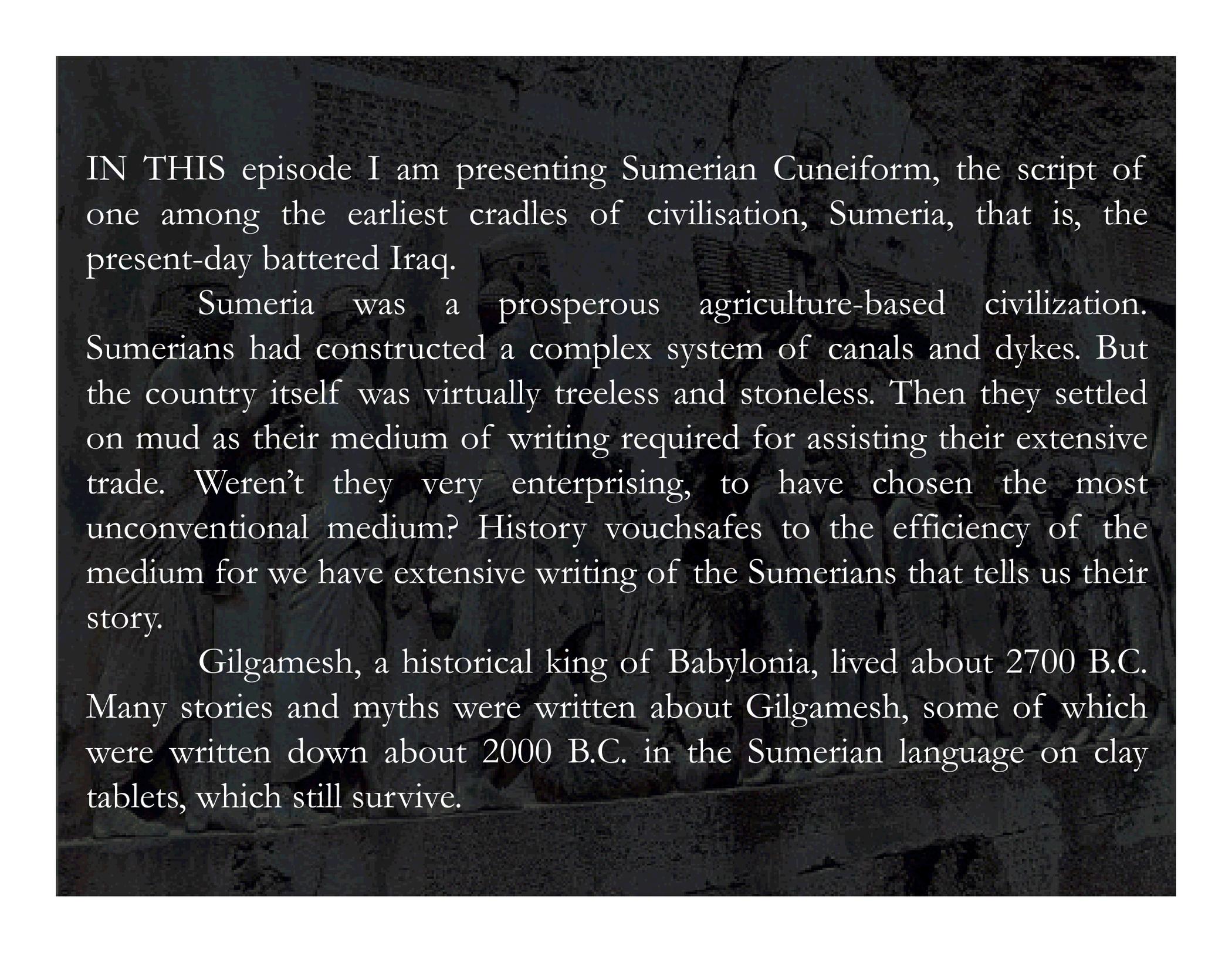


Handwritten text in an ancient script, likely Cuneiform, arranged in approximately 12 horizontal lines. The characters are small, wedge-shaped marks on a dark, textured background.

Handwritten text in an ancient script, likely Cuneiform, arranged in approximately 4 horizontal lines. The characters are small, wedge-shaped marks on a dark, textured background.

Understanding Cuneiform

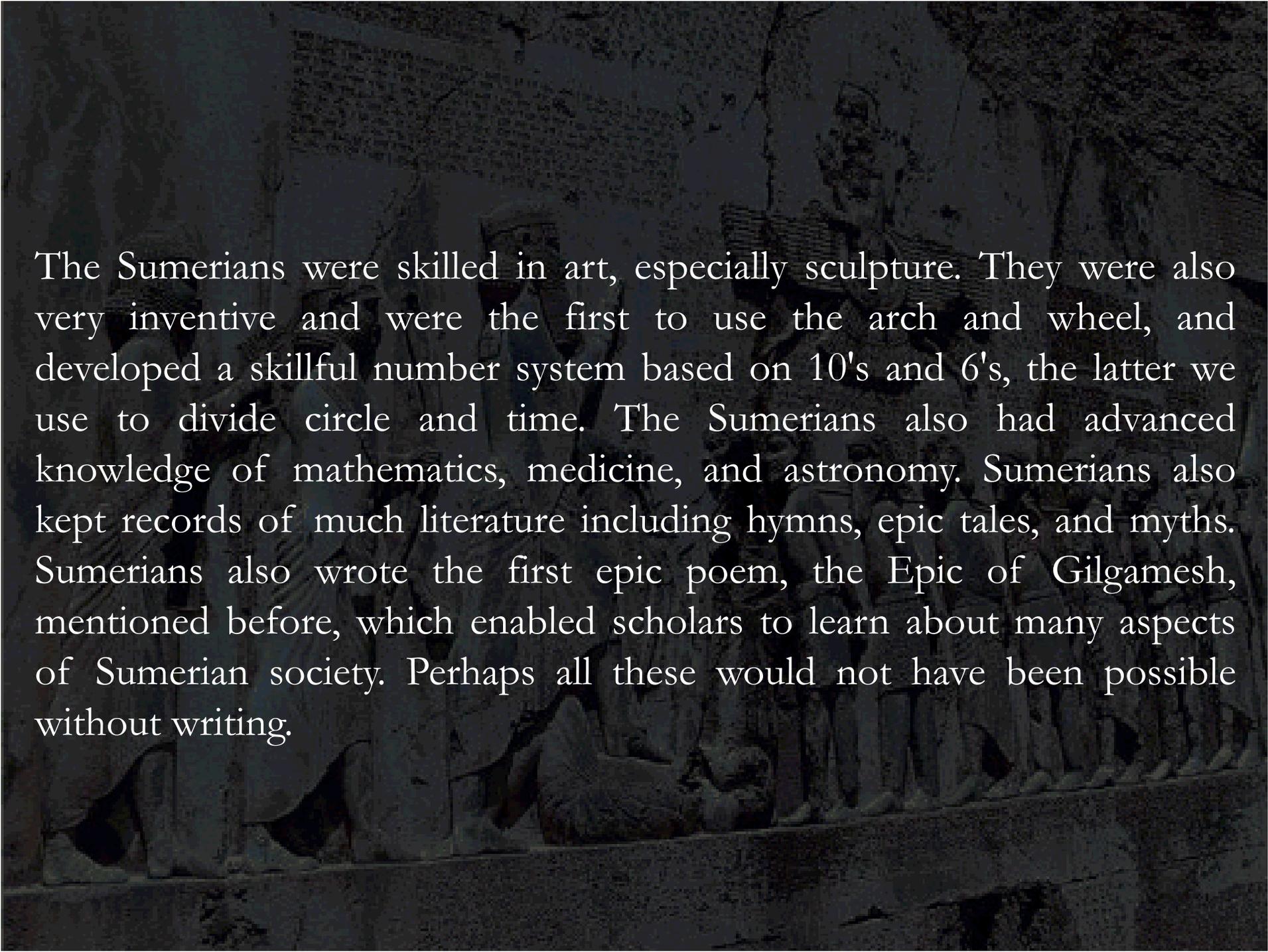
Handwritten text in an ancient script, likely Cuneiform, arranged in approximately 2 horizontal lines. The characters are small, wedge-shaped marks on a dark, textured background.



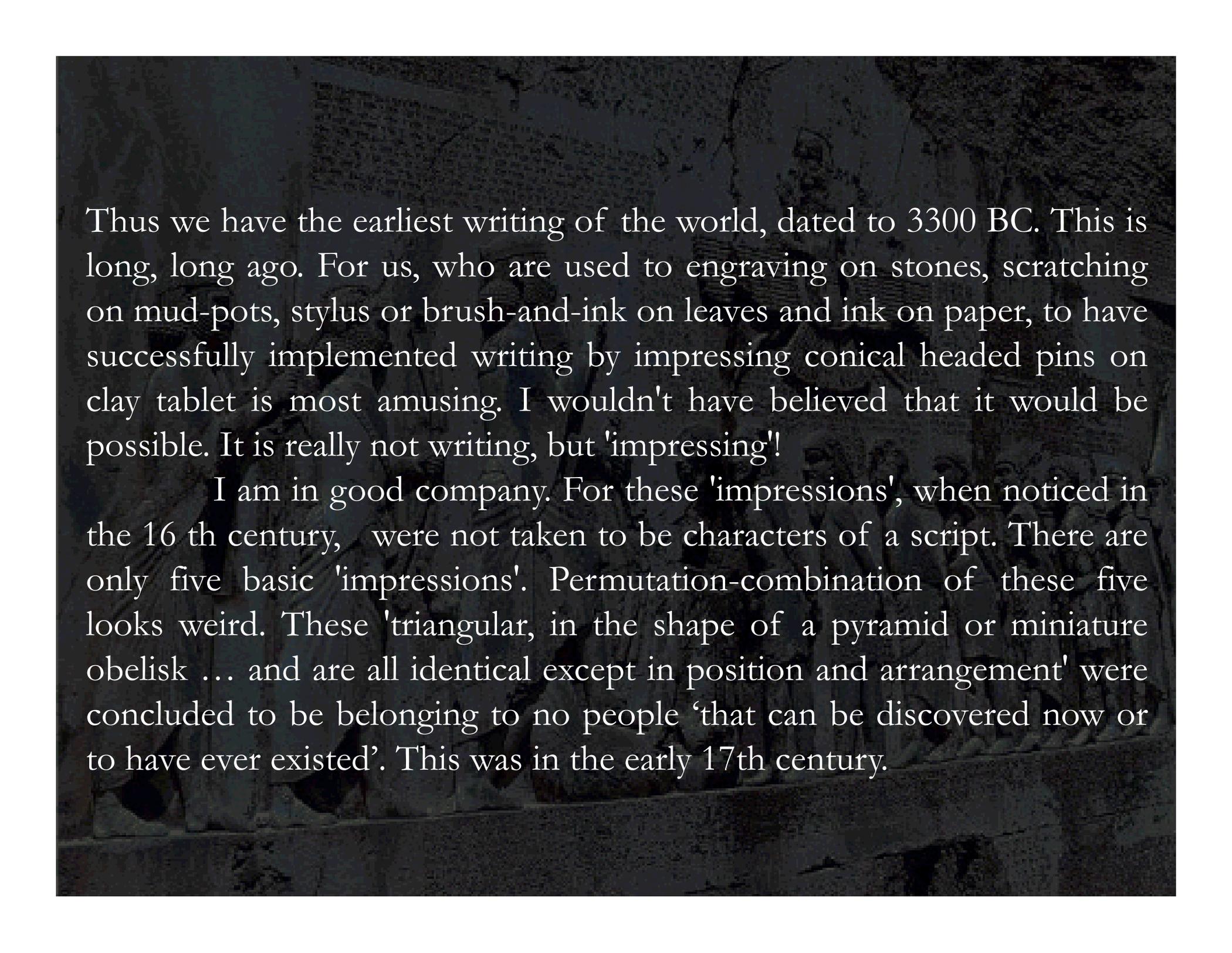
IN THIS episode I am presenting Sumerian Cuneiform, the script of one among the earliest cradles of civilisation, Sumeria, that is, the present-day battered Iraq.

Sumeria was a prosperous agriculture-based civilization. Sumerians had constructed a complex system of canals and dykes. But the country itself was virtually treeless and stoneless. Then they settled on mud as their medium of writing required for assisting their extensive trade. Weren't they very enterprising, to have chosen the most unconventional medium? History vouchsafes to the efficiency of the medium for we have extensive writing of the Sumerians that tells us their story.

Gilgamesh, a historical king of Babylonia, lived about 2700 B.C. Many stories and myths were written about Gilgamesh, some of which were written down about 2000 B.C. in the Sumerian language on clay tablets, which still survive.

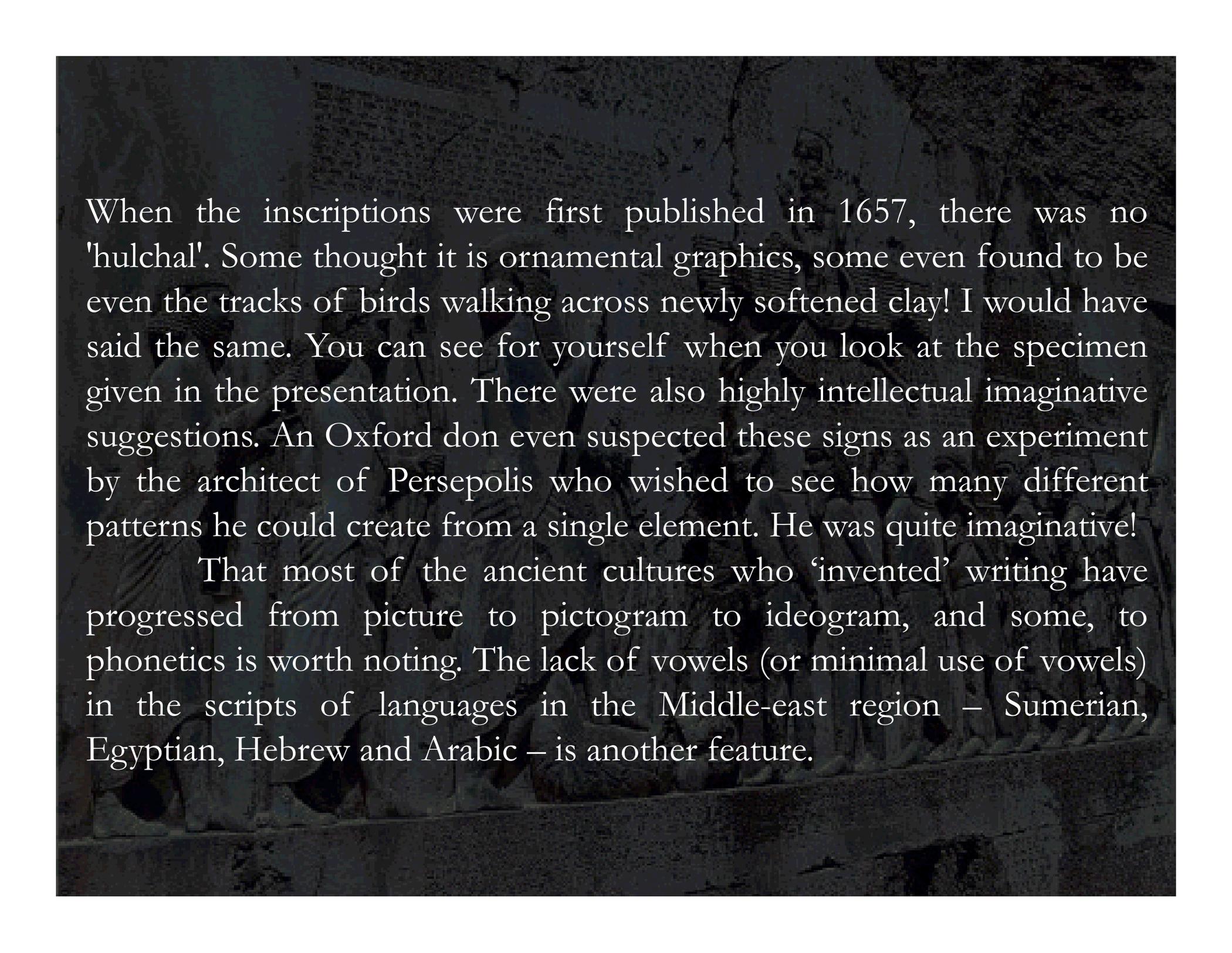


The Sumerians were skilled in art, especially sculpture. They were also very inventive and were the first to use the arch and wheel, and developed a skillful number system based on 10's and 6's, the latter we use to divide circle and time. The Sumerians also had advanced knowledge of mathematics, medicine, and astronomy. Sumerians also kept records of much literature including hymns, epic tales, and myths. Sumerians also wrote the first epic poem, the Epic of Gilgamesh, mentioned before, which enabled scholars to learn about many aspects of Sumerian society. Perhaps all these would not have been possible without writing.



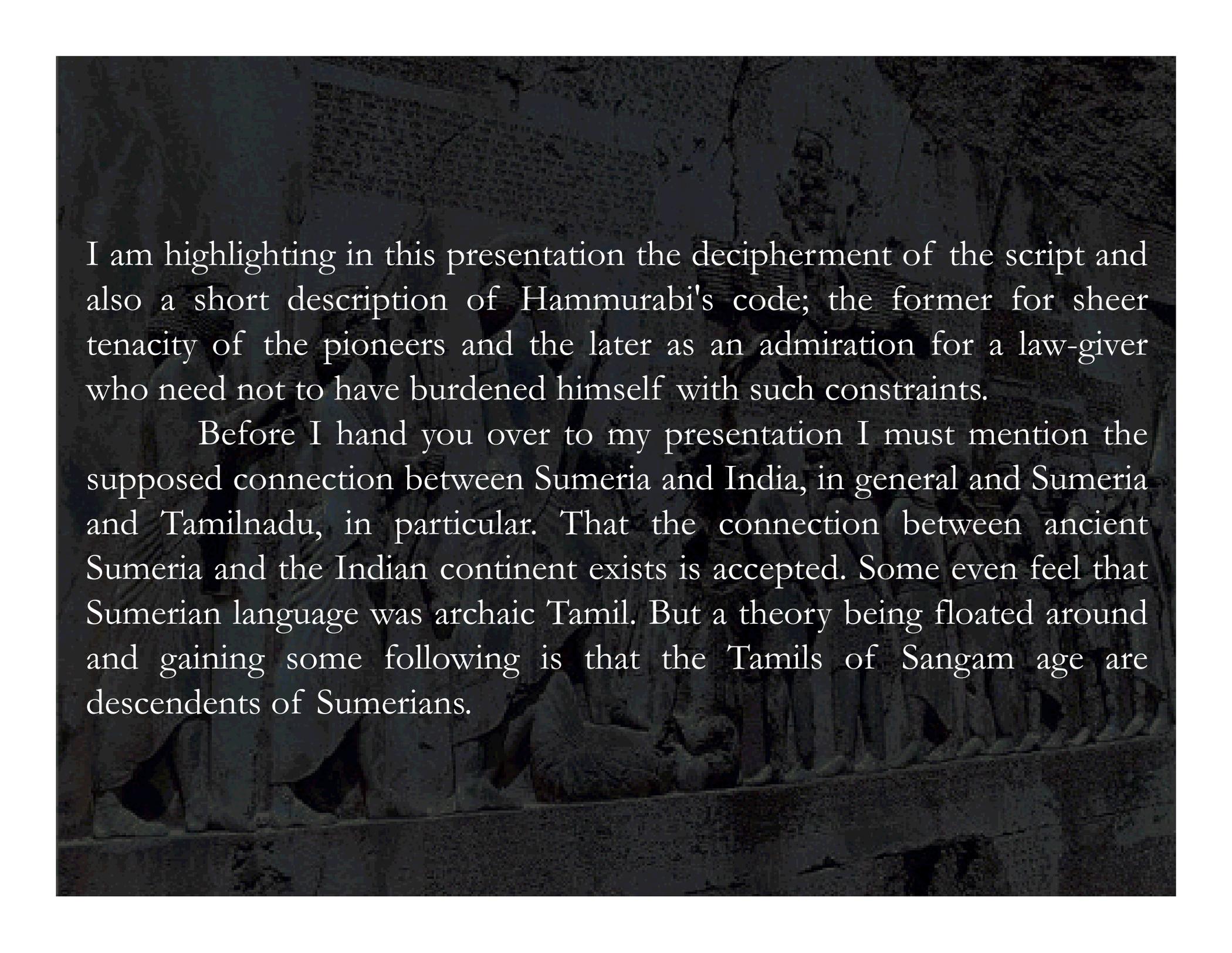
Thus we have the earliest writing of the world, dated to 3300 BC. This is long, long ago. For us, who are used to engraving on stones, scratching on mud-pots, stylus or brush-and-ink on leaves and ink on paper, to have successfully implemented writing by impressing conical headed pins on clay tablet is most amusing. I wouldn't have believed that it would be possible. It is really not writing, but 'impressing'!

I am in good company. For these 'impressions', when noticed in the 16 th century, were not taken to be characters of a script. There are only five basic 'impressions'. Permutation-combination of these five looks weird. These 'triangular, in the shape of a pyramid or miniature obelisk ... and are all identical except in position and arrangement' were concluded to be belonging to no people 'that can be discovered now or to have ever existed'. This was in the early 17th century.



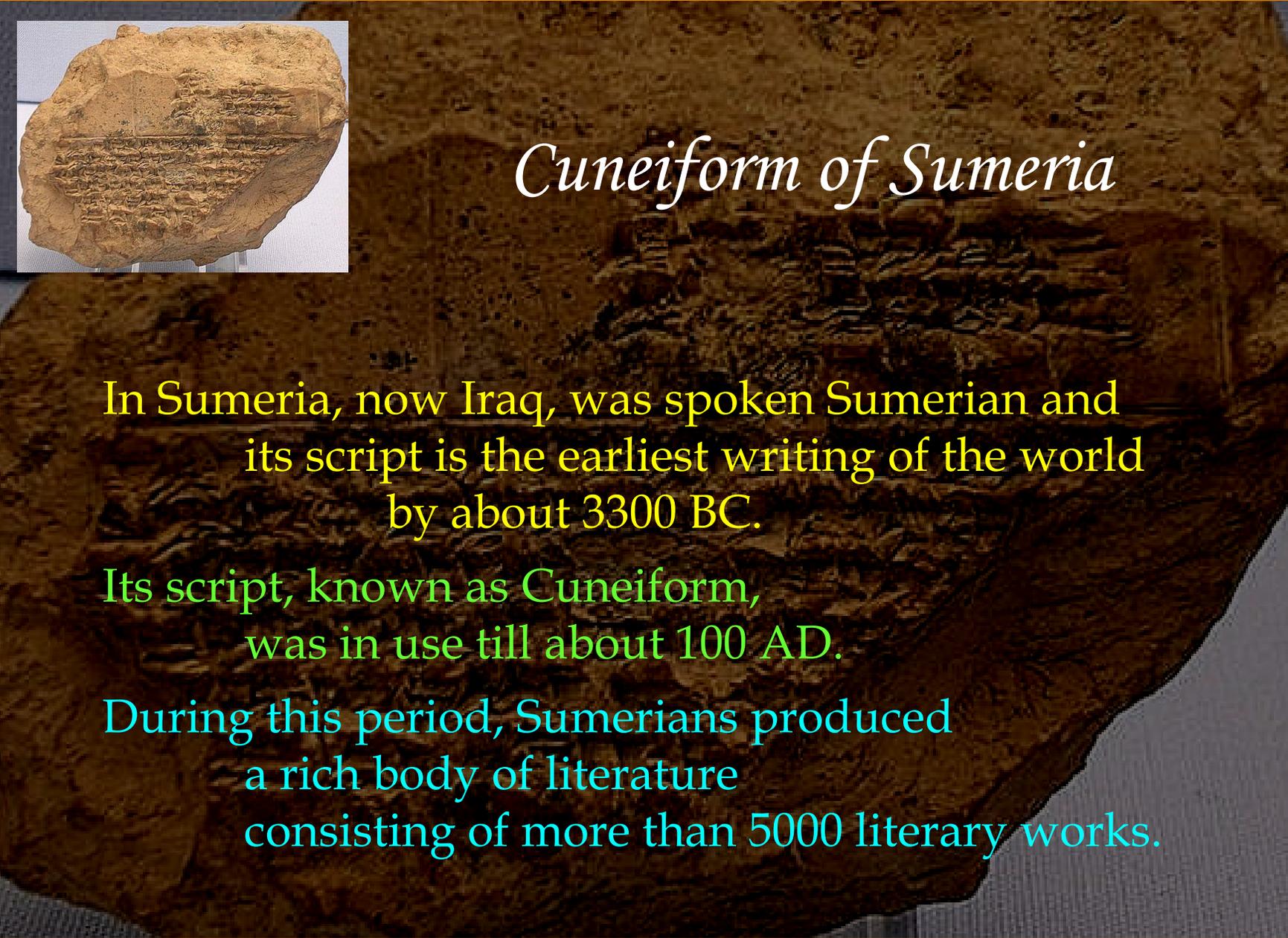
When the inscriptions were first published in 1657, there was no 'hulchal'. Some thought it is ornamental graphics, some even found to be even the tracks of birds walking across newly softened clay! I would have said the same. You can see for yourself when you look at the specimen given in the presentation. There were also highly intellectual imaginative suggestions. An Oxford don even suspected these signs as an experiment by the architect of Persepolis who wished to see how many different patterns he could create from a single element. He was quite imaginative!

That most of the ancient cultures who 'invented' writing have progressed from picture to pictogram to ideogram, and some, to phonetics is worth noting. The lack of vowels (or minimal use of vowels) in the scripts of languages in the Middle-east region – Sumerian, Egyptian, Hebrew and Arabic – is another feature.



I am highlighting in this presentation the decipherment of the script and also a short description of Hammurabi's code; the former for sheer tenacity of the pioneers and the latter as an admiration for a law-giver who need not to have burdened himself with such constraints.

Before I hand you over to my presentation I must mention the supposed connection between Sumeria and India, in general and Sumeria and Tamilnadu, in particular. That the connection between ancient Sumeria and the Indian continent exists is accepted. Some even feel that Sumerian language was archaic Tamil. But a theory being floated around and gaining some following is that the Tamils of Sangam age are descendents of Sumerians.

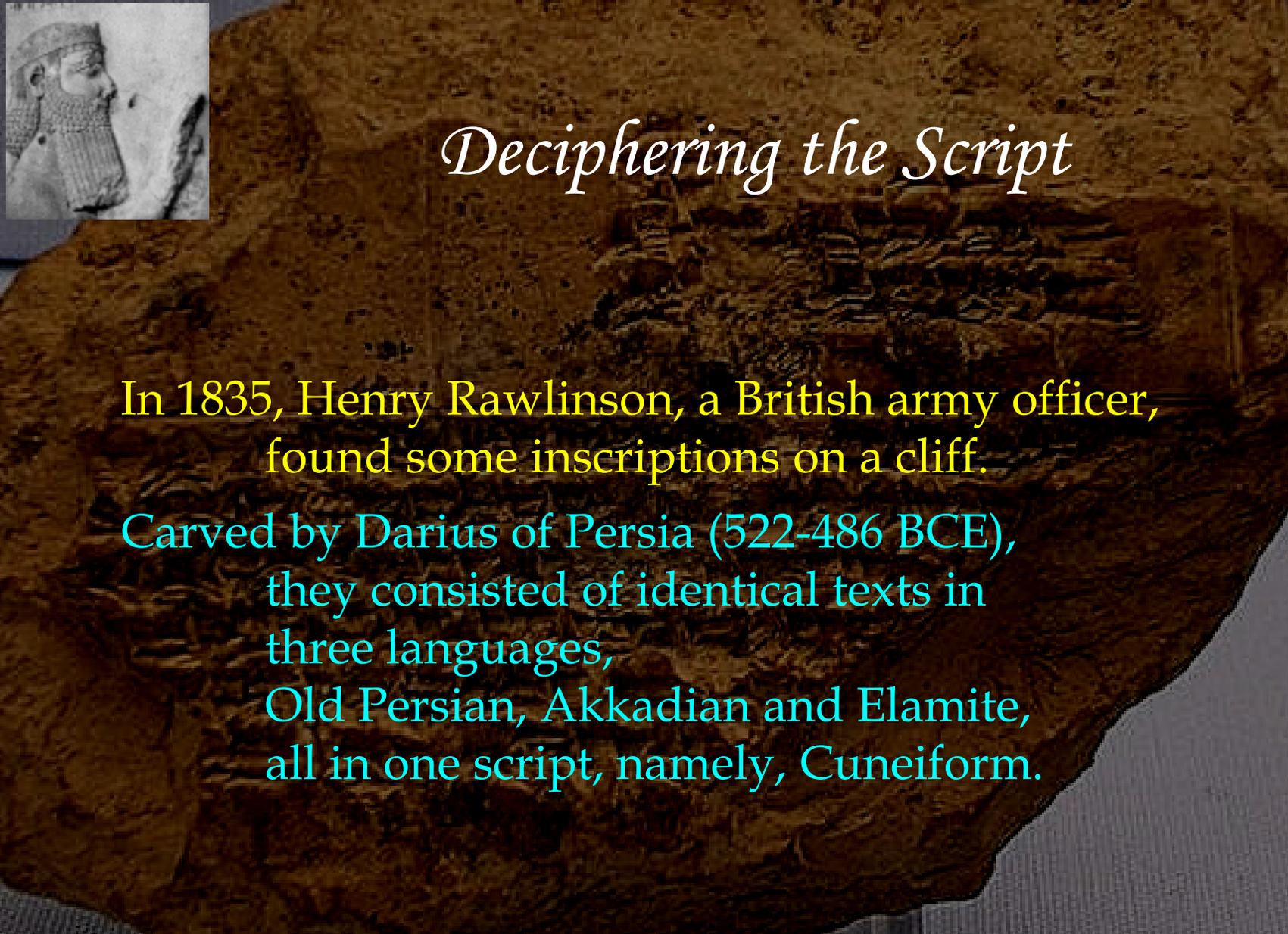


Cuneiform of Sumeria

In Sumeria, now Iraq, was spoken Sumerian and its script is the earliest writing of the world by about 3300 BC.

Its script, known as Cuneiform, was in use till about 100 AD.

During this period, Sumerians produced a rich body of literature consisting of more than 5000 literary works.



Deciphering the Script

In 1835, Henry Rawlinson, a British army officer, found some inscriptions on a cliff.

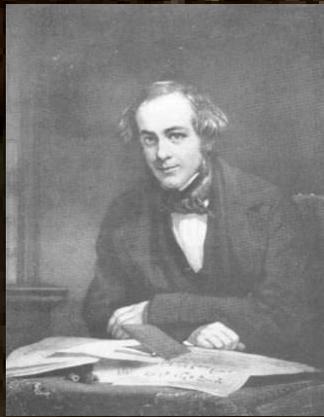
Carved by Darius of Persia (522-486 BCE), they consisted of identical texts in three languages, Old Persian, Akkadian and Elamite, all in one script, namely, Cuneiform.



Deciphering the Script

Old Persian was in current use while Akkadian, a Semitic language related to Hebrew and Elamite, were both extinct by this time.

After translating Persian, Rawlinson could decipher many of the cuneiform signs by 1851.



Deciphering the Script

Its decipherment is an exciting story.

As happened with Egypt and India,
it became possible because of
fortuitous finding of multi-lingual texts,
and, a determined researcher.

The Behistun Monument



The Behistun inscription was carved by the Persian emperor, Darius I (522-486 BC) celebrating his early victories.

It is a carved relief, on the big cliff known as Mountain of the Gods.

The Behistun Monument



The inscription and the relief sculptures are colossal in proportion, about 1000 lines inscribed on the face of a precipitous rock 100 metres high.

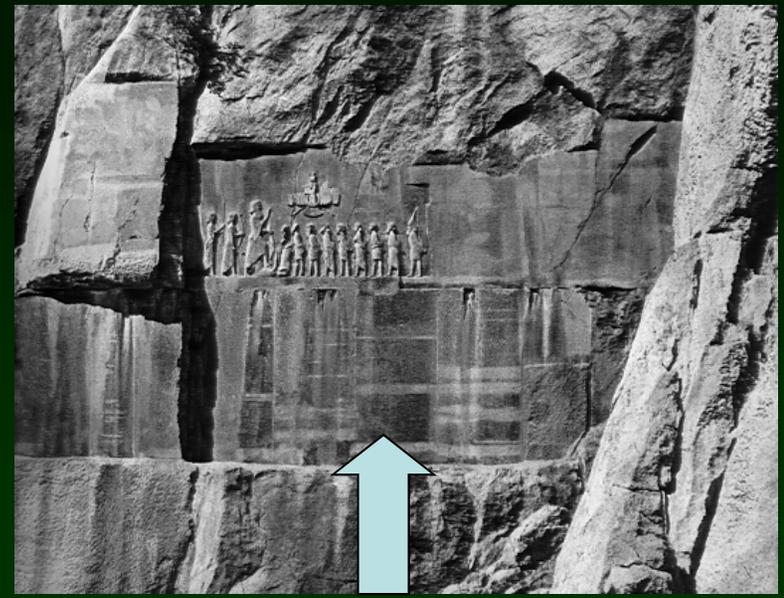


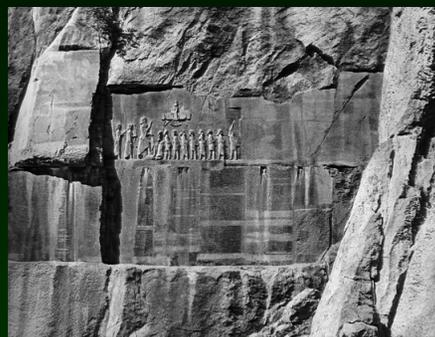
The panel depicts king Darius, with his two bodyguards.

In front of the emperor are ten vanquished chiefs, their necks tied.

One of them is lying under Darius' feet.

Below is the famed inscription





The Multi-lingual Inscription

The message is told in three languages:

in Old Persian,

in Akkadian, the language

spoken in Babylonia and

in Elamite, the administrative language

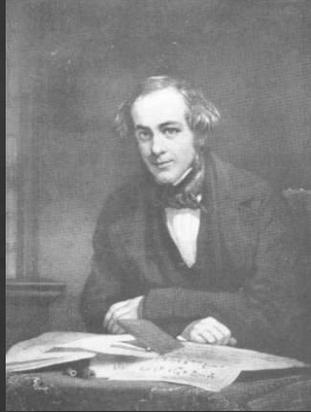
of the Persian Empire,

all in the cuneiform script.

The total text is more than a thousand lines long.

It is the Old Persian that gave the clue

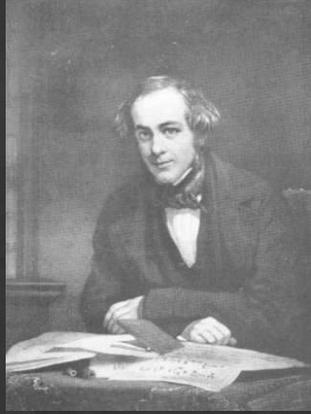
for the decipherment.



Decipherment *Rawlinson*

Henry Rawlinson
joined the East India company when he was 17
and learnt many Indian languages and Persian.

Later he was posted in Persia.
In 1835 he noticed inscriptions on a cliff of hill of
Behistun that was difficult even to reach.



Decipherment

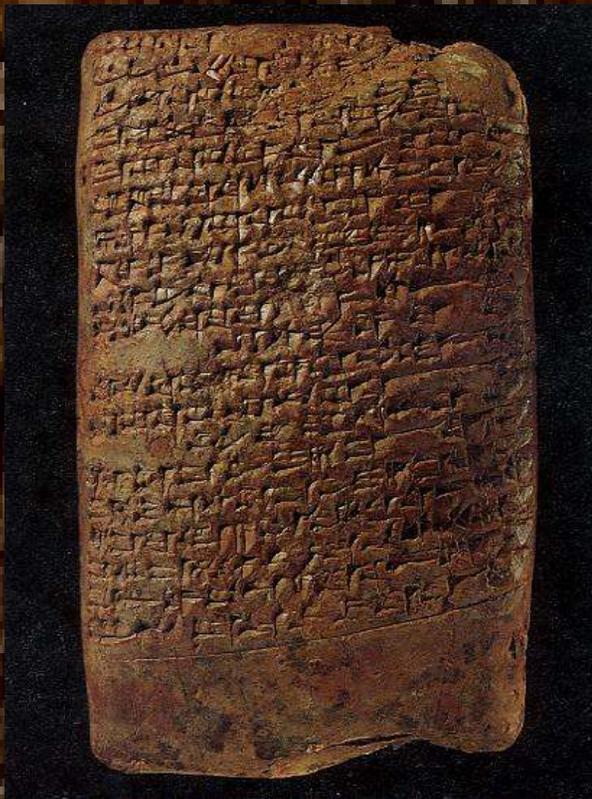
Rawlinson

With his knowledge of Persian,
he figured out the names of Darius and Xerxes.

He noticed two other unknown languages
on the rock face: Elamite and Akkadian.

His painstaking work of two decades
resulted in their decipherment.

Writing materials



The abundantly available clay in the river-beds was chosen, and impressions on clay tablets were made with a stylus.

Sharp stylus was changed to blunt stylus later.

From Picture to Pictogram

Pictograms were the basis for cuneiform writing.

	BC 3200	3000
fish		
ox		
bird		
	object	> pictogram

Philadelphia Tablet (3100-2900 BC)



The document, on both sides, records transfer of certain land.

Col. 1 describes the acquisition of 63.5 ha of land by a person.

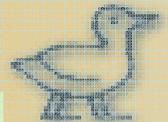
Col 2 and Col 3 describe division into 4 fields.

The round holes in the tablet count the field size.

This writing is from top-to-bottom using a pointed stylus.

From Picture to Pictogram

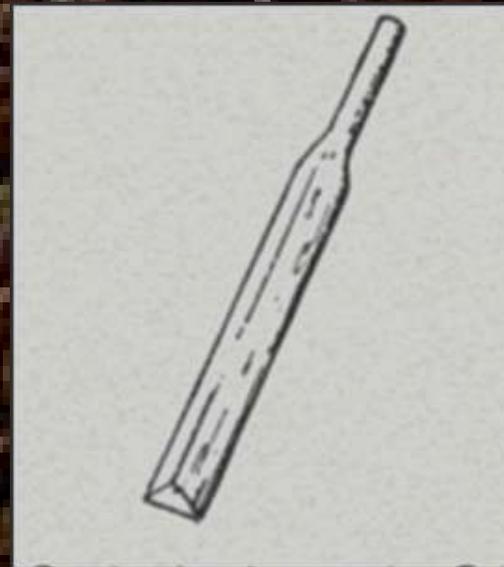
Later the direction of writing was changed from top-to-bottom to left-to-right, necessitating rotating the signs by 90°.

	BC 3200	3000	2400
fish			
ox			
bird			
	object	> pictogram	> (sideways)

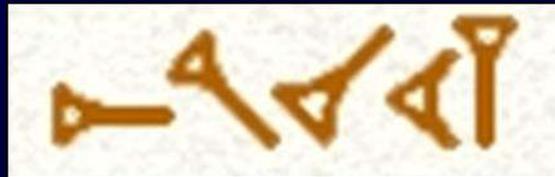
From pointed to blunt Stylus

A pointed stylus on clay caused
'heap-up' and 'clog'
lines already written.

To avoid this a blunt stylus
came into use later.

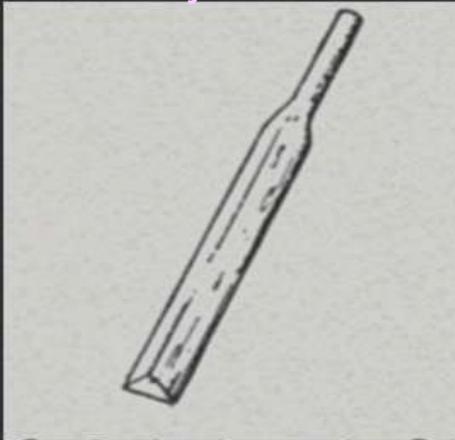


From pointed to blunt Stylus



Possible impressions
of a blunt stylus,
with little lateral
movement of stylus
and orientation of
holding the tablet.

Blunt Stylus



A specimen Tablet



From Picture to Pictogram

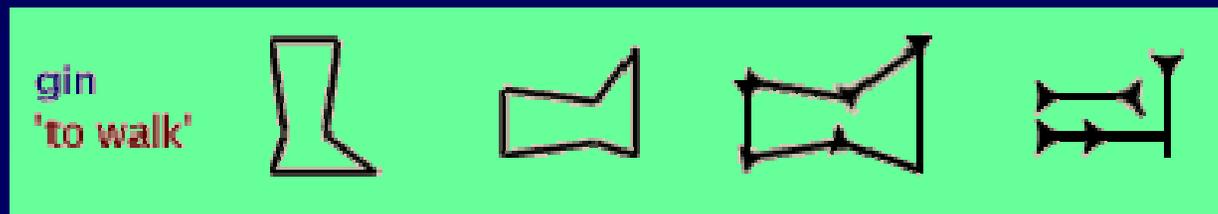
With the blunt stylus
symbols lost their original resemblance to the objects
they represented.

	BC 3200	3000	2400	1000
fish				
ox				
bird				
	object > pictogram > (sideways) > cuneiform			

... to Ideogram

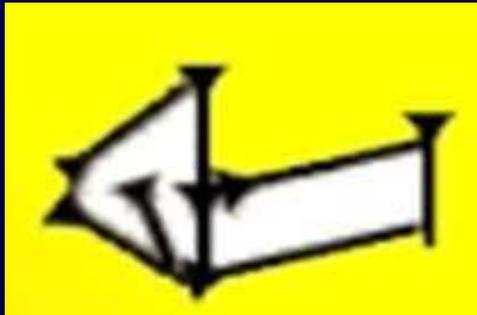
Pictograms for various objects, like the sun, houses etc, came into use.

Next, the same symbols were used as ideograms to represent abstract words related to the original word, like the sun for bright, light, day, a leg for walking etc.

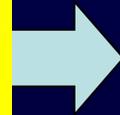


... to Ideogram

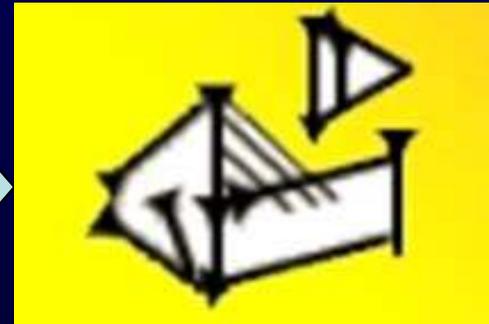
New signs were created by adding graphic elements to an existing sign or combining two signs.



Head



Head + Stippling = Mouth



Mouth + Bread = to eat

... to Alphabet

Out of this evolved an alphabet.

For example, the word for arrow was *ti*,
and this syllable came to represent the sound *ti*,
then the consonant *t*.

One may construct a table of alphabet like:

					
'a	b	g	h	d	h
					
w	z	h	t	y	k
					
s	l	m	d	n	z
					
s	r	p	s	q	r
					
t	g	t	i	u	s ₂



The Cuneiform Script

Thus, a sign could be
a pictogram, an ideogram or an alphabet.

In order to clarify, determinatives were used
that would precede or follow a group of signs
to give a hint to the meaning of the word
by marking the broad category
of objects or ideas the word belongs to.

Hammurabi's Code

Hammurabi (about 1792 - 1750 BC) was a mighty Babylonian king, and is famous for his Code, the earliest-known example of a ruler proclaiming publicly an entire body of laws.

It is the best preserved legal document reflecting the contemporary social structure of Babylon.

282 laws in fifty-one columns of cuneiform text are written in Akkadian, a Semitic language.



Hammurabi's Code



A copy of the code,
engraved
on a block of black basalt
7 ft 5 in. high
is kept in Paris.



Hammurabi's Code

A selection from the code
of ancient wisdom.

*“If any one owes a debt for a loan, and the harvest fails,
in that year he need not give his creditor any grain
and pays no rent for that year.”*

*“If a judge tries a case, reaches a decision,
if later error shall appear in his decision,
and it be through his own fault,
then he shall pay twelve times the fine set by him,
and he shall be removed from the judge's bench”*

Hammurabi's Code

Here is a sample of its cuneiform writing



Cuneiform Writing

One may wonder how modern words would be written.

Here is an example.

My name, Swaminathan would be written like this:



Certain common Features of the Region

We will be seeing that Egyptian Hieroglyphic script, shares many of the traits of cuneiform:

The letters are composed of
pictograms, ideograms,
alphabet and determinatives.

It may be mentioned that the alphabet of cuneiform consists mostly of consonants.

This feature is found in many of the scripts of this region, like Egyptian Hieroglyphs, Hebrew, Arabic etc