## On Paper – A Celebration of Two Millennia of the Work and Craft of Papermakers

Martin A. Hubbe

Those of us whose lives have been deeply touched by the technology of papermaking – and many others besides – are in for a real treat this coming fall when the book *On Paper* is scheduled to be published. The author, Nicholas Basbanes, employs an engaging, personalized approach as he brings to life the story of how paper has enabled the progress of civilization throughout two millennia. I first learned about Nick's grand project, to capture the most intriguing aspects of paper's story, during a re-broadcast of his hour-long interview that was presented on the CSPAN TV network. His enthusiasm is infectious, and it can be an uplifting experience to have him as a tour-guide to "all things paper".

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Contact information: North Carolina State University, Department of Forest Biomaterials, Campus Box 8005, Raleigh, NC 27695-8005, USA; E-mail: hubbe@ncsu.edu

Every great while a book comes along that can give encouragement, as well as frequent chuckles, to those of us who have devoted their careers to the processing of cellulosic materials. Nicholas Basbanes has achieved that with his book On Paper (Alfred Knopf, Publisher), which is scheduled for publication in October, 2013. The author is a self-described passionate lover of books – and this passion has ultimately led him on a multi-year quest to reveal the heart, soul, and history of papermaking, with much attention devoted to the people who helped develop and who carry on this laborious but ultimately captivating craft – both at the handmade level and in modern production facilities. There are also aspects of travel-log to the book. Not content just to do the research from home, Basbanes' book features many joyous and sometimes humorous descriptions of trips to places like China (where papermaking was invented), Japan (where the handmade craft became highly venerated), the Islamic world (which became a major papermaking center when the technology arrived from China via the "Silk Road" trading routes), and many places in the Western world (where an enthusiastic cadre of artisans not only carry on the old traditions, but also tend to branch out in many different imaginative angles from what has been done in the past).

The story begins where every account of papermaking must – in China, where Cai Lun in the year 105 recorded the first accounts of the process, including certain improvements. Though many people associate Cai Lun with paper's invention, the earliest known samples of paper date from about 200 years earlier. Basbane's "romp" through the history of papermaking is enlivened by his descriptions of various excursions and conversations – some of them quite extensive. For instance, he joined with other researchers in visiting a remote part of China where some villagers stubbornly persist in practicing the ancient craft of forming paper by hand – a multi-step process involving procurement of very high quality cellulosic fibers from the bast layers of paper mulberry shoots. Individual papermakers were interviewed, often with the help of local translators.

The romp continues – not with the intention of giving an exhaustive treatment – but with the evident delight of someone who wants to share his passion. Hand-made papermakers and their products are prominently featured. Anecdotes reveal again and again how history itself has been impacted by paper. Paper served as a main medium for the spreading of information about Confucianism, about Buddhism, and about Islam. Though Gutenberg printed the first copies of his Bible on leather-derived parchment sheets, paper was then used for most of the remaining copies.

If there is a "thesis" underlying Nick Basbanes' opus, maybe it is that paper has, at every turn, played a central role in the progress of history and technology. In On Paper the veracity of this thesis is explored from some surprising angles. For instance, who could have imagined that on September 11, 2001 the streets adjacent to what had been the World Trade Center would have been carpeted with the remains of paper documents, having rained down from the former buildings. And how could Leonardo da Vinci or the unknown architect of the Taj Mahal ever have completed their noble work without the use of paper? A lover of communication, as well as its various means, Basbanes reveals the origins of some paper-based phrases such as "red tape," "hard copy," "paperwork", etc., with appropriate references to such figures as Franz (and also Ben) Kafka, Benjamin Franklin, and notable forgers throughout history. The progress of warfare throughout modern times has been transformed not only by gunpowder - a product of cellulose – but also by paper-based casings for artillery shells, propaganda leaflets, and paper-based balloons designed to drop items over enemy territories. Paper has been often used as a means of holding on to secret information; however Basbanes presents some notable cases in which attempts to keep information hidden have been defeated due to the very nature of paper itself. Basbanes points out that one of the attractive features of paper, from the standpoint of security, consists of the great difficulty in completely erasing anything. Whereas documents recorded on leather-based "vellum" could be altered with relative ease by skilled forgers; ink tends to be incorporated in three dimensions when applied to paper.

Why is it that the field of papermaking has attracted so many memorable characters? Or maybe Nick Basbanes has just had a knack of discovering so many of the most colorful of them. Take, for instance the clergyman Jacob Christian Schäffer, who during the period between 1765 and 1771 attempted to figure out what materials other than rags could be used to make serviceable sheets of paper. Basbanes also features Mathias Koops, who carried out similarly single-minded work, showing that paper can be made from straw. Then in the period from around 1909 to about 1960 a man called Dard Hunter set about almost single-handedly to revive traditional methods. Not only did he collect samples of handmade paper from around the world, but he also showed that it was possible for one person to write a book, make the paper, make the ink, make the moveable type, do the printing, and even do the binding of multiple hand-made copies. Though maybe not so obvious at the time, it is clear that Hunter's efforts have paid off in the form of many hundreds of modern-day enthusiasts. This cohort includes not only skilled hand-papermakers, but also museum curators, librarians, and researchers. And to this list now we also need to add the name of Nicholas Basbanes, who certainly has earned the right to be included among those who follow in the tradition of Cai Lun.