

QUATERNARY GEOLOGY

b1 Historical time and prehistory < writing >

It is not good that these stories are forgotten. Friends, you are telling them from mouth to ear, and when your old men die they will be forgotten. It is good that you should have a box in which your laws and your stories are kept. My friend, George Hunt, will show you a box in which some of your stories will be kept. It is a book that I have written on what I saw and heard when I was with you two years ago. It is a good book, for in it are your laws and your stories. Now they will not be forgotten.

—excerpt of “Papa” Franz Uri Boas’s letter to the Kwakiutl Indians of British Columbia, April 1897.¹

‘... You have found a specific [writing], not for memory but for reminiscence, and you give your disciples only the pretence of wisdom; they will be hearers of many things and will have learned nothing; they will appear to be omniscient and will generally know nothing; they will be tiresome, having the reputation of knowledge without the reality.’ —Socrates (objecting to written monologues) in Plato’s *Phaedrus*.²

The *Smithsonian Reports*, 1864, tell a story of an Indian who was sent by a missionary to a colleague with four loaves of bread, accompanied by a letter stating their number. The Indian ate one of the loaves, and was of course, found out. He was sent on a similar errand and repeated the theft, but took the precaution to hide the letter under a stone while he was eating the bread, so that it might not see him!³

Thereby this seventh-century B.C. King [Josiah] could nullify the transgressions of Solomon and restore the glorious past that never was but can be. —Phyllis Tribble.⁴

In human affairs there is a distinction between historical time and prehistory. In our present culture, history is the written record of sequential, real, individual but interrelated events.

Writing (script) is an invention that has occurred in several cultures at different times. A word (or its contained syllables) can be transcribed by a glyph (a carved or inscribed pictogram or character) that serves to represent its meaning irrespective of its sound.

Mayan script appeared between 200 and 300 BC in Mesoamerica.⁵ This most recent appearance of script enabled the Maya to write descriptions of historical events and place these within their already evolved complex calendar system. Possibly younger, but undated, is *rongorongong*,⁶ the writing of the vanished Moas who erected monumental statues on Rapa Nui, christened “Oster Eilandt” (Easter Island) by Dutch explorer Jacob Roggeveen who arrived on Easter Day, 1722. Created in extreme isolation, their five hundred different signs on wooden writing boards (fresh when discovered in 1722) remained undeciphered until a way of classifying the glyphs was found by Sergei V. Rjabchikov to allow, since 1987, for the reading of some Rongorongong records.⁷

The existing, and now computer keyable, Chinese characters have some hardly changed for 3000 years. Indeed, the single set of characters used to represent all the dialects throughout the Chinese empire allowed for unified administration.⁸ However, evolved and miscopied forms, be they cuneiform, hieroglyph, or character, tend to become phonetic and so become an alphabet. The transition can be conscious, as in the early 1950s when in China to cope with 20th century needs, a phonetic alphabet, *Pinyin*, was introduced to supplement the traditional characters. All school children in mainland China now learn pinyin.

An alphabet transcribes sounds.

Letters that show the position taken by the vocal organs in articulating the sounds was a triumph of Korea’s Hankul script designed in the fifteenth century AD.

Our 26 letter Latin alphabet dates back to the High Middle Ages, and is poor for the fact that most languages have some 40 distinct phonemes (speech-sounds). Other alphabets skimp even more on symbols by omitting vowels. Arabic alphabetized script was in existence by AD 650 when the Koran was transcribed into it. In it marks and accents indicate the vowels. Transliteration to alphabets with

vowels in then spurious. For example, for the Arabic collective noun for “holy warriors,” correct are *mujahadeen*, *mujahadin* (The Library of Congress spelling), *mujabideen*, *mujahadein*, *mujahedein* (*The Times* spelling), and *mujahidin*.⁹ Other consonant-only alphabets, suitable for Semitic languages, had long been in existence: Aramaic, and Hebrew. The ancient Greeks invented their alphabet some time in the 9th century BC when a writing system they had used for a millennium fell out of use following the Dorian invasions. The high proportion of vowel sounds in Greek required innovative borrowing of consonant signs from other alphabets to transcribe the vowels: *a*, *e*, *o*, *y*.

The value of script is that it can be used to transcribe languages of no clear relation to the one for which it was originally created (less than 100 major scripts have appeared for 7000 languages). However, the fortunes of scripts, Steven Roger Fischer in *A History of Writing*, 2001, persuades, have little to do with intrinsic merit but everything to do with social prestige and political power.¹⁰

The oldest known alphabet is the vowel-omitting Phoenician alphabet which, tablets record, was in use at Ugarit, on the Syrian coast, in the fifteenth century BC. Ugaritic writing had 30 signs constructed on a minimalist scheme to be quick to draw and having the quickest to draw assigned (it is assumed) to the most frequent sounds.¹⁴

In China, royalty employed the earliest known Chinese writing, dating to the 16th century BC, for a different purpose: as a technique to foretell future events and discern meanings of omens.

In Egypt, writing on papyri and inscriptions on stone assumed two forms: demotic (abstract signs) native script for daily purposes (**Figure b1.2**) and hieroglyphic (picture signs independently invented about 3200 BC)¹¹ appropriate to temples and eternity (readable again due to Jean-François Champollion’s (1790-1832) study of a Ptolemaic Period (330–332 BC) proclamation in hieroglyphic, demotic, and ancient Greek (the then language of the administration) inscribed on the Rosetta Stone).

Cuneiform writing, using a reed stylus to impress in wet clay (sometimes ink on papyrus) its wedge-shaped symbols (a total of some 400 hundred were devised), survived in the astronomy/astrology niche until AD 75 (this latest example is a Babylon astronomical tablet).¹² Forgotten but made readable again principally by Henry Creswicke Rawlinson’s (1810-1895) study of the Behistun rock inscriptions, Cuneiform had spread during the 1st millennium BC to as far south as Palestine and as far north as Armenia (where it recorded Canaanite and Urartian affairs respectively) from where Hittites of Anatolia (present-day Turkey) at the height of their power 1200-1400 BC had adopted a simplified cuneiform syllabary from that which beginning about 3300 BC recorded the (by then no longer spoken) Sumerian language of Mesopotamia (now Iraq). Lamented in the Boghazkoi inscription, Anatolia, is the loss of the Vedic Soma principle (which was likely, Mott Greene finds, “the potent hallucinogen available from grains infected by ergot fungus, and safe when the celebrant crushes the Soma, catches the liquid, filters it through a woolen sieve to catch any plant fragments, and then drinks it.”)¹³

In the Near East, incised lines and other markings had proliferated on tokens, coinciding with the beginnings of state bureaucracy in the region, as was so for the Harappan (**Figure b1.1**). Such scripts, the earliest date to around 3,300 BC, have resisted thorough translation because they contain few symbols corresponding to speech sounds.

Proto-script wedge-shaped cuneiform signs dating from 6000, to possibly as far back as 10,000 years old, reviewed by Denise Schmandt-Besserat in 1990 served in western Asia as counting devices to tally and keep track of goods for prehistoric farmers in Mesopotamia (the area between the Euphrates on which the first cities of Ur and Uruk came to stand, and the Tigris rivers).¹⁵ Pierre Amiet in 1966 had described a progression in accountancy symbols on the clay tokens that advances to the clay tokens being sealed in clay envelopes, and then to a count of the contents scratched on the outside of the clay envelopes as a kind of bill of lading to guarantee against fraud.¹⁶

All this illustrates the point that the potential for the invention of writing has existed as a feature of present humanity and in the last 10,000 years has in different places been achieved, shared and also lost for a variety of reasons. Agrarian societies invent writing occasionally (Andean civilizations: the Inca (unless continued *quipu* of the Caral civilization were a form of written communication), the Aymara and earlier, as the Humboldt-current fishery based, mound-temple building, and stylized-art producing, Norte Chico, in existence 1800-2900 BC,¹⁷ did not, nor have settled populous New Guinea

highlanders who have practiced casuarinas transplanting silviculture for 600 years, agriculture domesticating taro, bananas, yams and sugarcane for 7000 years, and endless intercene bloody quarrels¹⁸) and, evidently, hunter-gathering societies (as the Hadzabe of Tanzania) have not.¹⁹

Writing invented for mundane tasks such as keeping of accounts, later allows for the emergence of numeracy²⁰ and literacy: the flowering of intellectual vistas, including logic, reason, and skepticism.

Going back in time, the written record rapidly decreases from overwhelmingly detailed and archived today (the Library of Congress alone receives some 22,000 items each working day and adds some 300,000 volumes to its collection a year) to extremely fragmentary a few thousand years ago.

From this written record, *historians* attempt to understand the modern world. Prehistorical events set the stage for this history.

Archaeology discovers the *forgotten works of humans* and so bridges between history and prehistory.

Historical geology discovers and describes the *natural events* of prehistory. Humans appeared at the last moment of that time.

For almost all of time, humans did not exist. □

Figure b1.1²¹ Sketch of steatite (soapstone) Harappan seals. Into the area of what is now the Punjab, nomadic Aryan invaders from the northeast, by destruction and assimilation of the conquered people, brought to an end, by 3,500 years ago, the advanced Harappan civilization that had come together suddenly a thousand years before.

The Harappan, or Indus, writing system is preserved as short inscriptions featuring the Humped Brahmani Bull and Pashupati (Hindu deity who is master of all living beings of the universe and now, also, a brand name for condoms) on seals and other artifacts. The script is unlike any Indian writing of later times or the mostly cuneiform scripts used in literate Bronze Age cultures of the Near East. Since the 1960s, a Finnish team has been working on the Indus script. A member of that team, Asko Parpola in his book *Deciphering the Indus Script*, 1994, explains that the successful decipherer of an unknown script must know either the language it represents or the values of its individual signs and these are unknown for the Indus script.²² (Steve Farmer wagers that it is not a script.)²³

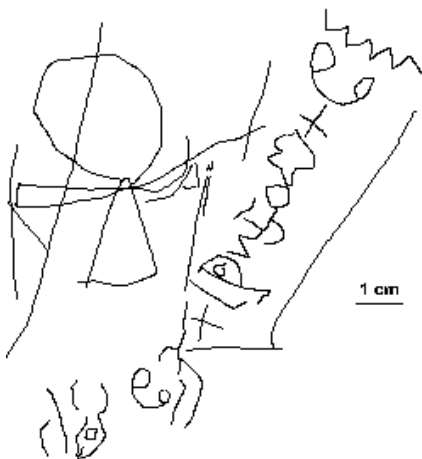


Figure b1.2²⁴ A sketch of the earliest known examples of alphabetic writing in Egypt are these limestone inscriptions (found by John Coleman Darnell in 1993) made during the first two centuries of the second millennium BC (if the nonalphabetic Middle Kingdom graffiti at this site at Wadi el-Hôl on the ancient road between Thebes and Abydos, are indeed contemporaneous). The scratched alphabet-like symbols are simplified form of the latter. Normally, years of formal education were needed to understand Egyptian pictographs. Possibly, the nascent alphabet was an expediency invented by local scribes to write the words of and for recruited foreign mercenaries.²⁵