

Writing Materials Before and After Papyrus

By

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Man, a high ranking social being is always in need of a means for communication to convey his ideas and thoughts. In this respect, conventional symbols are used that are traced, incised, drawn or otherwise formed on the surface of some material such as stones, wood, animal bones, metals, bamboo, papyrus, parchment or paper. Writing gives permanence to men's knowledge and enable them to communicate over great distances. The complex society of a higher civilization would be impossible without the art of writing. (1)

History of Writing Materials

Writing materials used through the past ages were the tools that carried the ideas and thoughts of man. To find the history of such materials, one should search for the history of writing from its primitive origin, through the successive developmental steps to the present advanced state.

As the recorded history does not shed much light on the origin of writing and its materials, other means were searched for to clarify the darkness of the very ancient times.

In the Bible and in Al-Koran there are no references to the origin of writing, although there are passages dealing with the origin of other arts such as language,

agriculture, music and metallurgy. There is, however, a post-Biblical tradition which attributed the creation of writing to Moses.
(1)

It may be assumed that in early times perishable writing materials were used such as leaves, bark and wood.
Needles to say, no such specimens have come down to use
(1)

Of the prodromes of writing, the oldest extant are the devices connected with sympathetic magic. At some remote time in the upper Paleolithic period, perhaps about 20000 B.C. the cave dweller in southern France and northeastern Spain drew sketches of his animals on the walls of his cave. He also drew sketches on the bones of animals and on rude stone. We may have here the beginning of an art but hardly, the beginning of writing.
(1)

In the chain of development of writing from its rude beginning to the fully developed alphabetic script, we know the most famous scripts of the ancient world as those of Mesopotamian people, Egyptian, Minoans (Cretans), Indus Valley dwellers, Chinese, Mayan and Aztec people of America.
(1)

It is now generally agreed that all existing alphabets, as well as those no longer used were derived from one original alphabet, the North Semitic, which probably originated about the 18th Century B.C. in the region of Palestine and Syria.
(1)

The ancient Egyptians ascribed the invention of writing

to Thoth, the good who invented nearly all the cultural elements or to the goddess Isis. Babylonian mythology attributed it to Nebo (Madruk's son) who was also the good of man's destiny. The ancient Chinese attributed it to the dragon-faced Ts' ang chieh, the ancient Greeks to Hermes, the Romans to their god Mercury and the ancient Americans - the Aztecs - attributed it to their god (1)
 Questzalcoalt.

Leaves:

Pliny (23-79 A.D.), Roman naturalist of the first Century A.D., speculated that the Egyptians were the first to record on palm leaves as a writing material. Leaves of palm and other trees were also widely used in India, Sri-Lanka, and other eastern countries. Books were formed by binding together a number of leaves with cords. From this use of tree leaves, centuries ago, has come the (2)
 application of the word "leaf" to designate a page in a book.

Clay tablets:

Ancient middle east and Mediterranean cultures including the Sumerians, Assyrians and Babylonian used clay tablets as writing material. The oldest surviving written clay tablets of ancient summerians date back to the fourth (4)
 millenium B.C.

It was mentioned in the Bible and in Al-Koran that Moses received the Tablets that contained God's Message to his people. These tablets were of a hard solid material, (10,11) most probably clay, slate or wood.

Wood:

The ancient Greeks and Romans made books from wooden boards, coated with wax or plaster and tied together with thongs. A cutting stylus of metal or bone was used for writing on the coated surfaces. These table-books were used in Greece before the 9th century B.C., and were in use (4) in England till the end of the 14th Century A.D.

In many cultures the barks of trees were used as a writing material. It is claimed that the ancient Romans used the inner bark of trees known to them as liber, for this purpose. In time the Latin word "liber" was used for (4) a book. From this usage the word "library" has come.

Wooven cloth:

Wooven cloth mainly silk was used as a writing material in China, before 250 B.c. This was the earliest soft flexible material-like the papyrus of Egypt - for scroll manuscript, (4) suitable for portable books.

Metals:

In more advanced ancient societies sheets of lead, brass, copper and bronze were used as writing material for

preserving wills, laws, treaties and agreements between nations. In the Bible reference is made to the use of lead, (4) for permanent writings.

Animal parchment:

The use of skins of sheep and goats as writing material was well known by ancient Egyptians since the second millenium B.C. and was favoured later by the Romans (2,3) for permanent records. Parchment manufacture is similar to leather manufacture involving the scraping and treatment of animal skins.

Being easily available, cheaper and more durable than papyrus, parchment was widely used as a writing material in the ancient world. Its use continued during the Greek, Roman and early Arab civilization, and was still in use in (2,3) many countries after the paper manufacture.

The verses of the holy Koran of Moslems were written separately by early moslems on palm leaves, bones, clay tablets and others, but later it was fully collected as a complete book on parchment. The messages of the Prophet Mohammed to contemporary Kings and Emperors were all written (9) on parchment.

Papyrus:

A good, valuable writing material made from a water reed (Cyperus papyrus plant), was widely used in the ancient

world. It was made by the Egyptians in the third millenium B.C. and continued in use in the Mediterranean region until about the 10th century A.D., after which it was gradually displaced by parchment. (2) It was also the chief writing material throughout the Roman empire, but, because it was, expensive it was gradually replaced, from the third century, by parchment. (2)

Papyrus was usually made by pasting together sections of the Egyptian sedge, that were set across each other, pressed and dried, to form a soft, flexible sheet for writing. Of all the early writing materials, papyrus most closely resembled paper. (2)

Paper:

The word paper is derived from the word papyrus, but true paper was invented in China in the first century after christ. It was Ts'ai Lun, an official attached to the Imperial court of China, who succeeded in 105 A.D. in creating a sheet of paper using mulberry and other bast fibres along with fish nets, old rags and hemp waste. (5)

The Chinese emperors went to great lengths to ensure that so valuable an invention was kept from the rest of the world and it was not until 751 AD that some chinese paper-makers were taken prisoners in a battle in Turkestan, and the secret of papermaking became known to Arab countries. (6)

Paper manufacture started soon after in Samarkand in Persia and in 793 A.D. the first paper was made in Baghdad during the time of Harun El-Rashid with the golden age of Islamic culture that brought papermaking to the frontiers of Europe. (5) Within two decades, tremendous numbers of books were written or translated and the central library of the capital - during the time of Caliph El Mâmoun - contained about one million manuscripts. In the tenth century a small town like "El-Nagaf" in Iraq possessed 400,000 books in its main library. (7)

The art of papermaking spread to Europe in 1157 A.D. when Jean Montgolfier, escaped from the Saracens after the second Crusade, returned to France and set up a paper mill. (8) By the 14th century a number of paper mills existed in Europe particularly in Spain, Italy, France and Germany. (8) Paper was manufactured in America in 1575. (4)

For three centuries paper was only used in Europe as a material for the handwriting of books, that were laboriously produced to the churches and monasteries. It was only in the fifteenth century that the invention of methods of printing books allowed the spread of knowledge to pave the way for learning and culture. (8)

The invention of printing by Gutenberg in 1450 brought a vastly increased demand for paper. To cope with this progressively increasing demand for paper, new materials were used for paper manufacture as seed fibres, jute, flax, (5)

grasses and other plants. Straw was later introduced as an effective manufacturing material, but the largest amount of paper made today is from the wood pulp.

The invention of the paper machines and the development of palping processes that made it possible to use wood as a papermaking material are jointly responsible for the rapid expansion of the paper industry and the production of huge amounts of paper required for many daily purposes in our modern time.

(4)

This short study of the different materials for writing that were used through the successive periods of history, shows the continuous efforts of man in his research for a suitable material for writing.

The recent technological development towards the storage of knowledge on discs, tapes and microfilms, represents the great achievement obtained by modern man. The programming of data and informations in computers is the latest glorious contribution of man towards propagation of knowledge.

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