

Writing - Jeff Connor-Linton

Technology and Writing

The forms of writing systems were strongly influenced by the technologies available to speech communities for making and preserving written symbols. The stylus and clay tablet approach of cuneiform led to graphemes that were combinations of wedge-shapes. The invention of paper and papyrus freed the forms which writing systems could take. Unlike carving stone or making impressions in clay tablets, writing on paper was fluid, lending itself to experimentation and adaptation.

Likewise, the logographic form of Chinese writing could not have developed as it did without the invention of paper and ink. The Chinese philosopher, Tien-Lcheu invented 'Indian Ink' in 2697 B.C.E. from a mixture of soot (for color) and the gelatin rendered from animal skins (to bind the soot to paper). The use of ink became common in China by 1200 B.C.E. Paper (made from wood fiber) was invented in China in 105 C.E., but was kept secret until about 700 C.E. Arabs trading with Japan brought paper technology to Spain in 711 A.D., but it was not widely used throughout Europe until the late 14th century. Europeans then figured out ways to cheaply mass-produced paper just in time for the printing press.

Around 3000 B.C.E (two thousand years before the Chinese invented paper), the ancient Egyptians figured out how to make scrolls from papyrus, a reed which grows along the Nile. First, papyrus stems were cut to the length required for the desired sheet size. The hard rind of the stems was removed and the soft inner pith was sliced into thin strips. These strips were laid side by side and overlapping on a piece of cloth, to the required width. More overlapping strips were laid at right angles to the first layer.

Next, a second piece of cloth was laid on top of the crisscrossing strips, and the stack was beaten for a long time with a mallet-like tool. This beating separated the individual papyrus fibers in both layers, and the starch pounded from the pith welded them together, to about the same thickness as modern writing paper. Sheets were dried and sometimes smoothed with a stone. Finally, the sheets were glued together to form a scroll. At 135 feet, the Great Harris Papyrus is the longest known scroll. (Although paper was invented by the Chinese, the word "paper" derives from Greek "papyros", which in turn derived from ancient Egyptian.)

More on Nushu

The Nushu script consists of between 500 and 1500 characters (there are many variant forms). Some characters seem to be based on embroidery patterns, but most are simplifications of *hanzi* (Chinese characters). However, unlike logographic *hanzi*, which contain both semantic and phonetic meaning, Nushu characters represent the syllables of the local dialect of Chinese, Chéngguān Túhuà. They are constructed from just four kinds of strokes—dots, horizontals, virgules and arcs—and written in vertical columns running from top to bottom and from right to left. Because each Nushu character represents a syllable, women needed to learn only several hundred characters compared to the several thousand characters needed to read and write Chinese.

During the Cultural Revolution of the 1960s, the Red Guard prosecuted women who used Nushu and burned Nushu books and artifacts. More recently, China has made an effort to preserve Nushu, training five women to be “Nushu transmitters” and teach classes in the Nushu script, but the last woman proficient in Nushu died in September, 2004, at the age of 98.



Photo Caption: The song of an 18-year-old bride, written in the Nushu script, describing the beauty of a silver and gold robe tied by an obi embroidered with a lion and a silken scroll.

There is also a 1999 documentary, by Yue-Qing Yang, entitled “Nu Shu: A Hidden Language of Women in China.”

Writing and the Afterlife

One of the most beautiful surviving papyri is the 78 feet long *Book of the Dead*, now in the British Museum in London. It includes mortuary spells and colorful illustrations, made for a high-ranking scribe who died about 1400 B.C.E. The dead were supposed to read prayers from these texts to guide them through the dangers of the underworld to paradise in the Field of Reeds.



In this section, a mummy is prepared for the tomb, protected by Anubis, jackal-headed guide of the dead. Two women pat dirt on their heads, a sign of mourning. Behind them two priests prepare to perform the "opening of the mouth", a ceremony to allow the mummy to see, breathe, eat and drink in the afterlife.

Pronouncing Egyptian

Egyptian hieroglyphics were a blend of logograms (representing morphemes), phonograms (representing one, two or three consonants), and determinatives (semantic classifiers). We don't know how most Egyptian words were pronounced because, like Arabic, vowels were not represented in writing. Because it is difficult to pronounce a string of consonants without any vowels, archaeologists made up vowels for many Egyptian words (using very simple and arbitrary rules) and those vowels then were written into the Latin alphabetic transcriptions. Many people nowadays (erroneously) think this is how Egyptian words were pronounced. From cuneiform tablets of the time (which record entire syllables including vowels), we know that the pharaoh named in the



cartouche and known today as Ramses was probably called something like [riamesesa]. The Sun God known today as Ra was probably pronounced more like [ria] in ancient Egypt, and name of the goddess Maat, who figures prominently in the Book of the Dead, probably sounded more like [mu?uah].

You can hear sound files of reconstructed ancient Egyptian words at <http://www.friesian.com/egypt.htm>