

Papermaking, Writing and the Book

It might surprise you to know that books circulating in the Westmoreland Library Network are still on the order of 90% in paper format, although e-book reading is on a steady rise year-over-year. We take paper and ink for granted, even wastefully, but public Libraries still maintain large paper book collections, about 900,000 books within the WLN. Technologies of papermaking and inks are still important, and relevant.

Papermaking (1), as an art, has been known since its invention in China by Ts'ai Lun in the year 105. Thereafter, paper became an important and enriching component of Chinese culture over the centuries. The true paper of this invention, as for all paper to follow, is prepared from macerated fibers, which product, despite automation, has not changed that much in nearly 2000 years. It is to be distinguished from the papyrus sheets of ancient Egypt, which were prepared for writing by laminating or pasting together sliced strips of stalk. Real parchment and vellum were made of animal skins, and thus not paper either. That which is named paper is derived from "rags, straw, bark, wood or other fibrous material." Primitively, the fibers are macerated into separate filaments, held suspended in water, and then collected from the water as thin matte on a screen. The matte is wet paper.

Paper manufacture required about 1000 years to make its way across different cultures and tough terrain to Europe. Thereafter, its manufacture began among European colonists in North America in Eastern Pennsylvania, in 1690 (1,2). Yet, paper was in scarce supply in revolutionary America, dependent as Americans were on European skills, and lacking in ample supplies of rags (2). The first mill in Western Pennsylvania is reported to have been on Redstone Creek in Fayette County beginning in about 1809 (1).

Lamp-black ink was known to the Chinese by the 4th or 5th century (1). The reed pen was used at least in the 3rd century B.C. for writing on papyrus; afterward, the working end was made to be pointed and split, like the later quill pen (3). The reed pen survived in Europe until the Middle Ages. The quill pen, made from the wing feather of a goose, swan, peacock, crow or turkey, was the pen mainly used in the Middle Ages. It continued in use until late in the 19th century, when it was displaced by mass-produced steel pens, more like what we know today.

Today, of course, we all very often record and manipulate information electronically, rather than on paper, and it gets published without putting pen to paper at all. This presents a whole new set of problems for preserving the integrity of the written record, one function of a Library. And the electronic displacement of paper can be both a blessing and a scourge, as evidenced by the recent plague of ransom cases, but it is more and more the life of any Library and our lives in general.

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If you want to dig deeper into the old technologies of papermaking and bookmaking and reflect on them as they perhaps exit after longtime dominance, you can start with these interesting references from above. Just make a request using your WLN Library Card!

- (1) Hunter, Dard, "Papermaking," New York: Dover Publications (1978), pp. 1-6, 17-23, 75, 243, 276.
- (2) Boorstin, Daniel J., "The Americans: The Colonial Experience," New York: Vintage Books (1958), pp. 320-321.
- (3) Diringer, David, "The Book Before Printing," New York: Dover Publications (1982), pp. 556-562.

Daniel Boorstin, by the way, was the 12th Librarian of the U.S. Congress, 1975-87.

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