

Elephant's Memory by Timothy Ingen Housz


"I am so happy that you are pregnant"

# ORTHOGRAPHY 

## Orthography > ortho-

## "correct" + graph- "write"

# Orthography: The way a group of speakers use a writing system to record their language. 

# Writing system: A system of glyph shapes mapped to sounds and a method for combining them and writing them down. 

## Glyph: The smallest whole unit of a writing system.

## Glyph

## あ垩 a ช゚ ึึ \＄8

## Writing System <br> あうふげれまぱボドロワ <br> アンザカ゚カホラ，ロキ゚ヤじ両世堊后改那鄆好彾下七爾

## あ Writing System あああああ。 <br> 

## Orthography食べました ＊たべました ＊タベマシタ ＊食べまシた

# Romanization 

 tabemasita tabemashita tabemashta
## tah-bay-mosh-tah

$$
\begin{gathered}
\text { 食べました } \\
\text { tabemashita } \\
\text { /ta.be.ma.si.ta/ } \\
\text { ['ta.be.ma.Si.ta] } \\
\text { "ate" }
\end{gathered}
$$

## 食べました

tabemashita
／ta．be．ma．si．ta／
［＇ta．be．ma．fi．ta］
＂ate＂

食べました tabemashita
／ta．be．ma．si．ta／ ［＇ta．be．ma．ji．ta］ ＂ate＂

# dothrakhqoyi <br> /do. $\mathrm{rax} . \mathrm{qo.ji/}$ <br> <br> ['dr.Өrax.qo.ji] <br> <br> ['dr.Өrax.qo.ji] "bloodrider" 

 "bloodrider"}

Orthography
Below is the orthography for Thawayan．This includes all graphemes as defined in the language＇s phonology settings－excluding the non－distinct graphemes／polygraphs．

| Orthography |  |  |  |  |  |  |  |  |  | Thawayan |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| ＇！！n ／！ | '\|n | ＇｜｜n <br> ／iin／ | $' \neq n$ <br> 1笃／ | '!n | ＇〇n <br> ノ®̃／ | $\begin{gathered} !! \\ /!!/ \end{gathered}$ | $\begin{aligned} & !!' \\ & !!!! \end{aligned}$ | !!g <br> ！！！ | ！！h <br> ／！！$/$ | !!n /!! / |
| $\begin{aligned} & !!q \\ & !!!q / \end{aligned}$ | $\begin{aligned} & !!q^{\prime} \\ & /!!q^{\prime \prime} \end{aligned}$ | ！！qh <br>  | $\begin{gathered} !!x \\ !!!x / \end{gathered}$ | $\begin{aligned} & !!x^{\prime} \\ & /!!\chi^{\prime \prime} \end{aligned}$ | $\underset{/ \mathrm{mb} /}{\mathrm{b}}$ |  | $\underset{/ \mid}{1}$ | $\begin{gathered} I^{\prime} \\ I^{\prime \prime} \end{gathered}$ | $\mathrm{lg}$ <br> ／II／ | ｜ h <br> ／${ }^{n}$ |
| $\mid n$ <br> ／II | $1 \mathrm{q}$ | $\begin{aligned} & \mid q^{\prime} \\ & / \Uparrow q^{\prime \prime} \end{aligned}$ | ｜qh <br> $\pi q^{1 /}$ | $\begin{aligned} & \\| x \\ & \pi x / \end{aligned}$ | $\underset{\pi x^{\prime \prime}}{\\|}$ | ｜｜ <br> ／｜｜／ | $\begin{gathered} \\|\left.\right\|^{\prime} \\ / \\|^{\prime \prime} \end{gathered}$ | $\\| \mathrm{g}$ <br> ／！$/$ |  | $\\| n$ <br> ／ĩ／ |
| $\\| q$ <br> ／iाq／ | $\begin{aligned} & \\| \mathrm{q}^{\prime} \\ & \text { /iा } \mathrm{q}^{\prime} \end{aligned}$ | ｜｜qh <br> ／iा $q^{1 /}$ | $\\|_{\\| x}^{\\| \chi^{\prime}}$ | $\begin{aligned} & \\| x^{\prime} \\ & / \\| x^{\prime \prime} \end{aligned}$ | $\begin{aligned} & \neq \\ & / \neq / \end{aligned}$ | $\begin{aligned} & \not \ddagger^{\prime} \\ & 申^{\prime} / \end{aligned}$ | $\neq \mathrm{g}$ <br> （キ） | $\neq \mathrm{h}$ <br> $1 \neq{ }^{7}$ | $\begin{aligned} & \neq \mathrm{n} \\ & \tilde{\text { /f/ }} \end{aligned}$ | $\begin{aligned} & \neq q \\ & / \neq q / \end{aligned}$ |
| $\begin{aligned} & \neq q^{\prime} \\ & \neq \mathrm{q}^{\prime} / \end{aligned}$ | $\ddagger q h$ <br> 厈 $\mathrm{q}^{17}$ | $\begin{gathered} \neq x \\ \neq x / \end{gathered}$ | $\begin{aligned} & \neq x^{\prime} \\ & / \neq x^{\prime \prime} \end{aligned}$ | $\begin{gathered} ! \\ !!/ \end{gathered}$ | ！＇ <br> ！！ | ! | ！h <br> ！！ | !n <br> ／i！ | $\begin{aligned} & !q \\ & !q / \end{aligned}$ | $\begin{aligned} & !q^{\prime} \\ & \pi!q^{\prime} / \end{aligned}$ |
| ！qh <br> ！ $\mathrm{a}^{n}$ | $\begin{gathered} !x \\ !!x! \end{gathered}$ | $\begin{aligned} & !x^{\prime} \\ & !!x^{\prime \prime} \end{aligned}$ | $\odot$ /®/ | $\odot^{\prime}$ <br> 10\％ | $\odot g$ <br> ／＠！ | ○h <br> ／®＂ | ○n <br> ／0゙／ | $\odot q$ <br> 厄q／ | $\begin{aligned} & \text { ©q' } \\ & \text { /ఠq'/ } \end{aligned}$ | ©qh <br> 厄 ®＂$^{\text {＂}}$ |
| $\begin{aligned} & \odot x \\ & \text { /ఠx/ } \end{aligned}$ | $\begin{aligned} & \text { ©x' } \\ & \text { 厄夭 } x^{\prime \prime} \end{aligned}$ | g！！h <br> ！！！！ | $\mathrm{g}!!q$ /七七!! | $\begin{aligned} & \text { g!!x } \\ & \text { /!!५ } \end{aligned}$ | $\underset{/\left.\right\|^{n}}{\text { g }}$ | $\mathrm{g} \mid \mathrm{q}$ <br> ／IG／ | $\underset{/ \widehat{\text { GU }} /}{\mathrm{g} \mid \mathrm{x}}$ | $\mathrm{g} \\| \mathrm{h}$ <br> ／｜｜＂ | $\mathrm{g} \\| q$ <br> ／ila／ | $\underset{/ \\| \mathrm{G} /}{\mathrm{g} \\| \mathrm{x}}$ |

## Orthography

Below is the orthography for Qaati. This includes all graphemes as defined in the language's phonology settings - excluding the non-distinct graphemes/polygraphs.

| Orthogra |  |  |  |  |  |  |  | ? Qaati |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aa <br> /ä/ | $\begin{aligned} & \text { Çç } \\ & \text { /̧̧/ } \end{aligned}$ | $\begin{gathered} \dot{X} \dot{x} \\ / x^{\prime} \end{gathered}$ | $\dot{X} \dot{W} \dot{x} \dot{W}$ <br> /x"/ | $\begin{aligned} & \mathrm{Cc} \\ & \text { /T } / \end{aligned}$ | $\begin{aligned} & \text { C c } \\ & \text { बT }^{\prime} / / \end{aligned}$ | Dd <br> /t/ | $?$ /?/ | Gg <br> /k/ |
| Ii <br> /i/ | $\begin{gathered} \mathrm{Jj} \\ \text { /j/ } \end{gathered}$ | Kk <br> /k'/ | KW kw <br> /kw/ | LI <br> /I | $\begin{gathered} \text { Lil } \\ A_{11} \end{gathered}$ | Mm $/ m /^{1}$ | Nn <br> /n/ | N n <br> $/ n^{7 /}$ |
| Pp <br> /p/ | Qq <br> /q/ | $Q^{\prime} q^{\prime}$ <br> /q'/ | QW qw /q"/ | Ss <br> /s/ | SH sh <br> 1/5 | Tt /t'/ | TL tl /t/ | TS ts <br> /t s/ |
| TS ts /t s'/ | TŁ tł (14) | TŁ́ tf压" | Ww <br> /w/ | $\begin{gathered} \text { Xx } \\ \text { /x/ } \end{gathered}$ | $\begin{gathered} \text { XW xw } \\ / x^{w / /} \end{gathered}$ | $\begin{gathered} \mathrm{Zz} \\ \text { /s/ } \end{gathered}$ | Łł <br> /4/ |  |
| * Unknown alphabetical order |  |  |  |  |  |  |  |  |

1. Contrastive only at the beginning of words

Distribution

## (1)우우우웅

## Orthography

Below is the orthography for Peyatic. This includes all graphemes as defined in the language's phonology settings - excluding the non-distinct graphemes/polygraphs.

| Orthography |  |  |  |  |  |  |  | EPeyatic |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aa | Ââ | Êê | Ôô | Dp | Bb | Cc | Dd | Ee | Ff |
| /a/ | 1æ:/ | /e:/ | 10:/ | /\% | /b/ | 151 | /d/ | /8/ | /f/ |
| Gg | Hh | Ii | J | Kk | LI | Mm | Nn | Oo | Pp |
| /g/ | f:/ | Ii | [j] | /k/ | /1 | /m/ | /n/ | /0/ | /p/ |
| Rr | Ss | Tt | Uu | Vv | Ww | Yy | Zz |  |  |
| /R/ | /s/ | tt | /ul | /v/ | [w] | /v/ | Iz/, [s] ${ }^{1}$ |  |  |
|  |  |  |  | , | abetic | order |  |  |  |

1. $z$ becomes $s$ after a voiceless stop

## » Distribution

## Articles

Latest 8 related articles listed below.
Peyatic Verbs
Peyatic Verbs don't decline for person or number, but they d... 10-Sep-16 15:31

Peyatic Morphological Rules
Peyatic word merging is regulated through the following morp...

## Orthography

Below is the orthography for Koman. This includes all graphemes as defined in the language's phonology settings - excluding the non-distinct graphemes/polygraphs.

| Orthography |  |  |  |  |  |  |  | 4 Koman |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aa /a/ | Ää <br> 1æ/ | Üü ly | Bb <br> /b/ | $\begin{aligned} & \mathrm{Cc} \\ & \sqrt{03 /} 1 \end{aligned}$ | Dd <br> /d/ | DH dh <br> /8/ | Ee <br> /e/ | $\mathrm{Gg}$ /g/ |
| $\begin{aligned} & \mathrm{Hh} \\ & \text { /h/ } \end{aligned}$ | $\begin{aligned} & \text { Ii } \\ & \text { /i/ } \end{aligned}$ | $\underset{/ 3 /}{\mathrm{Jj}}$ | $\begin{aligned} & \text { Kk } \\ & \text { /k/ } \end{aligned}$ | KH kh /h/ | $\begin{gathered} \mathrm{LI} \\ \text { III } \end{gathered}$ | Mm <br> /m/ | Nn <br> /n/ | NG ng <br> /n/ |
| $\begin{gathered} \text { Oo } \\ \text { 101 } \end{gathered}$ | $\begin{aligned} & \text { Pp } \\ & / \mathrm{p} / \end{aligned}$ | $\underset{/ r}{\mathrm{Rr}}$ | $\begin{aligned} & \text { Ss } \\ & \text { /s/ } \end{aligned}$ | $\begin{aligned} & \mathrm{Tt} \\ & \mathrm{t} / \mathrm{t} \end{aligned}$ | TH th /日/ | Uu /u/ | $\underset{/ \beta /, / \beta /}{\mathrm{Vv}}$ | Ww /w/ |
| $\begin{aligned} & \text { Yy } \\ & \text { 厄j } \end{aligned}$ | $\begin{gathered} \mathrm{Zz} \\ \text { \|z/ } \end{gathered}$ | Ōō <br> 10:/ | Şş $1 \mathrm{~s} 1$ | Ūū <br> /u:/ | Āā <br> /0/ | Ēē <br> /a/ | Ğğ $\text { / } \mathrm{H}$ | $\begin{aligned} & \text { ĪĪ } \\ & \text { i:i: } \end{aligned}$ |
| * Unknown alphabetical order |  |  |  |  |  |  |  |  |

» Distribution

## -

privacy | FAQs | rules | statistics | graphs | donate | api (indev)
Viewing CWS in: English | Time now is 18-Jun-17 23:07

## Orthography

Below is the orthography for Čihken. This includes all graphemes as defined in the language's phonology settings - excluding the non-distinct graphemes/polygraphs.

| Orthography |  |  |  |  |  |  |  | - Co Čhken |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Aa <br> /a/, [po $]^{1}$ | Áá <br> /a:/ | Ææ <br> /æ/ | Éé <br> lẹ:/ | İí <br> f:/ | Óó <br> /b:/ | Úú <br> /u:/ | Ýý <br> /ə:/ | BH bh $/ v /,[v]^{2}$ |
| $\begin{aligned} & \mathrm{Cc} \\ & / \widehat{\mathrm{ts} /} \end{aligned}$ | CC cc <br> /t $\mathrm{s}: /$ | た́ǽ <br> /æ:/ | Dd <br> $/ d \mathrm{~d} /,[\mathrm{d}]^{3},\left[\mathrm{~d}^{n}\right]^{4}$ | DD dd /d:/, [d: $:]^{5}$ | Ee /éT, [ø] ${ }^{6}$ | $\underset{/ \mathrm{Gg} /[\mathrm{g}]^{7},\left[\mathrm{~g}^{n}\right]^{8}}{ }$ | GG gg $/ \mathrm{g}: / \mathrm{l}, \mathrm{g}:]^{9}$ | HD hd /"d/ |
| HDD hdd /"d:/ | HG hg /"g/ | HGG hgg <br> /" $\mathrm{g}: /$ | HK hk <br> /m/ | HKK hkk <br> /"k:/ | HT ht <br> /nt/ | HTT htt <br> /nit/ | $\begin{gathered} \mathrm{Ii} \\ / \mathrm{i} /,[y]^{10} \end{gathered}$ | $\begin{gathered} \mathrm{Kk} \\ / \mathrm{k} /[\mathrm{k}]^{11},\left[\mathrm{k}^{n}\right]^{12} \end{gathered}$ |
| KK kk <br> /k:/, [k:] $]^{13}$ | $\begin{gathered} \mathrm{LI} \\ \mathrm{II},[1] \end{gathered}$ | LL II <br> $\mu: 1$, [ $[1]$ | Nn <br> /n/, [n] | NN nn <br> /n:/, [n:] | Oo <br> /0/ | PH ph <br> /f/ | Ss <br> /h/ |  |
| TT tt A!: /, [ $\mathrm{t}:]^{16}$ | Uu $/ u /,[t]^{17}$ |  | $\begin{gathered} \mathrm{Ny} \\ / \mathrm{m} /\left[\mathrm{n}^{\prime}\right] \end{gathered}$ | NN ŋ /n:/, [n:] | Šš Is | $\begin{aligned} & \text { Čč } \\ & \text { \|t } / \end{aligned}$ | ČČ čč <br> 压:/ | Đđ /ө/ |
| * Unknown alphabetical order |  |  |  |  |  |  |  |  |

[^0]
## Ine Alphabet:

## Letter Name Pronunciation

A, a a pronounced as 'ah' [a] when stressed, or 'uh' [ə] when unstressed
B, b bi [b] same as in English
C, c ci pronounced as $[k]$, except before e and i , where is sounds like $\mathrm{ch}\left[\mathrm{t} \int\right]$ in church.
D, d di [d] same as in English
E, e e pronounced as 'eh' [ $\varepsilon$ ] when stressed, or [ə] when unstressed
$\mathrm{F}, \mathrm{f}$ fi pronounced as [v], silent as a final letter
G,g gi same as in English: the hard sound as in gas [g], except before e and i where
$\mathrm{H}, \mathrm{h}$ ach very lightly sounded, if at all [ h ]
I, i i pronounced as 'ee' [i] when stressed, or 'ih' [I]when unstressed
K, k ka [k] same as in English
L, el [1] same as in English
M, m em [m] same as in English
$\mathrm{N}, \mathrm{n}$ en [ n$]$ same as in English
O, o o [J]pronounced as 'aw' or 'augh'
P, p pi [p] same as in English
$\mathrm{R}, \mathrm{r}$ er trilled [r] as in Spanish or Italian
$\mathrm{S}, \mathrm{s}$ es pronounced as [ z ] between vowels, otherwise as ss [ s ]
T, t ti [t] same as in English
[ $\dagger$ ], a central unrounded vowel, like 'i' pronounced in the middle of the mouth. It can be long or short.
$\mathrm{U}, \mathrm{u} \quad \mathrm{u}$
dubl same as in English, sometimes used as a vowel pronounced as ' Oo ' as in boot $w \quad$ when stressed [ $u$ ], or 'oo' as in book when unstressed [ U ].
$\mathrm{Y}, \mathrm{y}$ i greg pronounced as 'ee' [i]

## Brithenig

# Spoken on Earth in an 

 alternate timeline where the Romans (with their alphabet) stay in England.
## Other Artlangs

## Some universe where Earth

 doesn't exist, let alone the Romans or their alphabet.
## Brithenig

## Romanization =

 Orthography
# Its construction is part of the fiction and an artistic choice. 

# Other Artlangs An exercise in pointlessness. 

## If the romanization has no

 existence within the fictional universe, it's for US-those in the real world. It should not involve "creativity".
## Creativity is for the actual, real orthography.



Sa vesayon keynam-ikan tiganeri nay kaytanyeri sino nay kamo. Ri toraytos tenuban nay iprang, nay ang mya rankyon sitanyās ku-netu.
.i iâpabla xén ta igém êcmig vilc ol,ta fnân ol kirotedon ta délvèdén ûmro.
[I iaӨ̄abla ksen ta igem ø $\int^{s} m i g$ vilds olta fnan olil kirotacdon ta delveden umro

## Maxims of Orthography

$$
\begin{aligned}
& \text { Encode Language } \\
& \text { Be Easy to Write } \\
& \text { Be Easy to Read } \\
& \text { Be Unambiguous }
\end{aligned}
$$

## Encode Language

## I'm the expert?



## Encode Language

$$
\begin{aligned}
& \text { I'm the expert? } \\
& \text { I'm the expert? } \\
& \text { I'm the expertd }
\end{aligned}
$$

## Encode Language

## PROS

CONS
ALL

## INTONATION

Fully Explicit Hard to Use BASIC STUFF

Easy to Use Ambiguous

## Be Easy to Write

龡

## Be Easy to Write

## 北京的名胜很多，一个人就是 <br> 在这儿呆上几个星期，离开时也没能把主要的景点看完。

## Be Easy to Write

## The sights of Beijing are so

 numerous that one can spend several weeks here and leave without having seen all of the important ones.
## Be Easy to Write

## Chinese $=40$ characters English = 132 characters

## Be Easy to Write

## PROS

## CONS

COMPLEX
GLYPHS SIMPLE GLYPHS

Compact
Hard to

## Learn/Use

Easy to
Learn/Use

Lengthy

## Be Easy to Read

## David J. Peterson

## Be Easy to Read



## Be Easy to Read

Glyphs that are different shapes are more easily distinguished, which tends to make them easier to read.

## Be Easy to Write

## PROS

## CONS

## UNIFORM <br> GLYPHS <br> VARIED <br> GLYPHS <br> Easier to Write Read <br> Harder to Write

## Be Unambiguous

## there

 theirthey're
there're

# Be Unambiguous 

## dher

## Be Unambiguous

## Dher thriy cats in may ruwm.

## Be Easy to Write

## PROS

## CONS

PHONETIC SPELLING LEXICAL SPELLING

Predictable Spelling

Richer Signal

Potentially
Confusing
Irregular
Spellings

## WRITING AS ART




## Good orthography $\neq$ pretty glyphs.

## The system is what makes writing systems interesting; not the glyphs.

# TYPES OF WRITING SYSTEMS 

# Alphabet Abjad Abugida Syllabary Complex 

## Alphabet 1 Glyph = 1 Sound

## Alphabet

# $\mathrm{A}=/ \mathrm{a} / \mathrm{B}=/ \mathrm{b} / \mathrm{B}=/ \mathrm{v} / \Gamma=/ \mathrm{g} /$ Д $=/ d / E=/ j \varepsilon / Ж=/ 3 /$ $3=/ z / И=/ i / \breve{И}=/ j / K=/ k /$ 

# Alphabet thought $=/ \theta a t /$ six = /siks/ говорить = /govoriti/ его = /jદvo/ Гавайий = /havaii/ 

## Alphabet

## Only invented once. All other

 alphabets descended from or were inspired by that alphabet.
## Abjad <br> 1 Glyph = 1 Consonant

## Abjad

## Consonantal alphabet: The only ones that get full glyphs are consonants.

## Abjad

$$
\begin{aligned}
& \tau=/ 3 / \tau=/ \hbar / \dot{\tau}=/ x / د=/ d / \\
& \text { = /ठ/ ر = /r/ j = /z/ س = /s/ }
\end{aligned}
$$

## Abjad

## كتب = /kətəbə/ "he wrote" كتب =/kutub/ "books"

## Abjad



## Abjad

$$
\begin{aligned}
& \text { I = / // } \\
& \mathrm{s}=/ \mathrm{l} / \\
& \rho=/ \mathrm{w} / \\
& 1=/ a: / \\
& \mathrm{s}=\mathrm{li} \mathrm{i} / \\
& \rho=/ u: /
\end{aligned}
$$

## Abugida <br> 1 Glyph = 1 Consonant (But Also Vowel Modifiers)

## Abugida

## ka ke ki ko ku

Hindi
क
कि
को
कु

Tamil
க
கெ
கி
கொ
கு
กิ
om
$m$
Cham
$m$
si

## Abugida

## क /ka/ <br> m/ka/ क् /k/ m/k/\#

## Syllabary <br> 1 Glyph = 1 Syllable

## Syllabary



## Syllabary

## Japanese kana $\approx$ Greek alphabet

## Complex 1 Glyph = ?

## Complex

明天我的朋友會爲我做生日蛋糕． Míngtiān wǒ de péngyouhuì wèi wǒ zuò shēngri dàngāo． ＂Tomorrow my friends will make a birthday cake for me．＂

## Complex

明天我的朋友會爲我做生日蛋糕． Míngtiān wǒ de péngyouhuì wèi wǒ zuò shēngri dàngāo． ＂Tomorrow my friends will make a birthday cake for me．＂

## Complex

## 元元 <br>  <br> ndm bjt tn <br> "This honey is sweet."

## Complex



## "This honey is sweet."

## Land Ha！ U゙よう D ＜相

## then The Burning lisland。 Ponk tiazard

## Land Holl （HC5 DR）上逢 に野 <br> （1） <br>  <br> The Burning Islend．Punk Tizzord

## Wasn't Father's Day last week?

Am I being trolled
June 18th. Look it up.
Lol
My dad. DID NOT CORRECT ME
I leave on Saturday morning :(
9am
You're not living life correctly.
I'm going to Disneyland here in a few. Can I pick you guys up something from 711 and say hey?

Maybe. Taking off. Landing at 9:15. Daughter's asleep then.

Talk later!
Or Saturday.
Delivered


# Tonight (1) PA20 = Come up with some pictorial sources for glyphs! 








[^0]:    1. after labiodentals
    2. word initially
    3. before front vowels
    4. word initially
    5. before front vowels
    6. after labiodentals
