

Andrew Robinson

# WRITING AND SCRIPT

A Very Short Introduction

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## Chapter 2

# Development and diffusion of writing

Once writing of the full kind was invented, accidentally discovered, or evolved – take your pick – in Mesopotamia, or perhaps in nearby Egypt, did it then diffuse from there throughout the globe: eastwards to India, China, and Japan, westwards to Europe and to Meso-America? Or was writing independently invented in each of the world's earliest civilizations, without external influence? Despite much debate, this interesting conundrum has yet to be resolved. There are arguments to support both a single origin and multiple origins.

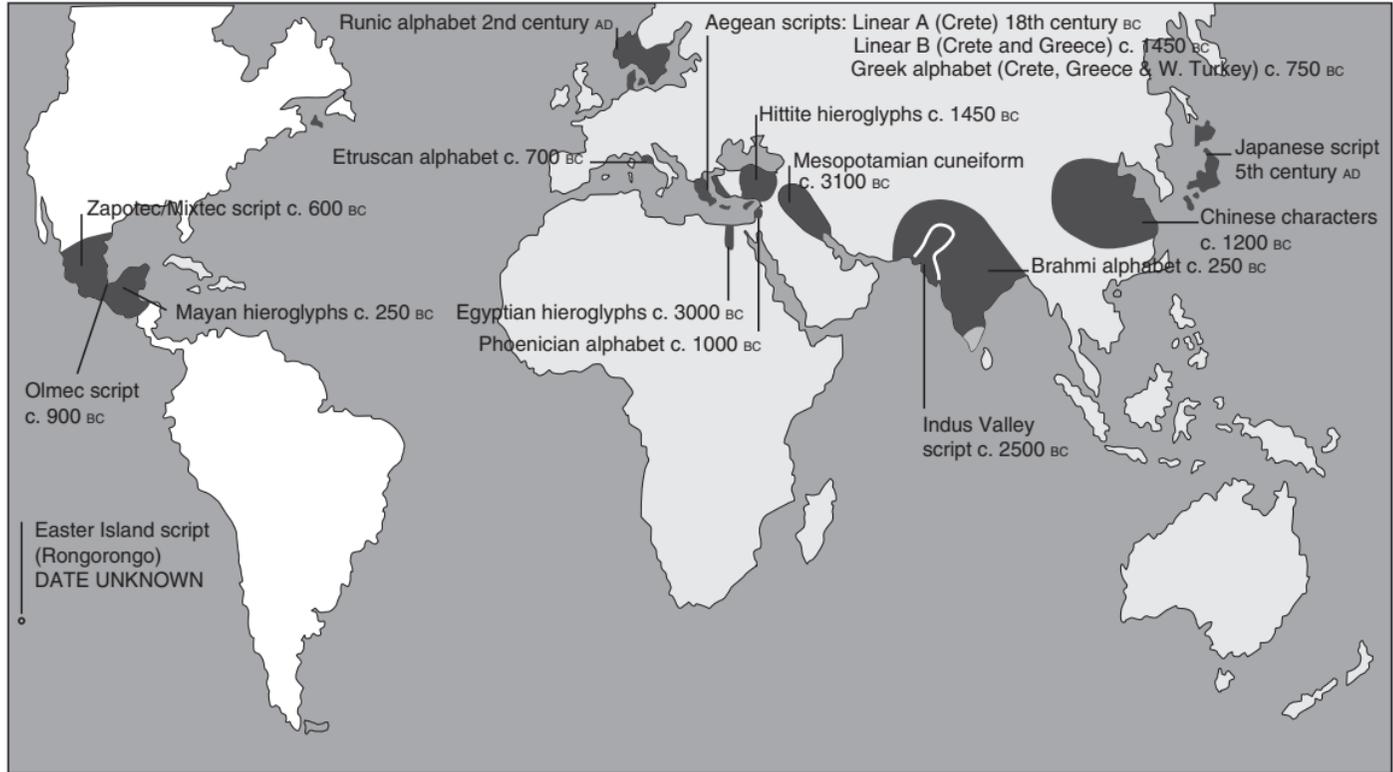
On present archaeological evidence, full writing appeared in Mesopotamia and Egypt around the same time, in the century or so before 3000 BC. It is probable that it started slightly earlier in Mesopotamia, given the date of the earliest proto-writing on clay tablets from Uruk, circa 3300 BC, and the much longer history of urban development in Mesopotamia compared to the Nile Valley of Egypt. However we cannot be sure about the date of the earliest known Egyptian historical inscription, a monumental slate palette of King Narmer, on which his name is written in two hieroglyphs showing a catfish and a chisel. Narmer's date is insecure, but probably falls in the period 3150 to 3050 BC. (Tomb U-j at Abydos predates Narmer's palette, but did not contain any indisputably hieroglyphic inscriptions.)

In India, writing dates from about 2500 BC, with the appearance of complex, exquisitely inscribed signs on seal stones in the cities of the Indus Valley civilization, which was discovered in the 1920s. However the Indus Valley script is undeciphered, so we do not know if the seal stones are full writing or proto-writing. Most scholars assume full writing, given the sophistication of the civilization and the seal stones, but as yet there is no proof. Perplexingly, the earliest unequivocal full writing in India is a completely different script, the Brahmi script, which dates from only 250 BC, leaving a gap without writing of perhaps a millennium and a half after the disappearance of the Indus script around 1800 BC.

In China, full writing first appears on the so-called 'oracle bones' of the Shang civilization, found about a century ago at Anyang in north China, dated to 1200 BC. Many of their signs bear an undoubted resemblance to modern Chinese characters, and it is a fairly straightforward task for scholars to read the oracle bones in Chinese. However, there are much older signs on the pottery of the Yangshao culture, dating from 5000 to 4000 BC, which may conceivably be precursors of an older form of full Chinese writing, still to be discovered; many areas of China have yet to be archaeologically excavated.

In Europe, the oldest full writing is the Linear A script found in Crete in 1900 on Minoan tablets. Linear A dates from about 1750 BC. Although it is undeciphered, its signs closely resemble the somewhat younger, deciphered Linear B script, which is known to be full writing; Linear B was used to write an archaic form of the Greek language.

In Meso-America, the earliest script is the Olmec script, belonging to the artistically sophisticated Olmec civilization that existed in the Veracruz region on the Gulf of Mexico. The first convincing sample of this script was found only in the late 1990s. It has been dated to about 900 BC, more than a millennium before the



5. The early civilizations of Mesopotamia, Egypt, India, Europe, China, and Meso-America all produced writing, as shown in this map. The dates are approximate and in a few cases controversial

appearance of the hieroglyphic script of the Maya in the Yucatan region. Although the Olmec sample is very small, and the script is undeciphered, there is reason to believe that it may be full writing – the first in the Americas.

## Single origin versus multiple origins

Thus we have the following approximate dates of origin for full writing: Mesopotamia 3100 BC, Egypt 3100–3000 BC, India 2500 BC, Crete 1750 BC, China 1200 BC, Meso-America 900 BC. On the basis of this chronology, it seems logical to assume that the idea of writing diffused gradually from Mesopotamia to other cultures. The concept of combining pictograms with the rebus principle could have been borrowed, and used to create a new set of signs suitable for the language spoken by the borrowers. Script borrowing with varying degrees of modification of the borrowed signs has occurred in numerous periods and regions throughout history. For example, the Etruscans of northern Italy borrowed their basic alphabet from the Greeks in the 8th century BC and used it to write the Etruscan language. The Japanese borrowed the character script of China to create their even more complex writing system during the 1st millennium AD. In the colonial period of the 19th and 20th centuries, the Roman alphabet was borrowed and modified to write many hitherto unwritten languages throughout the world.

Looking east, China could surely have borrowed the idea of writing from Mesopotamia during the 3rd/2nd millennium BC or after via the Central Asian cultures of the Silk Route, and gone on to develop the unique set of Chinese characters. For comparison, the idea of printing took 600 or 700 years to reach Europe from China, and the idea of paper, which was invented in China in the early 2nd century AD or before, took even longer to spread via the Silk Route to 8th-century Baghdad and thereby reach Europe in the 11th century. On the Indian subcontinent, the Indus Valley dwellers unquestionably had trading contacts with Mesopotamia via the

Persian Gulf. Cuneiform inscriptions give the Mesopotamian name Meluhha for what appears to be the Indus Valley, and Indus seals have been excavated in Mesopotamia. There was plenty of opportunity for the Indus civilization to have borrowed the idea of writing from the Middle East.

Looking west, Minoan Crete is known to have had contact with the Egyptian and maybe the Anatolian civilizations bordering the Mediterranean, so it is possible to imagine the invention of a Minoan script stimulated by hieroglyphs or perhaps cuneiform.



6. This broken stone seal, with undeciphered signs along the top that appear to be writing, is from the Indus Valley civilization, dating from the second half of the 3rd millennium BC. Its excavator dubbed it 'Proto-Shiva', because the 'yogic' figure wearing a horned headdress reminded him of the Hindu god Shiva. There is, however, no evidence at all for this identification

Indeed the earliest form of Minoan proto-writing, seal pictograms predating Linear A, bears some passing resemblance to Egyptian hieroglyphs. Later, during the early 1st millennium BC, the Greeks undoubtedly borrowed their alphabetic signs from the script of the Phoenicians, who traded throughout the Mediterranean. As for Meso-America, the idea of writing could in theory have been transmitted across the Atlantic Ocean at some time during the two millennia that elapsed between its invention in the Old World and its appearance in the New. This possibility certainly seems far-fetched, but it is not inconceivable given the undoubted long eastward sea voyages across the Pacific Ocean in prehistoric times that populated Polynesia, as far as remote Easter Island, which was probably settled from the Marquesas Islands, 4000 kilometres away, during the early centuries AD.

On the other hand, it must be said that there is no evidence for any such borrowings from Mesopotamia by writers in China, the Indus Valley, Crete, or Meso-America. Moreover the signs of the scripts from these regions are extraordinarily unlike each other – almost as dissimilar as cuneiform is from Egyptian hieroglyphic. Even in the case of the much more proximate civilizations of Mesopotamia and Egypt, there is no definite evidence, only informed speculation. We know, for instance, that as early as 3500 BC, the blue gemstone lapis lazuli had reached Egypt, presumably from Afghanistan, its nearest and most important source, which is much further away from Egypt than Sumer. But at present all we can say with confidence is that the signs on the clay tablets of Uruk and on the bone tags of tomb U-j at Abydos appear to have evolved at around the same time independently of each other, in order to manage the economies of their respective cultures.

As a result, scholars of writing are divided on the issue of origins. During much of the 20th century, ‘stimulus diffusion’ of writing from Mesopotamia across the world was the fashion. Today, with the colonial empires gone, the fashion is more for independent invention. The optimist, or at any rate the anti-imperialist, will

prefer to emphasize the intelligence and inventiveness of human societies; the pessimist, who takes a more conservative view of history, will tend to assume that humans prefer to copy what already exists, as faithfully as they can, restricting their innovations to cases of absolute necessity. ‘Many scholars working on early writing systems today would be happy with the proposition that Sumerian, Egyptian, Chinese, and Mayan were all created in response to local needs and without stimulus by pre-existing writing systems from elsewhere’, writes the Assyriologist Jerrold Cooper in a recent collection of articles entitled *The First Writing*.

Having looked at the origins of the earliest scripts, we shall now glance at how each developed over the course of its existence, beginning with the oldest script, cuneiform.

## Cuneiform

Cuneiform writing arose out of the ‘proto-cuneiform’ pictograms pressed into clay tablets at Uruk with the wedge-shaped end of a reed stylus. (The numerals, by contrast, were made with the other, round end of the stylus.) The term cuneiform derives from ‘cuneus’, the Latin word for ‘wedge’. By about 2500 BC, the pictograms had become cuneiform signs in widespread use for writing the language of the Sumerians; later they developed into the script of the Babylonian, Assyrian, and Hittite empires; and in the Persian empire of Darius, around 500 BC, a new alphabetic cuneiform script was invented to write the Persian language, which is displayed in the ceremonial inscriptions of Persepolis, the capital of Darius’s empire. The latest inscription in cuneiform, from Babylon, is dated AD 75. Thus, cuneiform was employed as a writing system for some 3000 years – considerably longer than today’s Roman alphabet and almost as long as Egyptian hieroglyphs and Chinese characters.

Impressed in clay or inscribed on metal, ivory, glass, and wax, but rarely written in ink, so far as we know, cuneiform gave ancient

Mesopotamia a history. Rulers such as Sargon of Akkad, Hammurabi of Babylon, and the Assyrian king Sennacherib speak to us through their cuneiform inscriptions. Hammurabi, the sixth ruler of the first dynasty of Babylon, ruled an empire from 1792 to 1750 BC, and is most famous for his great law code, inscribed in Babylonian cuneiform on a diorite stela in the most important temple of Babylon and now kept at the Louvre Museum. The code contains 282 case laws dealing with the economy and with family, criminal, and civil law. One of them states: 'If a man has harboured in his house a fugitive slave or bondmaid belonging to the state or to a private citizen, and not brought him out at the summons of the public crier, the master of that house shall be slain.' The harshness was typical of the code, but it was surprisingly enlightened too on the subject of women and children, in an effort to protect them from arbitrary treatment, poverty, and neglect. It went far beyond tribal custom and recognized no blood feud, private retribution, or marriage by capture.

Yet there remain awkward gaps in the cuneiform record, for which no tablets or inscriptions have been discovered. We tend to assume that economic activity was low in these periods. In fact, the opposite may be true: they may have been periods of peace and prosperity. Unlike in times of strife and war – a favoured activity of the Babylonians, Assyrians, and Persians – perhaps during these gaps no one's cuneiform library was being burnt down, no invaluable clay-tablet archive being accidentally baked for posterity.

With the discovery from the mid-19th century onwards of large numbers of tablets from many periods of Mesopotamian history, and the steady decipherment of the cuneiform used to write languages such as Sumerian, Akkadian, Babylonian, Elamite, and Assyrian, the evolution of certain signs could be discerned by scholars. The early numerical tablets from Uruk were seen to give way initially to signs made of wedges that still resembled the pictographic symbols; these in turn became further abstracted; and by the time of the Assyrian empire in the 1st millennium, the

signs bore almost no resemblance to their pictographic progenitors.

At some point in the later 3rd millennium or earlier part of the 2nd millennium BC, the evolving signs underwent a change of orientation. The pictograms on clay tablets became turned through 90 degrees, so that they lay on their backs. It was the same for the overall direction of the script (though it was still often partitioned into columns like a modern newspaper). Moreover, instead of being written from right to left, the script was now written from left to right. But stone monuments continued to be written in the orientation of the archaic script until the middle of the 2nd millennium. So, in order to read Hammurabi's law code, one must hold one's head down on one's right shoulder (turning the eyes through 90 degrees).

The date of this change is vague, and the reason for it is not clear. Some scholars have proposed that it came about because right-to-left writing tended to obliterate signs through smudging of the clay by the right hand. In fact, with good quality clay, this does not occur. A more likely reason is that the scribes found the new orientation more convenient to the way they held their tablet and stylus. Experiments with a tablet and stylus suggest this. In the words of the cuneiformist Marvin Powell, 'there must have been from the beginning a strong tendency to *write* the tablet at an angle rather different from that at which it was read.'

## Egyptian hieroglyphs

Unlike in cuneiform, pictography remained an integral part of Egyptian hieroglyphic, from its beginnings before 3000 BC to its latest inscription written in the gate of Hadrian on the island of Philae near Aswan in AD 394. However, soon after 2700 BC, the cursive ('joined-up') hieratic script developed from hieroglyphic, and continued in parallel with it. Both wrote the same language, but while hieroglyphic was used essentially for monumental,

religious, and funerary purposes, on stone and papyri, the more rapidly written hieratic was employed mainly for administrative and business purposes (confusingly, given its sacred-sounding name), on papyri. Then, after about 650 BC, a third script, demotic, developed from hieratic. Demotic took over the role of hieratic in administration and commerce, while hieratic became a priestly script, as its name implies, used for religious and funerary matters. Demotic was also used, unlike hieratic, for monuments, such as the Rosetta Stone (196 BC). But it had nothing to do with the spreading of literacy 'to the people', as suggested by its name: 'demotic' derives from 'demotika', Greek for '[script] in common use' – unlike, of course, the monumental hieroglyphic.

Egyptian hieroglyphs were written and read both from right to left and from left to right. Always, whichever direction was chosen, the individual signs faced in such a way that the reader's eye passed over them from front to back. Thus, if one looks at a line of hieroglyphs and sees the signs (birds, humans, animals, etc.) facing to the right, then the direction of writing is from right to left – and vice versa. That said, the Egyptians usually wrote from right to left, unless there was a pressing reason to choose a particular direction. Reasons for choosing left to right included aesthetic appeal and symmetry, the showing of respect towards images of gods, kings, and others, and physical ease of reading.

A nice example is the so-called false door of Khut-en-Ptah – 'false' because the sculpted doorway is actually solid. In an Egyptian tomb, such doors marked the boundary between the closed and forbidden domain of the dead and a relatively accessible area where friends and relatives of the deceased could make prayers and offerings. The deceased Khut-en-Ptah is shown twice at the bottom to the left of the door, and twice to the right, in each case facing inwards. The columns of hieroglyphs directly above her images all face inwards too; those on the right are therefore mirror images of those on the left (though they are not in exactly the same order). The sculptor did, however, make one mistake, carving a sign

showing a basket with a handle on one side the same way around on both left and right of the door, instead of remembering to reverse the handle on the right side, as in a mirror image.

The symmetry is pleasing, and also the natural way for a ‘person’ passing through the false door to view and read the hieroglyphs on either side: from right to left, to the left of the door, and from left to right, to the right of the door. The lines of hieroglyphs above the door are, by contrast, read naturally in only one direction, and so they are written from right to left.

The ancient Egyptians were obsessed with death and the afterlife. They had many versions of the Book of the Dead, which began life in the 16th century BC. This consisted of religious spells written in both hieroglyphic and hieratic on papyrus rolls with copious illustrations; stored in the tomb of the deceased, the Book of the Dead was thought to ensure happiness in the other world. The quality varied enormously, depending on the wealth of the individual named in the book: some books were specially commissioned with an individual choice of texts and beautiful illustrations, others were standard copies, without much artistry, in which a space had been left to add the buyer’s name and titles. In one of the finer examples, dated to 1000–800 BC, belonging to a man named Pawiaenadja, the dead man is depicted pouring cool water on some offerings piled upon an altar before the god Osiris. His name appears in the last column of hieroglyphs above his head. It appears to mean ‘the sacred barque of the boy’. The ‘boy’ is represented both phonetically and literally, by the hieroglyph depicting a child pointing its finger at its mouth, which faces to the left; the derived, similar-looking hieratic sign opposite the illustration shows the child facing to the right.

## Linear A and B

In *The Odyssey*, Homer refers to Crete – ‘lovely and fertile and ocean-rounded’ – and its 90 cities, among them ‘mighty Knossos’.

Its king was once Minos, 'who every ninth year took counsel with Zeus himself'. Some two and a half millennia after Homer, in 1900, the archaeologist Arthur Evans began to dig up and reconstruct the site of ancient Knossos in the northern part of central Crete. He discovered what he believed was the palace of King Minos, with its notorious labyrinth, home of the Minotaur. He also discovered two new scripts – the earliest writing in Europe.

'Linear Script of Class B' was the name Evans gave to the fairly primitive signs scratched on clay tablets that he discovered soon after he began to excavate. The 'Class B' label was to distinguish the signs from quite similar-looking but nevertheless distinct signs on archaeologically older tablets that Evans had labelled 'Linear Script of Class A'. Though found at Knossos with Linear B, most Linear A tablets came initially from another Minoan palace excavated (not by Evans) in southern Crete, at Haghia Triada.

The term 'Linear' was used not because the signs were written in sequence but because they consisted of lines inscribed on the flat surface of the clay, perhaps with a thorn or bronze point. They were a mixture of mainly abstract and numerical signs with some simple pictograms, for example 'man', 'horse', 'tripod', 'amphora', 'spear', 'chariot', and 'wheel'. This writing was quite different from the three-dimensional, engraved images of a third, primarily pictographic Cretan script, found chiefly on seal stones and only in the eastern part of the island, which Evans dubbed 'Hieroglyphic' but which actually did not much resemble Egyptian writing.

Linear A and Linear B tablets are uninspiring objects to the eye of the uninitiated, unlike Egyptian hieroglyphic inscriptions and many of the cuneiform inscriptions. They were basic bureaucratic palace records, accidentally preserved by fire, intended to last at most for a few years not for posterity. They remind us of how much of the writing from these early civilizations must have perished and returned to dust. Flat, smooth pieces of clay, their colour generally dull grey but sometimes like red brick (the result of greater

oxidation when the tablet was burnt), their sizes vary from small sealings and labels little more than two-and-a-half centimetres across to heavy, page-shaped tablets designed to be held in a single hand, the largest Linear B tablet being as big as a fair-sized paperback.

According to the archaeological record available to Evans, the Cretan Hieroglyphic was the oldest of the three scripts, dating chiefly to 2100–1700 BC; Linear A belonged to the period 1750–1450 BC; while Linear B slightly post-dated Linear A. Evans therefore came to the conclusion that all three scripts wrote the same ‘Minoan’ language indigenous to Crete, and that Linear B had developed from Linear A, which in turn had probably developed from the older Hieroglyphic script – on the basis that the later Egyptian scripts such as hieratic and demotic were derived from Egyptian hieroglyphic and that all of them wrote one Egyptian language. This notion was consistent with the idea, prevalent in Evans’s time, that writing systems always evolved from pictograms like the Cretan ‘hieroglyphs’ into comparatively abstract signs like the majority of the signs in Linear A and B.

Today this simple picture of Cretan script descent has been abandoned. Linear B was deciphered in the 1950s (after the death of Evans) and shown to write archaic Greek, not a new Minoan language. Linear A has been to some degree deciphered but appears to write an unknown language – only possibly Cretan in origin – so that we cannot really read it. The Hieroglyphic seal script remains almost wholly mysterious, and is generally regarded as proto-writing, not full writing as in Linear A and B.

Furthermore, all three scripts have been found outside Crete, around the Aegean (even in Anatolia), and the spans of their dates are now seen to overlap. While Hieroglyphic remains certainly the oldest script, Linear A the next oldest, and Linear B the youngest, we know that Hieroglyphic coexisted for a while with Linear A, and so did Linear A with Linear B. Scholars no longer postulate a straightforward line of descent purely within Crete: Linear A and

Linear B may be cousin scripts, rather than the first being the parent of the second.

The latest Linear B inscriptions, found in the destroyed palace of ancient Pylos on the Greek mainland, date from about 1200 BC. This was the beginning of a so-called Dark Age of apparent illiteracy, which included the Trojan War described by Homer in *The Iliad*. When writing re-emerged in Greece in the 8th century after a gap of some 400 years, it was in the form of the Greek alphabet, entirely unrelated to Linear B.

## Chinese characters

Claims for the great antiquity of Chinese characters have long been made, but only in 1899 was reliable early Chinese writing discovered. It was in the form of the so-called oracle bones. For many years before this, traditional Chinese medicine shops in Beijing had sold 'dragon bones', which were in fact old turtle shells and ox scapulae churned up by farmers' ploughs in a village near the town of Anyang in northern Henan province. Signs were frequently found scratched on the surface of these objects; they were usually hacked off with a spade by the farmers before the bones were sold, as being inappropriate to dragon bones. The signs were, however, of great interest to two scholars in Beijing, Wang Yirong and Liu E, who recognized that some of the signs were similar to the characters on early bronze inscriptions. They bought up all of the inscribed shell and bone fragments they could find in the medicine shops of the capital and published rubbings of the inscriptions.

The 'dragon bones' turned out to be the earliest known Chinese writing. They are records of divinations by the twelve later kings of the Shang dynasty, who ruled from about 1400–1200 BC. When heated, prepared turtle shells and ox scapulae cracked in special ways, and the cracks were read by diviners. A fairly typical

inscription from the reign of Wu Ding, about childbirth, translates as follows: ‘The king, reading the cracks, said: “If it be a ‘ding’ day childbearing, it will be good. If it be a ‘geng’ day childbearing, it will be extremely auspicious.” The verification reads: ‘On the thirty-first day, “jia-yin” (day 51), she gave birth. It was not good. It was a girl.’

A literate Chinese person, untutored in the ancient script, would probably find much of an oracle bone inscription incomprehensible at first glance, but after a little study the connections would begin to emerge. Yet many of the Shang signs have no modern descendants, just as many modern Chinese characters have no Shang ancestors. Of the 4,500 Shang signs distinguished to date, some 1,000 have been identified, and in many cases their evolution has been traced through three millennia to a modern character.

Some of these modern characters are pictographic in origin, based on Shang pictograms of a woman, a mouth, a mountain, a river, or a tree, for example. But the proportion of pictograms is much less than often suggested. No one doubts that pictography was important in the origins of Chinese characters, but it was certainly *not* the overriding principle in the formation of the early signs. Modern Chinese characters cannot be said to be basically pictographic in origin; and even those that once were definitely pictographic may show imperceptible iconicity.

The changes in style of writing a given character generally reflect periods in Chinese history. The Shang dynasty was followed by the long-lasting Zhou dynasty, in which the Great Seal script flourished. Politically and administratively, however, this was a long period of disunity. Characters were created by writers living in different historical periods and speaking different dialects: the effect was greatly to complicate the use of phoneticism in the Chinese script. With the establishment of the unified empire of Qin in 221 BC, a spelling reform was introduced along with a simplified Small Seal script. The latter remained in use until the



7. The Chinese characters in oracle bone inscriptions from the Shang civilization, dating from 1200 BC, in many cases closely resemble modern Chinese characters. They are records of royal divinations

	Shang	Great Seal	Small Seal	Scribal	Regular	Simplified
'come'						
'horse'						

**8. The evolution of two Chinese characters over some 3,000 years shows how those characters that were originally pictographic became more abstract with time. See the text for a fuller explanation**

1950s, when the Communist rulers of China introduced the present, still-controversial Simplified script.

The illustration shows the evolution of two characters from Shang to Simplified script. Both are pictographic but in different ways: the first character, 'lái', means 'come' and derives rebus-wise from the homophonous word for 'wheat' (which in its archaic form it depicts); the second character, 'mǎ', means 'horse'. The Great Seal script was the style of the Zhou dynasty (c. 1028–221 BC), the Small Seal script the style of the Qin dynasty (221–206 BC), and the Scribal and Regular scripts the styles of the Han dynasty (206 BC–AD 220).

Over 3,000 years and more, the number of Chinese characters increased dramatically from the 4,500 found in the Shang period. In the Han dynasty, there were almost 10,000, despite the reform of the Qin dynasty; by the 12th century, there were 23,000; and by the 18th century, there were almost 49,000 characters – many of them, to be sure, variants and obsolete forms. Of these, 2,400 suffice to read 99 per cent of today's texts. The overall appearance of the characters changed considerably over time, and many individual characters suffered attrition in form, all of which greatly muddled the picture of how particular characters have come to have the meanings they have, based on their constituent parts.

Nevertheless, the basic principles on which Chinese characters have been constructed have remained unchanged.

## Meso-American writing

The Olmec civilization appeared around 1200 BC on the coast of the Gulf of Mexico and flourished until 400 BC: the first developed civilization in Meso-America. Olmec motifs on pottery and other media, and a few signs that looked as if they might be glyphs, had been noted by archaeologists for some years; but they had found no inscription that would suggest the existence of full writing. It seemed that the Olmecs, like the much later Incas, had no writing.

Then in 1999, road builders quarrying fill from an ancient mound at Cascajal in the Isthmus of Tehuantepec spotted a substantially inscribed stone block, along with Olmec pottery fragments and figurines. If the block is of the same age as the accompanying artefacts, then it dates from 900 BC. However, the inscription consists of only 62 signs, some of which are repeated – far too few for a decipherment, especially as nothing certain is known of the Olmec spoken language. Some scholars dispute whether the inscription qualifies as full writing, but the majority think it does. Seven of them, writing in the journal *Science* in 2006–7 after intensive study of the block, concluded that it is ‘the oldest example of writing in the New World and among the most important finds ever made in Meso-America.’

The Olmec legacy was highly influential in Meso-America, especially in the realm of religion. But a relationship between Olmec writing and subsequent Meso-American writing systems, though possible, is unclear. More than a dozen of these later scripts have been distinguished by scholars. The most significant of them in the aftermath of the Olmec civilization are: the Zapotec script, dating from perhaps as early as 600 BC but probably later; the Isthmian script (also known as the epi-Olmec script, since it comes from the same region as the Olmec civilization), dating from the

2nd century AD; and – the most important script of all – Mayan glyphs. Although the earliest Mayan inscription dates from the 3rd century AD, it is almost inconceivable that such a complex script would not have had a period of gestation and development during the preceding few centuries. From various lines of evidence, it seems that the Maya took the idea of writing – though not their particular signs – from the earlier scripts of Meso-America.

# Chapter 6

## Alphabets

If the emergence of writing is full of riddles, the enigma of the first alphabet is even more perplexing. That the alphabet reached the modern world via the ancient Greeks is generally known, given that ‘alphabet’ derives from the first two of the Greek letters, alpha and beta. That said, specialists have no clear idea of how and when the alphabet appeared in Greece, some four centuries after the disappearance of the syllabic Linear B around 1200 BC; how the Greeks thought of adding letters standing for vowels as well as the consonants of the Phoenician script; and how, even more fundamentally, the idea of an alphabet occurred to the pre-Greek societies at the eastern end of the Mediterranean during the 2nd millennium BC. Scholars have devoted their lives to these questions, but the evidence is too scanty for firm conclusions.

Did the alphabetic principle somehow evolve from the syllabic, logosyllabic, and logoconsonantal scripts of Mesopotamia, Egypt, Anatolia, and Crete – or did it strike a single unknown individual in a ‘flash’? And why was an alphabet thought necessary? Was it the result of commercial imperatives, as seems most likely? In other words, did business require a simpler and quicker means of recording transactions than, say, Babylonian cuneiform or Egyptian hieratic, and also a convenient way to write the babel of languages of the various empires, tribes, and groups trading with

each other in the eastern Mediterranean during the 2nd millennium BC? If so, then it is surprising that there is absolutely no evidence of trade and commerce in the early alphabetic inscriptions of Greece (unlike in the Linear B tablets). This and other considerations have led a few scholars such as Barry Powell, in his controversial book *Homer and the Origin of the Greek Alphabet*, to postulate that the Greek alphabet was invented in the 8th century BC in order to write down the orally preserved epics of Homer.

In the absence of proof, anecdote and myth have filled the vacuum. Children have often been invoked as inventors of the alphabet, because they would not have invested effort in learning the existing scripts of adults – particularly those adult scribes who had undergone a gruelling training in cuneiform or hieroglyphic. One possibility is that a bright Canaanite child in what is now northern Syria, fed up with having to learn cuneiform, took the uniconsonantal idea from Egyptian hieroglyphic and invented some new signs for the basic consonantal signs of his own Semitic language. Perhaps he doodled them first in the dust of some ancient street in Canaan: a simple outline of a house, ‘beth’ (the ‘bet’ in ‘alphabet’), became the sign for ‘b’. In the 20th century, Rudyard Kipling’s cave-dwelling child protagonist Taffimai in the *Just So* story *How the Alphabet Was Made*, designs what she calls ‘noise-pictures’. The letter A is a picture of a carp with its mouth wide open and its fishy barbel hanging down like the cross-bar of ‘A’; this, Taffy tells her father, looks like his open mouth when he utters the sound *ah*. The letter S represents a snake, and stands for the hissing sound of the snake. In this somewhat far-fetched way, a whole phonetic alphabet is invented by Taffimai.

## The earliest alphabetic inscriptions

In *Jerusalem*, the poet William Blake wrote: ‘God . . . in mysterious Sinai’s awful cave/ To Man the wond’rous art of writing

gave.’ A small sphinx in the British Museum once seemed to show that Blake was right, at least about the origin of the alphabet. The sphinx was found in 1905 at Serabit el-Khadim in Sinai, a desolate place remote from civilization, by the Egyptologist Flinders Petrie. He was excavating some old turquoise mines that were active in ancient Egyptian times. Petrie dated the sphinx to the middle of the 18th dynasty (the dynasty of Tutankhamun); nowadays its date is thought to be about 1500 BC. On one side of it is a strange inscription. On the other, and between the paws, there are further inscriptions of the same kind, plus some Egyptian hieroglyphs that read: ‘beloved of Hathor, mistress of turquoise’.

There were other similar unfamiliar inscriptions written on the rocks of this remote area. Petrie guessed that the script was probably an alphabet, because its signary appeared to have less than 30 signs; and he thought that its language was probably Semitic, since he knew that Semites from Canaan – modern Israel and Lebanon – had worked these mines for the pharaohs, in many cases as slaves.

Ten years later, another Egyptologist Alan Gardiner studied these ‘proto-Sinaitic’ signs and noted resemblances between some of them and certain pictographic Egyptian hieroglyphs. Gardiner decided to name each proto-Sinaitic sign with the Semitic word equivalent to the sign’s meaning in Egyptian (the Semitic words were known from biblical scholarship). Thus the sign that resembled the Egyptian ‘ox’ hieroglyph Gardiner named with the Semitic word for ‘ox’ – ‘aleph’. The sign resembling the Egyptian ‘house’ hieroglyph he dubbed ‘beth’. The sign resembling the ‘throwstick’ hieroglyph he dubbed ‘gimel’, and the sign resembling the ‘door’ hieroglyph he dubbed ‘daleth’. These four Semitic names are the same as the names of the first four letters of the Hebrew alphabet – a fact that did not surprise Gardiner since he knew that the Hebrews had lived in Canaan in the late 2nd millennium BC. It began to look as if the proto-Sinaitic signs might be precursors of the Hebrew alphabet.

Gardiner's hypothesis enabled him to translate one of the inscriptions that occurred on the Sinai sphinx. In its English transcription, with the vowels spelt out (unlike in Hebrew and other Semitic scripts of this early period), he read the name 'Baalat'. This made sense: Baalat means 'the Lady' and is a recognized Semitic name for the Egyptian goddess Hathor in the Sinai region. So the inscriptions on the sphinx seemed to be an Egyptian-Semitic bilingual. Unfortunately, no further decipherment proved tenable, mainly because of lack of inscriptions and the fact that many of the proto-Sinaitic signs had no hieroglyphic equivalents. Scholarly hopes of finding the biblical story of the Exodus in these Sinaitic scratchings were scotched. Nevertheless, it is conceivable that a script similar to the proto-Sinaitic script was used by Moses to write down the Ten Commandments on tablets of stone.

We still do not know if Gardiner's 1916 guess is correct, plausible though it is. For some decades after Petrie's discoveries in Sinai, the inscriptions were taken to be the 'missing link' between Egyptian hieroglyphic and the Phoenician (alphabetic) script of the 11th century BC. But why should lowly and enslaved miners in out-of-the-way Sinai have created an alphabet? *Prima facie*, they seem to be unlikely inventors. Subsequent discoveries in Lebanon and Israel, of a small number of fragmentary, quasi-pictographic, undeciphered proto-Canaanite inscriptions believed to predate the proto-Sinaitic inscriptions by a century or two, showed the Sinaitic theory of the alphabet to be a romantic fiction. These suggested that Canaanites were the inventors of the alphabet, which would be reasonable. They were cosmopolitan traders at the crossroads of the Egyptian, Hittite, Babylonian, and Cretan empires; they were not wedded to an existing writing system; they needed a script that was easy to learn, quick to write, and unambiguous. Although the idea was unproven, it seemed probable during the second half of the 20th century that the Canaanites created the first alphabet.

Recently, however, contrary evidence has appeared from Egypt itself. In 1999, two Egyptologists, John Coleman Darnell and his wife Deborah, made a discovery at Wadi el-Hol, west of Thebes, while they were surveying ancient travel routes. They found what appeared to be alphabetic writing dating from around 1900–1800 BC, a date considerably earlier than the proto-Canaanite inscriptions.

The two short inscriptions the Darnells found are written in a Semitic script, and according to the experts the primitive signs were most probably developed in a fashion similar to a semi-cursive form of the Egyptian script. The writer is thought to have been a scribe travelling with a group of mercenaries (there were many such mercenaries working for the pharaohs). If this theory turns out to be correct, then it looks as if the alphabetic idea was, after all, inspired by Egyptian hieroglyphic, but invented in Egypt, rather than Palestine – which would make the Darnells' theory a revised version of Gardiner's theory. Yet the new evidence is very far from conclusive, and the search for more inscriptions continues. The riddle of the alphabet's origin(s) – in Egypt, Palestine, Sinai, or perhaps somewhere else – has not yet been solved.

## Alphabetic cuneiform

The earliest definite alphabet is the cuneiform alphabet from Ugarit, dating from the 14th century, later than the date of the proto-Canaanite and proto-Sinaitic inscriptions, which it in no sense visually resembles. Ancient Ugarit (modern Ras Shamra) lay on the coast in the northern part of Canaan. Its kingdom was a grand one by Canaanite standards. Its capital covered 52 acres and was heavily fortified. Large donkey caravans converged on the city from Syria, Mesopotamia, and Anatolia to exchange goods with merchants from Canaan and Egypt as well as the maritime traders who arrived by ship from Crete, Cyprus, and the Aegean. The city

functioned as a great bazaar. Ten languages and five different scripts were used at Ugarit, which walked a political tightrope between the Egyptians and the Hittites; there are bilingual Ugaritic cuneiform-Hittite hieroglyphic inscriptions.

The dominant script of the kingdom appears to have been Akkadian cuneiform, at least to begin with. (Akkad was an important late-3rd-millennium kingdom of north-central Mesopotamia near Baghdad; Akkadian cuneiform predates the cuneiform used to write Babylonian and Assyrian, which were dialects of Akkadian.) But then someone in Ugarit, or some group – perhaps senior merchants? – decided, it seems, that Akkadian cuneiform was too cumbersome and unreliable a system for writing the city’s native tongue. Instead, the idea of an alphabet was introduced, presumably imported from southern Canaan (the land of the proto-Canaanite inscriptions), though there is no evidence for this. Rather than adopting or adapting a small set of pictographic or quasi-pictographic signs, however, the people of Ugarit were conservative: they decided to write their new alphabet in cuneiform. The signs they invented, some 30 in all, bore no resemblance to the signs of Akkadian cuneiform – other than being wedge-shaped – just as the signs of Old Persian cuneiform invented under Darius bear no resemblance to those of Babylonian cuneiform.

Over 1,000 tablets in Ugaritic cuneiform have been discovered since 1929, and they were rapidly deciphered. They consist of administrative texts – commercial correspondence, tax accounts, and other governmental business records – written with 30 signs, and literary and religious texts written with only 27 signs. The latter bear striking similarities, in theme and even in phrasing, to stories from parts of the Old Testament. It seems that these biblical stories were written down many centuries before they were written in Hebrew.

How did the Ugaritic inventor(s) decide on the shapes of the signs and their order? Most likely the simplest signs were applied to the

most frequently heard sounds. The order of the signs was probably adopted from that of the proto-Canaanite alphabet (the order of which is admittedly unknown). We can guess this from the fact that some of the Ugaritic tablets are ‘abecedaries’, that is, they list the signs in the cuneiform script in a fixed order that quite closely resembles the modern order (a, b, c, d, etc.) we use nearly 3,500 years later. Another tablet (broken), discovered only in 1955, goes even further. It lists the Ugaritic cuneiform signs in the same fixed order on the left and adds next to each sign its Akkadian cuneiform syllabic equivalent on the right. The tablet is in fact a school tablet: we can imagine some unfortunate child from Ugarit in the last centuries of the 2nd millennium BC labouring over the approximately 600 Akkadian signs and wondering why anyone should want to write in Akkadian script when a simple alphabetic alternative was available.

## The Phoenician letters

There is no clear line of descent from the proto-Canaanite inscriptions of the first half of the 2nd millennium BC to the relatively stable, 22-letter alphabetic script written by the Phoenicians from about 1000 BC, the forerunner of the Hebrew script and the Greek alphabet. Ugarit and its cuneiform alphabet seem to have been wiped out around 1200 BC by the influx of the Sea Peoples. Another Canaanite experiment in creating a script took place on the coast south of Ugarit, at Byblos, some time during the 2nd millennium (the date is very uncertain). The Byblos script has been called ‘pseudo-hieroglyphic’, implying that it was influenced by Egyptian hieroglyphic. While this is quite possible, there is no certainty, and some of the signs resemble Linear A from Crete, an equally likely candidate as an influence. At any rate, the Byblos ‘pseudo-hieroglyphs’ are undeciphered; all that can be said for sure is there are about 120 distinct signs, and hence the script cannot be an alphabet. It seems to have had no effect on the subsequent Phoenician script.

Yet another early inscription from what is now Israel, an ostrakon (inscribed potsherd) dating from about the 12th century BC, suggests that the alphabetic idea was catching on. It has more than 80 letters in five lines written by an unskilled hand, and appears to be a rather unsuccessful attempt by a semi-literate person at writing an abecedary, which after some letters degenerated into a collection of random signs without meaning.

The earliest recognizably Phoenician inscriptions come from Byblos. They date from the 11th century BC, and inaugurate a script that would continue to be written all around the Mediterranean for the next millennium and more. Its latest variant, found at Carthage, the Phoenician city on the coast of north Africa near modern Tunis, is known as the Punic script. Punic influenced the script of the ancient Libyans – there are Punic-Libyan bilingual inscriptions from the 2nd century – who were the progenitors of the Berbers, the current indigenous inhabitants of northern Africa. This Libyan script provided a prototype for Tifinagh, meaning ‘characters’, the alphabet used today by the Tuareg, a Berber tribe. (Most languages in Africa are written either in the Arabic script, like Swahili, or in the Roman alphabet, with a mere handful of other indigenous scripts, notably the 1820s Vai syllabary of Liberia.)

The Phoenicians were the ancient world’s greatest traders, who set out from their city-states, such as Byblos, Sidon, and Tyre, explored the Mediterranean and the Atlantic coast and may even have circumnavigated Africa, more than 2,000 years before the Portuguese. Among their most important items of merchandise was the purple dye exuded by the ‘murex’ snail, indeed ‘Phoenician’ is a Greek word (first used in Homer’s *Iliad*), thought to mean ‘dealer in purple’. We do not know a great deal about the Phoenicians, compared with the ancient Egyptians and Greeks, because they left few records and almost no literature, but we can tell from their inscriptions that their script went with them wherever they ventured. The names of their 22 letters – which

begin with ‘aleph’, ‘beth’, ‘gimel’, and ‘daleth’ – were the same as those used by the Hebrews and in today’s Hebrew script. The Phoenicians indicated no vowels, only consonants. If we apply their venerable alphabet to one of the earliest Phoenician inscriptions – inscribed in the 11th century on the impressive sarcophagus of King Ahiiram of Byblos – we receive the following somewhat sinister warning: ‘Beware! Behold [there is] disaster for you down here.’

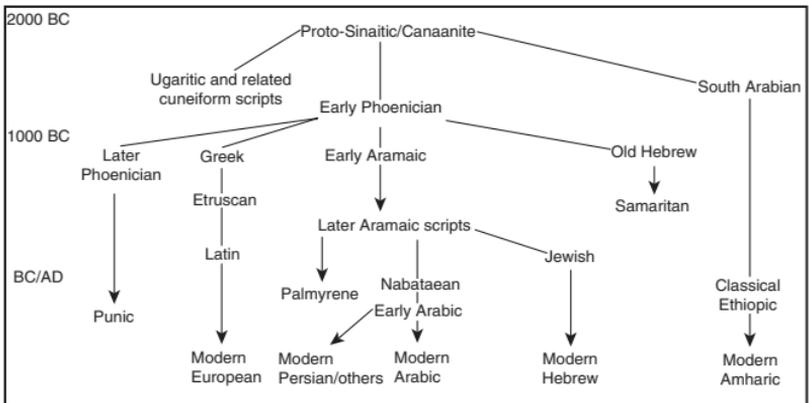
## The family of alphabets

From its unclear origins, probably among the Canaanites, writing employing the alphabetic principle spread. It moved westwards, via Greek and Etruscan, to the Romans and thence to modern Europe; eastwards, via Aramaic in all probability, to India and thence to Southeast Asia – assuming that we regard the Indian scripts as alphabets (a classification we have already questioned). By the 20th century, as a consequence of the colonial empires, most of the world’s peoples except the Chinese and Japanese were writing in alphabetic scripts. The majority of alphabets use between 20 and 40 basic signs, as mentioned earlier, but a few have less and several have more than these figures. Rotokas, the alphabet of a language spoken by about 4,000 people on the island of Bougainville in Papua New Guinea, has only 12 letters. The Khmer alphabet of Cambodia used at Angkor Wat, a script of Indian origin, has perhaps 74 signs, of which 33 are consonant symbols, the rest being part of an unusually complex vowel system.

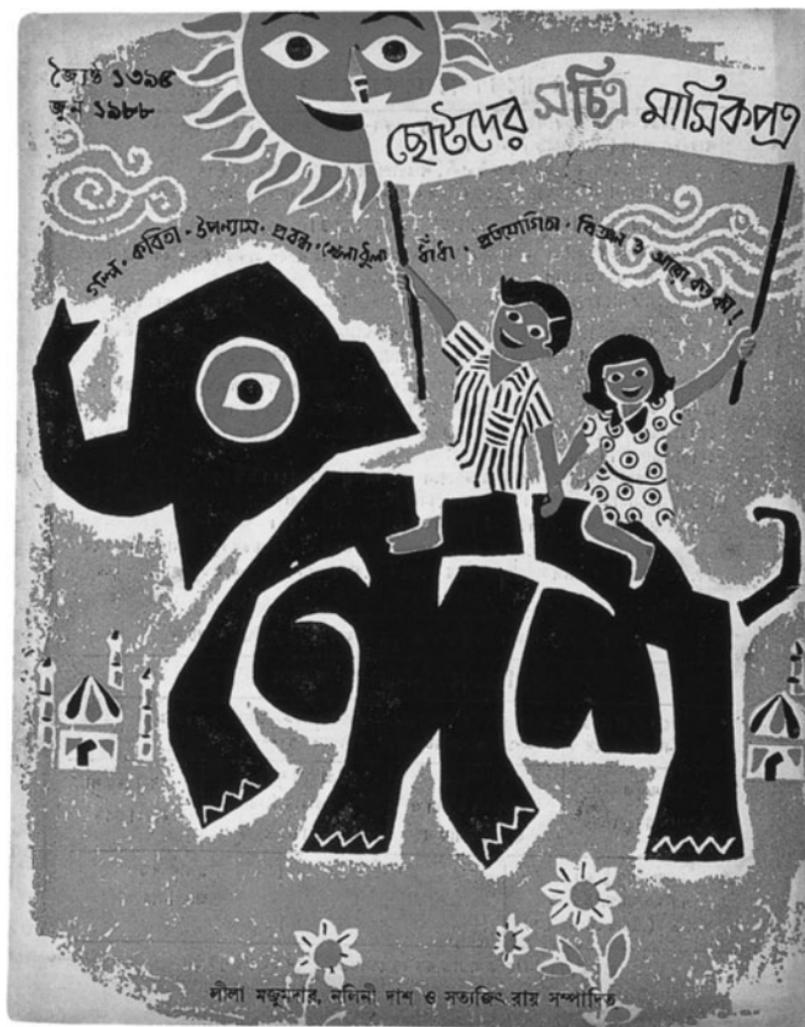
The Etruscans, who passed the Greek alphabet to the Romans, inscribed many objects with their alphabet. One striking example, a black vase or inkwell in the shape of a striding rooster inscribed with a white alphabet, dates from the late 7th century BC. In Mesopotamia, by the 5th century BC, many cuneiform documents carried a notation of their substance in the Aramaic alphabet,

inked onto the clay tablet with a brush. From the time of Alexander the Great, cuneiform and Egyptian hieroglyphic were increasingly superseded by the Aramaic and Greek alphabets. In Egypt, by the 4th century AD, the Coptic alphabet had supplanted hieroglyphic and demotic.

The time chart below shows how some key modern alphabetic scripts emerged from the proto-Sinaitic/Canaanite scripts. It does not include the Indian scripts, since their connection with Aramaic is problematic and, strictly speaking, only partially proven. Nor does it show later alphabetic scripts such as the Cyrillic alphabet, the Korean Hangul alphabet or the Tifinagh alphabet of the Tuareg. It also omits the carved runes of northern Europe (especially Scandinavia) and the oghams of ancient Scotland and Ireland, since their origins are not known, although the runic alphabet, which dates from the 2nd century AD or earlier, was clearly influenced by the Roman alphabet. Lastly, it omits the so-called Cherokee ‘alphabet’, invented in the United States in 1821 by the Cherokee warrior Sequoyah. This remarkable system, with 86 signs, is really a syllabary, not an alphabet, based largely on assigning syllabic values to the individual letters of the Roman alphabet.



**26. The evolution of the main European alphabetic scripts is well established, except for the origins of the alphabet in the first half of the 2nd millennium BC. The time-scale shown here is approximate**



27. This playful cover for a Bengali children's magazine was designed in 1988 by the film director Satyajit Ray, who was also a well-known graphic designer, illustrator, and novelist. The magazine's title is *Sandesh*, a Bengali word meaning both 'Sweetmeat' and 'News'. The head/trunk of the elephant form the Bengali consonant 's', which has an inherent vowel 'a'; the front of the body plus the second and third legs form the conjunct Bengali consonant 'nd' (made from the signs for 'n' and 'd'); the first leg is the vowel 'e', in the form of a diacritic preceding the conjunct; the back of the body and the fourth leg form the Bengali consonant 'sh'. Modern Indian scripts, though often referred to as alphabets, are really an unusual fusion of alphabet and syllabary

## The Greeks and the alphabet

The Greek historian Herodotus called the alphabet ‘phoinikeia grammata’, ‘Phoenician letters’; they were brought to Greece, he said, by the legendary Kadmos. Some 2500 years later, we are not much further forward in accounting for the origin of the Greek alphabet. Every scholar agrees that the Greeks borrowed the alphabet from the Phoenicians, but most now think this occurred among Greeks living in Phoenicia (a region of Canaan), from where it spread to the mother country.

We can perhaps visualize a Greek merchant sitting with a Phoenician teacher and copying down the signs and sounds, as the Phoenician pronounced each sign. The scope for distortion was considerable, because the ‘barbarous’ Phoenician letter names would not have rolled naturally off the Greek tongue. Consider how the untrained English ear cannot distinguish between ‘rue’ (street) and ‘roux’ (reddish) in French. Every language offers many similar examples. (Diego de Landa’s Mayan ‘alphabet’ is a good one.) So, Phoenician ‘aleph’ (ox) became ‘alpha’ in Greek, ‘beth’ (house) became ‘beta’, ‘gimel’ (throwstick) became ‘gamma’, and so on. In the process, the names became meaningless (as they have in ‘alphabet’). The 22 Phoenician consonants were adopted as Greek consonants *and* vowels, and a few new signs were added, which vary from place to place in Greece, creating several varieties of Greek alphabet. Although the introduction of vowels appears to be a major innovation, it seems to have occurred not because the Greek adapter intended it but because he could find no other way of transferring a particular Phoenician consonant into Greek. The consonants in question are ‘weak’, sometimes known as semivowels. Thus ‘aleph’, the weak consonantal glottal stop pronounced like a coughed *ah*, sounded to Greek ears like a funny way of saying *a*.

There are two major difficulties in deciding the date of invention of the Greek alphabet. First, the earliest known mainland alphabetic

Phoenician	Name	Phonetic value	Early Greek	Classical Greek	Name
𐤀	aleph	<i>ʾ</i>	Α	Α	alpha
𐤁	beth	<i>b</i>	Β	Β	beta
𐤂	gimel	<i>g</i>	Γ	Γ	gamma
𐤃	daleth	<i>d</i>	Δ	Δ	delta
𐤄	he	<i>h</i>	Ε	Ε	epsilon
𐤅	waw	<i>w</i>	Ϝ		digamma
𐤆	zayin	<i>z</i>	Ζ	Ζ	zeta
𐤇	ḥeth	<i>ḥ</i>	Η	Η	eta
𐤈	teth	<i>t</i>	Θ	Θ	theta
𐤉	yod	<i>y</i>	Ι	Ι	iota
𐤊	kaph	<i>k</i>	Κ	Κ	kappa
𐤋	lamed	<i>l</i>	Λ	Λ	lambda
𐤌	mem	<i>m</i>	Μ	Μ	mu
𐤍	nun	<i>n</i>	Ν	Ν	nu
𐤎	samekh	<i>s</i>			xi
𐤏	ayin	<i>ʿ</i>	Ο	Ο	omicron
𐤐	pe	<i>p</i>	Π	Π	pi
𐤑	sade	<i>s</i>	Ρ		san
𐤒	qoph	<i>q</i>	Φ		qoppa
𐤓	reš	<i>r</i>	Ρ	Ρ	rho
𐤔	šin	<i>sh/s</i>	Σ	Σ	sigma
𐤕	taw	<i>t</i>	Χ		tau
				Υ	upsilon
				Χ	chi
				Ω	omega

28. The Greeks borrowed their letter forms and many of the names of their letters from the established Phoenician script, for example 'alpha'/'aleph', 'kappa'/'kaph'

inscription dates from only around 730 BC. Second, there are no known practical or business documents for over 200 years after the appearance of the alphabet.

Before the decipherment of Linear B in 1952, the Greeks were regarded as illiterate until the arrival of the alphabet. Since the decipherment, it has been conventional to imagine a 'Dark Age' of illiteracy in Greece between the fall of the Homeric Greeks and the rise of the classical Greeks after, say, 800 BC. This is still the orthodox view. Some scholars, however, believe that the Dark Age is a fiction, and that the Greeks had knowledge of alphabetic writing much earlier than the 8th century BC, perhaps as early as 1100 BC. A principal piece of evidence in favour of this theory is that the direction of early Greek inscriptions is unstable: sometimes they run from right to left, sometimes from left to right, sometimes boustrophedon. But the direction of Phoenician writing, itself unstable prior to about 1050 BC, *was* stable, from right to left, probably by 800 BC. So, the argument goes, the Greeks must have borrowed the Phoenician script in the earlier phase of its development, not after it had settled down.

The date of the invention – anywhere between 1100 and 800 BC – is therefore controversial. The issue is likely to be resolved only by the discovery of Greek alphabetic inscriptions prior to the 8th century BC (as happened with Linear B at Knossos in 1900).

Even more controversial is *why* the alphabetic script suddenly appeared. It is certainly extraordinary that there are no economic documents at all among the early Greek inscriptions. Instead the early alphabet users from all parts of Greece display private, almost literary concerns; the above-mentioned inscription of 730 BC, written on a vase, which was probably a prize, refers to 'him who dances most delicately'. If economic inscriptions once existed on impermanent materials and simply perished, why does no trace of them remain, not even on potsherds?

One solution to the conundrum, seriously considered, is that the inventor of the alphabet was a brilliant contemporary of Homer who was inspired to record his epics. The vowelless Phoenician system proved useless for the task of writing epic verse, so a new writing system with vowels and rhythmic subtlety was needed. Though there are good grounds for this theory, it is surely likely that knowledge of such a feat would have been preserved by the Greeks themselves. But – sad to say for romantics – there is no hint in Greek tradition that Homer and the origin of the alphabet are connected.

## The Greek and Latin letters

There was more than one alphabet in ancient Greece, as already mentioned. The alphabetic signs of classical Greece, which are still in use in Greece, are known as the Ionian alphabet. They did not become compulsory in Athenian documents until 403–402 BC. Long before this, Greek colonists had taken a somewhat different script, the Euboean alphabet, to Italy. This was the alphabet taken over by the Etruscans, with some modifications, and then adopted by the Romans.

The reason why modern European and modern Greek letter forms differ can therefore be traced to the use of the Euboean alphabet in Italy from around 750 BC. For instance, the letters A and B descend from the same signs in both the Euboean and Ionian alphabets, while C and D descend from the Euboean forms  $\zeta$  and  $\delta$ , which differ from the Ionian forms preserved in the modern Greek letters  $\tau$  and  $\Delta$ .

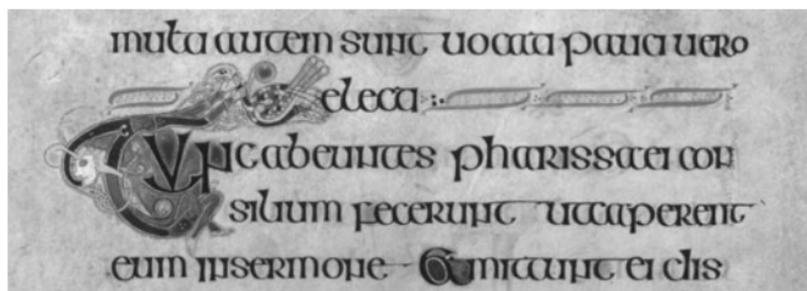
As an example of Etruscan and Roman modification, consider the Euboean gamma. Etruscan had no need of a sign for the voiced stop  $g$ , and so  $\zeta$  took the phonetic value  $k$ . This meant that *three* Etruscan signs were used to write  $k$  (as in English ‘think’): one sign before  $a$  ( $ka$ ), a second sign before  $e$  and  $i$  ( $ke$ ,  $ki$ ), a third before  $u$  ( $ku$ ). Latin spelling initially adopted this system, but since the

Latin language (unlike Etruscan) did have the voiced stop *g*, the early Latin letter ‘C’ could be pronounced either as *k* (as in Caesar pronounced *Kaisar*) or as *g* (as in Caius pronounced *Gaius*); later, the Romans introduced a new letter G, to disambiguate this phonetic distinction.

The Roman/Latin script was modified slightly in turn, on the way to becoming its modern English equivalent. There were four sounds in Anglo-Saxon for which there were no counterparts in Latin:

1. /w/ came to be written with a runic symbol *ƿ* known as wynn. In Middle English, this was replaced by ‘uu’ or ‘w’; it is rarely found after 1300.
2. /θ/ and /ð/ – as in modern English ‘thin’ and ‘this’ – came to be written by a runic symbol known as ‘thorn’, *þ*. To this was later added the symbol *ð*, which was called ‘eth’. In Middle English both letters were replaced by ‘th’. But *þ* has survived in the ‘Y’ (standing for ‘Th’) of the artificial modern form ‘Ye Olde English Tea Shoppe’.
3. /a/ – as in modern English ‘hat’ – was represented using the Latin digraph *æ*, which came to be called ‘ash’, after the name of the runic symbol representing the same sound. In Middle English this too had fallen out of use, probably as a result of sound changes.

In Eastern Europe, the Cyrillic alphabet, today used to write Russian, became the script for more than 60 languages. It originally had 43 letters, the majority of which appear to have been derived from the Greek scripts of the time. Its inventor was alleged to be St Cyril (c. 827–69), who was entrusted with the mission by the Byzantine emperor Constantine at the request of the Slav king of Moravia; the king wanted a script that was independent of the Roman church, which recognized only the Hebrew, Greek, and Latin scripts for the Bible. This is the legend. In fact, Cyril seems to have devised the Glagolitic alphabet; the Cyrillic script was created later. Cyrillic eventually replaced Glagolitic in the 12th century.



29. This detail is from the Book of Kells, which dates from before AD 807. Kept at Trinity College Library, Dublin, the manuscript records the Gospels in the so-called Insular script developed by Irish monks from the uncial script used in official Roman documents of the 3rd century AD onwards (Latin '*litterae unciales*' means 'inch-high letters'). Each monastery developed its own characteristic variant of uncials

## Runes

From as far back as the 2nd century AD, runic symbols carved in stone, metal, and wood were used to record the early stages of the languages Gothic, Danish, Swedish, Norwegian, English, Frisian, and Frankish, and the various tribal tongues of central Germania. These peoples were therefore not illiterate, as sometimes thought, before the period when they became Christian and began to use the Roman alphabet.

We do not know where and when runes were invented. Finds of early rune-inscribed objects in Eastern Europe, at Pietroassa in Romania, Dahmsdorf in central Germany, and Kowel in Russia, indicates that runes may have been invented in that general area, perhaps by Goths on the Danube frontier or beside the River Vistula. Another hypothesis notes the resemblance between the runes and characters used in the inscriptions of the Alpine valleys of southern Switzerland and northern Italy and goes on to ascribe the invention to Romanized Germani from that area. A third hypothesis prefers one of the Germanic tribes of Denmark, perhaps southern Jutland, as the progenitors of runes; many of the earliest

inscriptions come from this general area, and early runic texts continue to be found in various regions of Denmark. But on one point all scholars of runes agree: the Roman alphabet exercised influence of some kind on the runic script.

The runic alphabet has 24 letters, arranged in a peculiar order known as the 'futhork' after its first six letters. The script can be written from left to right, right to left, or even boustrophedon, in the early period. An individual letter could also be reversed on occasions, apparently at whim, and might even be inverted. There was no distinction between capital and lower-case letters.

Some of the runic letters are obviously related to the letters of the Roman alphabet 'R', 'I', and 'B'. Others could well be adaptations of Roman letters, notably 'F', 'U' (Roman V inverted), 'K' (Roman C), 'H', 'S', 'T', 'L' (Roman L inverted). But other runes, such as those representing *g*, *w*, *j*, and *p*, scarcely resemble Roman forms with the same phonetic value.

Even though runic inscriptions can usually be 'read' – in the same sense as Etruscan inscriptions – their meaning is frequently cryptic, because of our lack of knowledge of the early Germanic languages. Hence the origin of the English expression 'to read the runes' – meaning to make an educated guess on the basis of scanty and ambiguous evidence. As a scholar of runes, R. I. Page, has ironically remarked, the First Law of Runodynamics is 'that for every inscription there shall be as many interpretations as there are scholars working on it.'