

PLIN0068 Constructed Languages

2024–25

Lecture 4: Writing systems

Invention of writing

Early writing systems

The idea of writing was invented (at least) three times

- Sumerian cuneiform (earliest text from 3,300BC-3,000BC), Egyptian hieroglyphs (earliest text from 3,400BC)
- Ancient Chinese writing (1200BC)
- Mayan hieroglyphs (300BC)

Sumerian cuneiform

- The (potentially) oldest known writing system is the Sumerian cuneiform (3200-3000 BC)
- Written on clay with a reed stylus
- Initially written vertical, later left-to-right

Omniplot

Egyptian hieroglyphs

- Developed along with Sumerian cuneiform (potentially predates it)
- Written on papyrus and pottery
- Vertical or left-to-right or right-to-left (animals and people look towards the beginning of the line)
- Symbols ('glyphs') have both semantic and phonetic values

Omniglot

Ancient Chinese

- Oracle bone script (甲骨文) (1,500BC-1,000BC, Shang 商 dynasty)
- See [Omniglot](#) for examples
- [Evolution of Chinese characters on Omniglot](#)

Mayan script

- Evidence from 250BC, but the script probably existed earlier

Omniglot

Different types of writing systems

Logographic systems

- The early ones are (partially) **logographic**: Each glyph represents a concept, a morpheme/word/phrase
- A logographic system can be extended to represent other things
 - Some glyphs representing syllables
 - **Rebus writing**: Some glyphs representing homophones
 - **Phonetic complementation**: use one glyph for meaning, another for phonetic value

Chiense script is full of both rebus writing and phonetic complementation ([Omniglot](#))

Syllabaries

In a syllabary system, each symbol represents a syllable.

- Japanese kana (*hiragana*, *katakana*)
- Cherokee
- Afaka syllabary for Ndyuka

Strictly speaking, each symbol in Japanese kana is a mora (a CV syllable, a coda consonant, the second half of a long vowel), rather than a syllable

Syllabaries work for languages with simple syllable structures, not ideal for languages with many different types of syllables

Abjads

Each symbol in an **abjad** represents a consonant

- Invented in 2,000-1,500BC by West Semitic speakers (as an adaptation of Egyptian hieroglyphs)
- Phoenician script with 22 consonants (see [Omniglot](#))
- (Most versions of) [Arabic](#) and [Hebrew](#) scripts are abjads (though they represent 'long vowels') that descended from Phoenician script

Abjads make sense for semitic languages, which use templatic morphology with consonants as roots

Arabic verb "to write"

Table 6. Non-Concatenative Morphology of the Arabic Verb ‘Write’

	Perfective		Imperfective		Participle	
	Active	Passive	Active	Passive	Active	Passive
Base	<i>kataba</i>	<i>kutiba</i>	<i>yaktubu</i>	<i>yuktabu</i>	<i>kātibun</i>	<i>maktūbun</i>
Causative	<i>ʔaktaba</i>	<i>ʔuktiba</i>	<i>yuktibu</i>	<i>yuktabu</i>	<i>muktibun</i>	<i>muktabun</i>
Reciprocal	<i>takātaba</i>	—	<i>yatakātabu</i>	—	<i>mutakātibun</i>	—

(from Arkadiev 2020)

Alphabets

Alphabets represent consonants and vowels by different symbols

- **Greek alphabet**, (1000BC), based on **Phoenician alphabet**, by adding vowels and flipping some of the symbols
 - Phoenician abjad was right-to-left
 - Ancient Greek was right-to-left or **boustrophedon** ('ox-plow'), later left-to-right
- **Modern Uyghur alphabet**, based on Persian abjad, an Arabic-based system
- **Korean hangul**

Abugidas

In an **abugida**, each glyph represents a consonant with a base vowel (often [a]) and other vowels are indicated by diacritics.

- **Brahmi script** (300BC), with many descendents in South Asia (e.g., **Bengali**, **Devanāgarī**, **Tibetan**, **Telugu**, **Malayalam**, **Khmer**, **Tamil**, **Thai**)
- **Ge'ez**

Constructing writing systems

For your language

Optional task: Develop an original writing system for your language by determining:

- Type of writing system (logographic, syllabary, abjad, abugida)
- Direction of writing (left-right, right-left, top-bottom, bottom-top)
- Form of writing (type of material, primary instrument for writing)
 - Cuneiform written with a reed stylus on clay tablets
 - Brush strokes on bamboo/paper in Chinese, Korean, Japanese
 - Writing on palm leaves is thought to have given rise to the curly forms of Brahmic scripts

Resources

Constructed scripts for conlangs

J. R. R. Tolkien's scripts

Tolkien writing Elvish

Software for custom fonts

- [FontForge](#): powerful
- [FontStruct](#): less versatile but might be easier to use
- [Calligraphr](#)

Homework 1: Romanisation (for Week 5)

Create a romanisation system for your language.

- For each phoneme, decide a way to represent it.
- Note that a phoneme can be represented by two letters (a digraph) or more, e.g. ⟨th⟩ in English, ⟨ll⟩ in Spanish, ⟨ch⟩ in Italian, ⟨gy⟩ in Hungarian.
- You may use diacritics, e.g. ⟨é⟩, ⟨ō⟩, ⟨å⟩, ⟨ž⟩, ⟨ç⟩

Benjamin Franklin's phonetic alphabet

Esperanto orthography

Klingon writing systems

Homework 2 (for Week 6)

Make some words based on the [the Leipzig-Jakarta word list](#), and transcribe them in the romanisation system

If your language is not for humans, you don't need to follow the word list, but remark on what kind of words it should have

[Klingon vocabulary](#)

[Word generator](#)