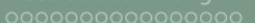


# Cuneiform

Lecture 2

January 17, 2022



# Quercus Introductions...

- Thank you for taking the time to introduce yourselves! ☺
  - Diverse backgrounds and personal interests
    - Anthropology, Caribbean Studies, Cinema Studies, Cognitive Science, History, Linguistics, Mathematics, Psychology...
    - animation, graphic design, hiking, manga, painting, photography, strength training, travelling, video games, walking, writing...
  - Varied linguistic knowledge
    - Anishinaabemowin, Arabic, Cantonese, French, German, Greek, Gujarati, Hebrew, Hindi, Hokkien, Illongo, Kanien'kéha (Mohawk), Korean, Latin, Mandarin, Russian, Spanish, Tagalog, Turkish, Wu...
  - Familiarity with so many writing systems!
    - Arabic, Chinese (Traditional), Cree Syllabics, Cyrillic, Devanagri, Hangul, Hebrew, Hiragana, Katakana, Latin, Phoenician, Syriac...



# Previously...

- Slides will be posted *after* after lecture.
- Please do not record/take screen shots of any of the course materials, everything you need will be posted on Quercus.
- Do the assigned textbook readings before the lecture.
- Several notetakers are needed for this course for students with accessibility needs. Please consider volunteering if you can and see the Quercus announcement for details.

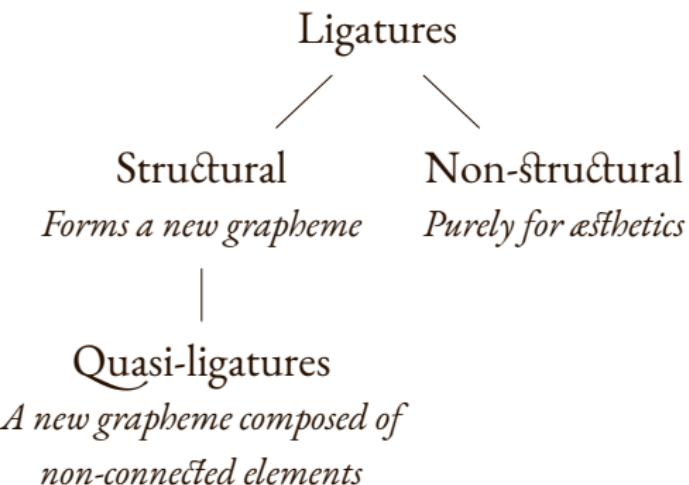
# Previously...

## ■ Polygraphs

- two or more graphemes used to represent one phoneme
- ⟨sh⟩ pronounced as /ʃ/ in ‘she’
- ⟨que⟩ pronounced as /k/ in ‘toque’

# Quasi-ligatures

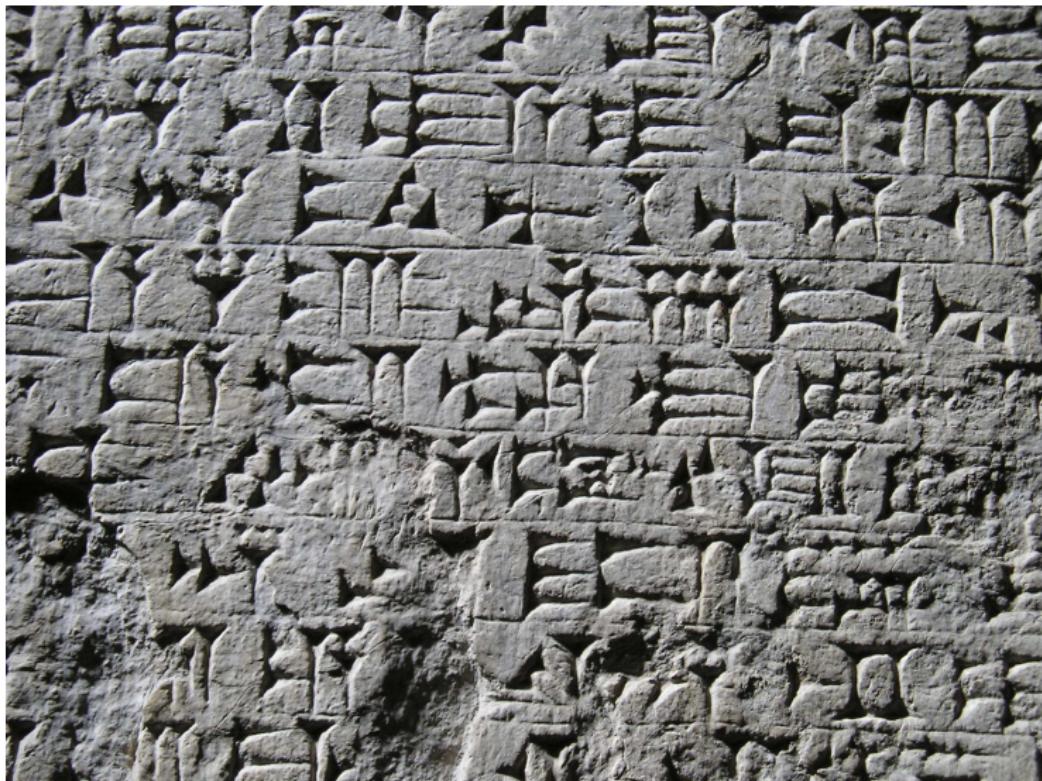
- Quasi-ligatures are a kind of structural ligature, where the components graphemes are not actually ligated but do count as one grapheme.

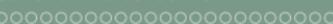


# Today...

- Mesopotamia
- Precursors to Writing
  - Cylinder seals
  - Clay tokens
  - Bulla envelopes
  - Early tablets
  - Pictograms
- Development of cuneiform
  - Directionality change
  - Pictographic to logographic
  - Extension, differentiation, compounds
  - Types of graphemes
- Cuneiform extended
  - Borrowing into Akkadian
  - Unrelated cuneiforms

# Introduction





# Cuneiform

- *Cuneiform*—“wedge-shaped” (Latin)
  - *cuneus* ‘wedge’
  - *fōrma* ‘shape’
- Several different scripts are given this name, based on their appearance





# Mesopotamia

- *Mesopotamia*—“the land between rivers”

- A. Greek: Μεσοποταμία
    - μέσος (mésos) ‘between’
    - ποταμός (potamós) ‘river’
  - Tigris & Euphrates Rivers

- The Fertile Crescent

- Mesopotamia
  - Mediterranean coast
  - Nile Delta & Nile Valley





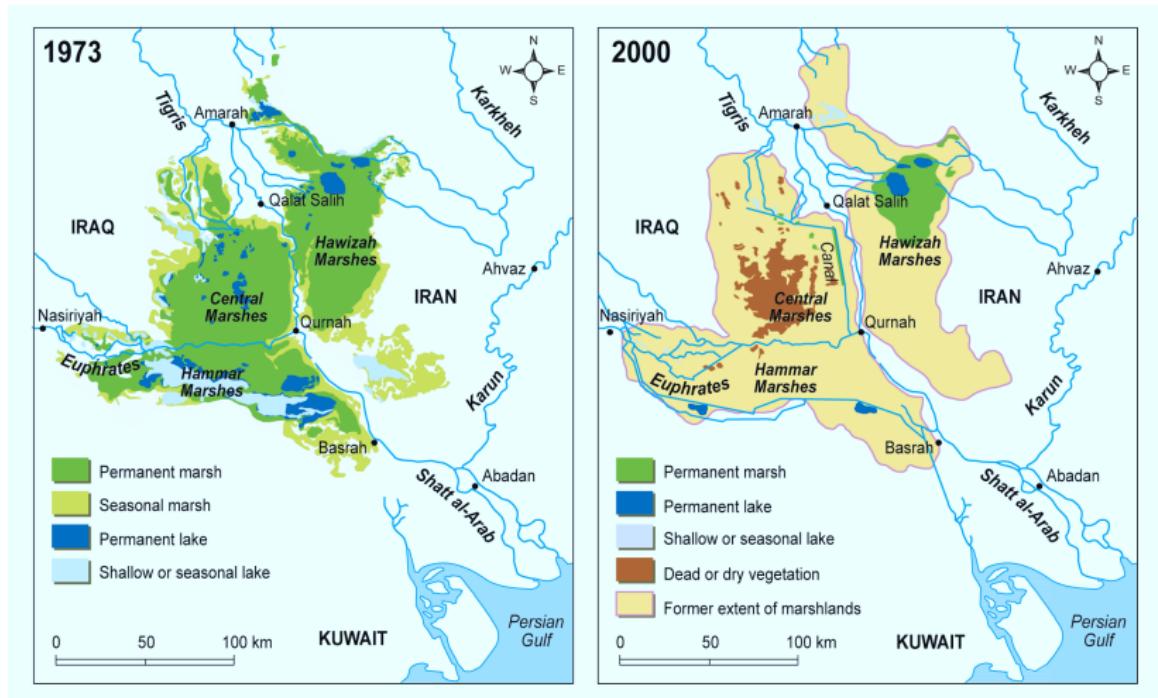
# To the west...



*The Syrian desert*



# Where Tigris & Euphrates meet...



(Van Lerberghe, Kaniewski, Abraham, Guiot, & Van Campo, 2017)

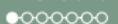


# The Mesopotamian Marshes



© Esme Allen, 2012

# The Invention of Writing?



# Enmerkar and the Lord of Aratta

- A poem of about 640 lines, featuring a Sumerian ‘writing creation myth’
- Rivalry between Uruk (Sumerian *Unug*) and Aratta
  - Mythical land beyond the mountains
  - Fabulously wealthy, full of gold, silver, lapis lazuli
  - Continuing speculation as to its location (maybe Ararat / Urartu up in Armenia?)
- Enmerkar, king of Uruk, vs. unnamed lord of Aratta
  - Enmerkar wants the wealth of Aratta,
  - Asks Inanna, goddess of both Uruk and Aratta, what to do
- (I'll summarize for you, but I'm not going to quiz you on any details from it!)



# Enmerkar and the Lord of Aratta

- Inanna favours Uruk, and tells Enmerkar to send a messenger to Aratta with his demands
  - Messenger memorizes and delivers the lengthy message
- Lord of Aratta refuses, as Inanna is his goddess also, but is dismayed to learn she has sided with Uruk
  - Sends messenger back with a lengthy reply
- A contest ensues to determine whose side Inanna is really on

# Enmerkar and the Lord of Aratta

## ■ First challenge

- Enmerkar must cart grain to Aratta in nets instead of bags
- He uses sprouted barley to close up the holes in the nets

## ■ Second challenge

- Enmerkar must send a sceptre of no known material
- He pours a gluelike substance into a reed mould (the first manmade material)

## ■ Third challenge

- Enmerkar must send a champion of no known colour to fight the lord's champion
- He weaves a cloth of a new colour to garb his champion
- The messenger is having trouble remembering the lengthy messages...(sample highlighted in red on next slide)



This is what my master has spoken, this is what he has said. My king who from his birth has been fitted for lordship, the lord of Unug, the *sajkal* snake living in Sumer, who pulverizes mountains like flour, the stag of the tall mountains, endowed with princely antlers, wild cow, kid pawing the holy soapwort with its hoof, whom the good cow had given birth to in the heart of the mountains, Enmerkar, the son of Utu, has sent me to you.

This is what my master said: “**Lest I make the people fly off from that city like a wild dove from its tree, lest I make them fly around like a bird over its well-founded nest, lest I requite them as if at a current market rate, lest I make it gather dust like an utterly destroyed city, lest like a settlement cursed by Enki and utterly destroyed, I too utterly destroy Aratta; lest like the devastation which swept destructively, and in whose wake Inanna arose, shrieked and yelled aloud, I too wreak a sweeping devastation there – let Aratta pack nuggets of gold in leather sacks, placing alongside it the *kumea* ore; package up precious metals, and load the packs on the donkeys of the mountains; and then may the Junior Enlil of Sumer have them build for me, the lord whom Nudimmud has chosen in his sacred heart, a mountain of shining *me*; have them make it luxuriant for me like a boxwood tree, have them make its shining horns colourful for me as when Utu comes forth from his chamber, have them make its doorposts gleam brightly for me. Chant to him for me the holy song, the incantation sung in its chambers – the Incantation of Nudimmud.**”

Say whatever you will say to me, and I shall announce that message in the shrine E-ana as glad tidings to the scion of him with the glistening beard, whom his stalwart cow gave birth to in the mountain of the shining *me*, who was reared on the soil of Aratta, who was given suck at the udder of the good cow, who is suited for office in Kulaba, the mountain of great *me*, to Enmerkar, the son of Utu; I shall repeat it in his *jipar*, fruitful as a flourishing *mes* tree, to my king, the lord of Kulaba.



# Enmerkar and the Lord of Aratta

⟨dug<sub>4</sub>-ga-ni [mah]-am<sub>3</sub> šag<sub>4</sub>-bi su-su-a-am<sub>3</sub>⟩

⟨kiḡ<sub>2</sub>-gi<sub>4</sub>-a ka-ni dugud šu  
nu-mu-un-da-an-gi<sub>4</sub>-gi<sub>4</sub>⟩

⟨bar kiḡ<sub>2</sub>-gi<sub>4</sub>-a ka-ni dugud šu  
nu-mu-un-da-an-gi<sub>4</sub>-gi<sub>4</sub>-da-ka⟩

⟨en kul-ab<sub>4</sub> <sup>ki</sup>-a-ke<sub>4</sub> im-e šu bi<sub>2</sub>-in-ra inim  
dub-gin<sub>7</sub> [bi<sub>2</sub>-in]-gub⟩

⟨ud-bi-ta inim im-ma gub-bu nu-ub-ta-ḡal<sub>2</sub>-la⟩

orthogi<sub>3</sub>-ne-še<sub>3</sub> <sup>d</sup>utu ud ne-a ur<sub>5</sub>  
he<sub>2</sub>-en-na-nam-ma-am<sub>3</sub>

⟨en kul-ab<sub>4</sub> <sup>ki</sup>-a-ke<sub>4</sub> [inim] [dub-gin<sub>7</sub>]  
[bi<sub>2</sub>]-in-gub ur<sub>5</sub> [he<sub>2</sub>]-[en-na]-nam-ma⟩

His speech was very grand, its meaning very deep;  
The messenger's mouth was too heavy; he could  
not repeat it.

Because the messenger's mouth was too heavy, and  
he could not repeat it,

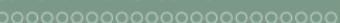
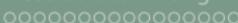
The lord of Kulab patted some clay and put the  
words on it as on a tablet.

Before that day, there had been no putting words  
on clay;

But now, when the sun rose on that day—so it was:

The lord of Kulab had put words as on a  
tablet—so it was!

*trans. Vanstiphout 2003*



# Enmerkar and the Lord of Aratta

- The Lord of Aratta's reaction? He cannot read...

en aratta<sup>ki</sup>-ke<sub>4</sub> kig<sub>2</sub>-gi<sub>4</sub>-a-ar

im ŠU.RIN.NA-ni šu ba-ši-in-ti

en aratta<sup>ki</sup>-ke<sub>4</sub> im-ma igi i-ni-in-bar

inim dug<sub>4</sub>-ga gag-am<sub>3</sub> sag-ki mi-re<sub>2</sub>-da-am<sub>3</sub>

en aratta<sup>ki</sup>-ke<sub>4</sub> im ŠU.RIN.NA-ni igi im-bar-bar-re

The lord of Arratta took from the messenger

The tablet (and held it) next to a brazier.

The lord of Aratta inspected the tablet.

The spoken words were mere wedges—his brow darkened.

The lord of Aratta kept looking at the tablet (in the light of) the brazier.

*trans. Van Sijpabout 2003*



# Sumer & Technology

- Coincidentally, grain, manufactured goods, and textiles were the main exports of Sumer
  - Enmerkar's victories (in the challenges) have to do with the technological superiority of Sumer
  - Arguably the most important of these technological advancements is writing
  - The invention of writing was for economic rather than intellectual reasons
    - Made trade, administration, and bookkeeping possible

# Precursors to Writing

# Cylinder seals

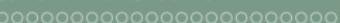
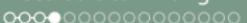
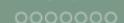
- Small cylinders made of hard stone
  - Usually semi-precious stones, e.g. lapis lazuli, onyx, hematite, amethyst
  - *Later:* also porcelain or glass
- Usually pierced through with a hole, could be worn
- Carved with images
  - *Later:* also text
- Rolled onto wet clay to create a bas relief





Old Babylonian cylinder seal, hematite, ca. 1800 BC + reversed scanned image  
Robed king making an offering to the sun god Shamash

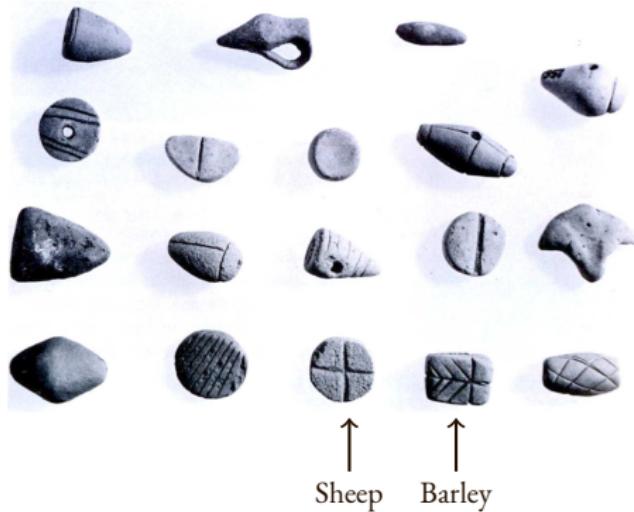




# Cylinder seals

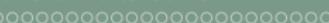
- Decorative item or jewelry, but also served an important function
- Items could be sealed to discourage tampering
  - Bullæ or later tablets
  - Containers of goods
  - Doors
- Entered use around 3500 BC
  - Uruk cylinder seals have been found in datable Egyptian tombs around 3400–3300 BC
  - Egyptian writing doesn't appear until around 3200 BC

# Clay Tokens



Sheep

Barley



# Clay Tokens

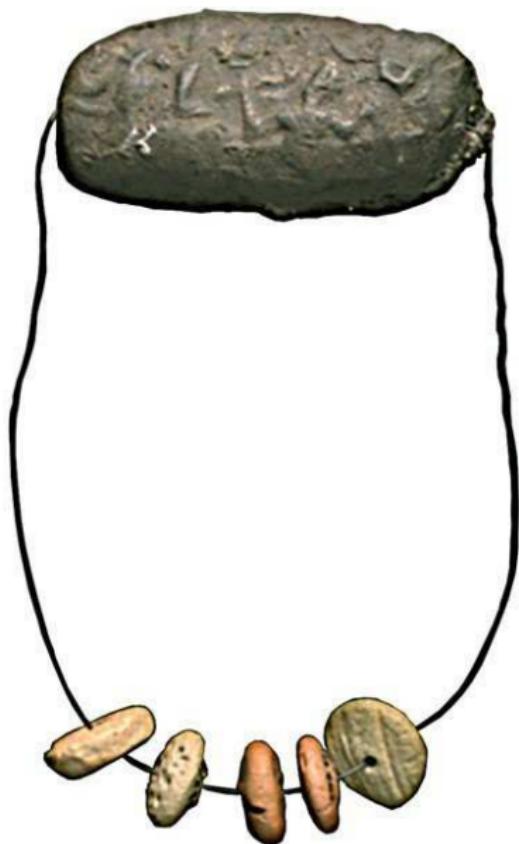
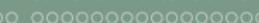
- Tokens represent (units of) goods
- Can be used to keep records of debts, sales, taxes, etc.
- Plain tokens
  - Simple shapes, few markings
  - Probably represented a measure of grain, one animal, or a day's labour
- Complex tokens
  - The shape and markings on the token indicates the commodity it represents (some concrete, some abstract)
  - Some had holes, and could be threaded with string
- But how do you resolve disputes?





# Bulla envelopes

- *Bulla*—bubble (Lat.)
- Envelope of clay to hold tokens
- Sealed with a **cylinder impression**
- As the bulla had to be broken to check its contents, few survived
  - Only ~165 intact and 70 fragmentary bulla envelopes have survived worldwide
  - About 25 are known from Sumer, all excavated in Uruk
- More practical developments:
  - Some bullæ had marks on outside indicating contents
  - String of complex tokens with string ends locked into the bulla



- Oblong bulla,  $2.5 \times 6.5\text{cm}$  in diameter, pierced for holding a string
- With tokens on the string and ends locked into bulla, the transaction could not be tampered with
- Cylinder seals
  - Row of animals walking left
  - Two men standing with arms raised



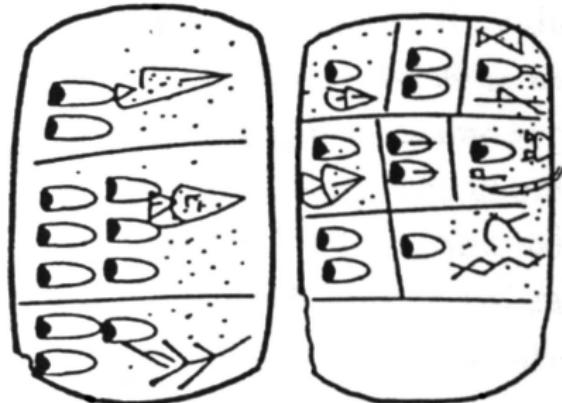
- 6.5cm in diameter
- 11 tokens inside
  - 4 days' work
  - 4 measures of metal
  - 1 large measure of barley
  - 2 small measures of some other commodity
- Cylinder seal impressions
  - Row of men walking left
  - Predator attacking a deer



- 7cm in diameter
- 17 plain tokens inside
  - Wages for 300 man days
  - Rate of 1.8 measures of barley / man day
- Cylinder seal impressions
  - Row of men each carrying a sack on his head towards a large cauldron on a rounded stand
  - A line of tall ringstaffs and men
  - A large disc or bottom of a cone, possibly representing the sum of the tokens inside

# Early tablets

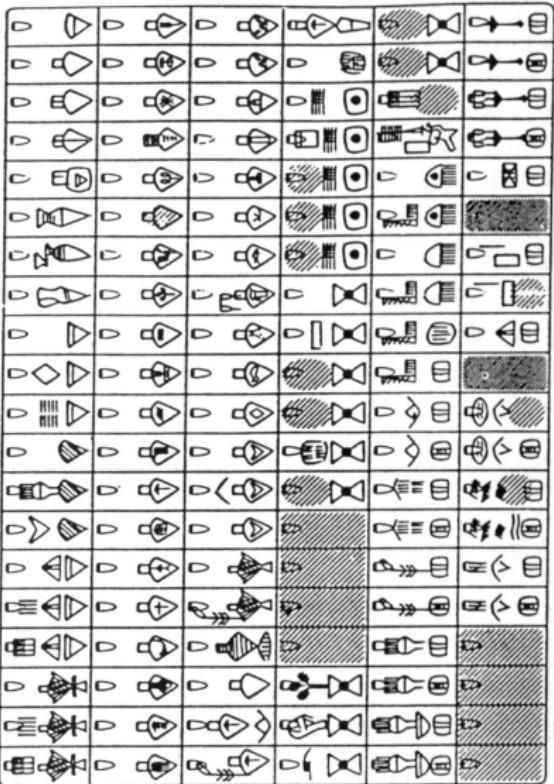
- Bullæ could be marked to indicate what tokens were inside
- Eventually, people figured out the tokens themselves are superfluous
- The representation of the product and number are the important part



Tablet from Uruk. Beer & barley.

# Early tablets

- 85% of the early tablets from Uruk are economic: food, livestock, & textiles
- 15% are lexical lists (names of various commodities, animals, officials)
  - Presumably for training new scribes
  - Also to try to establish a standard system for all scribes
  - Same lists are found over a 600 year period!





# Pictograms

- The symbols on early Sumerian clay tablets are **pictographic**
  - Stylized pictures of the object in question
- You can probably guess what many of these are...



sheep

to go, stand

plant

reed

bull

- However, there are many other pictograms that we still cannot identify, even knowing their meaning and pronunciation from later cuneiform texts

# Limitations of early pictographic writing

- This system isn't a full writing system yet
- It can only express highly restricted meanings
- Not fully linear
  - Symbols with a common sense unit (sentence?) are grouped in boxes



# Clay as a writing medium

- Clay is a great medium, as it can both be reused easily and baked to be made permanent
- Disasters like fires *preserve* texts rather than destroy them! (paper, on the other hand...)



Tablet broken in half, showing folded nature of the clay  
1800 BC, palace at Mari

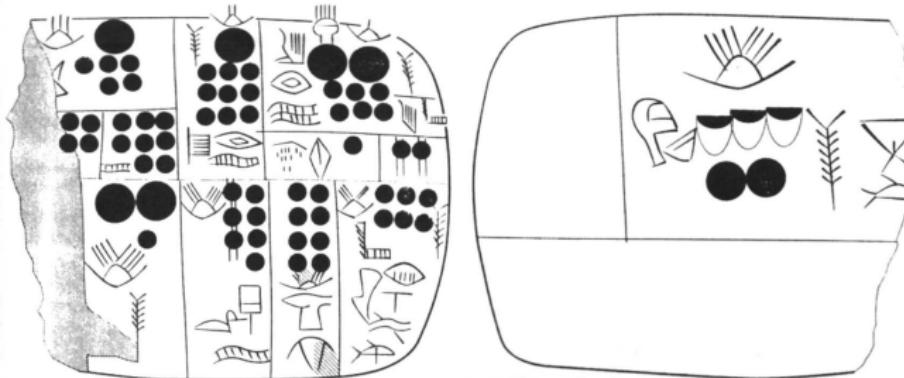


Partially recycled tablet, showing  
cuneiform inside  
1800 BC, palace at Mari

# The Development of Cuneiform

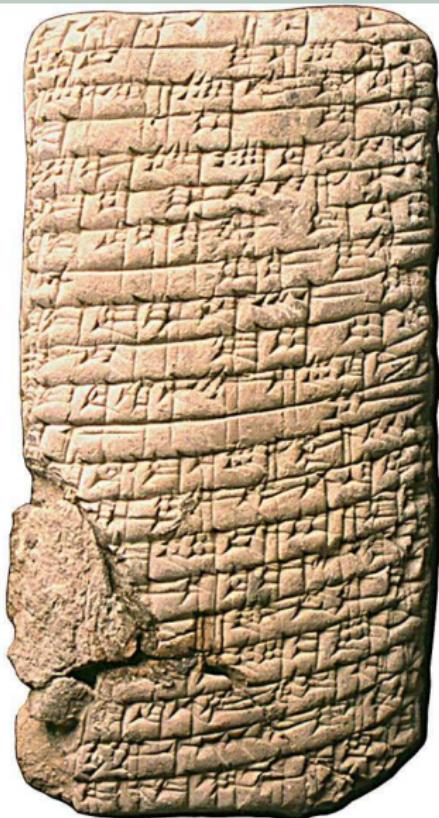
# Directionality

- Early tablets were wider than they were high
  - Arranged *roughly* in rows of squares going from right to left
  - New rows start on the next line down
  - When the first side fills up, tablet is flipped horizontally
  - Rows on the back side are read from bottom to top

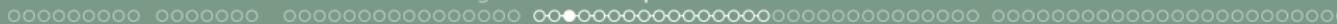


# Directionality

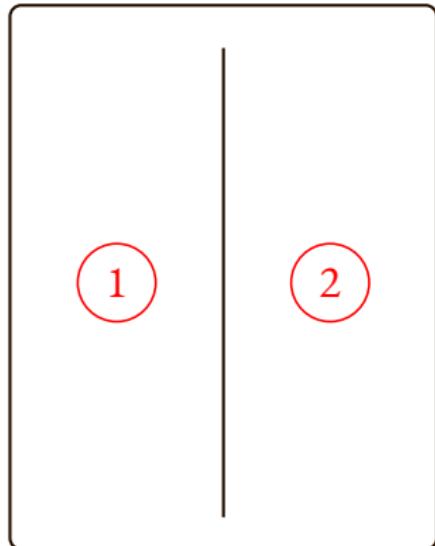
- By ca. 2000 BC, tablets are higher than they are wide
  - Signs go left to right in long rows
  - Sometimes tablets have columns
- At some point, the orientation of the tablet rotated 90°
  - The cuneiform graphemes rotated with it!



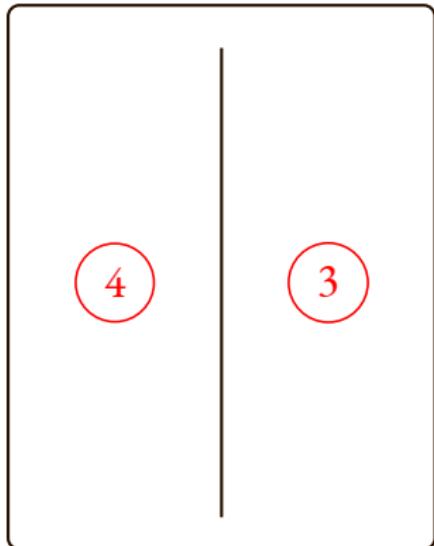
"My beloved knows my heart"  
Babylonian love poem, ca. 1800 BC  
Schoyen Collection, MS 2866



- Columns read left-to-right on front
- Tablet is flipped vertically
- Columns read right-to-left on back



Front



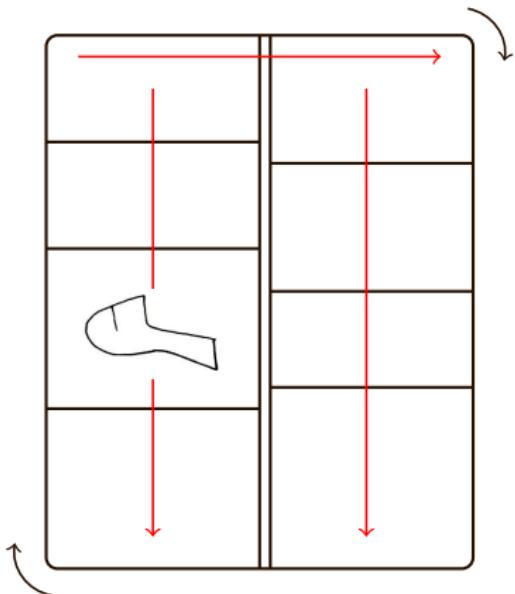
Back



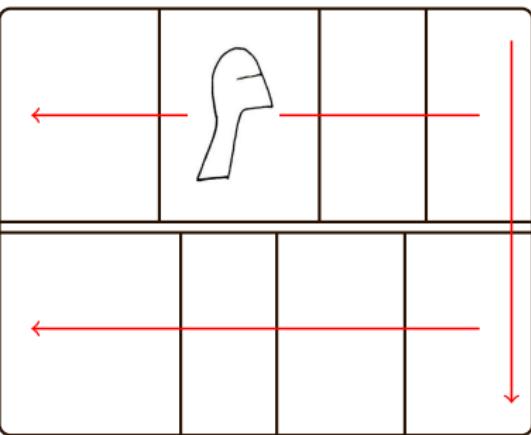
# Directionality

- Tablets from *all eras* are displayed in the later orientation
- This keeps the orientation of the graphemes consistent
- It also makes directionality of writing confusing for earlier tablets

# Directionality



Conventional orientation  
(textbook, museums, etc.)



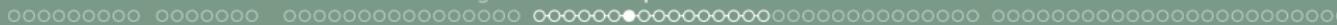
Historical orientation



# Directionality

## ■ Earliest tablets:

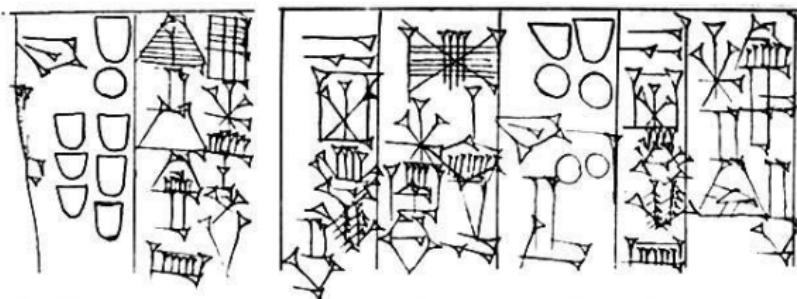
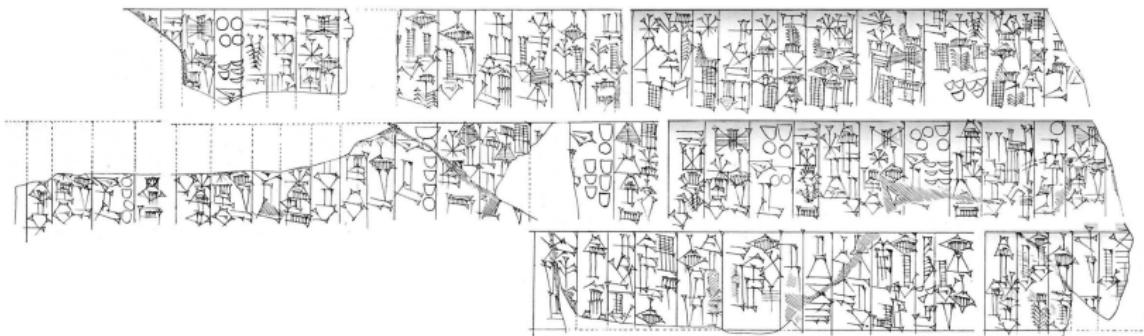
- Are usually displayed with text going in columns, left to right
- However, this orientation results in pictograms & early cuneiform logograms being sideways
- Other sources note left edge of tablet would have actually been considered the top
- Vases with these inscriptions are “left edge up”



Vase from Umma (Ed IIIb, 2500–2350BC)



Observe: numerals rotated 90° from those in the textbook (p.87):



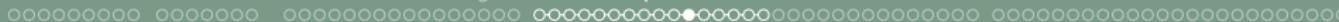


# Directionality

- *Cuneiform before ~2300BC:*
  - Also displayed with graphemes in the later orientation, by convention
  - However, it was actually written vertically in columns, from right to left
- Old Babylonian math texts use terms like “above” in reference to text that is to the left in the modern orientation
- Some tablets had holes on the “left” edge, so they could be hung

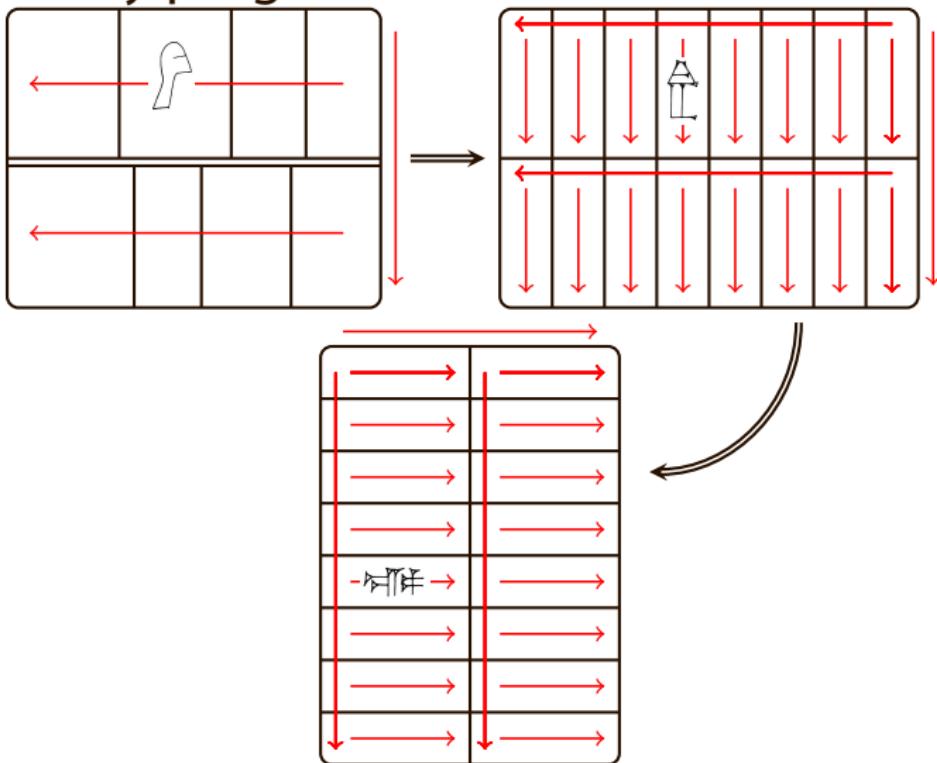


pisan dub-ba "basket of tablets"  
from Puzriš-Dagan (Ur III, 2100–2000BC)



- A rope was threaded through the holes
- Tablet hung like a label
- Text would actually have been read in columns from right to left

# Directionality progression



# Tablet reading direction, original format

- At first, graphemes not ordered very consistently within their boxes

*Front*

4	3	2	1
8	7	6	5

*Back*

8	7	6	5
4	3	2	1



## Tablet reading direction, original format

- Later, they are organized more tightly into columns...

*Front*

8 ↓	7 ↓	6 ↓	5 ↓	4 ↓	3 ↓	2 ↓	1 ↓
16 ↓	15 ↓	14 ↓	13 ↓	12 ↓	11 ↓	10 ↓	9 ↓

*Back*

16 ↓	15 ↓	14 ↓	13 ↓	12 ↓	11 ↓	10 ↓	9 ↓
8 ↓	7 ↓	6 ↓	5 ↓	4 ↓	3 ↓	2 ↓	1 ↓



# Tablet reading direction, new format

- The change of orientation rotated tablets 90°CCW

1 →	2 →	3 →	4 →
5 →	6 →	7 →	8 →
9 →	10 →	11 →	12 →
13 →	14 →	15 →	16 →

*Front*

9 →	1 →	10 →	11 →
12 →	13 →	14 →	15 →
16 →	8 →	7 →	6 →
5 →	4 →	3 →	2 →

*Back*

# Grapheme rotation & modern orientation

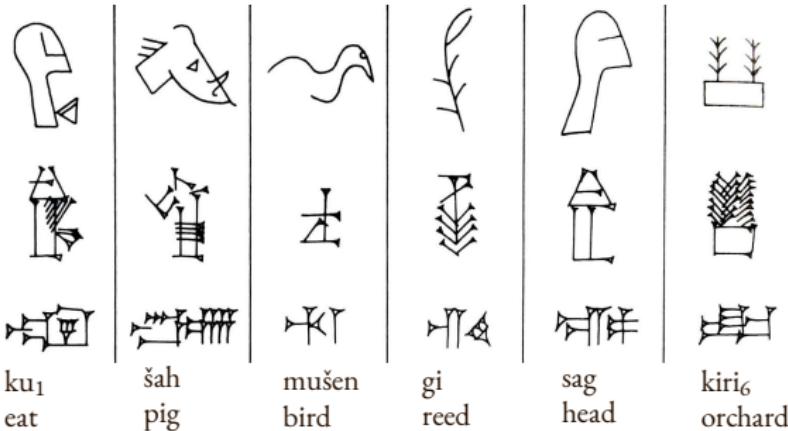
- All tablets are now displayed in the later order
- This is because Assyriologists are used to reading the graphemes in their later orientation
- Using the numbers in slide 3 as an example, this means we are used to reading the graphemes like this:

1 2 3 4 5 ...

- So we rotate all tablets so that the graphemes are the way up we're used to

# Pictographic to logographic

- Slowly, pictographic representation grew more stylized
  - A reed stylus was used to press strokes into clay
- The change in tablet orientation went hand in hand with a change in grapheme orientation
- At a certain point, the graphemes were rotated 90° CCW



# Semantic extension

- The meaning of the graphemes diversified



- /du/ 'foot'

- Extended to mean 'go' (also /du/)

- Then extended to semantically similar morphemes

- /ra/ 'go'

- /gin/ 'walk'

- /gub/ 'stand'



- /ka/ 'mouth'

- /zu/ 'tooth'

- /inim/ 'word'

- /gu/ 'voice'

- /dug/ 'speak'

# Phonetic extension

- One symbol used to write homophonous syllables
- Original meaning ignored
  - Made it possible to write abstract morphemes
-  /a/ ‘water’ → /a/ ‘in’



# Differentiation

- One symbol could be *differentiated* to form another with a related meaning
- Sumerian had a diacritic for this called a **gunu**
  - Hatch marks over a relevant section of the original grapheme
- /sag/ 'head' → /ka/ 'mouth'

7						sag
8						ka



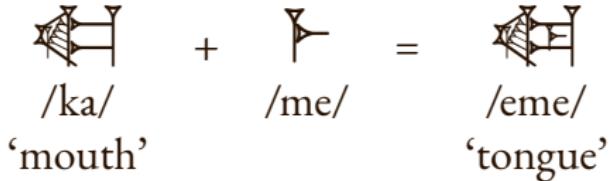
# Semantic compounds

- Two graphemes with distinct semantic elements could be combined to create a new meaning
- Phonetics of components irrelevant

 +  =   
/sag/                  /a/                  /naŋ/  
'head'                'water'                'drink'

# Semantic-phonetic compounds

- Graphemes could also be combined for phonetic reasons
  - This was not as common
- One would contribute a related meaning, and another would indicate the pronunciation



# Types of characters

- Sumerian cuneiform graphemes can be grouped into three categories:
  - Logograms (whole morphemes)
  - Phonograms (graphemes used for their sound)
  - Classifiers (not pronounced, but marked meaning)

# Logograms

- Represent a whole word or morpheme
- Phonological size of morpheme is irrelevant—it just represents a word
  - Can be multiple syllables long
- Could be a noun, adjective, verb...



$\langle \text{sag}_4 \rangle$   
/sag/  
'head'



$\langle \text{an} \rangle$   
/dīn̥jɪr/, /an/, /ilu/



$\langle \text{a}\check{\text{s}}.\text{a}\check{\text{s}}.\text{a}\check{\text{s}} \times \text{a}\check{\text{s}}.\text{a}\check{\text{s}}.\text{a}\check{\text{s}} \rangle$   
/sūsur/  
'stove grill'



$\langle \text{ha+tenū} \rangle$   
/zubud/  
'type of fish'



$\langle \text{mu} \rangle$   
/mu/  
'name, word'



$\langle \text{ha} \rangle$   
'fish'

# Phonograms

- Functional morphemes used for their phonetic value
- Represent only one syllable
- Can indicate particles or prefixes/suffixes, or be strung together to sound out foreign words



⟨nam⟩

/nam/



⟨mu⟩

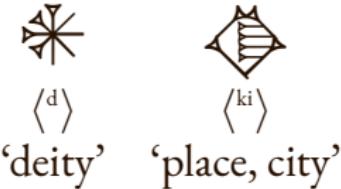
/mu/

(abstract nominal prefix) ‘because’

- + ⟨nam⟩+⟨lugal⟩ “king” = “kingship”
- + ⟨nam⟩+⟨šu<sub>2</sub>⟩ “to die” = “death”
- + ⟨nam⟩+⟨luh⟩ “to clean” = “purification”
- + ⟨nam⟩+⟨mah⟩ “high, exalted” = “greatness”

# Classifiers

- Also called semantic complements
- Indicate meaning, but not read!
- Mark semantic categories



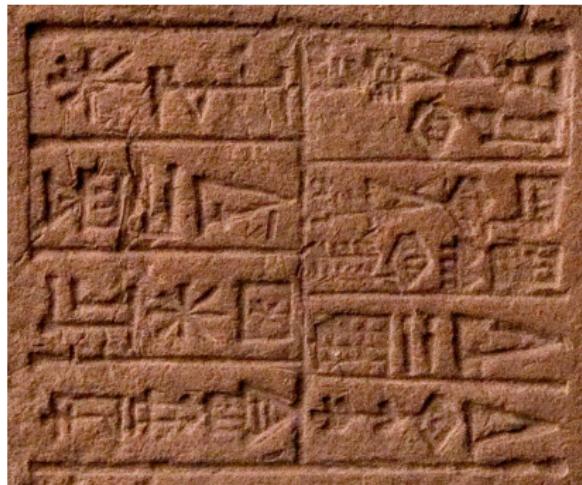
- Now let's look at a Sumerian text...

# Clay brick from temple of Inanna



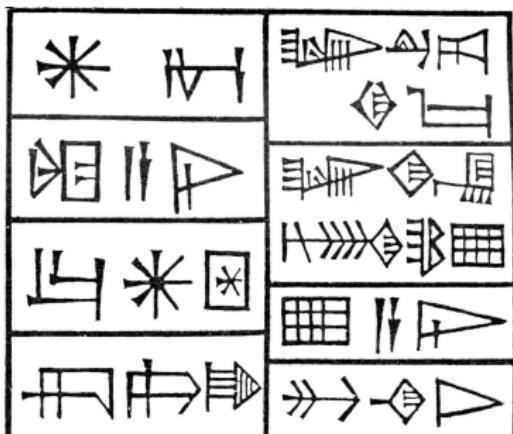
CDLI P226654

■ 12.5 × 12.5 in clay brick



■ Uruk, ca. 2100–2000 BC

# Sumerian tablet



⟨<sup>d-</sup>  
[deity]

INANNA⟩

Inanna

*For the goddess Inanna*

---



⟨NIN-

ani⟩

lady

3SG.POSS

*his/her lady*

---



⟨UR-

<sup>d-</sup>

NAMMU⟩

protector-

[deity]

Nammu

*Urnammu*

---



⟨NITA

KAL-

ga⟩

male

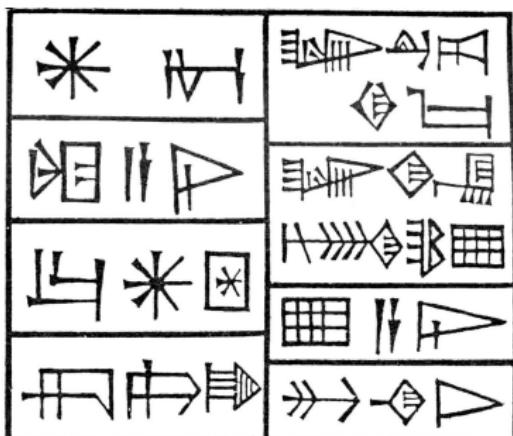
strong

make

*the strong man*



# Sumerian tablet



<LUGAL- URI<sub>5</sub>- ki- ma>  
 king Ur [place] and  
*the king of Ur*

<LUGAL- ki- en- lords  
 king [place] lords  
  
 gi ki- URI- ke<sub>4</sub>>  
 noble [place] Akkad  
*the king of Sumer (place of noble lords) and Akkad*

<E <sub>2</sub> - ani>	PREF-	3SG.DAT	3SG.POSS	build
temple			built for her	

# Orthography

- Vowel length not consistently marked
  - /ba:/ (long vowel) could be written with one ⟨a⟩ or two
    -  ⟨ba⟩
    -  ⟨ba-a⟩
  -  ⟨ba-al⟩ could be read phonetically three different ways
    - /ba al/
    - /ba:l/
    - /bal/

Cuneiform after Sumer



# Where was cuneiform used?

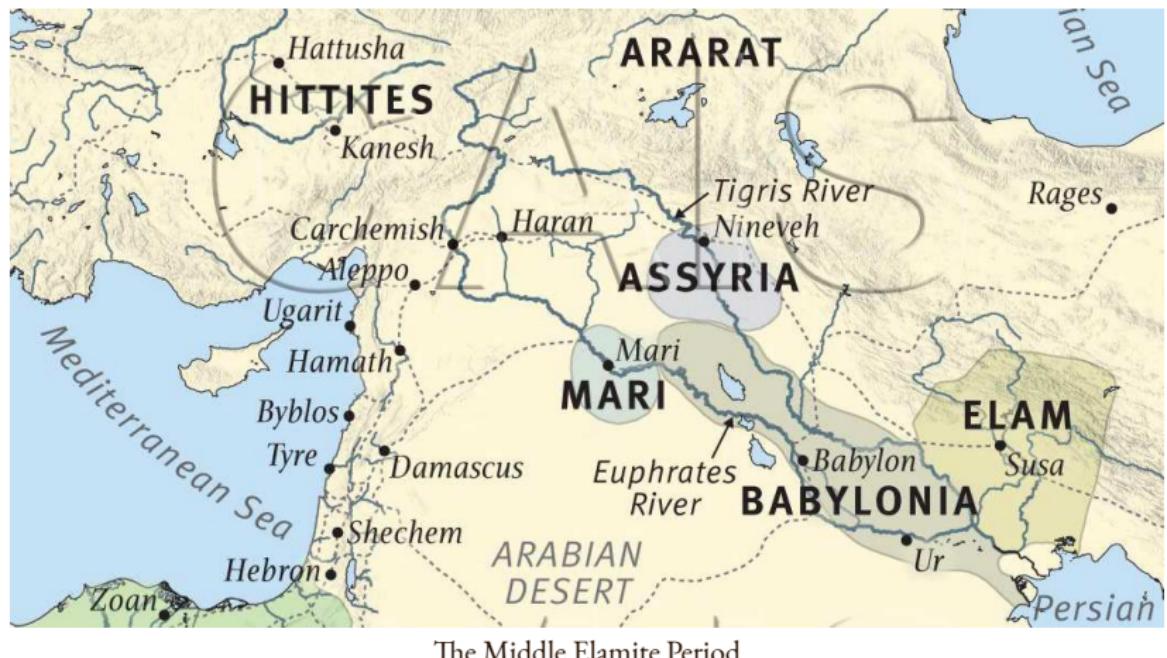


Babylonian world map

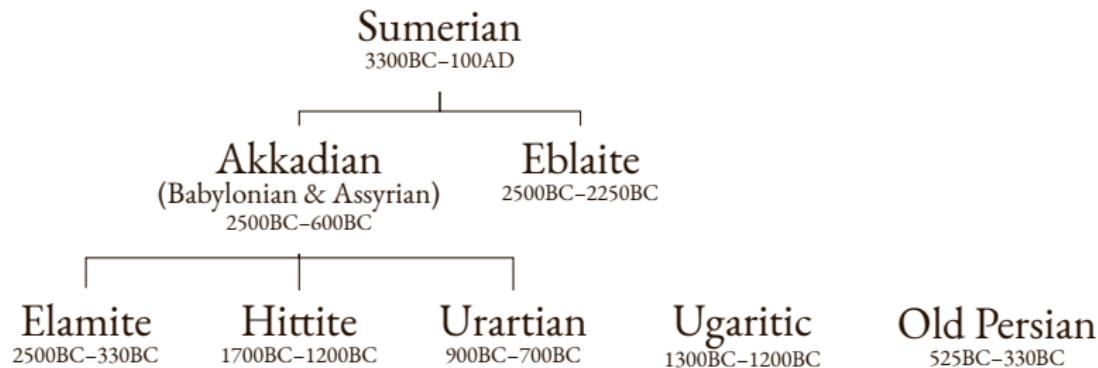
# Where was cuneiform used?



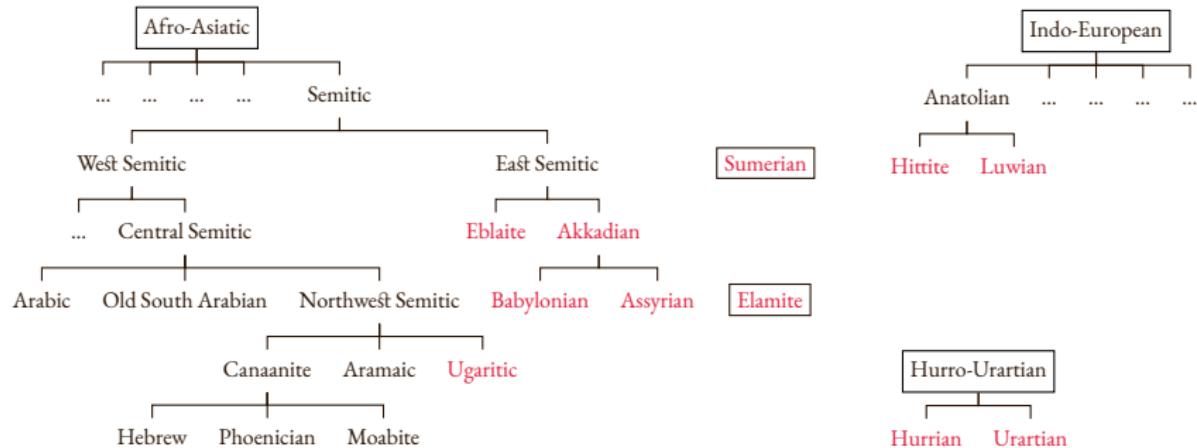
# Where was cuneiform used?



# Cuneiform scripts



# Languages that used cuneiform



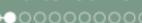
Boxes indicate distinct language families or language isolates.



# Akkadian

- The Akkadians, a Semitic people to the north, conquered Sumer around 2350 BC
- Akkadian language borrowed many terms from Sumerian, and adapted the writing system
- One borrowed grapheme could have multiple pronunciations

	PHONETIC	SEMANTIC
	/sag/	/re:ʃum/
	/ki/	/ersetu/



# Adaptation of Cuneiform

- *Phonetic borrowing*—using a grapheme for the sound it represented in the original language
- *Semantic borrowing*—using a grapheme for its meaning in the original language
- Let's pretend we want to write English in cuneiform:
  - “Use a key to open doors.”



⟨i.uz⟩

use



⟨a⟩

a



⟨ki⟩

key



⟨tu⟩

to



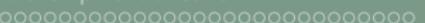
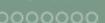
⟨BAD⟩

open



⟨IG.uz⟩

doors



# Cuneiform writing and literacy

- The complexity of cuneiform meant that very few people in Mesopotamia were literate
- A small caste of scribes did all of the reading and writing, and had years of training
  - In the whole Akkadian Empire, ca. 2300 BC, it is estimated there were about 100 scribes
- However, after some administrative reforms, numbers increased: about 1600 between 2100 and 2000 BC
- Cuneiform scholars generally taught young scribes in their own homes, rather than in any kind of school building
  - Early exercises involved copying lists of graphemes, and later lists of vocabulary once this was mastered



# Cuneiform simplification

- Cuneiform graphemes simplified over time, in systematic ways
  - Fewer strokes
  - Fewer directions (eventually: almost all → or ↓, occasional ↘)

	<i>⟨šE⟩</i> <i>reed</i>	<i>⟨šAR⟩</i> <i>orchard</i>	<i>⟨SAG⟩</i> <i>bead</i>	<i>⟨KA⟩</i> <i>mouth</i>	<i>⟨LUGAL⟩</i> <i>king</i>	<i>⟨KI⟩</i> <i>land</i>	<i>⟨AN⟩</i> <i>god</i>
Early Sumerian							
Neo-Sumerian							
OB engraving							
OB “cursive”							
Neo-Assyrian							

OB = Old Babylonian

# Elamite cuneiform

- The Elamite language (language isolate, spoken in what is now southern Iran) adapted and **further simplified** Akkadian cuneiform for its writing
- Only about 130 graphemes were in use at any one time, and almost all were **phonographic** and **syllabic**
- Word boundaries were marked with a vertical stroke (|)

Akkadian	Elamite	
𒂗	↷  K	⟨ri⟩
𒈪	↷	⟨ir⟩
𒈙	↷	⟨ma⟩
𒉢	↷-	⟨ya⟩
𒃲	↷	⟨ʃa⟩
𒅗	↷  F	“king”

## Unrelated Cuneiform Writing Systems



# Ugaritic

- Semitic language, spoken 15th–12th century BC in city of Ugarit
- Graphemes represent **segments**, not syllables or morphemes
  - Consonants only (abjad)
- *Exception:* separate graphemes for /ʔa/, /ʔi/, /ʔu/
- Related to other cuneiform scripts only aesthetically






# Old Persian

- The Old Persian script was developed at the behest of the Persian king Darius I, ca. 520-525 BC
- The script was developed specifically for monumental inscriptions on fortresses and cities throughout the First Persian Empire (Achæmenid Empire)
  - We don't really know who invented it
  - They borrowed the general cuneiform æsthetic, but none of the actual graphemes
- Most of the inscriptions laud the accomplishments of Darius I and his son Xerxes I

# Old Persian

- The system is quite unusual (part alphabet, part syllabary!), and unlike the neighbouring cuneiform scripts
  - We will discuss Old Persian Cuneiform again later in the course, when we've seen more examples of these!
- Cuneiform was likely chosen because that's what neighbouring languages used
- **Assyrian**—the adaptation/refinement of Sumerian cuneiform we just discussed
- **Elamite**—based on Assyrian cuneiform, but simplified
  - Elamite cuneiform borrowed syllabic graphemes from Assyrian cuneiform (260 overall), as well as a handful of morphograms

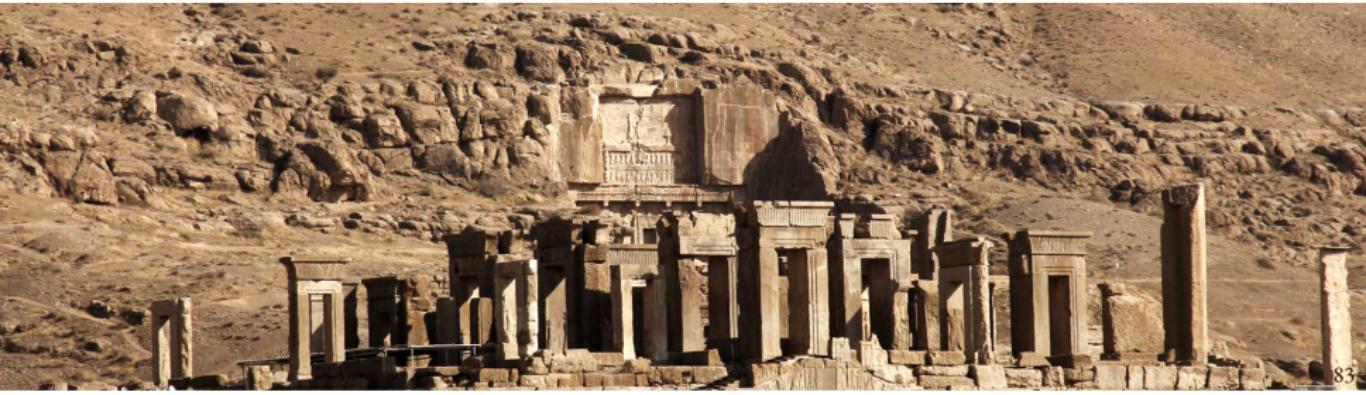
# Old Persian

a	i	u	ka	ku	xa	ga	gu	ča
ja	ji	da	di	du	ta	tu	θa	ča
na	nu	pa	fa	ba	ma	mi	mu	ya
ra	ru	la	va	vi	sa	ša	za	ha

(Note that is a word divider)

# Trilingual inscriptions at Persepolis

- Persepolis: capital of Achæmenid Empire
  - (Greek Περσέπολις “City of Persians”)
- King Darius I began building it ~600 BC
- Trilingual inscriptions above doorways in the palace
  - Old Persian (commissioned by Darius!)
  - Elamite
  - Babylonian



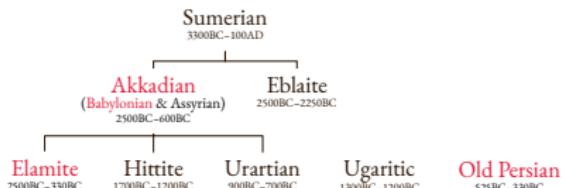


■ How would you determine which of these inscriptions represents which language?

Old Persian?

Elamite?

Babylonian?



# Babylonian



“Darius, the great king, king of kings, king of the lands of all tongues entirely, son of Hystaspes, the Achæmenian, who built this palace.”



da ri ia a muš LUGAL GAL ú LUGAL LUGAL MEŠ

*Dariamus* šarru rabû šar šarrāni

LUGAL KUR KUR MEŠ ša nap ha ri li šá nu gab bi

šar mātāti ša naphari lišánu gabbi

A uš ta as pa a ha ma an ni iš ši i?

*apal Uštaspa Ahamannissi*

ša é a ga a i pu uš

ša bīta agâ ipūš

“Darius, the great king, king of kings, king of the lands of all  
tongues entirely, son of Hyſtaspes, the Achæmenian, who built this  
palace.”

# Elamite

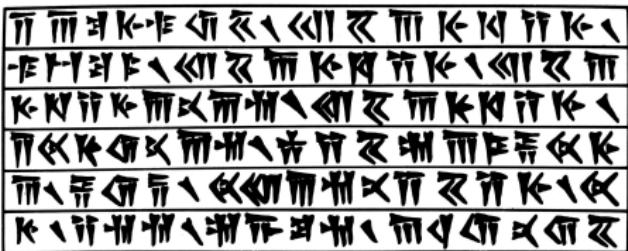


I ॥ -|||K ॥ i ॥ < ॥ | ॥ F ॥ V ॥ ॥ -|||F ॥ I ॥ F ॥  
 da ri ya ma u iš sunki ir šá ir ra sunki

॥ F ॥ E ॥ E ॥ -|||F ॥ I ॥ F ॥  
 sunki ip in na sunki ...

“Darius, the great king, king of kings, ...”

# Old Persian



𐎏 𐎑 𐎓 𐎚 𐎕 𐎖 𐎗 𐎘 𐎙 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚 𐎚  
 da a ra ya va u ša \ xa ša a ya ḡa i ya \ va za ra ka \

*Dâryavauš*                    *xšâyaθiya*                    *vazraka*  
*Darius*                        *king*                        *great*

- Let's try transliterating some of this for ourselves...

# Van Fortress

- Near modern-day Van, eastern Turkey
- Massive fortress built ~800–700BC
- Famous for a well-preserved trilingual inscription by King Xerxes from ~500BC
  - Old Persian
  - Babylonian
  - Elamite



# Xerxes' inscription at Van Fortress



# Old Persian transliteration: Xerxes' inscription at Van Fortress

The image displays two rows of Old Persian cuneiform script. The first row consists of four vertical columns of characters, and the second row consists of three vertical columns. The characters are wedge-shaped and arranged in a grid-like pattern.

⟨ba ga \ va za ra ka \ a u ra ma za da a \ ha ya \ ma thi⟩

(baga vazraka Auramazdâ hya mathi...)

# Xerxes' inscription at Van Fortress

𐎿 𐎱 𐎰 𐎭 𐎻 𐎵 𐎶 𐎷 𐎸 𐎹 𐎺 𐎼 𐎾 𐎿 𐎱 𐎰 𐎭 𐎻 𐎵 𐎶 𐎷 𐎸 𐎹 𐎺 𐎼 𐎾  
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baga \ vazraka \ auramazdā \ hya \ mathi  
 šta \ bagānām \ hya \ imām \ būmi  
 im \ adâ \ hya \ avam \ asmānam \ adâ \ hya \ martiyam \ adâ \ hya \ šiyātīm \ adâ \ martiyahā \ hya \ xšayāršām \ xšayāthiyam \ akunauš \ aivam \ parūnām \ xšayāthiyam \ aivam \ parūnām \ framātarām \ adam \ xšayāršā \ xšayāthiya \ vazraka \ xšayāthiya \ xšayāthiyānām \ xšayāthiya \ da hyūnām \ paruv \ zanānām \ xšayāthiya \ ahayā \ būmīyā \ va zrakāyā \ dûraiyyā \ apiy \ dâraya vahauš \ xšayāthiyahā \ puça \ ha xâmanišiya \ thâtiy \ xšayāršā \ xšayāthiya \ dârayavaus \ xšayāthiya \ manâ \ pitâ \ hauv \ va šnâ \ auramazdâha \ vasiy \ tya \ naibam \ akunauš \ utâ \ ima \ šta anam \ hauv \ niyaštâya \ katanaiy \ yanî \ dipim \ naiy \ nipišta am \ akunauš \ pasâva \ adam \ ni yaštâyam \ imâm \ dipim \ nipa ištanaiy \ mâm \ auramazdâ \ pâ tuv \ hadâ \ bagaibiš \ utâmaiay \ xšaçam \ utâ \ tyamaiy \ kartam

# Xerxes' inscription at Van Fortress

baga vazraka Auramazdâ hya mathišta bagânâm hya imâm bûmim adâ hya avam asmânâm adâ hya martiyam adâ hya šiyâtîm adâ martiyahyâ hya Xšayâršâm xšâyathiyam akunauš aivam parûnâm xšâyathiyam aivam parûnâm framâtâram adam Xšayâršâ xšâyathiya vazraka xšâyathiya xšâyathiyânâm xšâyathiya dahyûnâm paruv zanânâm xšâyathiya ahyâyâ bûmiyâ vazrakâyâ dûrai apiy Dârayavahauš xšâyathiyahyâ puça Haxâmanišiya thâtiy Xšayâršâ xšâyathiya Dârayavaus xšâyathiya hya manâ pitâ hauv vašnâ Auramazdâha vasiy ty a naibam akunauš utâ ima štânam hauv niyaštâya katanaiy yaniy dipim naiy nipištâm akunauš pasâva adam niyaštâyam imâm dipim nipaištanaiy mâm Auramazdâ pâtuв hadâ bagaibiš utâmaj xšaçam utâ tyamaiy kartam

*A great god is Ahuramazda, the greatest of gods, who created this earth, who created that sky, who created man, who created happiness for man, who made Xerxes king, one king for all, one ruler for all. I am Xerxes, the great king, the king of kings, king of all kinds of peoples with all kinds of origins, king of this earth great and wide, the son of king Darius, the Achaemenid.*

*King Xerxes says: King Darius, my father, by the grace of Ahuramazda built much that was good, and he gave orders to dig this niche out, but because he did not make an inscription, I ordered this inscription to be made.*

*May Ahuramazda and the other gods protect me, my kingdom, and what I have made.*

# Readings & Next Time

- Make sure you have read Chapter 5 of the textbook
- Read Chapter 6 for next week...

