

Asian paper as writing support

Many varieties of paper have been used in the making of books in Asia, dependent on local technological know-how, the availability of materials, preference of the donor or book-maker, the form and intended function of the book. The different types of paper required different manufacturing processes. Any evaluation of the quality of paper requires an examination of the raw materials and the technologies used, as well as the aesthetics and the purpose for which the book would have been intended in particular historically defined periods of time. We must therefore bear in mind that such descriptions of paper quality may be subjective and might not always correspond to general standards of paper quality elsewhere.

Paper is often viewed by those outside academia as an object of daily use or of artistic expression selected for its texture, look or other property that allows for a particular type of artistic expression. Artists will thus look at paper quality with the aim of achieving particular aesthetic effects. Scientists will view paper as an organic compound equipped with particular properties. Paper technologists perceive the manufacture of a product that is the result of an economic chain connecting producers and buyers. Conservators would be most interested in the deterioration of paper in order to develop preservation techniques. Historians might attempt to date the paper. Sometimes paper is simply a material appreciated by connoisseurs.

As a specific and interdisciplinary field, the study of paper has recently become an area rich with many new insights and opportunities. This shift has been afforded by the availability of new technologies and tools, and through the co-operative efforts of scholars from different backgrounds collaborating in interdisciplinary teams. In the past scholarly perspectives on the study of paper were restricted by the requirements of particular disciplines, so scholars of natural sciences, paper technologists and historians had few opportunities to apply their methodologies to the same groups of objects. Scholars of these disciplines look at paper in different ways and through the prisms of their own methodologies and terminologies. Every sheet of paper tells the story of its production, sometimes including clues to its attribution, provenance and ownership, and often marks of its usage. Although the methodology employed in the investigation of any paper artefact often uses the same basic techniques and equipment, it cannot be over-emphasised that there is no formulaic approach to the investigation of individual papers.

European paper has been widely studied by scholars, while no comprehensive attempt has yet been made to understand the complexity of the history of handmade paper in Asia, especially since handmade paper in Asia is an important

part of Asian heritage with a wide range of traditional uses. Today in many regions of Asia we observe a revival of traditional technologies, independently of the development of the modern papermaking industry. Asian paper today is also highly valued in the West and widely used for conservation purposes. This volume, although not professing to be in any way exhaustive, discusses important topics related to Asian paper, such as a writing support, its history, the science and existing paper manuscripts and printed book collections preserved all around the world. The excerpts here, selected from the different periods and various Asian locations, discuss a wide range of topics from the methods of paper production, the development of technologies, to the history of paper and its economic history, as well as the scientific identification of fibres and the interdisciplinary methodologies used to examine paper in manuscripts and works of art.

Papermaking reached Europe only in the eleventh century and was firmly established in the twelfth, more than thousand years later than in China and other regions of Asia. The cultural background of the early spread of paper, its existence and uses in cultures outside China have hardly been explored. Most of the information we have concerns large, known centres of paper production, usually from Chinese, Korean or Japanese sources. To approach the study of paper through the objective features of paper itself, while simultaneously building a typology independent of the passage of time, is the challenge we face today. While some of this knowledge may be lost forever, it is still possible to reconstruct excerpts of the history of paper from existing historical papers preserved in manuscripts and *objects d'art*.

The first essay *Notes on the early history of paper in Central Asia based on material evidence* is a survey of the early history of paper in Central Asia on the basis of collected written, archaeological and material evidence. The recently performed paper analyses on a collection of the oldest manuscripts in existence found along the Silk Road established the fibre components and new details regarding the technology of papermaking in the first millennium. Together, these results and known facts allowed us to see the history of paper with improved precision.

The second article is an English translation by Anna-Grethe Rischel of Julius von Wiesner study presented on 10th May 1911 titled *A new contribution to the history of paper – about the oldest rag papers thus far discovered*. Wiesner's essay is a pioneering study of the oldest specimens of rag paper of Central Asian origin conducted soon after the discovery of large collections of manuscripts found in Dunhuang. This work, important for philology, codicology and paper history was fundamental to studies of paper as writing support of old manuscripts carried out at the beginning of the 20th century. Wiesner was indeed a scientist ahead of his time, who first proposed a rigorous

protocol for the examination of ancient documents. The text written in German is little known and is therefore offered here in English.

Since Wiesner's time more than century of research on paper components of Central Asian manuscripts has now passed. During this time only relatively little has been examined, especially when we compare it to the entire collection of manuscripts preserved from this region. Every new result of fibre analyses performed on these oldest manuscripts in existence is therefore important and brings us closer to a fuller understanding of the early history of paper.

Tocharian manuscripts, culturally more in the orbit of Indian culture than Chinese, are dated approximately to between the third and the sixth centuries CE. This group, together with Sanskrit manuscripts, therefore form the oldest available specimens of paper found in Xinjiang. The results of paper analyses of these manuscripts may therefore shed light on the earliest technologies and materials used for paper production, as well as on the direction in which paper technology spread along the Silk Roads. Before the study of paper performed in 2018 within the project *History of the Tocharian Texts of the Pelliot Collection* only about fifty paper samples of Tocharian manuscripts have been tested for fibre analysis. Here this topic is presented by Emilie Arnaud-Nguyen in her essay *Paper Analyses of Tocharian manuscripts of the Pelliot Collection stored in the National Library of France (Bibliothèque nationale de France)* describing the preliminary results of her PhD research. After conducting macroscopic analyses of 350 archaeological paper fragments from Kucha now preserved in the Pelliot Collection of the National Library of France Arnaud-Nguyen reveals interesting details on the raw materials used, the manufacturing process, the use and the conditions of storage, together with other features of these objects.

Paper was developed in China, but today most of the local papermaking traditions are lost in the turbulent history of Chinese civilization. The materials and technologies used in China belong to the Asian tradition of making paper for books, money, home interiors, art, and for daily use. Chinese paper used to be made from a wide variety of both recycled rags and bast fibres of indigenous plants. Some traditional papers are still available on the market today. Most of them may be divided into a number of groups with different names usually adapted in accordance with the prevailing conditions of the places they were produced. Despite being made from the same kind of plant fibres, Chinese papers may have different names. Manufacturers now often also modify their products on an *ad hoc* basis according to market needs. Papers that share a name may in effect be substantially different products. This tends to create a good deal of confusion when trying to identify Chinese papers in objects of cultural heritage. The confusion may grow when we consider the fact that there are many minority groups within China with their own papermaking traditions, further complicating the topic of Chinese paper history.

Mengling Cai's essay titled *Overview of paper and papermaking in Xinjiang, China* presents the history, technology, social context and revival of handmade paper supported by the Chinese authorities in Xinjiang Uyghur Autonomous Region (XUAR). Cai discusses the development of traditional papermaking in Xinjiang, especially mulberry papermaking in the Hotan area, known as early as during the Han Dynasty, the raw materials used, the process, the uses and the revival of handmade mulberry paper today. This study, based on both Chinese and Western literature, well complements the overall study of Central Asian paper.

The high altitude of the Tibetan Plateau, together with the extremes of its climate distinguish the local vegetation from all other areas of Asia. The specific nature of Himalayan papermaking lies in the properties of these native plants, the living conditions of people dwelling on the world's highest plateau and aspects of their culture that combine to create a distinctive craft. Bruce Huett's essay titled *The revival of Himalayan papermaking: historical, social-cultural and economic aspects* discusses the papermaking revival in Tibet (China), Nepal, Bhutan and Sikkim (India), examining the economic and social factors influencing the revival in many regions of the Himalayas today. Using information obtained from visits and interviews with producers, middle men, retailers and exporters, Huett highlights the changes in economy of handmade production and the impact that hand-crafted items have on tourism and people's lives even in the 21st century.

Almost nothing is known about papermaking in the borderland areas of south-western China and upper mainland south-eastern Asia (Thailand, Burma, Laos and Vietnam), where minority ethnic groups maintain the tradition of papermaking, while in larger centres old technologies have already been replaced by modern paper production industries. Claude Laroque in her essay titled *Tonkin's giấy dó and its Chinese roots*, using various sources, provides us with a fairly precise idea of paper production and its social organisation in the northern part of present-day Vietnam at the beginning of the 20th century.

The last essay by Anna-Grethe Rischel entitled *A scientific description of specimens of Asian paper of known origin* discusses the fibres and technologies used in the production of 14 handmade paper samples of known provenance, collected during her study tours to Nepal, Thailand and Japan in 1984, 1985 and 1988 respectively. Rischel's detailed descriptions and technological observations suggest a close connection between the processing of the fibres and the technology of both sheet formation and the drying process. This comparative study of modern paper samples made with traditional methods serves as a useful reference for future analyses of Asian papers and an identification key for the analyses of Asian fibres.

Before inviting everybody to read I would like to thank all contributing authors for their hard work, reviewers for their helpful comments and the editor-in-chief Jacek Puchalski and the team of the *Studies into the History of the Book and Book Collections* for accepting our thematic volume for publication. I extend my heartfelt thanks to the Centre for the Study of Manuscript Cultures (CSMC) at Universität Hamburg for supporting my research on Asian paper within the scope of the Excellence Strategy – EXC 2176 ‘*Understanding Written Artefacts*’. I also thank Bob France for offering useful advice on English-language matters and improving the way we communicate our research here in English. I appreciate the commitment of everyone, good co-operation, and hard work in these difficult lockdown times. I would also like to use this opportunity and allow myself to congratulate our dear colleague Claude Laroque on her retirement this year with many warm wishes for future ventures.

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