

The Story of Scripts

About the presentation

ONCE I made a presentation of The Story of Scripts to a Tamil audience. I opened the lecture with a provocative statement. I was mentioning that I will be talking about the development of Tamil scripts but also be introducing two magnificent ancient civilizations, the Sumerian and the Egyptian, and their 'lifeless' writing and also 'lifeless' and 'bodiless', but vibrant and kicking, soulful Chinese characters.

We are accustomed to scripts with vowels and consonants. All Indian languages and the European languages are alphabetic. In Tamil a vowel is known as a *uyir*-letter (literally, 'life-letter') and a consonant is *mey*-letter (literally, 'body-letter'), an excellent coinage. The script for Semitic languages is consonantal, meaning that there are no vowels or very few vowels. (Even modern Arabic is devoid of vowels.) Hence I called them 'lifeless' script. The Chinese script, on the other hand, has neither vowels nor consonants, as it is logographic, meaning expressing an idea. Then it becomes 'lifeless-bodyless', just a '*pindam*'. We, Indians, cannot imagine a script without vowels and consonants. I was making it clear in the presentation that with these 'impediments' the Sumerians, the Egyptians and the Chinese don't seem to be handicaps at all. For example, the Chinese accomplishment in every branch of knowledge is remarkable.

The Meso-American scripts are a class by themselves. Here I will be taking you to a totally different word, some may call even weird! In this presentation I will be attempting to narrate the exciting story of writing. I start the story by tracing the origin of scripts from the rock-paintings of pre-historic man, through the natural progression: from pictogram, to ideogram and, finally, to phonetic writing. Then I would attempt to follow development of writing in the ancient cultures of the world: cuneiform of Sumeria, hieroglyphs of ancient Egypt, Chinese and Meso-American scripts.

The scene will now shift to India. I will start with how Brahmi is the fountainhead of not only of scripts of all Indian languages, but of most of the languages of Asia. Then the discussion would focus on the development of scripts in Tamilnadu, whose beginning was made in the 3rd century BC in the form of Tamil Brahmi.

Hangul, the script of Korean, is supposed to be the world's most scientific script. This forms the next section.

I will, then, extend the discussion to some other dimensions of scripts: spiritual and esoteric aspects, through Siddham and Tibetan, and aesthetic capabilities through the Arabic script.

Being visual, my presentation is attempted as a curtain-raiser. But indications are made on points for future discussions. It has been a great pleasure following the endeavour of the humankind in expressing itself through the writing medium. This presentation of mine is claimed to be neither erudite, nor original nor scholarly. But my attempt to understand and appreciate scripts around the world has been long and followed with passion. What I am managing to put together here, is what would not be available from a single source for common persons like me.

Of course, I have avoided all technical terms. Some times I have even compromised. For example, I have used the term ideogram, where logogram would be correct. This attempt is merely to share my pleasure with you, who, in turn, may find it limited or endless.

S. Swaminathan



Introduction

An illiterate world ...



Can we imagine
 what life would be without writing,
 a world without newspapers,
 without books?

But there existed such a time in the past,
 when information,
 whatever little that was required,
 was passed on only verbally.



Beyond oral communication

Pictures could be better
than oral communication
for certain kind of information
like keeping track of cattle etc.

But for complex ideas
pictures are inadequate.

Achievement through Writing



Writing, as we have today is, truly,
one of world's greatest inventions.

This took millennia to develop.

Our great strides in science and technology
would not have been possible
but for writing.



Story of writing

The story of writing is long.
The scripts various cultures developed,
reflected their need,
creativity and genius
following amazingly different courses.



The beginning

Rock paintings

Beginning of writing could be traced to paintings done by pre-historic man in his cave-dwellings.

These depict hunting scenes and life around.



But these paintings
cannot be called
letters of a script,
for they referred
to the objects painted
and conveyed nothing else,
definitely not any idea.



Story of scripts of the world



There has been different starting points
and different end points.

Some disappeared with no clues or with very little.

Even for some living ones
origins are shrouded in mystery.

All these make the study of scripts of the world
fascinating and exciting.



Is writing necessary?

We consider writing as a sign of civilization.
But, is writing an absolute requirement
for communication?

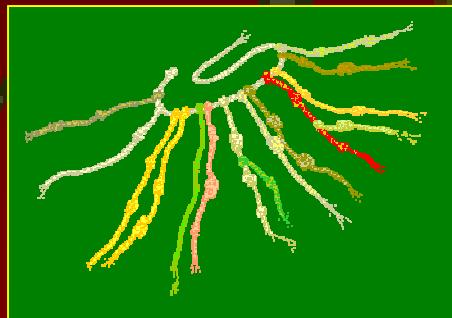


Is writing necessary?

In fact, there has been intellectual arguments
against writing.

Plato branded writing detrimental
to human intellect,
making man's brain lazy!

Achievement of illiterate cultures

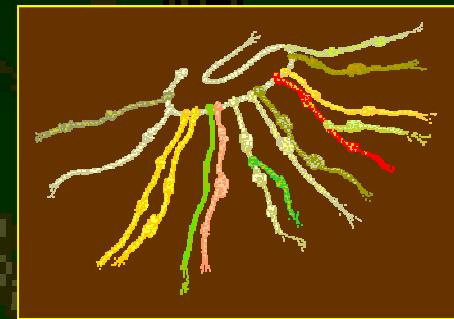


Many non-writing cultures
have made enormous strides
in communication.

Achievement of illiterate cultures

Vedic Indians

The Vedic Indians,
passed vast body of literature
from generation to generation orally
without any change.



Achievement of illiterate cultures

Vedic Indians

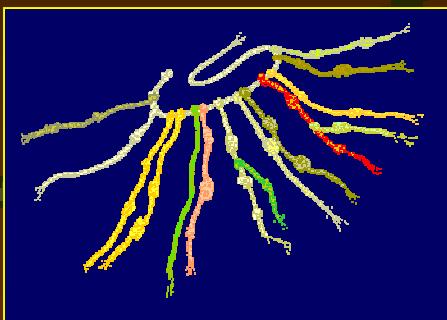
Their procedure was clearly scientific: systematic alphabet, logical vocabulary and scientific grammar.



Without resorting to writing they ended up with near perfect language.

Achievement of illiterate cultures

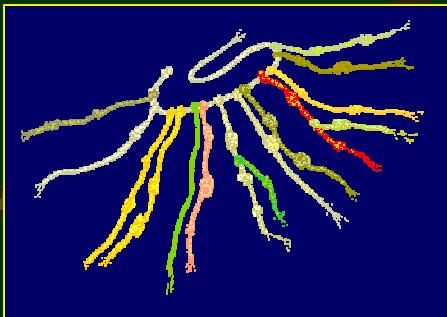
South America



The Incas and earlier Andean civilizations, instead of writing, used the quipu (a series of ropes with knots indicating amounts) for record keeping, and complex tapestries as calendars.

Achievement of illiterate cultures

South America



The Inca rulers continuously monitored:
inventory of stores, tax collected,
output of mines, census, etc.

The messages were transmitted
using runners.

The messages in quipu-s
were clear, compact, and portable.

Quipu of the Incas

A quipu is an assemblage
of coloured knotted cotton cords.

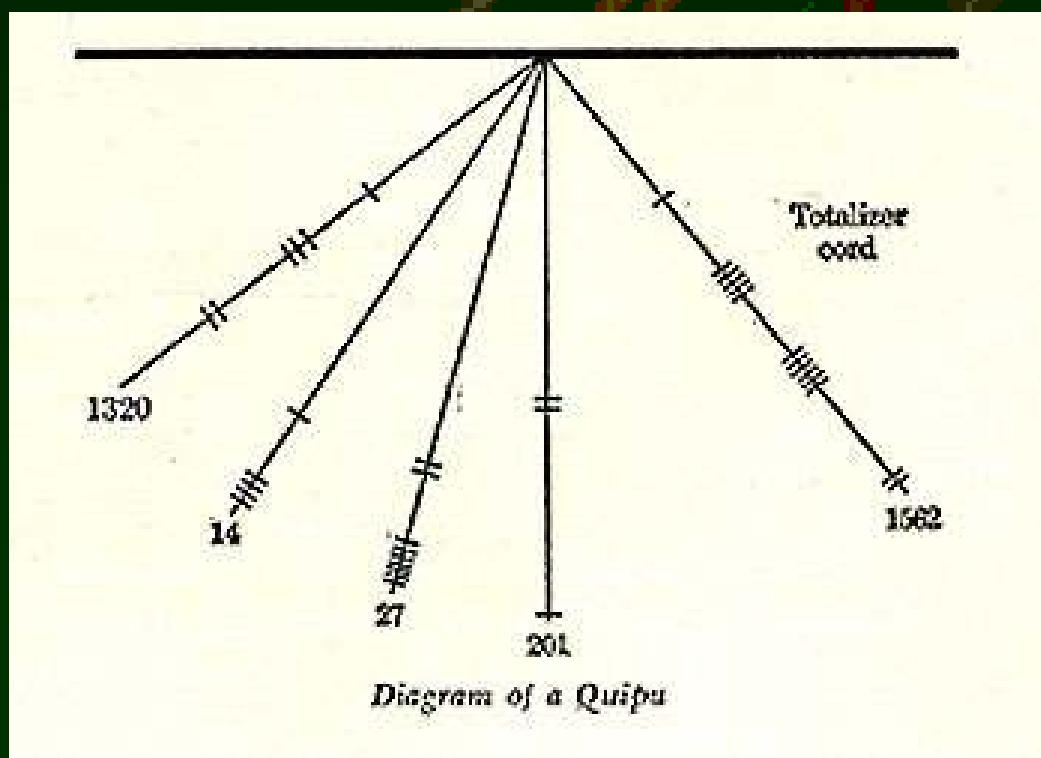
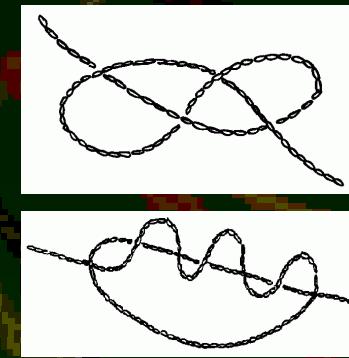
The colors of the cords,
how the cords are connected together,
the placement of the cords,
the spaces between the cords,
the types of knots, and
the placement of the knots
are all part of
a logical-numerical recording.



A researcher claims that the quipus contain
a seven-bit binary code capable of conveying
more than 1,500 separate units of information.

Quipu of the Incas

For example, the knot for 1 would have one loop, while for more numbers there would be equal number of loops



Here is the arithmetic.

Quipu of the Incas



Quipus



But this system was not a mode of writing or a system of calculating numbers. Modern archeologists are now suggesting that authors used the quipú to compose and preserve their epic poems and legends.

Felt need for script



What could have been the reason
for inventing 'writing'?

The early man had to remember things:
the cattle he owned,
the days between full moons etc.

One cannot remember many things,
and for a long time;
it would be useful to write down.

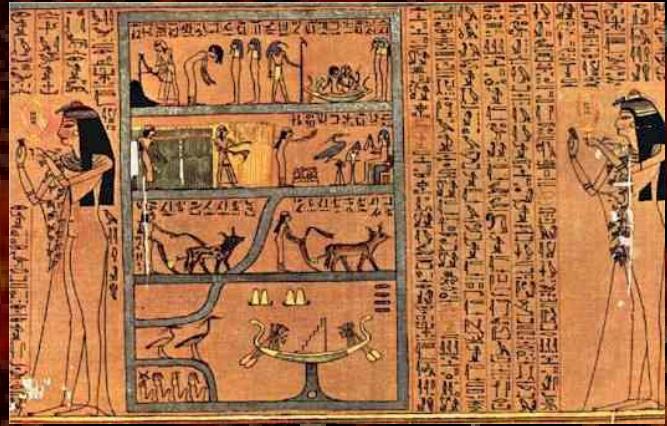
Experts identify three major reasons,
for developing writing.

Record Keeping



To maintain ownership records of land,
of agricultural products,
noting time for planting crops,
for commercial transactions etc.

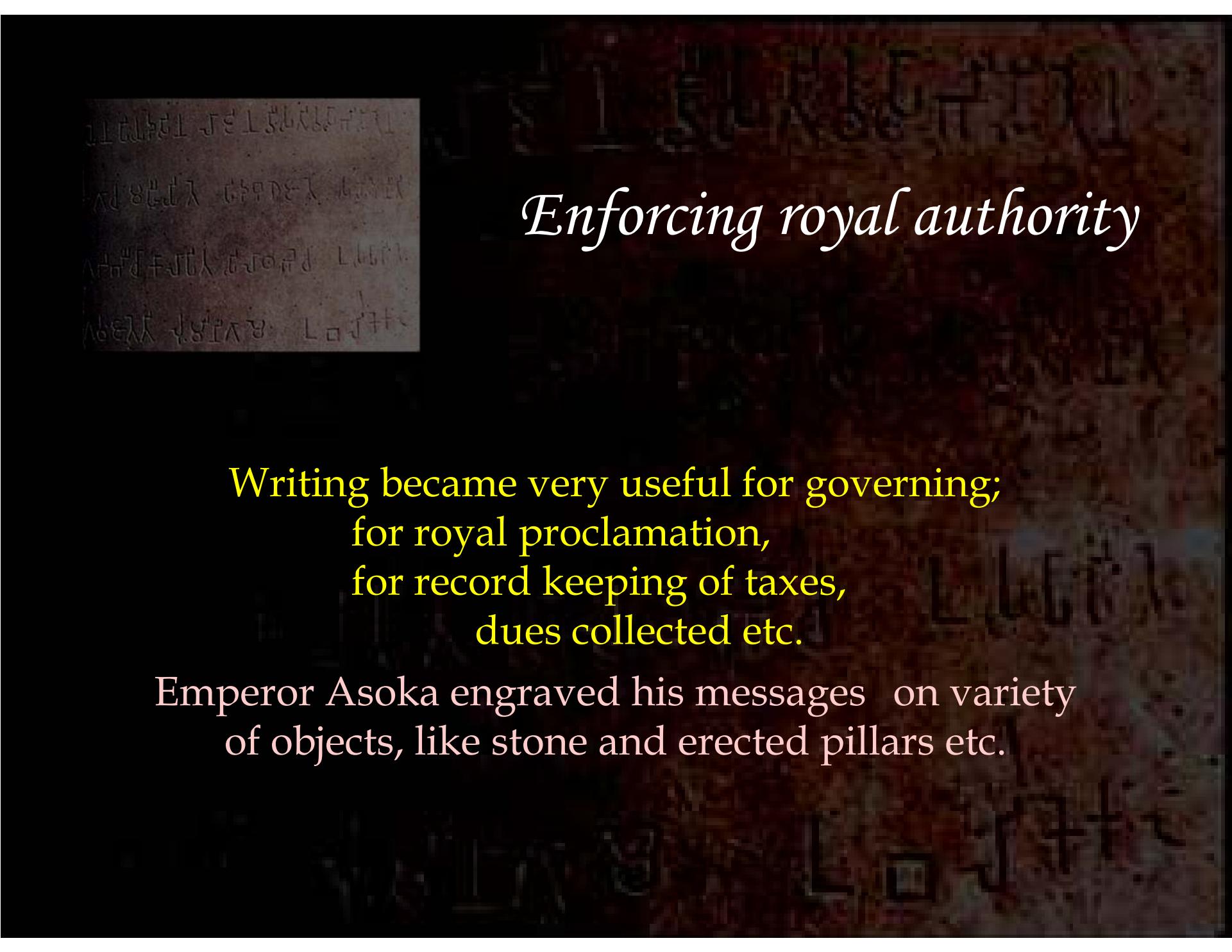
The ancient Sumerians kept record of
their transactions in writing.



Religious Purposes

It is very likely that the priestly class of certain cultures needed writing for their divination and communication with supernatural world.

The development of writing by the ancient Egyptians was for religious purposes.



Enforcing royal authority

Writing became very useful for governing;
for royal proclamation,
for record keeping of taxes,
dues collected etc.

Emperor Asoka engraved his messages on variety
of objects, like stone and erected pillars etc.



Stages of development of writing.

Rock paintings



A rock-painting from Bimbetka, Madhya Pradesh

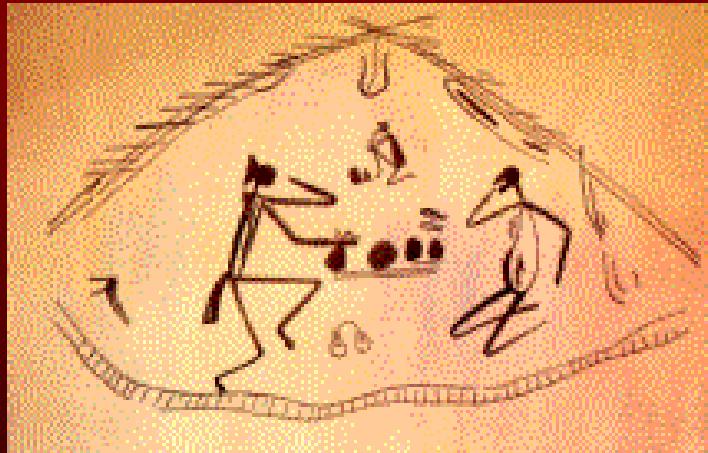
Beginning of writing could be traced to paintings done by pre-historic man in his cave-dwellings.

These depict hunting scenes and of life around.

There are such drawings in Tamilnadu also.
These paintings are done using
natural substances found around:
Red ochre (*kaavi*, in Tamil), charcoal, lime etc,
formed the palette,
with the cave-wall, animal-hides and tree-bark
forming the canvases.



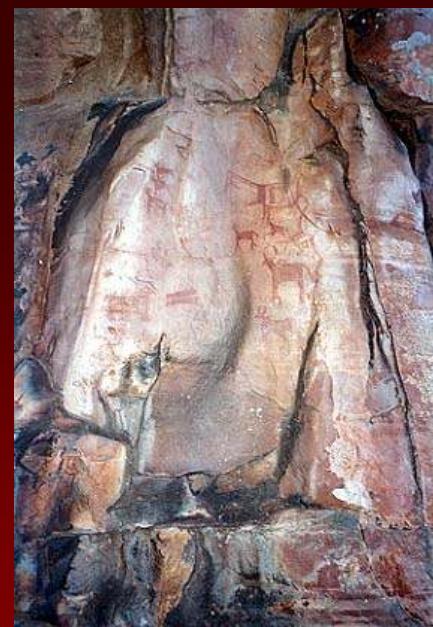
Hunting scenes from Vettai-k-karan-malai and Ayyanar-malai



Thus, our ancestors more than 10000 years ago expressed some of their thoughts through such paintings.

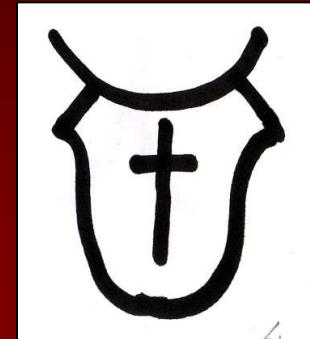
But these paintings cannot be called letters of a script, for they referred to the objects painted and conveyed nothing else, definitely not any idea.

A rock-paintings from Bimbetka, Madhya Pradesh

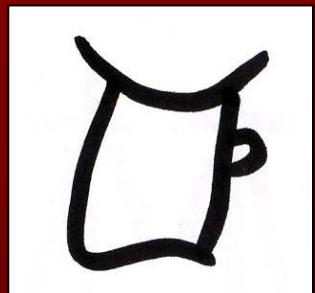


Pictogram

The early man might have drawn a simplified picture of an animal to represent it, like a pair of horn for a cow.



Ancient Chinese symbol for COW



Ancient Egyptian symbol for COW

and to indicate the quantity as many pictures or simply dots close to the symbol.

Such symbols referring to objects are called pictograms

Ideogram



A symbol for a picture can denote
that object only.

Later these symbols
came to refer to certain ideas
associated with the object.

For example, symbol for the sun came
to represent heat, light and day.

Ideogram

By association new ‘words’ were coined.

The Chinese drew the symbol of the sun



behind that of a tree,



and this came to mean EAST.



Phonetics

The next stage was truly revolutionary.

A sign which stood for an object,
later for an idea,
finally came to refer only to a sound;
and phonetic writing was born.

For example, in ancient Egypt
the word for owl
started with the sound m,
and a picture of owl stood
for the letter m.





Phonetic systems

There are two main phonetic systems.

Alphabetic writing,
like English,
where there are letters
for vowels and consonants

Syllabic writing,
like the Indian languages,
where there are letters
for consonant-vowels, in addition,
and each letter is a syllable.

Alphabetic and syllabic



Let me cite an example how a word is written in Roman script which is alphabetic, and in Tamil and in Devanagari, both syllabic.

PO - DHI - KAI

- Roman Script

(Each syllable comprises
one or more letters of the alphabet)

पो - दि - कै - Devanagari

போ - தி - கை - Tamil

(Each syllable is letter by itself)

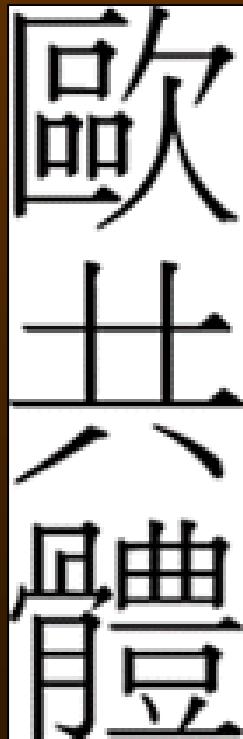
Materials of writing



The materials used in writing play an important role
in the way writing develops.

Writing materials

China



Initially, metal stylus were used to engrave
on wooden block
and wooden pencils on silk cloth.

It was possible to have uniform strokes
in all directions.
Curves posed no special problem.

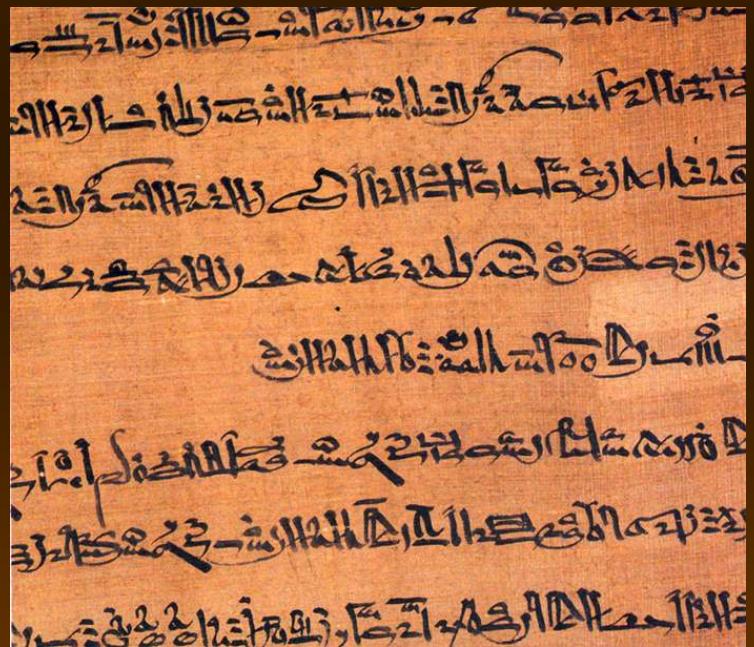
Later brush was used for writing on paper;
higher speed in writing was possible,
but curves had to be avoided.

Writing materials

Ancient Egypt

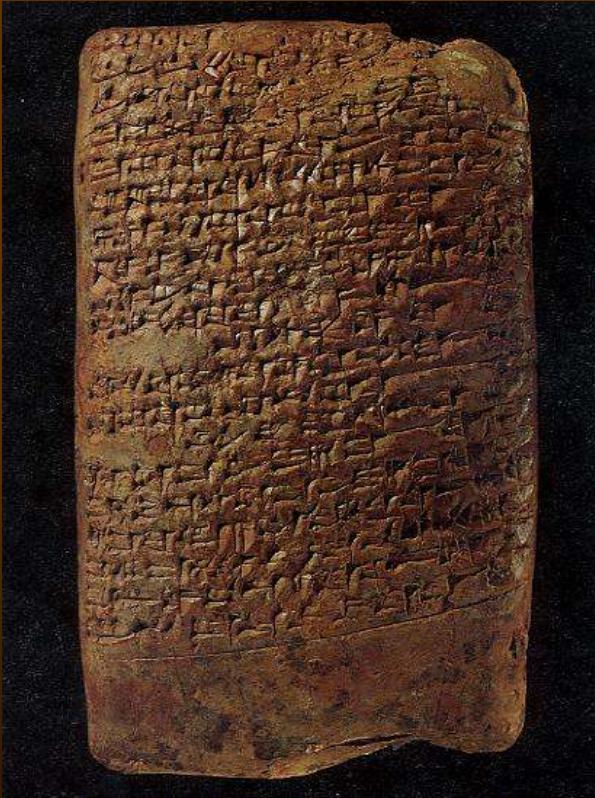
Papyrus, the stem of a plant,
was used as paper and
writing was done
with a reed pen.

It was possible to write
Hieroglyphic writing
where the letters
resembled pictures.



Writing materials

Sumeria



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

Writing materials *India*

In India too, impressions were made on clay during the Indus valley civilization.

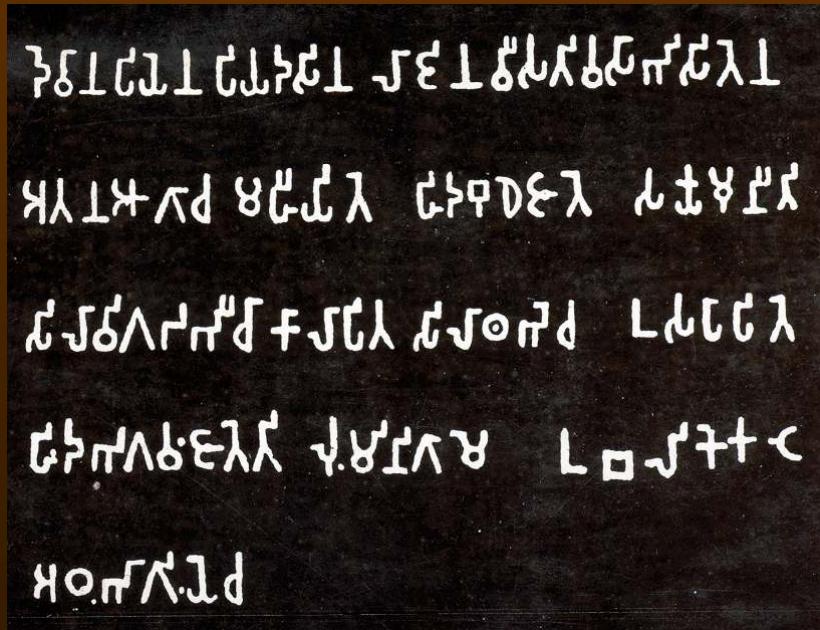


Writing materials

India

From the period of Asoka
we have inscriptions
on stone
using metal chisels.

Straight lines were easier.
Brahmi script consisted
predominantly
of short straight strokes.





Till a few centuries ago, we used a metal needle
to engrave on palm leaves.

In this, rounded letters were preferable,
as straight strokes may tear the leaf,
particularly, along the length.

In the regions, where palm-leaf was
the predominant writing medium,
the script was rounded,
like of all southern languages and of Orissa.

An early Buddhist Manuscript
written on bhoja-patra,



In North India, it was a pen on tree-bark,
called, bhoj-patra, using a reed pen.

Devanagari and the north Indian scripts
didn't have to avoid straight lines, particularly the top line.



Writing - Places of origin

We understand that writing originated in five places:

Sumeria - Cuneiform writing (3300 BC)

Egypt - Hieroglyphic writing (3100 BC)

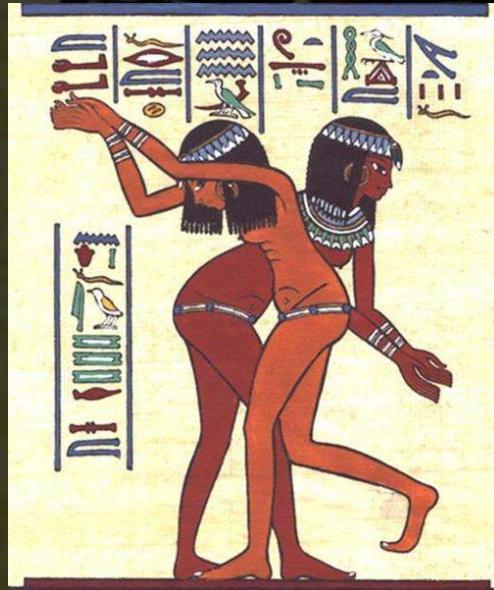
China (1500 BC)

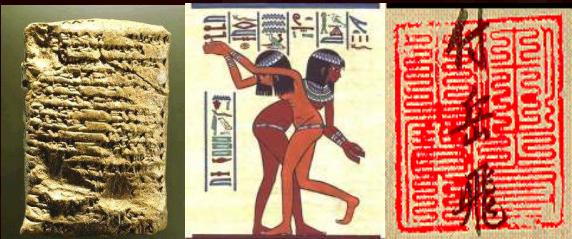
India - Indus Script (2500 BC) and
Brahmi Script (300 BC), and

Meso-America (500 BC)

Three Ancient Scripts

Let us to take up first development of writing
in three ancient cultures:
Sumerian, Egyptian and Chinese.





Three Ancient Scripts

That all the three began as pictogram
is a common feature.

Sumeria and Egypt
belong to the same geographical location,
and their scripts shared many common traits.

Both languages and scripts became extinct too.

Chinese, on the other hand,
developed along their own distinctive path.