The Write Stuff: Writing Material in Antiquity

by L.A.Curchin

Many books have been written about the alphabet and the development of writing systems generally. But it is easy to forget the limitations which the physical properties of the writing materials have imposed on the efficiency of writing. These practical problems often inspired the ancients to modify their writing system or to seek easier materials to write on.

Around 3300 B.C. the Sumerians of southern Iraq began to record data - administrative accounts and inventories - on rectangular clay tablets, using a sharpened reed to draw pictograms (picture-writing) in the wet clay. The earliest examples are pictures of cattle, grain and other commodities, accompanied by numbers (a cone-shaped impression to indicate units, a circle for tens) and the symbol of the owner (e.g. a drawing of a man with a headdress to represent "king"). Clay was easily obtained from the river banks, and although impurities could be removed by rinsing with clean water, this was seldom necessary. Annual flooding of the rivers deposited a fresh layer of fine, washed clay on the river banks; light debris such as twigs and straw would be carried away with the current, while heavy impurities such as stones would sink to the bottom.

The wet clay provided an ideal medium for impressed writing; when dry, the tablet became hard and shrank in size, producing a durable, compact filing system. But etching detailed pictures was cumbersome and time-consuming, and a reed stylus was better adapted to drawing short, straight lines than complicated curves. So the pictograms were simplified and straightened until they no longer resembled the original pictures but were stylized into a series of strokes and wedges. Thus the nature of the writing materials fostered the development of cuneiform (nail-shaped) script.

Shortly before 3000 B.C. the Egyptians (either independently or in imitation of the Sumerians) developed their own pictographic writing. Inscribing pictures in stone must have been a painstaking task, yet these hieroglyphs ("sacred carvings") continued to be used on religious and royal monuments. Unlike Iraq, the soil of Egypt is sandy rather than clayey, so cuneiform writing was not a viable alternative. Instead, the Egyptians developed a more convenient set of writing materials, the predecessors of our paper and pens. The pictographs in turn gave way to new scripts - the hieratic (priestly) and demotic (popular) - better suited to pen and ink. For some 3000 years the Egyptians, and eventually the Greeks and Romans, wrote on papyrus rolls with a reed pen and ink. The Elder Pliny (1st c. A.D.) writes that "civilization, or at least the history of mankind, depends on papyrus", and this remained the case until the introduction of vellum (animal skin) in the 4th century.

Papyrus grows in marshes along the Nile. From the interior of its triangular stem comes the fibrous material from which Egyptian paper was made. The papyrus stalk was first split open with a needle into fine strips, as wide as possible. The best-quality cuttings were near the centre of the stem. Each surrounding layer was noticeably coarser and less valuable for writing, and the outer part just inside the rind was suitable only for wrapping-paper. Pliny describes what happens next:

"The different grades of papyrus are prepared on a board dampened with Nile water, whose muddy consistency acts like a glue. First a layer is spread out vertically on the board, using the full length of the papyrus stem once the ends have been cut off. Then strips are laid horizontally over them to produce a criss-cross arrangement. The sheets are then squeezed with presses, dried in the sun, and finally joined together". Up to twenty papyrus sheets would be made into a roll and mounted on rollers with projecting knobs of wood or ivory, with a tag identifying the contents.

The Greeks and Romans also used stone for their monumental inscriptions, but some other writing materials were tried. In the 5th c. B.C. the citizens of Athens inscribed on ostraca (potsherds) the name of the man they thought most deserving to be sent into exile, "ostracized". Ostraca were also used to some extent in Hellenistic and Roman Egypt for administrative accounts and school exercises. Another writing medium has been revealed by the excavations at Pompeii, where election slogans and other graffiti had been painted upon the whitewashed walls of houses and shops. Numbered "tickets" for admission to the games or for grain rations were in-

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scribed on thin strips of bone. The ancients even had a form of "voodoo" in which the name of an enemy was written on a defixio (curse-tablet) made of lead, with a nail driven through it, and sometimes with a written indication of what misfortunes should befall the victim.

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The Romans also wrote on wooden tablets, some of which have survived in unusually dry (e.g. Egypt) or wet (e.g. Britain) climates. The easiest technique was to write directly onto the wood with a reed pen and ink. This method was used, for instance, on the numerous military records unearthed at Vindolanda, a fort on Hadrian's Wall. For ink-writing the Romans adopted a fast, cursive script rather than the monumental capital letters. For less permanent records, such as school exercises and household arithmetic, the Romans used a wooden tablet with the centre hollowed out, leaving a raised edge all around. The centre was filled with coloured wax and written upon with a stylus, an iron instrument similar to a modern pencil, with one end pointed and the other flat to make the wax surface smooth again and thus erase the writing. A collection of 150 "stylus tablets" from Pompeii records the financial transactions of the banker L. Caecilius Iucundus. Wooden tablets could be perforated along one edge and joined together with a string or leather thong to make a "book". A famous wall-painting from Pompeii shows a girl holding a book of four tablets and touching the stylus to her lips, deep in thought.

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Nineteen centuries later we can claim word processors, photocopiers and electronic typewriters, but the "hard copies" still consist of

Roman characters printed on paper in ink, with the attendant inconvenience of refilling paper trays and changing ribbons. Throughout history written communications have remained at the mercy of the materials one chooses to write upon, proving once again that "the medium is the message".