

toponymy course

10. Writing systems

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This chapter shows the semantic, phonetic and graphic aspects of language. It traces the development of the graphic aspects from Sumeria 3500BC, from logographic or ideographic via syllabic into alphabetic scripts resulting in a number of script families. It gives examples of the various scripts in maps (see underlined script names) and finally deals with combination of scripts on maps.

Meaning, sound and looks

- What *is* the name?
 - Is it what it means?
 - Is it what it sounds?
 - Is it what it looks?

Meaning: the semantic aspect

- As long as a name is what it means, both its sound and its looks (spelling) are only relevant as far as they support the meaning.
- The name 'Nederland' is what it means to our neighbours: 'Low country'. So they translate it for instance into 'Pays-Bas' (French) or Netherlands (English) or Niederlande (German), even though that does neither sound nor look like 'Nederland'.
- To Romans and Italians, however, the names Qart Hadasht and Neapolis had never been what they meant ('new towns'). So they became what they sounded: Carthago (to the Roman ear) and Napoli.

Sound: the phonetic aspect

- As soon as a name is what it sounds, its meaning has become irrelevant. Its looks (spelling) then may or may not be adapted to its sound.
- The dominance of the phonetic aspect to a name (the 'oral tradition') allows the name to degenerate graphically.
- Eventually, the name may be adapted semantically to its perceived sound, through a process called 'popular etymology'.

Looks: the graphic aspect

- Ultimately, graphic forms have taken preponderance over phonetic forms.
- Graphic forms do thus no longer degenerate. Gloucester remains Gloucester, and Edinburgh will always be Edinburgh, whatever it has got to sound like (Glouster, Edinbro). The names are what they look like!.

Scripts, the graphics of language

- Scripts were developed to extend man's scope and range.
- First known scripts: Sumeria, 4th Millennium B.C.
- Pictograms: purely pictorial symbols.
- Pictograms were used to represent the concepts (ideograms) or words (logograms) they represented.
- Ultimately, logograms develop into phonograms, in which the sound value (phoneme) of mono-syllabic words is attached to the symbols representing these words
- Finally the syllabic script develops into an alphabetic script in which symbols represent single phonemes instead of syllables.

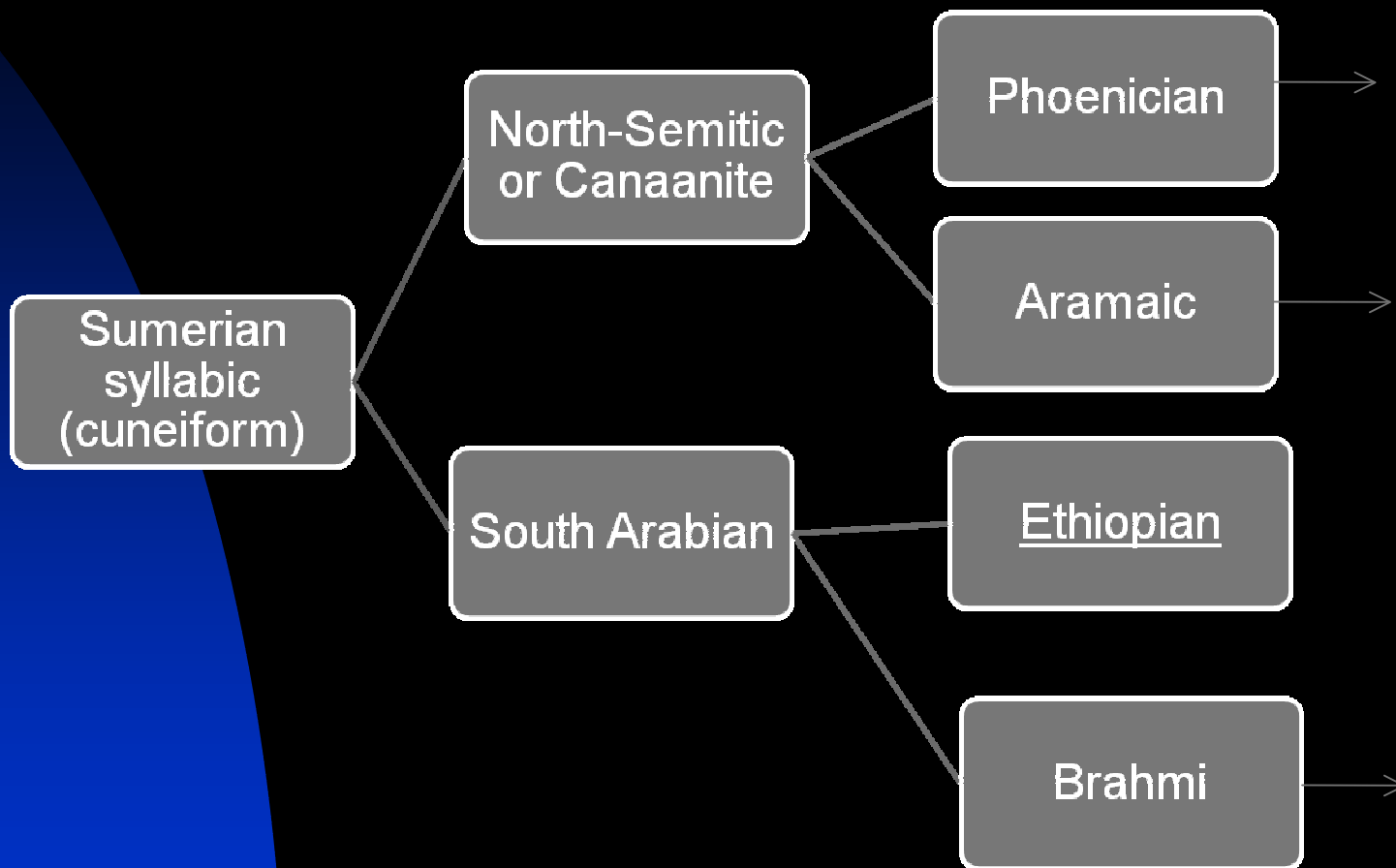
- universal sequence from purely pictorial representation (*pictograms*) to sets of abstracted sound-representing symbols (*phonograms*). Pictograms convey meaning without intervention of sound values; there may be a symbol meaning 'town', 'river' or 'mountain' irrespective of what the word for 'town', 'river' or 'mountain' sounds like, and thus regardless of any specific language. Such a symbol is named a *logogram* (*pictogram for a specific word*). The advantage of logograms is their universal applicability – because they are language-independent – but they have the obvious disadvantage that there must be a separate symbol for every word.

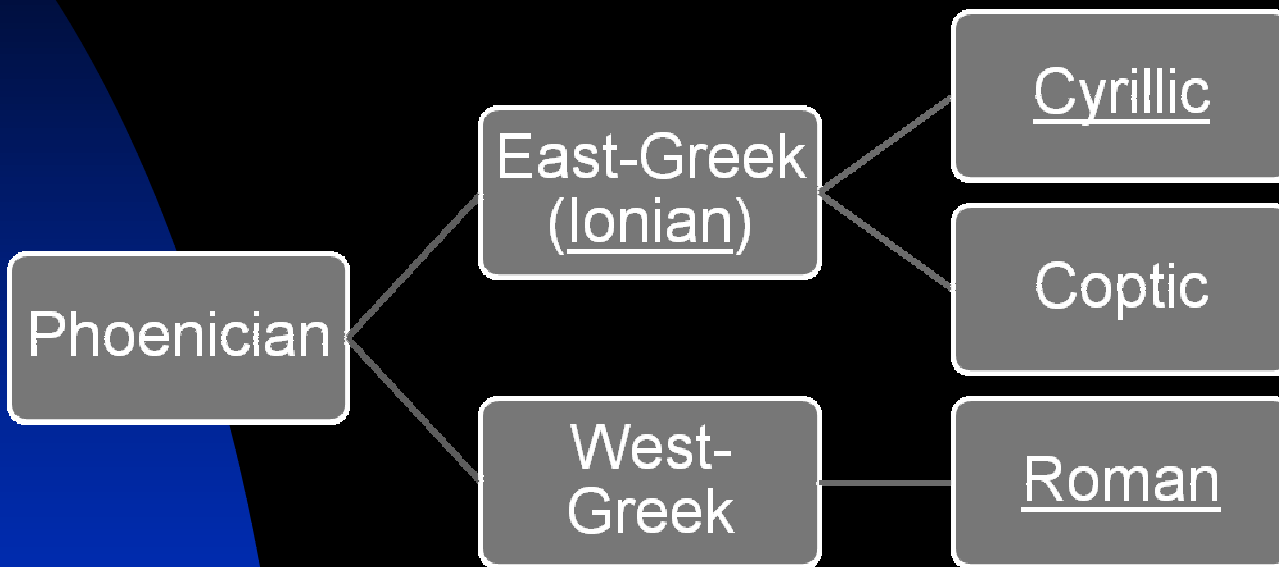
- All complete writing systems the world has ever known, do effectively contain both logograms and phonograms. As purely pictorial ‘proto-scripts’ develop into ‘scripts’ or writing systems, naturally drawn pictograms are stylised and augmented with drawings for abstract phenomena (hence called *ideograms*), and will ultimately contain logograms for all basic words of a specific language. Phonograms are developed out of logograms through a process starting with the *rebus* principle: the sound values (in a specific language!) of mono-syllabic words are attached to the logograms representing these words, thus creating a phonetic syllabary or syllabic script.

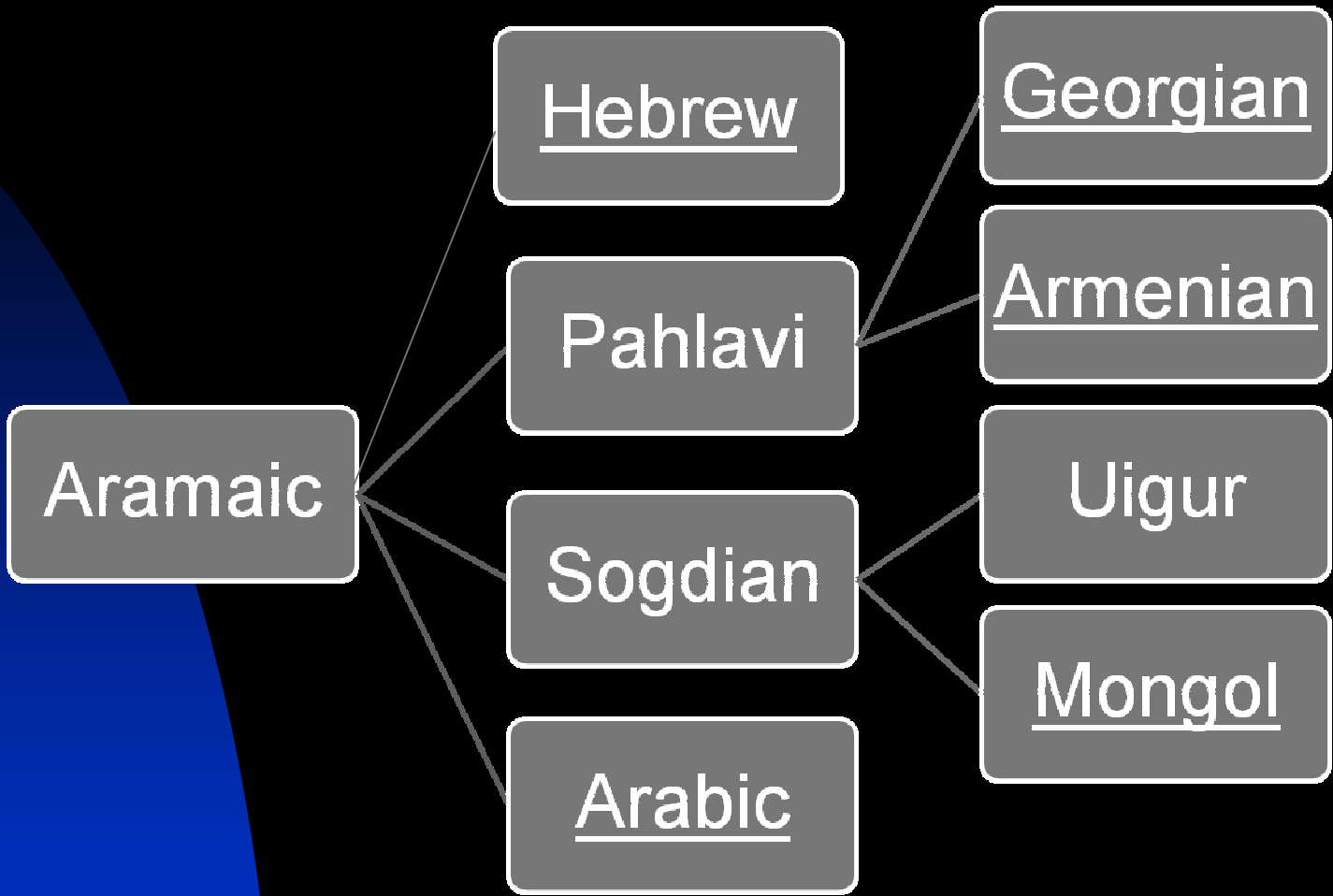
- A fully syllabic script would contain as many symbols as the language it is used for contains syllables. A syllabic script can develop further into an alphabetic script, in which single phonemes (units of sound) instead of syllables are represented by symbols – thus requiring even less symbols. Alphabets may contain both the consonants and the vowels used by a language, or be consonantal (containing consonants only). To the symbols (*letters*) of consonantal alphabets, the vowels following consonant sounds may, either optionally or obligatory, be added to the letters by diacritical marks (*vocalization*), as may certain phonetic modifications of the consonants (nasalization, aspiration etc.).

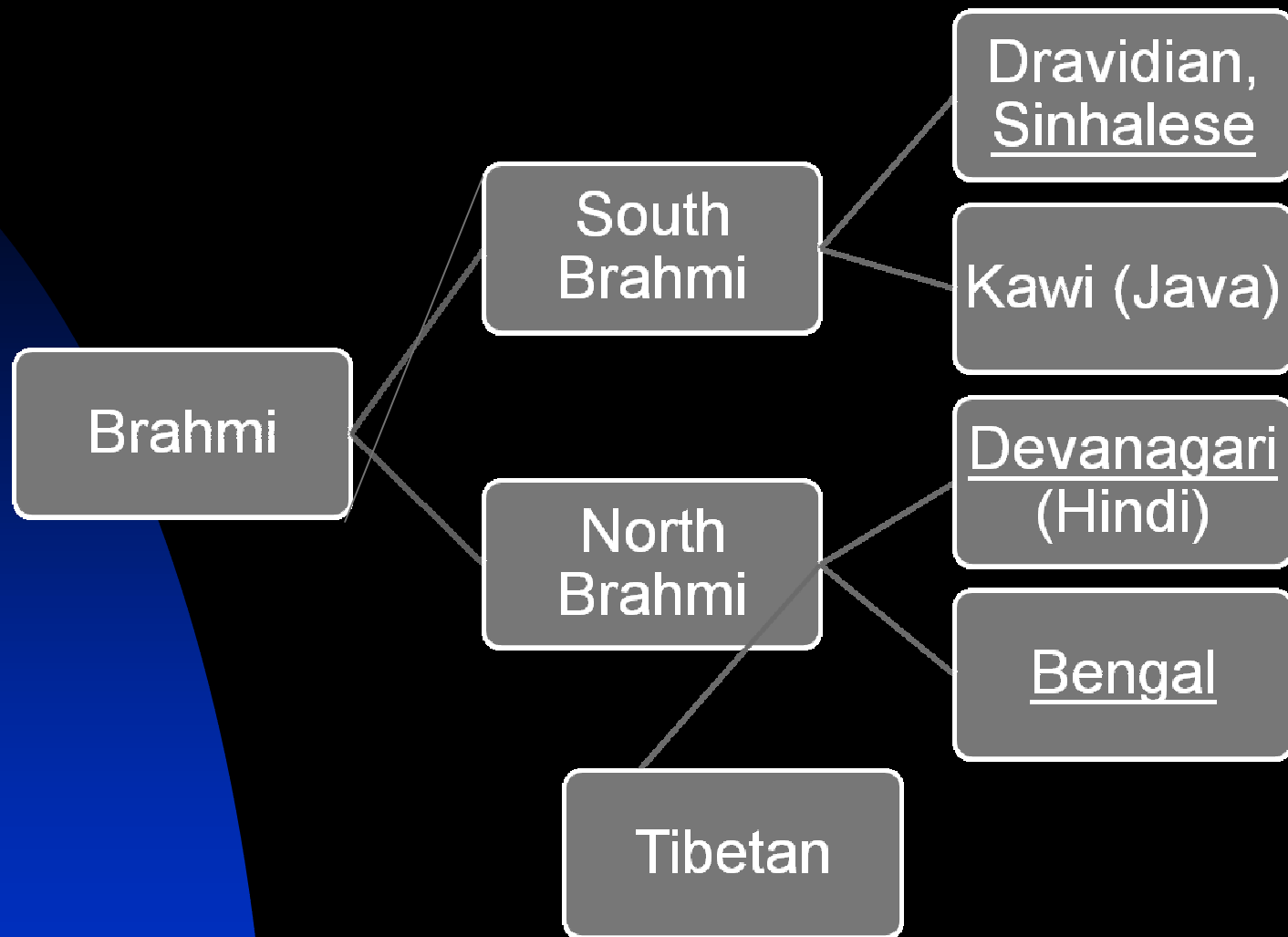
Script development

Hiero-glyphs	Sinai script	Phenician consonant script (with Semitic names of letters, meaning and numerals)	West-Greek alphabet	Classical greek alphabet (with names of letters, sounds and numerals)	Etruscan alphabet (with meaning)	Old Roman alphabet (with meaning)	Modern Roman alphabet
1	2	3	4	5	6	7	8
			1	Αα alpha a	1	A a	A
			2	Ββ bēta b	2	B b	B
			3	Γγ gamma g	3	Γ k	C c, g
			4	Δδ delta d	4	Δ d	D d
			5	Εε ěpsilon ě	5	Ε e	E e
			6	Ϝ ϝ (F digamma v)*	6	Ϝ v	F v, f
			7	Ζζ dzēta dz	7	Ζ z	G
			(ch) 8	Ηη ēta ē	8	Η h	H h
			9	Θθ thēta th	9	Θ th	
			10	Ιι iōta i	10	Ι i	I, J
			20	Κκ kappa k	20	Κ k	K









Division of scripts

- Ideographic scripts – Egyptian,
Chinese
- Syllabic scripts -Ethiopian,
Japanese
- Alphabetic scripts-vocalised
Greek
Roman
-non-vocalised - Arabic
Hindi

Basic unit of writing = character. Characters represent either:

- Phonological entities –Vowel
 - Consonant
 - Syllable
- morphological entities - words

Basic characters can be differentiated by markers, that can change their meaning or their phonetic value (sound). We call these markers diacritical sounds

- ر = r; ز = z
- ك = k; گ = g
- ل = l; ل = w

Unvocalised alphabets can be turned into vocalised one by adding signs indicating the vowels

الْمَدِينَةُ = al-Madīnah = 

Persistence of logograms

- even in alphabetic scripts some logograms persist: examples are the ciphers (0, 1, 2, ..., in English: 'one', 'two', 'three' ...) and signs like + (in English: 'plus'), - (in English: 'minus'), & (in English: 'and'), and, recently added, @ (in English: 'at').

Ideographic scripts/logographic scripts

Sumerian scripts 3500 BC

Egyptian hieroglyphs 3000BC

Chinese script: 1500 BC

At first pictograms represented physical objects only, later also ideas, and finally the pictograms lost the meaning of the objects depicted but came to represent the sound of its spoken form, and so turned into phonograms

ideographic scripts: Chinese

chin-jap. char. :

大 big 小 small 中 middle
女 woman 男 man

caractères chinois 国 pays
亲斤 nouveau
星 étoile
雪 neige

quelques caractères chinois :
木 bois 金 métal 水 eau
火 feu 土 terre



Japanese ideographic script:

- Kanji script: 3000 Chinese characters found their way into Japan, but found a different pronunciation there.

- Kadmon:

Chinese characters but differing in pronunciation. As an example, the character for mountain, 山, which originally was stylized from the pictogram 凵, is 'shan' in Mandarin Chinese and pronounced either 'san' or 'yama' in Japanese, depending on the context. 富士山 is Fuji San, Mt. Fuji – or Fuji Yama, as it is usually called in the West, but not by the Japanese. 中, middle, is zhong in Chinese but naka in Japanese. 中山 Nakayama (written as one word in romanization, but as two logograms in Japanese Kanji) is the name of both a town and a river in Shikoku Island, Japan. The same characters, but pronounced Zhongshan, represent the name of a town in southern China (and a park in Shanghai). The early pictogram for the sun, 日, was stylized into 日, as was mentioned above in connection with Chinese. Japan, country of the rising sun, is written 日本 in Kanji logographic characters and pronounced Nippon (or Nihon, depending on context; the second character is pronounced hon e.g. in the name of the island of Honshu). 京, kyō, is a capital in Japanese; to, 都 designates a city or an urban area. Kyōto, 京都, was the former capital. 東 tō, is east, as was shown above. Tōkyō is therefore written 東京 and means eastern capital – the name given to the former town of Edo ("estuary") after Emperor Meiji transferred the Japanese capital eastwards in 1868. The same 京 character, pronounced in Chinese jing, has the same meaning, e.g. in 北京, Beijing, northern capital – as against 南京 Nanjing, southern capital, and 東京, Dongjing, eastern capital – which is Tōkyō!

Chinese script map of Japan



Syllabic scripts

- Syllabogram is a graphic character representing a syllable = unit of pronunciation consisting of one vowel sound and one or more consonants
- In its simplest form, syllabograms are combination of each consonants with each of the vowels discerned: ba, be, bi, bo, bu, by, etc
- As compared to the enormous number of characters in ideographic scripts this is a huge simplification, but, the advantage of the link to concepts or objects for each character is lost.

A	ア	カ	サ	タ	ナ	ハ	マ	ヤ	ラ	ワ	ガ	ザ	ダ	バ	パ
B	あ	か	さ	た	な	は	ま	や	ら	わ	が	ざ	だ	ば	ぱ
C	a	ka	sa	ta	na	ha	ma	ya	ra	wa	ga	za	da	ba	pa
D															
A	イ	キ	シ	チ	ニ	ヒ	ミ		リ		ギ	ジ	ヂ	ビ	ピ
B	い	き	し	ち	に	ひ	み		り		ぎ	じ	ぢ	び	ぴ
C	i	ki	si	ti	ni	hi	mi		ri		gi	zi	zi	bi	pi
D			shi	chi								ji	ji		
A	ウ	ク	ス	ツ	ヌ	フ	ム	ユ	ル		グ	ズ	ヅ	ブ	プ
B	う	く	す	つ	ぬ	ふ	む	ゆ	る		ぐ	ず	づ	ぶ	ぷ
C	u	ku	su	tu	nu	hu	mu	yu	ru		gu	zu	zu	bu	pu
D				tsu		fu									
A	エ	ケ	セ	テ	ネ	ヘ	メ		レ		ゲ	ゼ	デ	ベ	ペ
B	え	け	せ	て	ね	へ	め		れ		げ	ぜ	で	べ	ぺ
C	e	ke	se	te	ne	he	me		re		ge	ze	de	be	pe
D															
A	オ	コ	ソ	ト	ノ	ホ	モ	ヨ	ロ		ゴ	ゾ	ド	ボ	ポ
B	お	こ	そ	と	の	ほ	も	よ	ろ		ご	ぞ	ど	ぼ	ぽ
C	o	ko	so	to	no	ho	mo	yo	ro		go	zo	do	bo	po
D															
A		ン													
B		ん													
C		n													
D															

Fig. 14. Japanese syllabary (y-forms omitted). A – Katakana, B – Hiragana, C – Kunrei romanization, D – Syusei Hebon (modified Hepburn) romanization.

Syllabic sign script, Japan

37 signes syllabiques du Japon
katakana hiragana

ma	マ	ま
mi	ミ	み
mu	ム	む
me	メ	め
mo	モ	も

Jap. kana (syll.) signs : ka ki ku ke ko が き く け こ

Syllabic sign script, Japan 2

Examples of a transcription in Roman script of some words written in “Katakana”

フランス
fu ra n su
France

ヘルシンキ
he ru shin ki
Helsinki

ユネスコ
yu ne su ko
UNESCO

アムステルダム
a mu su te ru da mu
AMSTERDAM

Alphabetic scripts

- Vocalised – Roman, Cyrillic, Greek, Devanagari (Hindi)
- Non-vocalised: Arabic, Hebrew

Different consonants in alphabetic scripts

quelques exemples de caractères dans l'écriture alphabétique :

écriture latine		d	f	l	n	s	t
	grecque	δ	ϕ	λ	ν	σ	τ
russe	cyrillique	Д	Ф	Л	Н	С	Т
arabe	semitique	د	ف	ل	ن	س	ت
hébreu	"	ד	פ	ל	נ	ס	ת

Arabic script (non-vocalised), Morocco



Arabic names :

إبراهيم

Ibrahim

كليوباترة

Cleopatra

ليلى

Layla

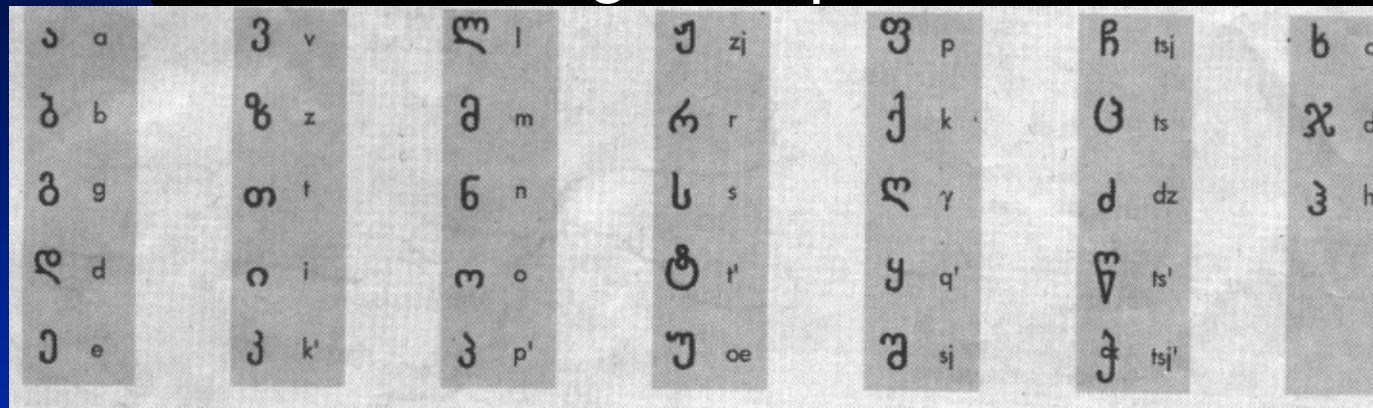
Non-latin scripts: Cyrillic



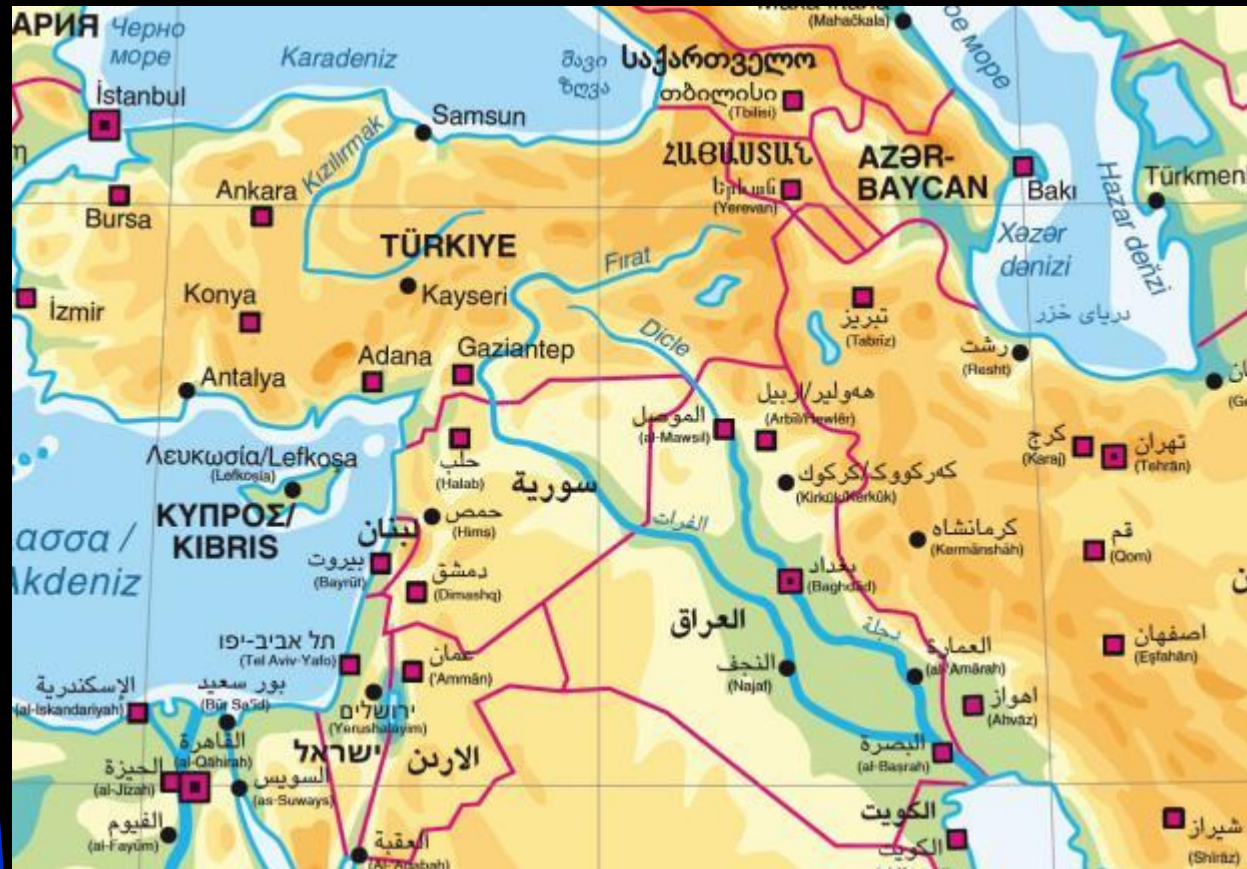
- A letter in Devanagari has the default vowel of /a/. To indicate the same consonant followed by another vowel, additional strokes are added to the letter, like in the following example:
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Non-latin scripts: Georgian

- Georgian alphabet



Armenian, Georgian, Greek, Ivrit, Arabic, Roman scripta



Biscriptual map

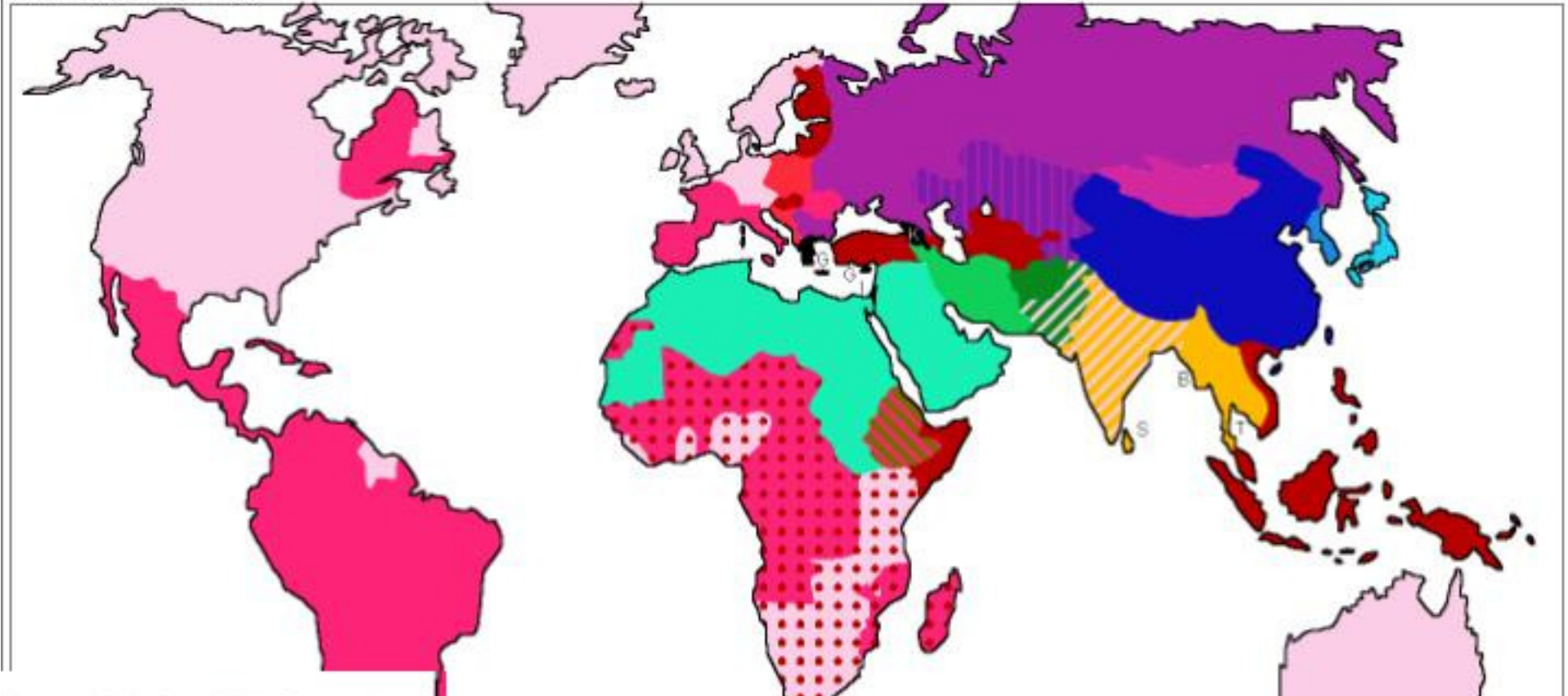


Greek and Roman alphabets



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WRITING SYSTEMS



Roman Alphabet	<ul style="list-style-type: none"> Germanic Romance Slavonic Other 	Chinese "Alphabet"	<ul style="list-style-type: none"> Chinese Korean Japanese 	<ul style="list-style-type: none"> Roman Romance Cyrillic
Cyrillic Alphabet	<ul style="list-style-type: none"> Slavonic Turkic Mongolian 	Ethiopian Alphabet	 Amharic	
Arabic Alphabet	<ul style="list-style-type: none"> Arabic Farsi Urdu, Pashtu 	Indian Alphabets	 Indian languages	
	Other Alphabets	 G = Greek	 I = Ivrit	
		 K = Caucasian languages in Armenia		

B = Burmese T = Thai S = Sinhalese

F.J.Omeling 2000