, has only kept éze $<\sqrt{\text { EZ }}$, properly meaning something like 'my state' which could also take tense. In Kymna, i- $<\sqrt{I}$ and $\mathbf{e}-<\sqrt{\text { Ez }}$ fell together, while the root $\sqrt{ }$ NA was used for the affected forms except for the nominative singular.

|  | 1st sg. neutral | 1st sg. aff. |
| :--- | :--- | :--- |
| nom. | e | name, esse |
| gen. | ima | namon |
| dat. | es | nadzon |
| acc. | yn | nanas |

### 3.2 2nd person

In the second person, $\sqrt{\mathrm{SU}}$ was the general pronoun, $\sqrt{\mathrm{AM}}$ the formal noun-like one and $\sqrt{\mathrm{NE}}$ was used in the case of an intimate connection with the adressed person. Again, Talmit kept only áma $<\sqrt{\mathrm{AM}}$ and ne $<\sqrt{\mathrm{NE}}$ as a polite vocative particle. Kymna derives affected forms from $\sqrt{ } \mathrm{NE}$ and neutral forms from $\sqrt{\mathrm{Su}}$ or $\sqrt{\mathrm{Am}}$. The nominative affected is ussu from reduplicated $\sqrt{ }$ su.

|  | 2nd sg. neutral | 2nd sg. aff. |
| :--- | :--- | :--- |
| nom. | su | ussu |
| gen. | suna | nemon |
| dat. | amas | nedzon |
| acc. | omun (M. amun) | nenas |

## 4 Verbs

### 4.1 General overview, verb classes, past tense

The principal parts of a Kymna verb are the conclusive form, always ending in -um, and the past tense conclusive, ending in -ende. The conclusive form is used as a predicate finishing a sentence, and is opposed to the inconclusive -e when more information is to follow.

In Proto-Tallic, the only verb having a past tense was the copula 'to be' (its exact form is unknown), the past tense of other verbs was expressed by a participial form + 'was'. In addition, there was evidentiality marking by i-infix (for ascertained events) and u-infix (for doubtful events). Since events of the first kind more often took place in the past and those of the second kind in the future, Talmit began to use i- and u-infixion to mark tense. Kymna on the other hand dropped the copula out of the past tense construction, just leaving the participle. Thus the participial ending became the past tense marker (just like Slavic -лъ, -ла, -ло). Hence Proto-Tallic
 form *taplen- + *de 'action, event') result in taplendíi(-nójo) 'was saying' in Talmit; and in Kymna simply tālende 'said'.
A fossilized u-infix is found in Kymna in the word ganimo, ganymou- 'future', coming from *ganen-pau 'something which might come'.

Since the conclusive form -um triggers u-mutation, while the inconclusive -e and past tense -ende do not, some verb classes arose:

1. Original $\mathbf{o}, \mathbf{u}, \mathbf{o u}, \mathbf{y}(<w i$, we, $j u, j o)$ are unchanged:

- VDLON: ilonum 'to sleep', p.t. ilonende
- VDROKHS: drossum 'to live', p.t. drossende
- $\sqrt{ }$ GAR: gorum 'to fall over (of upright inanimates, e.g. trees)', p.t. garende
- VGLOPHN: lochnum 'to hear', p.t. lochnende
- $\sqrt{ }$ GLUN: lunum 'to taste', p.t. lunende
- VGWUML: gūlum 'to swim', p.t. gumulende
- $\sqrt{\text { POGGN: pounum 'to decide', p.t. pounende }}$
- $\sqrt{\text { TWEZR: }}$ tyðrum 'to move, give', p.t. tyðrende
- $\sqrt{\text { PHWI: hynum 'to breathe', p.t. hynende }}$

2. Original e, a, $\overline{\mathbf{a}}(=\mathrm{M} . \mathbf{a e})$, $\mathbf{i}$, ei become ë, $\mathbf{o}, \mathbf{o u}, \mathbf{y}$, ëy in the present:

- $\sqrt{\mathrm{GA}}$ : gonum 'to go', p.t. ganende
- VGLAN: lonum 'to sing', p.t. lanende
- $\sqrt{\text { TAPL: }}$ toulum 'to speak, say', p.t. tālende (M. taelende)
- $\sqrt{\text { BRADN: wrounum 'to fight', p.t. wrānende (M. wraenende) }}$
- VDE: dënum 'to do', p.t. denende
- $\sqrt{\text { KES: }}$ këdzum 'to stab, prick', p.t. kedzende
- $\sqrt{\text { KHEKR: sëchrum 'to write down', p.t. sechrende }}$
- $\sqrt{\text { KHRIZ: rydzum }}$ 'to cut', p.t. ridzende
- $\sqrt{\text { PIN: pynum 'to use', p.t. pinende }}$
- $\sqrt{\text { TUBL: }}$ tuvlum 'to fall over (of human beings and animals)', p.t. tuvlende
- $\sqrt{\text { BLEQ: wlëyum 'to pain, hurt', p.t. wleiende }}$

There are some irregular formations where past tense forms come from different roots:

- $\sqrt{\text { GWIMR: }}$ gȳrum 'to see', p.t. salende (from $\sqrt{\text { PHJAL }}$ 'eye')

In a synchronic analysis of Kymna one would say that there are two verb stems (e.g. toul- and tāl-) and would probably regard the u-affected as basic, since it appears in the common conclusive form. Verb forms using the u-affected root are:

- conclusive -um
- cohortative - $\mathbf{u}$ mene ( probably $<$ verbal noun ${ }^{*}$-on + resultative ${ }^{*} m a R ə$ )
- attributive -una/-uma

Verb forms using the unaffected root are:

- inconclusive -e
- imperative -ëssu
- past conclusive -ende
- compound -i-


### 4.2 Aspect

### 4.2.1 formation

Kymna has developed a fundamental perfective/imperfective aspect distinction much like the Slavic languages. The lexical verb forms are all perfective as they were in Proto-Tallic and also are in Talmit. The ways of derivation are very limited:

- PF $\rightarrow$ IPF:

1. pref. $\mathbf{a}-<{ }^{*}$ n
2. full reduplication
3. compound with an imperfective preverb

- IPF $\rightarrow$ PF:

1. pref. s-, a Proto-Tallic element indicating change of state

The most common way to derive imperfective forms was to attach the prefix $n$-. It seems to have conveyed a sense of extension in space for nouns and its reflexes an-, na-, in-, ni- are widerly used in this way in Talmit. Applying it to verbs in order to express an extension in time seems to have been a Kymna innovation.
Syllabic n- has become a- in Kymna and thus coalesced with the intensive prefix a- (former positive signum) which may have contributed to its development. It is never stressed, persumably because $n$ - could not be stressed either. In Moluma, initial $n$ - additionally led to a nasalization of a following stop: * $n p-$, * $n t-/{ }^{*} n d-$, *nk-/* $n g$ - > am-, an-, ay-. Hence:

- $\sqrt{\text { TWEZR: pf. tyðrum 'to give', ipf. atyðrum (M. anyðrum) }}$
- VBRADN: pf. wrounum 'to fight', ipf. avrounum
- $\sqrt{\text { TAPL }: ~ p f . ~ t o u l u m ~ ' t o ~ s a y ', ~ i p f . ~ a t o u l u m ~(M . ~ a n o u l u m) ~}$
- $\sqrt{B L E Q: ~ p f . ~ w l e ̈ y u m ~ ' t o ~ p a i n, ~ h u r t ', ~ a v l e ̈ y u m ~}$

Due to medial lenition of $-p$ - and $-g$-, verbs with initial $\mathbf{p -}$, $\mathbf{g}$ - have seemingly irregular forms. In Moluma, ${ }^{*} p-$, ${ }^{*} g->\mathbf{a m}-$, ay- and further: $\eta>\mathbf{n}$ before $\mathbf{e}, \mathbf{i}, \ddot{\mathbf{e}}, \mathbf{y} ; \eta>\mathbf{m}$ before $\mathbf{o}, \mathbf{u}$; dropped before $\mathbf{r}$, l. Also bear in mind that a becomes o by u-mutation except in Moluma where analogical levelling led to uniform a-.

- $\sqrt{\text { GEPRR: pf. gëyrum 'to travel', ipf. ahëyrum (M. anëyrum) }}$
- $\sqrt{\text { GLOPHN: pf. lochnum 'to hear', ipf. ālochnum (M. golochnum/aelochnum) }}$
- $\sqrt{\text { GLUN: }}$ pf. lunum 'to taste', ipf. oulunum (M. gulunum/oulunum)
- $\sqrt{ }$ GWUML: pf. gūlum 'to swim', ipf. ohūlum, oulum (M. amūlum)
- $\sqrt{\text { POGGN: pf. pounum 'to decide', ipf. ounum (M. amounum) }}$

Verbs from "light roots" (which ended in a vowel or $r, l, s, n, Q$ ) can fully reduplicate their roots for the imperfective aspect. This is not found in Talmit, where partial reduplication forms an iterative aspect for all verbs.
- $\sqrt{\text { DE: }}$ pf. dënum 'to do', ipf. deðënum $<{ }^{*}$ dedenun
- $\sqrt{ }$ KES: pf. këdzum 'to stab, prick', ipf. sechëdzum < *keskhesun
- VDLON: pf. ilonum 'to sleep', ipf. ilollonum $<{ }^{*} i$-dlondlonun
- $\sqrt{\text { PIN }}$ : pf. pynum 'to use', ipf. nichȳnum $<{ }^{*}$ pinphinun



### 4.2.2 paradigms

The underlying derivational patterns can be conveniently organized into several paradigms.
The first and simplest one is the atelic paradigm for verbs which have no specified endpoint ( $\tau \dot{\varepsilon} \lambda$ os). The simplex is perfective, the imperfective is obtained by prefixing a- (causing sound changes):

| atelic paradigm |  |  |
| :--- | :--- | :--- |
| A | pf. | gëyrum 'travel' |
| A.a | $\rightarrow$ ipf. a- | ahëyrum 'be traveling' |

The stative paradigm, used for stative verbs, is a three-step ladder. The simplex is perfective, the imperfective is obtained by prefixing a- or by reduplication. The resulting imperfective can be made perfective again by prefixing s- (causing sound changes):

| stative paradigm |  |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: | :---: |
| S | pf. | ilonum 'sleep' | S |  |  |  |  |
| S.r | $\rightarrow$ ipf. redupl. | ilollonum 'be asleep' $\left(<{ }^{*}\right.$ idlondlonun $)$ | S.a | $\rightarrow$ ipf. a- |  |  |  |
| S.r.s | $\rightarrow$ p. pynum 's- | hilollonum 'fall asleep' | S.a.s |  |  |  |  |
| sāpynum 'come to wish' |  |  |  |  |  |  |  |

The telic paradigm branches a perfective simplex into two imperfective variants: one in which the té $\lambda$ os has not been achieved yet, and 'the action as such', without any restrictions. The latter is formed by reduplication or by a compound with the verbalized preverb (see below and ??) porūm 'to be above, ${ }^{\prime 3}$ :

| telic paradigm |  |  |  |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :---: | :---: |
| T | pf. | kodzum 'burn up' | T | so(h)um 'eat up' |  |  |
| T.a | $\rightarrow$ ipf. a- | akodzum 'be burning up' | T.a | $\rightarrow$ ipf. a- |  |  |

Thus sahi-porūm is literally 'to be upon eating'. In English, 'burn up' and 'eat up' use an image schema where something accumulates and rises in height up over time (e.g. pouring water into a cup), but in Kymna the underlying image schema is the carrying or throwing of an object - the action lasts as long as this object is up in the air. Also, when performing a task, there is a metaphorical rise in effort and concentration.

Finally, there is the preverb (see ??) paradigm which is a bit different from the others. One has to point out that preverb simplexes are always imperfective (while other verbs are always perfective) and usually denote position in a location. Again, the change of state into that position is expressed by prefixing s-. A secondary imperfective denoting that this goal has not been reached yet is expressed by a compound with another preverb tënum 'to be headed for':
preverb paradigm

| P | ipf. | pyrūm 'be below' |
| :--- | :--- | :--- |
| P.s | $\rightarrow$ pf. s- | hyrūm 'get below, fall down (if initially detached from the ground)' |
| P.c | $\rightarrow$ impf. compound | pyrutënum 'be falling (in the air, not touching the ground)' |

[^2]Of all the verb paradigms, the telic verbs are the most complicated. The reduplicated T.r form can cross over to the S.r $\rightarrow$ S.r.s pattern with a new T.r.s skachodzum 'start to burn' ${ }^{4}$. The T.c form can cross over to the P pattern and form T.c.s sahi-sorūm 'start to eat' and T.c.c sahi-porutënum 'prepare to eat'. Using pyrūm 'to be below' instead, one obtains sahi-hyrūm 'finish eating' (pf.) and sahi-pyrutënum 'to be finishing eating' (ipf.) ${ }^{5}$.
Unlike Talmit, which has no aspect marking, the inconclusive form distinguishes aspect (but not tense) in Kymna:

- Kūmos sahiadzue, 'hëya!' malon neinende 'Being eaten [IPF INCONCL] by a bear, he cried [PF CONCL PST] 'ouch!"
- Vengane, gȳre, pyruvrānende 'Veni, vidi, vici' = 'Come [PF INCONCL], see [PF INCONCL], conquer [PF CONCL PST]'

In the conclusive form, present perfective has a gnomic sense in declarative sentences and a future sense in conditional and consecutive clauses:

- Navan lëyum 'The sun shines [pf concl pres]'
- Vena hyntomi derinōn, e hilollonum 'These pages are so long that I'm going to fall asleep [PF CONCL PRES]'


### 4.3 Preverbs, predicative adjectives

Kymna has no adpositions. To make up for it, preverbs are widely used. That is, instead of saying 'go around the house' Kymna says 'the house-DAT around-go'. Some of the preverbs are:

- toru- 'inwards', tyru- 'outwards', tëyru- 'in and out, exchange'
- poru- 'upwards', pyru- 'downwards', pëyru- 'up and down, change of state'
- ava- 'forwards', iva- 'backwards'
- ko- 'around'
- ten- 'up to the point'
- ran- 'across, through'
- ahy- 'all around, all across, all over' ( $<$ * ${ }^{*} k h w e$ )

Note that atelic verbs thus usually become telic.
To say something like 'it is above' or 'it was inside' one can just verbalize preverbs (sic!) with the zero-root verb um, p.t. ende. As an exception, stress lies on the ultimate syllable. For example porúm 'above-is', porénde 'above-was', poré 'above-being' (inconclusive) etc. Noun phrases like 'in the water' correspond to verbal phrases in Kymna: salmes torue 'being in the water'.
One suspects that this zero-root verb actually once was the copula *gum 'to be', from the vowelless root $\sqrt{\mathrm{G}}$ (whence guma 'alive', gumate 'men, human beings' (pl. only) and T. agó 'state of existence', ugí 'state of non-existence') being agglutinated to the preverb and eventually losing medial $-g$-. Hence *paru gum > *paru(h)úm > porūm.
A relative clause like 'who is inside' is formed by putting the zero-root verb into the attributive with -una: porūna, torūna. Due to a common confusion of the attributive -na and attributive/genitive -ma it is also possible to attatch -ma to the preverb: poruma, toruma.

The zero-root verb um is also used for predicative adjectives. Adjectives all end in -a and the predicative form is always -ōn with stress on the ultimate syllable (ālana 'good', ālanón 'is good', tysta 'small', tystón 'is small', tramna 'big', tramnón 'is big'). See the proverb Nanas vymen tramne, se doure temnōn 'The field is large and there is much work for me [to do]' (with the accusative affected expressing adversity, see ??). This is probably a dissimilated form coming from -ma adjectives, later substituted by analogy for all others. Hence for example *khjul-mo gum > *hylma(h)ún > hylmōn 'is light (of weight)'.

[^3]
### 4.4 Passive

The passive in Kymna is formed with the zero-root passive verb pf. dzūm, ipf. adzūm (cognate to T. -ússun) which has no meaning by its own:

- so(h)um 'to eat', compound sahi- $\rightarrow$ pf. sahizdūm 'to be eaten', ipf. sahiadzūm


## 5 Vocabulary

### 5.1 Colours

The main colour terms in Kymna are:

- achva 'red' ( $\sqrt{\mathrm{KWA}}$ )
- mutma 'black'
- hengva 'blue'
- mousta 'green'

They can be compounded with hima 'thin' to derive the lighter variants. Curiously, yellow is regarded as light green:

- himachva 'pink'
- himutma 'grey'
- himengva 'light blue'
- himousta 'yellow'


## 6 Texts

### 6.1 The Crow and the Fox (Karha s'Seile)

One day, a fox saw a crow with a piece of cheese in her beak sitting on a branch of a tree.
Eia hess, seileva vōs toruma lemgin atonuma, krodzes keriporuma karhon salende.
one day, fox-NOM mouth-DAT be.inside-ATT cheese-ACC IPF-have-ATT branch-DAT sit-CMPD-be.aboveATT crow-ACC see.PST

- ei(a) numeral ' 1 ', also used for emphatic indefiniteness
- hess 'day' (temporal words just go unmarked in Kymna)
- seile 'fox', nom. aff. seileva
- vō 'mouth', dat. of location vōs
- toruma 'being inside' (attrib.)
- lemge 'cheese' (clearly a loan, of unknown origin), acc. neutr. lemgin
- atonum 'to have' (S.a paradigm), attrib. atonuma
- krodze 'branch', dat. of location krodzes
- kërum 'to sit', compound keri-: keri-porūm 'sit on' (P paradigm), attrib. keri-poruma
- karha 'crow', acc. neutr. karhon
- salende 'saw', irregular p.t. of gȳrum 'to see'

He thought 'Let me get that cheese for myself' and walked up to the foot of the tree.
"Terma lemgin midzas satonūmene" malon tevne, koppa-takes tenganende.
that cheese-ACC self-DAT VR.ST-IPF-have-COH QUOT think.PF-ICCL tree-stem-DAT go.to.point.PF-PST

- terma 'that one'
- mis reflexive pronoun, dat. midzas 'for myself'
- satonum 'to gain, come into possession' (S.a.s paradigm), coh. satonūmene
- malon - general quoting particle
- tëvnum 'to think' (A paradigm), inconcl. tevné
- koppa 'tree'
- take 'stem, stalk', dat. of location takes
- tengonum 'go up to the point' (T paradigm), p.t. tenganende
'Good day, oh crow!', he said, 'How well you are looking today! How shining are your eyes, how glossy are your feathers!
'Salidzon, karha!" malon, "Veness ālaneidze nemon akonum! Nei nemon salmi hymnōn! Nei nemon hëymi alëym!
greetings crow! QUOT today good-ADV you-GEN.AFF IPF-appear! MP.praise you-GEN.AFF eye-PL brightPRED! MP.praise you-GEN.AFF feather-PL IPF-shine!
- salidzon - greeting, literally acc. of salis 'happiness'
- veness 'today'
- ālana 'good', adv. ālaneidze 'well'
- nemon gen. aff. 'your', marking a stative/patient-like subject at the first occurence, then unalianable possession of eyes and feathers
- nei - initial affective particle expressing praise
- sal 'eye', nom. pl. salmi
- hymna 'bright', predic. hymnōn
- hëy 'feather', nom. pl. hëymi
- alëym 'to shine' (A.a paradigm)

Your voice must surely surpass the voices of other birds, just like your form does'

as you-GEN.AFF shape every bird-PL-ACC IPF-surpass so you-GEN.AFF voice suppose-be.beyond.IPF

- 1 Iin . . ., ālin 'as . . , so'
- nasan 'shape'
- mīna 'all, every'
- tosse 'bird', acc. pl. neutr. tossemin
- atyruhëyrum 'surpass' (A paradigm), lit. 'travel beyond'
- roume 'speech, voice'
- umne- preverb expressing that something is supposed to be in a certain state
- tyrūm 'be out, be beyond' (P paradigm)

Oh crow, could you sing me a song so that I can call you the queen of birds!'
Karha, nadzan ei toutoman lanëssu, e tossemīa perinda-mal talibon edze amas tyðriðëssum." crow, me-DAT.AFF one song-RES.AFF sing.PF-IMP, so.that bird-GEN.PL queen-called name-ACC INOM.AFF you-DAT give-CMPD-be.able.to.PF

- nadzan - dat. aff. 'for/to me'
- touta 'song', res. sg. toutoman (the song is not in existence yet, so it stands in the resultative)
- lonum 'sing', imp. lanëssu
- $\mathbf{e}$ - marks following sentence as a consequence following from the preceding one
- tossemīa - gen. pl. neutr. of tosse 'bird'
- perinda 'queen'
- ... -mal 'called ...'
- talipa 'name', sg. acc. neutr. talipon
- edze - nom. aff. 'I'
- amas - dat. neutr. 'to/for you'
- tyðrum 'to give', compound tyðri-
- dëssum 'be able to do' (S paradigm), tyðriðëssum 'be able to give' (the non-past perfective expresses future perfective)

The crow lifted her head in order to sing, but as she opened her beak, the cheese fell down and was taken by the fox.
Karhava lonuma patas poruchon ny sorue, lemge ndo hyrue, s'seiles tachnidzuende.
crow-NOM.AFF sing-ATT wish-DAT head-ACC on.one.hand raise.PF-ICCL cheese on.other.hand fall.pFICCL and fox-DAT take-CMPD-be.done-PST

- karhava - nom. sg. aff. of karha 'crow'
- lonuma - attrib. form of lonum 'to sing'
- pata 'wish', dat. sg. neutr. patas
- poruch 'head', acc. sg. neutr. poruchon
- sorūm 'to rise/raise', inconcl. sorué
- ....ny, ...ndo - shows contrast, placed after the appopriate words; similar to Greek $\delta \varepsilon / \gamma \alpha \rho$
- hyrūm 'to fall (if initially detached from the ground)', inconcl. hyrué
- se 'and', shortened to $\mathbf{s}$ ' before $\mathbf{p}, \mathbf{t}, \mathbf{k}, \mathbf{s}$ and vowels
- tochnum 'to take away, seize', passive tachnidzūm, past passive tachnidzuende 'was taken away'
'That's right, that's what I wanted', said the fox, 'In exchange for the cheese I shall give you a piece of advice for the future: Do not trust flatteres.'
"Ālana-ālanōn", malon seile tālende, "Vënumaton im' āpinende. Lemges tëyrue ei devin nedzon ganimos tyðrum: Līsalirmis dovnironëssu."
good-good-PRED QUOT fox say.PF-PST this.very-ACC me-GEN IPF-wish-PST. cheese-DAT exchange.IPFICCL one advice-ACC you-DAT.AFF future-DAT give.PF: flatterer-PL-DAT trust-CMPD-not.do-IMP
- toulum 'to say' (T paradigm), p.t. tālende
- vënumat(a) emph. 'this very thing', acc. vënumaton
- ima - gen. sg. neutr. 'my', here marking a stative/patient-like subject, shortened to im'
- āpynum 'to wish' (S paradigm), p.t. āpinende
- tëyrūm 'to exchange', inconcl. tëyrué
- deve 'advice', acc. sg. neutr. devin
- nedzon - dat. sg. aff. 'for/to you'
- ganimo, ganymou- 'future', dat. sg. neutr. ganimos
- lisalir 'flatterer', lit. 'sweet-mouth', dat. pl. neutr. līsalirmis
- dovnum 'to trust', compound dovni-
- ronum - negative verb, imp. ronëssu 'do not!'


[^0]:    ${ }^{1}$ According to the common definition a verb like 'to break' has a higher affectedness than 'to touch'.

[^1]:    ${ }^{2}$ The sentence is in fact taken from Middle Egyptian tombstone inscriptions.

[^2]:    ${ }^{3}$ The examples correspond to Russian сгореть/сгорать/гореть and съесть/съедать/есть

[^3]:    ${ }^{4}$ Russian загореться
    ${ }^{5}$ Russian доесть/доедать

