Writing Systems
The first thing to point out about writing systems is that they are not universal, unlike a lot of the things we are talking about.

Writing is a *technology*, something discovered by some groups of people but not others. There’s no similar variation in ‘language’ per se; we don't find groups of people who don’t have language, but there are plenty of groups of people without writing (or numbers, to pick another example).

Once somebody discovers writing, of course, the idea tends to spread quickly…
Writing systems are partly shaped by the media that they’re typically used with…

**Ogham:** writing system found mainly in Ireland, maybe starting around the first century AD.

Designed for etching on stones.
Writing systems are partly shaped by the media that they’re typically used with…

*Futhark*: old North Germanic writing system, dating back to 2nd century AD: again, mostly scratched on stone, wood, metal.
Writing systems are partly shaped by the media that they’re typically used with…

*Cuneiform*: made with reed tip on clay: starting 30 centuries BC.
Writing systems are often classified by the amount of information included in each symbol:

- **Logographic**: each symbol approximates a ‘word’
- **Syllabary**: each symbol approximates a ‘syllable’
- **Abugida**: (not unlike a syllabary…)
- **Alphabet**: each symbol approximates a ‘phoneme’
Logographic:
earliest cuneiform, Egyptian hieroglyphs, Mayan inscriptions…

'It is her image in the act of public performance, Lady First %-House Snake, Prophetess %-person, Lady Great Skull.'

'She is the mother of Shield Jaguar IV, the %-Lord'

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Logographic:
   ...and Chinese characters.

馬   mǎ ‘horse’

女   nǚ ‘woman’
Logographic:
  …and Chinese characters.

馬  mǎ ‘horse’

女  nǚ ‘woman’

媽  mā ‘mother’  (‘character referring to a woman, which sounds sort of like “horse”’)
Logographic:

Don’t exactly refer to ‘words’…

選  xuăn  ‘choose’

手  shǒu  ‘hand’
Logographic:

Don’t exactly refer to ‘words’…

選    xuǎn  ‘choose’

手    shǒu  ‘hand’

選手    xuǎnshǒu  ‘athlete, player on an athletic team’
Logographic:

one advantage: they’re very useful for distinguishing homonyms! shí shì shī shì shī shǐ, shì shǐ, shì shí shí shǐ.
Logographic:

one advantage: they’re very useful for distinguishing homonyms!

shi shì shī shì shī shì, shì shī, shì shí shí shī.
‘A poet named Shi lived in a stone house and liked to eat lion flesh, and he vowed to eat ten of them’

shi shì shī shì shì shī shì shì shī shì shì shī shī
石室 詩士 施氏，嗜獅，誓食十獅。
Syllabaries

each symbol stands for a ‘syllable’, typically a CV sequence.

<table>
<thead>
<tr>
<th>Linear B</th>
<th>Cherokee</th>
<th>Japanese hiragana</th>
</tr>
</thead>
<tbody>
<tr>
<td>ma</td>
<td>ƙ</td>
<td>ま</td>
</tr>
<tr>
<td>me</td>
<td>ƙ</td>
<td>め</td>
</tr>
<tr>
<td>mi</td>
<td>ƙ</td>
<td>み</td>
</tr>
<tr>
<td>mo</td>
<td>ƙ</td>
<td>も</td>
</tr>
<tr>
<td>mu</td>
<td>ƙ</td>
<td>む</td>
</tr>
</tbody>
</table>
Syllabaries

Common for logographic systems to be supplemented by syllabaries:

選 xuǎn ‘choose’  [Mandarin]
選ぶ era.bu ‘choose, will choose’ [Japanese]
選んだ era.nda ‘chose’
選ばない era.banai ‘won’t choose’
Syllabaries

Common for logographic systems to be supplemented by syllabaries:

選　xuǎn  ‘choose’  [Mandarin]
選手　xuǎnshǒu  ‘athlete’

選ぶ　era.bu  ‘choose, will choose’  [Japanese]
選んだ　era.nda ‘chose’
選ばない　era.banai ‘won’t choose’
Syllabaries

Common for logographic systems to be supplemented by syllabaries:

選 xuǎn ‘choose’ [Mandarin]
選手 xuǎnshǒu ‘athlete’

選ぶ era.bu ‘choose, will choose’ [Japanese]
選んだ era.nda ‘chose’
選ばない era.banai ‘won’t choose’
選手 senshu ‘athlete’
Syllabaries

Japanese *hayai* ‘early, fast’…
Syllabaries

早  zǎo ‘early’

速  sù ‘fast’
Syllabaries

早  zǎo ‘early’

速  sù ‘fast’

早い  haya.i ‘early’  （早朝  souchou ‘early morning’）

速い  haya.i ‘fast’  （速度  sokudo ‘speed’）
Abugida

Sort of like a cross between a syllabary and an alphabet…

Tibetan

Tagalog baybayin

Devanagari

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Tagalog script © source unknown. This content is excluded from our Creative Commons license. For more information, see https://ocw.mit.edu/help/faq-fair-use/.
Cree syllabics (developed by James Evans in the 1830’s, originally for Ojibwe; now used in Cree, Inuktitut)

<table>
<thead>
<tr>
<th>Abugida</th>
<th>Cree syllabics</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>pa</td>
</tr>
<tr>
<td>e</td>
<td>pe</td>
</tr>
<tr>
<td>i</td>
<td>pi</td>
</tr>
<tr>
<td>o</td>
<td>po</td>
</tr>
<tr>
<td>h</td>
<td>t</td>
</tr>
<tr>
<td>w</td>
<td>ow</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>&lt;</td>
<td>&gt;</td>
</tr>
<tr>
<td>Va</td>
<td>Vb</td>
</tr>
<tr>
<td>I</td>
<td>I</td>
</tr>
<tr>
<td>a</td>
<td>ta</td>
</tr>
<tr>
<td>e</td>
<td>te</td>
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<td>i</td>
<td>ti</td>
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<td>o</td>
<td>to</td>
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<td>h</td>
<td>t</td>
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<tr>
<td>w</td>
<td>ow</td>
</tr>
</tbody>
</table>

Cree syllabics table courtesy of http://www.creedictionary.com/syllabics/maskwacis.php. This content is excluded from our Creative Commons license. For more information, see https://ocw.mit.edu/help/faq-fair-use.
Alphabets
Symbols represent (more or less) phonemes.

Roman all people

Cyrillic все люди
vse ljudi

Mkhreduli ყველა ადამიანი
quvela adamiani

Hebrew כל בני
ynb lk kol benei

Hangeul 모든 인간은
modeun ingan-eun

<table>
<thead>
<tr>
<th>m</th>
<th>d</th>
<th>Ø</th>
<th>i</th>
<th>g</th>
<th>a</th>
<th>Ø</th>
</tr>
</thead>
<tbody>
<tr>
<td>o</td>
<td>eu</td>
<td>n</td>
<td>n</td>
<td>n</td>
<td>eu</td>
<td>n</td>
</tr>
<tr>
<td>n</td>
<td>n</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Direction of writing
left-to-right?
right-to-left?
top-to-bottom?

boustrophedon?

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What information is represented?

• regular phonology?

  stop  /t/
  top   /tʰ/
  Latin /tʰ/  
caterpillar /r/
What information is represented?

• regular phonology?

- stop /t/
- top /tʰ/
- Latin /tʰ/?
- caterpillar /ɾ/

**German**
- Hand /t/ ‘hand’
- Hände /d/ ‘hands’

**Turkish**
- tat /t/ ‘taste’
- tadb /d/ ‘his/her taste’
What information is represented?

• regular phonology?
• vowels?

**abjad:**

Hebrew  כל בני

ynb lk  → kol benei ‘all people’
What information is represented?

- regular phonology?
- vowels?
- ends of syllables?

Linear B

\[
\begin{array}{c}
\text{a m i n i so} \\
\rightarrow \text{Amnisos (place name)}
\end{array}
\]
What information is represented?

• regular phonology?
• vowels?
• ends of syllables?
• tone?

_Tibetan_  

\[ \text{pá} \quad \text{pʰá} \quad \text{pʰà} \]
What information is represented?

- regular phonology?
- vowels?
- ends of syllables?
- tone?

*Tibetan*

\[
pá \quad p^há \quad p^hà \quad là
\]
What information is represented?

- regular phonology?
- vowels?
- ends of syllables?
- tone?

Tibetan

\[
\begin{align*}
\text{pá} & \quad \text{pʰá} & \quad \text{pʰà} \\
\text{là} & \quad \text{lá} & \quad \text{lá}
\end{align*}
\]

(‘bla’, ‘gla’)
What information is represented?

- regular phonology?
- vowels?
- ends of syllables?
- tone?

_Hmong_ (Romanized Popular Alphabet)

<table>
<thead>
<tr>
<th>Hmong</th>
<th>Romanization</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>p̄p</td>
<td>pob</td>
<td>(High)</td>
</tr>
<tr>
<td>p̄p</td>
<td>po</td>
<td>(Mid)</td>
</tr>
<tr>
<td>p̄p̄</td>
<td>pos</td>
<td>(Low)</td>
</tr>
<tr>
<td>p̄p̄</td>
<td>poj</td>
<td>(High Falling)</td>
</tr>
<tr>
<td>p̄p̄</td>
<td>pov</td>
<td>(Mid Rising)</td>
</tr>
<tr>
<td>p̄p̄</td>
<td>pom</td>
<td>(Creaky)</td>
</tr>
<tr>
<td>p̄p̄</td>
<td>pog</td>
<td>(Low Falling Breathy)</td>
</tr>
</tbody>
</table>
What information is represented?

- regular phonology?
- vowels?
- ends of syllables?
- tone?
- syllable boundaries, word boundaries, sentence boundaries…

*Tibetan*

bod skad
Tibet language
‘Tibetan’
Writing systems are often conservative…

Tibetan

bod skad /pʰɔʔ kɛʔ/
Tibet language
‘Tibetan’
Writing systems are often conservative…

**Tibetan**

```
供水
```
bod skad /pʰɔʔ kɛʔ/
Tibet language
‘Tibetan’

**English**

knight (< OE cniht ‘boy’)…
Writing systems are often conservative...

but on the bright side:

photograph

photography
Writing systems are often conservative…

but on the bright side:

photograph  forəɡræf

photography  faθˈægrɛfɪ
Writing systems are often conservative…

but on the bright side:

photograph  forəɡræf  (British fotəɡraf)

photography  fətʰəɡrəfi