

داھینانی نووسین و کرداری نووسین له خۆرھەلاتی
نزیکی کۆندا



The Invention and Practice of Writing in the Ancient Near East



اختراع وممارسة الكتابة في الشرق الأدنى القديم

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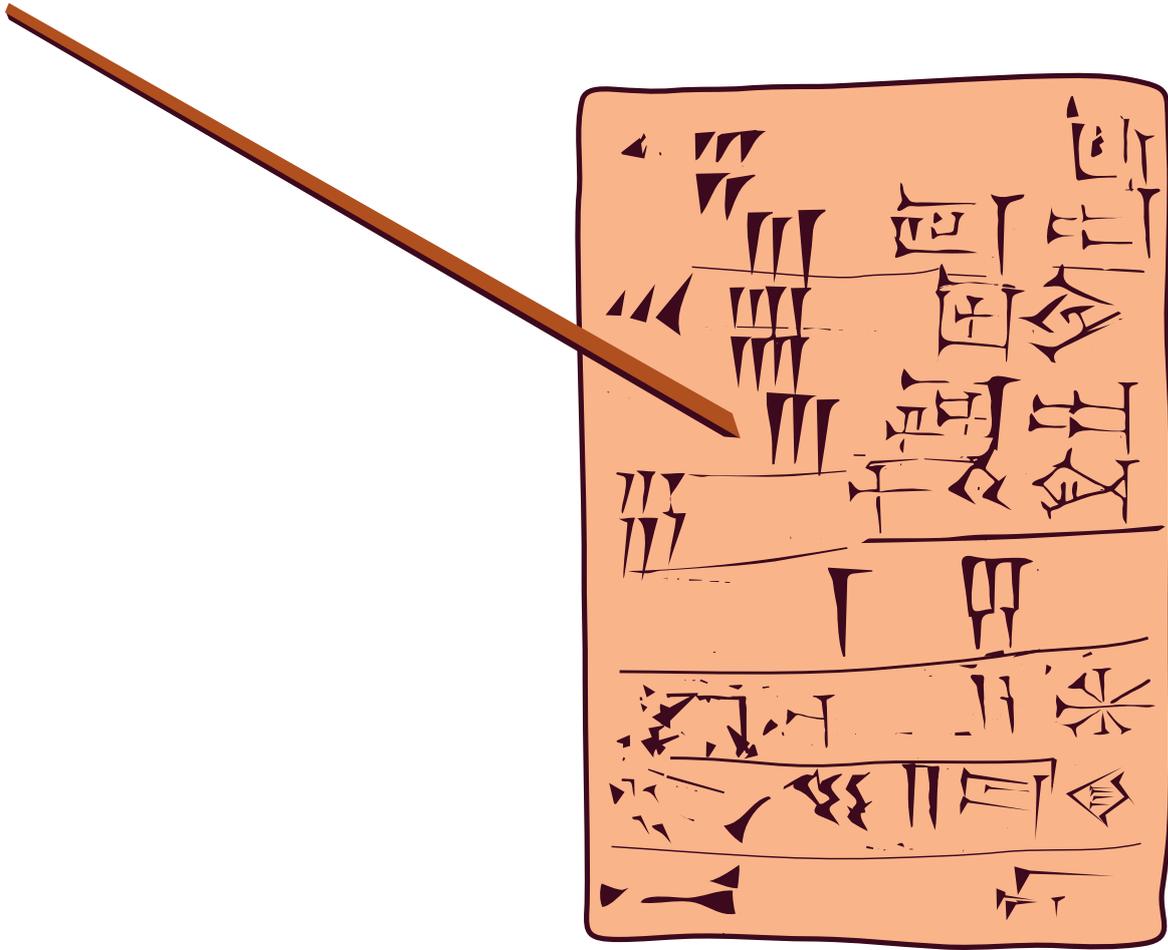
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Designs on pottery vessels: Based on Oates, J. 1978. pl. 4a, published in *World Archaeology*, available at <https://doi.org/10.1080/00438243.1978.9979723>. Clay bulla: Louvre; sketched from image https://commons.wikimedia.org/wiki/File:Accountancy_clay_envelope_Louvre_Sb1932.jpg. Courtesy of M-L. Nguyen / Wikimedia Commons / CC-BY 2.5. Proto-cuneiform: Based on a proto-cuneiform tablet. Courtesy of the Trustees of the British Museum. Cuneiform tablet: Based on T-1744-ob-S M. Courtesy of Slemani Museum. Seal: Based on SM 109. Courtesy of Slemani Museum. Alphabetic and cuneiform scribe: Based on elements from Thureau-Dangin and Dunand 1936, pl. L.XXIV gb. Courtesy of Éditions Geuthner.

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Introduction

The purpose of this series of educational boxes is to introduce teachers and students, of all ages, to life in the ancient Near East with the aim of enthusing everyone to engage further with the archaeology and history of this region and to care for, and help protect, its rich and diverse cultural heritage.

The boxes offer an introduction to three important elements of life in the past:

- Pots and People in the Ancient Near East
- Food in the Ancient Near East
- The Invention and Practice of Writing in the Ancient Near East

Each box contains written information, associated illustrations, and a range of activities to facilitate children's learning.

Enjoy the journey through time!



What's in the box?

- The recipe to make a batch of salt dough: for **ACTIVITY 3** and **ACTIVITY 4**.
- Wooden replicas of styli (scribal writing instruments): for **ACTIVITY 3**.
- Replicas of Mesopotamian stamp and cylinder seals.
- Replicas of cuneiform tablets.

What is writing?

Writing is one of the greatest inventions in the history of humankind. It is used to record speech through a limited number of visible marks (signs) that register sounds. Think of the letters in the alphabet and what sounds they stand for! This enables communication and the sharing of information through time and space: by using writing, we can send letters, and now also emails and text messages, across vast geographical distances and record what we know for future generations.

At first sight, this definition implies a clear-cut divide between writing and other systems of visual communication that convey messages without reference to speech. The distinction may be more complex, particularly, as we will see, when it comes to the earliest stage of the emergence of writing.

Writing made a huge impact on human culture, but today we take it for granted and do not ask the fundamental questions: how did it come about? Who invented it? Where, and why? This journey will try to answer some of these questions.



The people of Mesopotamia appear to have invented writing before any other civilization, more than 5,000 years ago. While Egypt too is a close contender, China also invented their own type of writing, almost 2,000 years later, and Mesoamerica some centuries later. These are four separate inventions, which happened independently and apparently without any contact with a culture that had already developed writing. Original inventions may have happened elsewhere too, in the Indus Valley during the Harappan civilization, and on Easter Island, in the Pacific Ocean, some 5,800 kilometres away from the coast of Chile. Mesopotamia, however, seems to have been the first.

Mesopotamia created a script from scratch, without any influence from any other culture. It is called 'cuneiform' because its signs are wedge-shaped (the word comes from the Latin 'cuneus', which means 'wedge'). It was mainly, but not exclusively, inscribed on clay, especially clay tablets. Hundreds of thousands of these have survived to us!

It is important to keep in mind, therefore, that writing is not just about language: writing is a material object. As such, it is part of history *and* archaeology. Clay tablets and other forms of writing are found in archaeological excavations and many are displayed in museums. Using the tools and materials provided in this box, you will also write some yourselves. This is a journey of discovery that will plunge you deep into one of the greatest achievements of the Mesopotamian civilization.

The cuneiform script was invented to record the Sumerian language, but later also languages such as Akkadian, Hurrian, Hittite, Urartian, Elamite, Old Persian/Median, and more. In this way, one script was used, across time, for several different languages which were very different from each other. The cuneiform script was the most widely used form of writing in antiquity until the alphabet was introduced.

What was it used for?

In Mesopotamia, writing and related methods of recording and protection of information and goods such as seals, were closely associated with state institutions: temples and palaces. Early writing is concerned with recording economic activities and transactions. Later texts include literary compositions such as the legend of king Gilgamesh, monumental royal inscriptions carved into stone celebrating the achievements of Mesopotamian and other kings, as well as scholarly texts concerned with astronomy, mathematics, and ritual practices.

Unlike today, only a handful of people, scribes and a few educated members of the elite, were able to read and write in Mesopotamia. Writing served the most powerful individuals and social groups in Mesopotamian society.



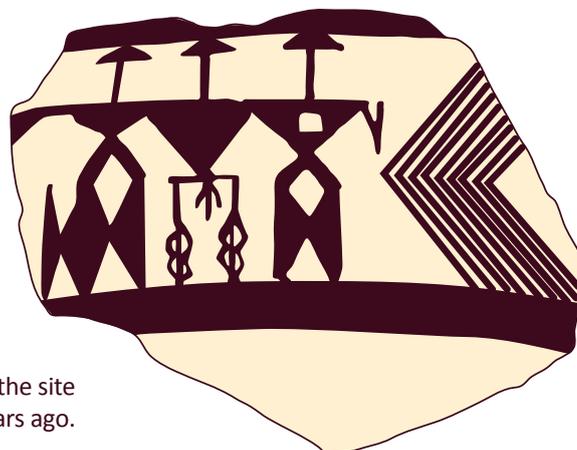
Like other technologies, or like other inventions of writing, the cuneiform script of Mesopotamia was not created overnight, but developed over some time. How exactly this happened is still not entirely clear and there are several competing theories as to how cuneiform writing was invented. What we can safely say is that all cuneiform signs had a very close relationship with images, and that the earliest writing drew on earlier, local traditions of iconography (ways of depicting things, animals, and humans).

Before writing

In the beginning, people did not know how to write. Before villages and cities developed, people took their first steps towards writing by recording their hunting stories and other parts of their lives on the walls of caves (c.30,000 years ago). Later, approximately 12,000 years ago, people began to carve hunting scenes and other symbols on rocks across the landscape.

When people first settled in small agricultural villages (see Food box) and invented pottery (see Pottery box), approximately 10,000 years ago, they painted animals, humans and geometric designs on pottery vessels. Like cave paintings and rock carvings, paintings and engravings on pottery are expressions of human memory and imagination; they allow us to see what ancient people held as meaningful and important in their lives, and what they wanted to communicate to others.

DESIGNS ON POTTERY VESSELS



Human-like figures painted on pottery from the site of Choga Mami, northeast Iraq, c.8,000 years ago.

Towards writing

A more concrete step towards the development of cuneiform writing appears to have been a recording system based on clay balls, known as bullae, and the small clay objects referred to as tokens that they contained. The theory of the origins of writing as a result of a long, gradual evolution from tokens is controversial, but worth mentioning here.

Token-based systems of record-keeping developed already in the farming villages of the Neolithic period. The earliest tokens, which are c.11,000 years old, were found in modern-day Iran.

Clay bullae and tokens appear to have been used to record economic transactions. When people traded goods, each person or institution involved kept a clay bulla filled with tokens in the shape of the exchanged goods such as jars or animals. The number of tokens placed in a bulla was determined by the number of goods exchanged; so if five animals were bought or exchanged, five animal-shaped clay tokens were placed in the bulla. Some tokens also had more abstract or geometric shapes and we do not know what they signified. The clay bullae were then closed and sealed by rolling a cylinder seal across the outer surface.

Archaeologists have discovered many clay bullae in early settlements. Some of these are broken because they had to be opened to verify their contents, or because both sides of a commercial agreement had fulfilled their obligations to one another.

CLAY BULLA AND TOKENS



Stylised clay bulla and tokens, c.5,500 years ago.

The physical tokens had different styles and shapes, to mark and denote different types of objects or commodities. According to one theory about the invention of writing, when tokens stopped being hidden inside the bullae, they were, instead, impressed on flattened clay surfaces that took on the appearance of tablets. The different shapes of the tokens produced different impressions on the clay; the tablet surfaces therefore became an early form of record-keeping.

Early writing

Around 5-6,000 years ago, life for some people in Mesopotamia underwent a dramatic change. Many people continued to live in small village communities with little in the form of wealth and social differences among inhabitants. A few settlements, especially in southern Mesopotamia, such as Uruk, transformed into large cities with monumental buildings and stark wealth and social differences between common people and the emerging elite. Members of the latter group occupied the most important offices in these cities, such as high priests and priestesses, and they managed the construction and maintenance of new prestigious social institutions and their physical manifestations (monumental temples and palaces).

In the first cities in Mesopotamia, temples were not only important for their religious activities, but were central to people's economic and political lives. Temples owned huge flocks of sheep, goat, and cattle, and vast agricultural and pastoral lands. Many people worked in fields and workshops owned by temples, alongside craftspeople, who produced metal objects such as tools and jewellery, fine clothing, furniture, monumental buildings, and also large quantities of pottery (see Pottery box).

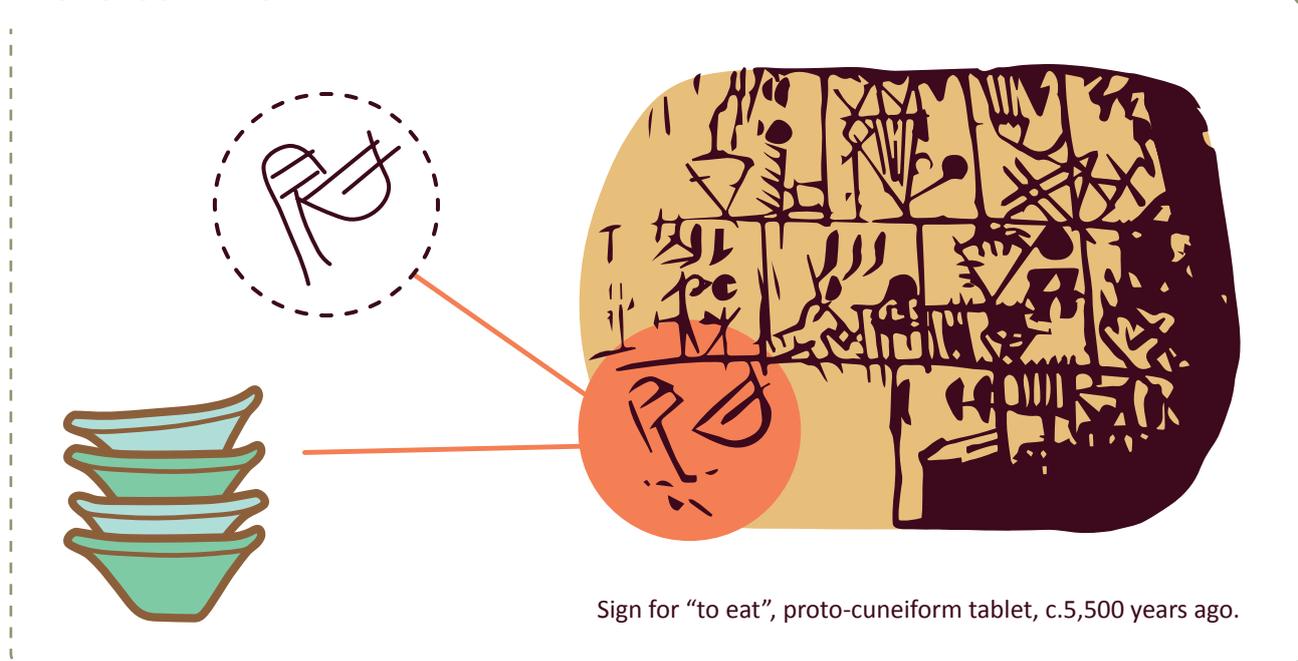
Writing in Mesopotamia appears to have evolved in order to organise activities associated with the maintenance and expansion of state institutions, and to ensure that temple workers and craftspeople received adequate payment in food (see Food and Pottery boxes) and other goods for their labour.

Around 5,500 years ago, administrators in the main temple of Uruk in southern Mesopotamia, and temple institutions in other early cities, developed a simple, picture-based form of writing. This script is known as proto-cuneiform.

This is a simple type of writing where specific things or actions were expressed through pictures. The verb "to eat", for instance, was written through the combination of two signs: the sign of a human head with an open mouth and the sign of a bowl. Together the two signs referred to eating or feeding workers.

Our world today is still full of similarly simple signs (called ideograms) and the information and instructions they provide! Think of the signs regulating traffic or telling you which bathroom you should enter.

PROTO-CUNEIFORM



Sign for "to eat", proto-cuneiform tablet, c.5,500 years ago.

ACTIVITY 1: Can you think of an ideogram that you have seen in your school, at home or on the street? Draw it on a piece of paper and tell the rest of the class what it means!

Could the same information be conveyed in writing? Would it be as effective?

Class discussion should focus on people who cannot read or write, and on visitors, who may not be able to read the local script or speak the local language.

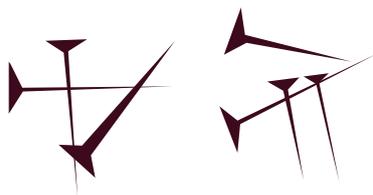


Cuneiform

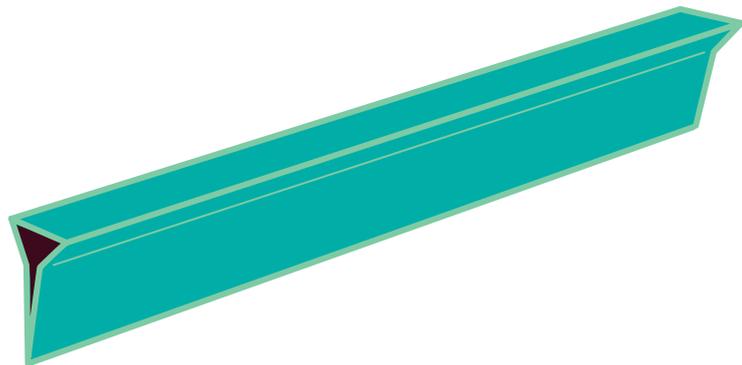
The proto-cuneiform script was used for just a couple of centuries. Drawing pictures for each word or activity on clay was not an easy task, and early scribes had difficulties expressing complex concepts and ideas with pictures. Therefore, scribes soon began to abstract these images into a series of signs.

Cuneiform signs were produced by pressing a thin instrument known as a stylus, which was usually made from reed, into wet clay; the world's first pen! The stylus had a sharp triangular edge, also known as a wedge.

STYLUS AND WEDGE-SHAPED SIGN



Example of a stylus and the wedge-shaped signs it produces.

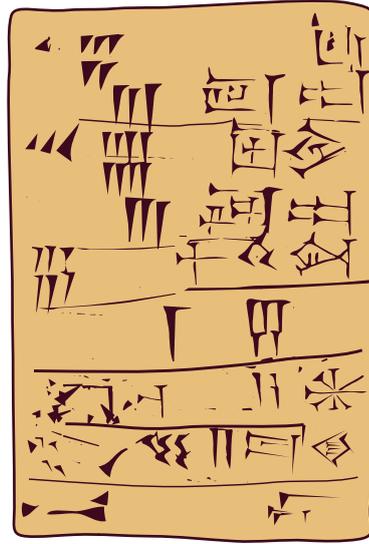


Over time, the signs that scribes abstracted from the pictures of the proto-cuneiform script came to represent not entire words or activities, but groups of sounds that could be used to construct words.

Mesopotamian scribes had to learn hundreds of cuneiform signs in order to write properly. Unlike in the alphabetic scripts that most of us today are used to writing in, individual cuneiform signs generally represent a combination of a consonant and a vowel. This scheme is syllabic. So, if we want to express NA or NE or the opposite, AN or EN, we will use only one sign for each of these syllables. This means that the number of signs in the writing system is large, because of the many possible combinations of vowels and consonants.

CUNEIFORM TABLET

Cuneiform tablet (Ur III period, c.4,000 years ago).



Around 3,300 years ago, in the Mediterranean trading city of Ugarit, cuneiform signs were adapted into an alphabetic writing system. Similar to other alphabetic writing systems used to write modern Kurdish, Arabic or English, the Ugaritic alphabet contained only 30 signs in the longest version we have found (but another version has only 22 signs, like the Phoenician alphabet of later times). Each sign designates one rather than two sounds.

UGARITIC ALPHABET

Ugaritic	Latin	Arabic	Kurdish	Ugaritic	Latin	Arabic	Kurdish	Ugaritic	Latin	Arabic	Kurdish	Ugaritic	Latin	Arabic	Kurdish
	a	ا	ئا		h	ه	ه		n	ن	ن		t	ت	-
	b	ب	ب		t	ط	-		z	ظ	-		g	غ	غ
	g	ج	ج-ك		y	ي	ي		s	س	س		t	ت	ت
	h	ه	ه		k	ك	ك		e	ع	ع		i	ئ	ئ
	d	د	د		s	ش	ش		p	ف	ف-پ		u	و	و
	h	ه	ه		l	ل	ل		s	ص	-		s ₂	-	-
	w	و	و-ق		m	م	م		q	ق	ق		v	-	-
	z	ز	ز		d	ذ	ژ		r	ر	ر				



ACTIVITY 2: You are an ancient scribe. Write your name on a piece of paper using the Ugaritic alphabet!

How to write cuneiform

Mesopotamia was called the civilization of clay because they built their city walls, ziggurats, palaces, temples, and their houses and pots from mud, mud brick or clay. They also used clay instead of paper or papyrus for writing. Clay tablets are unique because, not only could they be recycled and reused, but they also preserve for millennia, even in burnt and destroyed buildings. As a result, hundreds of thousands of cuneiform tablets have survived in the archaeological record.

Preparing a clay tablet was similar to preparing clay for pottery production (see Pottery box):

- 1) choose a good and clean soil, usually from alongside a river such as the Diyala/Sirwan;
- 2) filter off any impurities, such as stones or roots;
- 3) add water and mix the clay;
- 4) cover the wet clay with a piece of cloth or wet leather, so that it does not dry out;
- 5) mould the wet clay to a specific tablet shape and size (see replicas in this box for examples of different tablet formats) before writing.
- 6) write!



This educational box contains several replicas of different cuneiform tablet formats.

The shape of tablets varied. School exercise tablets, used for learning how to write cuneiform signs, were usually circular in shape, and were convex on both sides. This meant that they were easy for pupils to hold in their hands while learning to write. Economic texts, on the other hand, were usually rectangular in shape, while royal or religious tablets were usually much bigger than normal tablets. Occasionally, text was also written on clay cones, or prism shapes. After writing, tablets were often put in an oven to bake, but were sometimes also placed in the sun to dry. This helped to preserve them better.

Although cuneiform was mostly written on clay, stone, metal and ivory were also sometimes used. The famous law code of Hammurabi, for instance, was recorded on a stone stele. In this case, the scribe would initially have written the text in a white or red colour on the stone, before a sculptor carved the recorded signs using a metal or stone stylus. In the Zagros Mountains, many kings left royal inscriptions on stone steles or on rock faces, usually to commemorate their military victories. One example is the carving of Iddi-Sin, king of Simurrum, at the foot of the Piremegrun Mountain, north of Suleymaniyah and now exhibited in the Slemani Museum.

The cuneiform script was probably also written on leather and scrolls using ink, but, because these materials decayed and disappeared through time, no clear evidence for their existence survives.

Schools

In ancient Mesopotamia, the first schools opened. There were three types of schools: palace schools, temple schools, and private schools. In the Sumerian language, the school was called the E-DUBBA, which translates as the “House of the Tablets”. Only wealthy children, usually those whose fathers were also scribes or priests, could afford to go to scribal school and spend the many years required to become proficient in reading, writing, record-keeping, mathematics, and knowledge of literature that was expected of scribal experts.

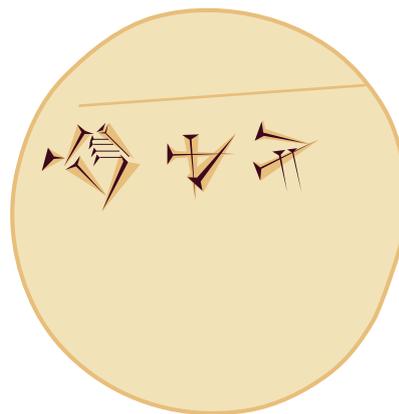
Pupils began their education at the E-DUBBA as young children. Scribal pupils were primarily boys, but female scribes are also attested in ancient Mesopotamian society, especially princesses and priestesses.

Just as today, there were different classes; the beginners had to learn how to write the cuneiform script properly, and, in doing this, they were supervised by other more advanced pupils. The advanced pupils prepared the exercise tablets for the beginners; they drew the lines on both sides of the tablet and wrote the first line of cuneiform signs that the beginners were then tasked with repeating.

School classrooms consisted of rows of benches, where the pupils sat holding their clay tablets in one hand and writing with a reed stylus in the other hand. Pupils who misbehaved or wrote poorly were sometimes punished by beating.

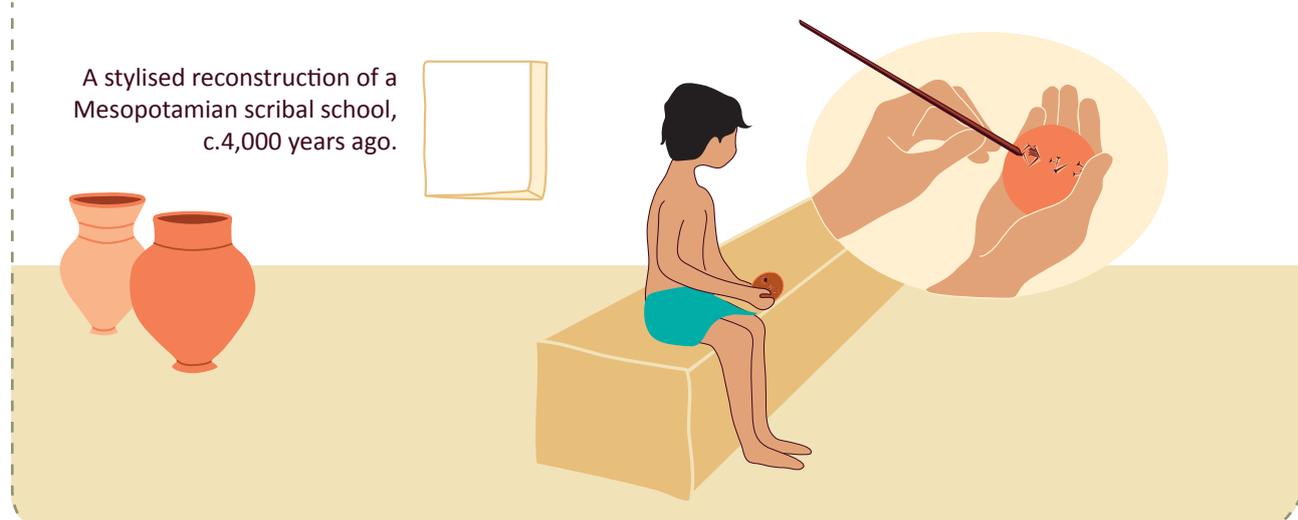
SCHOOLING TABLET

Schooling tablet, c.4,000 years ago.



MESOPOTAMIAN SCRIBAL SCHOOL

A stylised reconstruction of a Mesopotamian scribal school, c.4,000 years ago.



Once scribes had completed their education there was no shortage of work. Scribes found employment in state institutions such as temples and palaces, where they wrote letters to be sent to provincial governors or foreign courts. They also wrote down and embellished the achievements of kings and their armies, composed and copied literary texts, or recorded the goods and labour rendered to temples or palaces, and how workers and craftspeople were compensated for these. They also wrote documents that recorded property rights and sales as well as legal decisions, not only for the elites, but also for common people.



This educational box contains a replica of a round school tablet.



This educational box contains the recipe for a batch of salt dough for producing replica clay.

ACTIVITY 3: You are a pupil in a scribal school. Using the stylus and salt dough provided, copy the cuneiform signs on the round school tablet provided in this box.

Class discussion should focus on how the children are learning, or have learnt, to read and write. What exercises do they remember? What was important? What worked? What didn't work?



Seals and sealings

Cuneiform script was not the only form of record-keeping used in palace and temple institutions. Authentication, the tracing of the author or owner, of written documents and goods, was as important in the ancient world as it is today. Like signatures or office stamps today, seals acted as a key administrative technology that helped to control the flow of goods and exert power. In order to authenticate letters and legal documents, seals were stamped or rolled across clay tablets. They were also used to protect doors and containers holding important goods. Clay lumps or bullae, were attached to doors, baskets, pottery vessels or cloth sacks. They were impressed by seals, which were stamped or rolled across the bullae while the clay was still wet.

Seal ownership in Mesopotamia was more widespread than access to writing and writing skills. Attested are seals or seal impressions of royal individuals, those of priests, scribes, temple and palace officials, but also of merchants and individuals, both male and female, not directly associated with state institutions. Often finely carved from beautiful and semi-precious stones, the seals themselves, while acting as signatures or stamps in legal and administrative contexts, were also personal ornaments that the owners ascribed protective properties to.



This educational box contains three replicas of Mesopotamian seals.

SEAL



Cylinder seal showing a wild goat and tree, c.5,000 years ago

ACTIVITY 4: You are an archaeologist studying ancient seals. Stamp or roll the seals across the salt dough provided:

- What is depicted on the seals?
- Who might have owned them in the past?
- What could they have been used for?



ARCHIVES AND LIBRARIES

As more and more started to be written, palace and temple scribes, but also merchants, began to create collections of clay tablets. Smaller collections, such as those of Assyrian merchants living and trading in central Anatolia, modern-day Turkey, c.3,800 years ago, were stored in large pottery jars. Larger collections were kept on wooden shelves or in baskets.

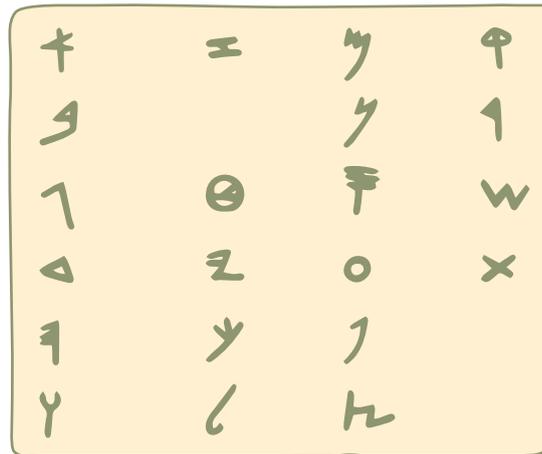
Over time, these growing collections of correspondence, literary texts, travel and campaign reports, but also ritual and scientific knowledge became the world's first libraries. One of the most famous Mesopotamian libraries was found at Nineveh, northern Iraq, 2,600 years ago, at the palace of the Assyrian king Ashurbanipal. Thousands of cuneiform tablets composed this collection, and, like modern libraries, different types of text – mathematical, astronomical, poetic, legal, literary, and mythological – were carefully preserved, filed and copied.

Unlike libraries today, however, which are usually accessible to everyone, access to libraries in the ancient world was restricted to the elite and literate members of society. The knowledge collected inside these archives and libraries served the political aims of Ashurbanipal and other kings, and served to further their personal fame and glory.

The end of cuneiform

The cuneiform script was used for approximately three millennia. Around 2,500 years ago, the people of Mesopotamia and the Zagros Mountains began to use a new alphabetic system of writing: the Aramaic script, alongside the cuneiform script. Learning to write just 25 letters and sounds, from which the Aramaic script was composed, was much easier than learning hundreds of cuneiform signs and sounds. As a result, both the Aramaic script and language spread quickly among the communities of the ancient Near East.

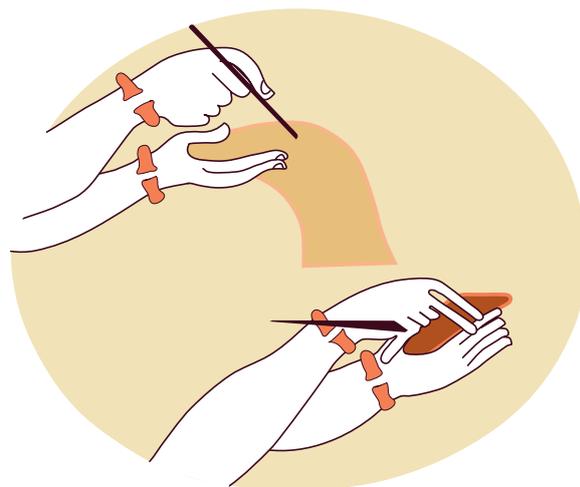
OLD ARAMAIC ALPHABET



Assyrian kings hired Aramaic scribes in addition to their cuneiform scribes. The two types of scribes served the king in the reception hall of the palace and during military campaigns, and their images appear on wall paintings and on stone reliefs. In these depictions, the Aramaic alphabetic scribe holds a scroll with a reed pen, and the cuneiform scribe holds a clay tablet with a reed stylus.

ALPHABETIC AND CUNEIFORM SCRIBES

Alphabetic scribe (left) and cuneiform scribe (right)
on wall painting from Til Barsip, northern Syria,
c.2,700 years ago.



Later on, Parthians and Sasanians used an alphabet called Pahlavi. Pahlavi is the script and language of the Paikuli inscription (c.2,400 years ago), which was found in the Qara Dag Mountains of Iraqi Kurdistan, and which you can visit in the Slemani Museum.

With the rise of Islam in Mesopotamia, alphabetic scripts continued, but were replaced with Kurdish and Arabic alphabets. The Syriac script, which developed from Aramaic, also continued to be used. To begin with, the Arabic alphabet was written without dots; later, these dots were added to nine letters. Around 800 years ago, a Kurdish alphabet was recorded by Ibin-Whashiya al-Nabaty. The modern Kurdish alphabet differs from the alphabet recorded by al-Nabaty.

THE REDISCOVERY AND READING OF THE CUNEIFORM SCRIPT

Until recently, cuneiform writing remained a mystery. Around 200 years ago, western travellers, generals, and priests began to collect cuneiform tablets and cylinder seals. They realised that it was a specific type of writing, but they did not understand it and could not read it. The first real attempt to decipher the script was made by the British general Henry Rawlinson. Rawlinson visited several rock inscriptions and steles in the Zagros Mountains, which had cuneiform script written alongside other languages.

The key to deciphering cuneiform was the trilingual inscription of the Persian King Darius I at Bisitun, to the west of the city of Kermanshah in western Iran. This 2,500-year-old inscription was written in Akkadian, Neo-Elamite, Old Persian cuneiform, and in the Aramaic alphabet. Rawlinson climbed the cliff face to the inscription, 100 metres above the surrounding valley, and began making copies of the texts with the help of a young local shepherd. The copies of these scripts allowed scholars to compare the signs and sounds of the words. As a result of Rawlinson's and other scholars' efforts, the cuneiform script, which had been abandoned for more than two millennia, can now be read and understood once again.

ESSAY QUESTIONS FOR OLDER CHILDREN

- 1) The invention of writing in Mesopotamia was closely associated with economic and administrative activities. What were these and how did writing support the effective running of early state societies?**
- 2) What are clay tokens and how might they be related to the invention of the cuneiform script?**
- 3) How did boys and girls learn how to read and write in ancient Mesopotamia?**
- 4) Seals were an important administrative technology in the ancient Near East. Can you discuss how they were used and for what purposes?**



Salt dough recipe

INGREDIENTS

The following ingredients are designed for a group of 10 children.

- 5 cups of salt (1.25l)*
- 10 cups of flour (2.5l)*
- 4 cups of water (2l)*

INSTRUCTIONS

- 1. Mix salt and flour together in a large bowl. Separate into several smaller bowls, if necessary.*
- 2. Gradually stir in water. Mix well until it forms a dough consistency.*
- 3. Place the dough onto a table and knead with your hands until smooth and combined.*
- 4. Make your tablet shapes using the salt dough!*
- 5. (OPTIONAL) Place the salt dough creations into an oven at 180C. The amount of time needed to bake depends on the size and thickness of the salt dough creations. Salt dough can also be air dried as an alternative to oven baking.*

TIP

- Salt dough will keep for a few days if stored in an airtight container.*