

The Struggle for Literacy

“Reading maketh a full man,” Francis Bacon declared in 1597, “and writing an exact man.” His aphorism, penned a century and a half after Gutenberg’s creation of the printing press, expressed the West’s revived faith in the awesome power of literacy—to elevate the human mind, to uplift the citizenry, to spur progress. Today, many Americans, awash in memos and junk mail, take the written word for granted. Yet perhaps 27 million of their countrymen are “functionally illiterate.” They must strain even to decipher the warning label on a bottle of aspirin. In many other places, reading and writing remain uncommon, the printed word a mystery: Illiteracy afflicts more than 90 percent of the people in some Third World countries. Indeed, of mankind’s 3,000 spoken languages, only some 78 are written. Here, Walter A. Fairservis traces the development of writing in ancient times; Steven Lagerfeld describes the impact of literacy in the West; and David Harman examines the uneven state of reading and writing in the United States today.

FROM STICKS AND BONES

by Walter A. Fairservis

Early in 1835, Henry Creswicke Rawlinson, a young British Army officer and amateur Orientalist, stood in the shadow of a fabled mountain near the town of Bisotūn, in what is now western Iran. His superiors in London had sent him to Persia to reorganize the army of the shah; his passion for the history of ancient civilizations had brought him to the mountain.

Far above him, carved into a vertical expanse of rock 60 feet long and 23 feet high, loomed a huge bas-relief of nine men in chains being led before a king. Beneath the tableau were hundreds of lines of cuneiform inscriptions, their meaning lost to

history. Rawlinson was determined to unlock their secret.

Just copying the inscriptions into his notebook cost him years of grueling labor: crawling from toehold to toehold in the hot sunlight, dangling from ropes suspended 500 feet above the desert floor, perching on flimsy ladders lodged on narrow outcroppings of stone. When he was done, he had copies of a single inscription written in what proved to be three ancient tongues—Old Persian, Elamite, and Babylonian-Assyrian. Rawlinson already had some knowledge of Old Persian; he thought he would be able to use a translation of the Persian inscription to crack Elamite and Babylonian-Assyrian.

Making Marks

Even so, it took him another 10 years of toil to decipher the Persian cuneiform—the bas-relief, he discovered, celebrated the victories of King Darius of Persia during the sixth century B.C. Four more years passed before he made sense of Babylonian-Assyrian. He never did decode Elamite (the language of a people who lived in what is now southwestern Iran), and indeed it was only in 1890 that scholars managed to decipher parts of it. Some of its secrets remain hidden to this day.

But Rawlinson's achievement was monumental. He opened the world of ancient Mesopotamia to a 19th-century Europe newly curious about the "lost" civilizations of the past.

Rawlinson was not alone in his passion for decoding the scripts of the ancients, but the information that he and other 19th-century Europeans gleaned provided little more than a tantalizing glimpse of the cultures that produced the earliest writing. Not only did translation remain a daunting task, but written records were (and are) few, and the interpretation of other artifacts required painstaking scholarship. Only during the last 50 years has scholars' knowledge of the ancients deepened enough to allow them to draw firm conclusions about the role of writing in the rise of early civilizations.

Some scripts—the so-called Linear A and the Phaistos Disc from Crete—still defy translators. Nevertheless, from those that have been deciphered, researchers now know that the birth of civilization and the development of writing were intertwined.

Writing alone does not explain the greatness of ancient

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In the ancient world, scribes led lives of privilege and high status, indicated by the exaggerated proportions of these Egyptian scribes busily tallying a wheat harvest around 1400 B.C.

Egypt, China, or Greece. But writing always accompanied the flowering of civilizations. As the University of Chicago's Ignace J. Gelb, one of the scholars who pioneered the 20th-century study of ancient scripts, put it in 1952: "Writing exists only in a civilization and a civilization cannot exist without writing."

In recent years, archaeologists and linguists have gone beyond the old "uniformitarian" view that early writing did little more than extend the political rule of reigning elites. Instead, researchers such as C. C. Lamberg-Karlovsky of Harvard's Peabody Museum now argue that the effects of the early scripts were far more varied and complex, subtly influencing commerce, the arts, and farming, as well as government.

Man's use of graphic symbols dates back at least to the late Stone Age (between 25,000 and 12,000 B.C.), when the people of prehistoric Europe painted vivid pictures of the deer, bison, and other animals that they hunted. The paintings were in part the expression of an animistic faith: Prehistoric man hoped that he could influence the hunt by symbolizing his prey. This notion that symbols can affect the life of what is represented has endured. To this day, for example, certain groups in India have no word for the cobra, a threat in everyday life, because they fear

that creating the word may conjure up the thing itself.

A new array of symbols was added to the old as prehistoric man increasingly took to settled farming and livestock herding after about 8000 B.C. One reason was the need to keep accounts. By the late Stone Age, it had become common practice to notch sticks and bones to record the passing of days and months and the number of animals claimed in the hunt. With the development of sedentary village life the emphasis changed to recording the number of sheep or goats in a flock or the amount of grain held in storage. Often, easily counted tokens were used. As the new way of life increased the importance of private property, incised or painted marks and various kinds of stamps appeared as a way of marking one's possessions. Always prey to the vicissitudes of nature, farmers created symbols for the supernatural forces that governed rainfall, fertility, earth, and water.

Not all the new farming cultures used symbols for all these categories, but the practice was widespread, particularly in the Near East, Egypt, southeastern Europe, the Indo-Iranian borderlands, and probably northern China. These were the places where the earliest civilizations took root.

The first was probably Sumeria, which emerged in ancient Mesopotamia beginning around 3200 B.C. At the heart of the Sumerian world were its cities, strategically positioned where tributaries flowed into the great Tigris and Euphrates rivers. These waterways, augmented by canals, fed the cities' outlying fields of wheat, barley, and oats. But Mesopotamia was in the end a desert land flanked by the mountains of the Iranian Plateau and the arid wastes of the Arabian deserts, and the Sumerians were beset by unpredictable cycles of drought and plenty.

Hammurabi's Laws

The precariousness of their existence, compounded by the scarcity of stone, metal, and wood within their realm, made the Sumerians the ancient world's premier traders. Notched sticks and other devices were no longer sophisticated enough for keeping records of rates of exchange, past transactions, and inventories. Thus, after a period of evolution, Sumerian cuneiform writing made its appearance around 3100 B.C. ("Cunei" were the wedge-shaped marks that the Sumerians incised in soft clay tablets, which were then baked.)

But another concern spurred the creation of cuneiform, one that led the Sumerians to make an enduring contribution to civilization itself. Vulnerable to nature, to enemies near and far, and to turmoil in their own cities, the Sumerians realized that they would never survive without a formal system of regulation

The Phaistos Disc, discovered in a Minoan palace in 1980, has never been deciphered. Its mysterious figures, houses, and plants are unlike anything in other writing from ancient Crete. Some scholars speculate that the disc is a game piece of some kind, the figures meaningless.



and control. Their solution was to create a system of laws.

Sumerian philosophers were aware that nature itself seemed to be controlled by laws of regularity: sunrise, sunset; dry season, wet season; death and rebirth. In addition, there seemed to be “functional” laws: birds flew, plows plowed, soldiers fought. Violation of these laws created disorder. Beginning about 2600 B.C., the Sumerians promulgated a series of very specific written laws, which are preserved in the code of the Babylonian king Hammurabi (1792–50 B.C.), the successor to the Sumerian kings. The Code of Hammurabi touched on nearly every realm of human activity, specifying, for example, the rights of women and war veterans, the responsibilities of city architects, and the legal rights of slaves.

Literacy at first was probably confined to Sumeria’s temple scribes, but it seems likely that aristocrats and merchants also learned to read and write. The Sumerians established schools with regular hours and a full complement of teachers and teachers’ assistants, offering instruction that went well beyond writing, to geography, astronomy, law, ethics, and perhaps other languages. A culturally sophisticated people, the Sumerians used writing not only for practical purposes but for narrative histories and commentaries on the human condition.

The exigencies of existence led some to profound speculations on the meaning of life itself, expressed in such Sumerian writings as the *Epic of Gilgamesh*, in which a hero-king vainly seeks immortality. Such writings survive—and will probably turn out to be the largest cache of surviving documents of any of the ancient civilizations—because they were written on virtually

imperishable clay tablets.

If the Sumerian world view was pervaded by pessimism, a sense of helplessness in the face of nature's unpredictability, the Egyptians, living some 1,000 miles to the west in the fertile Nile River valley, were generally optimistic. Long before the first great Pyramids were built, the Egyptians believed that death was simply another form of existence, not an end, and thus that a person's name was a label for all time. By the time King Narmer unified ancient Egypt around 3100 B.C., kings and nobles were concerned that their names be represented not only by artifacts left in their tombs, as in the past, but by writing. "Thy name shall endure" is one of Egypt's most ancient epithets.

As the Pharaohs consolidated the Egyptian state, implanting the fundamental belief that the Pharaohs themselves were gods, Egyptian writing became almost entirely a priestly function. It was not that the scribes were priests, but that their writing served priestly, as well as secular, purposes. Because much of the writing that survives has to do with religion, the script is called hieroglyphic (sacred writing).^{*} The Egyptians referred to it as "God's writing." This formal script of "beauty, dignity, and above all, permanence," as British ethnologist Albertine Guar described it, was part of the symbolism that held Egypt together.



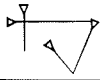
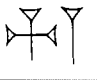







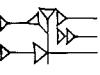


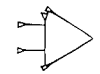
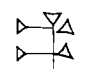
Inventing the Alphabet

Egypt's scribes also developed two cursive forms of writing (hieratic and, later, an even more abbreviated form called demotic), usually brushed onto papyrus, that were used as a kind of shorthand in the day-to-day business of an empire.

By creating a system of signs with specific meanings, the Egyptians made ordinary messages, religious statements, and the Pharaohs' directives as readily understood in the southern reaches of their empire in the Sudan as on the shores of the Mediterranean. Without writing, it is doubtful that the Egypt of the Pharaohs would have endured over the centuries. Yet, because the Egyptians restricted literacy to a scribal class, hieroglyphic writing perished with the old Egypt some four centuries after the birth of Christ.

In China, religious beliefs nurtured early writing, just as they had in Egypt. Almost as far back as settled life can be traced in China, the Chinese were conscious of their social relationships. Each individual's identity was linked to his social class, his extended family, and quite likely his lineage. Systematic Chi-

^{*} Egyptian hieroglyphs make up a so-called logo-syllabic system that has three elements: ideograms, which are pictures of the things referred to; phonograms, which stand for consonants (there are no vowels in Egyptian writing); and determinatives, which clarify the meaning of the glyphs.

BIRD				
FISH				
DONKEY				
OX				

Sumerian cuneiform, like most scripts, began as a series of pictures. During a millennium of evolution, signs came to signify sounds instead of objects; images, pared down and tilted, became more abstract.

nese "ideographic" writing (in which each word is represented by a pictorial sign) was probably created during northern China's Shang dynasty during the second millennium B.C. Ideographs were commonly used to record names, lineage, and ownership, but one of its most important uses was in "oracle writing." It was unthinkable to embark on an important endeavor without first seeking guidance from the ancestral gods. Shang kings and nobles consulted them through diviners, who drilled holes in animal shoulder bones or turtle shells and then heated them over a fire. The resulting cracks were read as divine statements and recorded by scribes on the bone or shell.

Chinese writing had existed before the Shang dynasty, but it took the invention of a series of indicators, much like the determinatives in Egyptian hieroglyphics, to make the system more efficient. Essentially, these indicators (over 200 in number) told readers how to distinguish the meaning of words that share the same ideograph and pronunciation. The indicators were developed after the Shang dynasty, but they were rooted in the picture writing concept.

Chinese ideographic writing may seem cumbersome to Westerners, but it had (and has) one great strength: A word might be pronounced differently in Shantung, the birthplace of Confucius, than in Kansu to the west, but it was always "spelled" the same way, using the same ideogram.* Written Chinese thus united a dispersed people who spoke several different dialects.

Other societies besides those of Sumeria, Egypt, and China invented their own forms of writing: By 1400 B.C., for example, the merchant princes of Crete and Mycenae were using Linear B

*Some 50,000 ideographs exist in written Chinese, but only about 3,500 are in everyday use.

to create commercial and governmental archives. Across the Atlantic, the Maya were using glyphs by the fifth century and the Aztecs were using a form of picture writing nine or so centuries later. But in the Old World, with the exception of Chinese ideographs, virtually all of the writing systems that had survived slowly died out after the invention of a markedly more efficient writing system, the alphabet.

Scholars generally credit the creation of the alphabet to the Phoenicians, the merchant seamen of the eastern Mediterranean, who had in turn derived some of *their* signs from Egyptian hieroglyphs. The Greeks then adopted the Phoenician system's consonants and added the crucial missing element: vowels. Greek, like all the Indo-European languages that came after it, changed the meaning of words by changing vowels. (In English, for example, "man" becomes "men.") An alphabet made learning to read and write breathtakingly simple. Instead of using hundreds or even thousands of symbols, each standing for a specific object, word, or idea, the alphabet equated a scant handful of signs with the sounds of speech.

The Romance of Writing

The Greek alphabet may have been in the making before the time of Homer (who probably lived during the ninth or eighth century B.C.). Already in love with rhetoric and the spoken word, the Greeks became a highly literate people. A grave insult among ordinary Athenians of the fifth century B.C. was to say of a man: "He can't read, he can't swim."

"Cadmus, the legendary inventor of the alphabet, is said to have sown the dragon's teeth that raised a crop of warriors," writes Long Island University's Robert Pattison. "On Greek soil, the alphabet, once established, also bore a mighty crop." The results are still with us: the comedies of Aristophanes, the histories of Herodotus and Thucydides, the philosophy of Aristotle.

The alphabet proved to be at least as precious a legacy as the Greeks' great works of intellect and art. In Italy, new alphabets—amalgamations of borrowed Greek letters and indigenous signs—sprang up like weeds in a garden. Latin writing was a hybrid of Greek, Etruscan, and native letters, adapted to the Latin language, and, finally, refined to only 23 signs. Like the Greeks before them, the Romans prized literacy. At least as early as the first century B.C., they pressed reading and writing on their citizens, helping to create an empire unified by its cultural beliefs and by Rome's ability to have its written proclamations understood from the British Isles to North Africa. Polybius, who recorded the rise of Rome in the second century B.C., writes that

the army required literacy even of its lowliest soldiers. The gift of writing was so widespread that one of its curses was also common. On the walls of Pompeii and other towns, ordinary Romans freely scrawled graffiti, misspellings and all.

The writings of Virgil, Cicero, and Seneca, republican ideals, and the elements of Roman law are among the literate Romans' legacy to the West.

The spread of alphabetic systems beyond these early beginnings is a long and complex story. The Latin alphabet became the basis of the writing systems of modern Western Europe, while some of the alphabets of Eastern Europe and Russia were derived from Greek letters. By the fourth century, Greek letters had also supplanted hieroglyphs in Egypt. The generally vowelless alphabet of Aramaic, an early Semitic language common in the Levant as early as 1300 B.C., became the basis of several alphabets in India, far to the east. Arabic and Hebrew also owe much of their written character to Aramaic.

All of the ancient civilizations that created scripts, including those that lacked an alphabet, also developed a sense of themselves as superior to nonliterate cultures. Yet many societies thrived without writing: the "chieftainships" of Polynesia, the Ashanti and other tribal kingdoms of West Africa, the Indians of America's Pacific Northwest. In most cases, they developed symbols, such as the totem pole or the designs used in painting pottery, that served their purposes. The Inca of what is now Peru used a pendant of knotted cords called a *quipu* to keep an accurate census, assess taxes, and record trading transactions. Over the course of three centuries, the Inca managed to build a sizable empire, marked by elaborately terraced farms and an extensive network of well-engineered roads, which they lost only when the Spanish *conquistadores* destroyed it in 1532.

Yet writing clearly made a vast difference. The history of writing and the cultures that developed it is a romance of immense significance. The invention of writing was probably the most significant step in man's cultural evolution. Aside from its daily utility, writing has preserved long-dead tongues and the record of ancient institutions. It has preserved the history of man's triumphs and failures. It has made possible the rapid sharing of new knowledge. Above all, it is magical in its ability to bring the past alive and to allow us to imagine the future.
