Abstracts

Sandra Schultz and Johannes Follmer
Air bubbles, knots and waterdrops. Seeking traces of historic paper production using records in the Ravensburg Archives
The history of medieval paper production focuses on two major fields of interest: the search for paper mills attempting to define their date of establishment; and historic paper production techniques. However, most of the time, the written sources do not shed light on these questions. This is why some paper historians referred to the technical literature of the 17th and 18th centuries to draw conclusions on medieval paper production. Only a few researchers concentrated on the features that can be traced in historic papers to reconstruct the production process. The paper presented follows this approach by examining the paper characteristics of a particular medieval corpus – that is, four tax books written between 1473 and 1497 – which is kept in the Municipal Archives in Ravensburg.

Emanuela Di Stefano
European and Mediterranean perspectives on the paper produced in Camerino-Pioraco and Fabriano at the apogee of its medieval development (14th–15th century)
Through the systematic analysis of thousands of letters preserved in the Datini Archive in Prato, it turned out that between the mid-fourteenth century and the early years of the fifteenth century, the paper from Fabriano and Camerino-Pioraco (the latter understood as paper produced by the merchants of Camerino in the paper mills located in the small castrum of Pioraco on the Potenza river) was the most widely requested and traded in Europe.
An essential vehicle of communication of the new urban and mercantile society, paper departed from the two centres in the Apennines and, through the easiest maritime and land routes, it was traded west, to Perugia, Pisa, and Genoa, thence to reach Avignon and, sometimes, Paris; and east, towards Ancona, Fano, or Pesaro, from whence it embarked for Venice: La Serenissima was in fact a great centre of consumption and sorting of paper from Camerino-Pioraco and Fabriano towards Germany, the Levant, Catalonia and Northern Europe.
Through the "mude" of Flanders – the five galleys of the Venetian state – and, sometimes, Genoese galleys, the paper from the Marches, thanks to the intermediation of the major Tuscan trading companies, finally reached Bruges and London and spread to the surrounding areas, towards the Germanic world and Eastern Europe on the one hand, the Champagne and Paris on the other. The same sources provide evidence and

allow us to ascertain the relevant quantity of the flows of paper exported (not less than 50 thousand reams sent every decade to the European markets), the quality and the variety of paper types, and the market values.

Inge Van Wegens
Paper consumption and the foundation of the first paper mills in the Low Countries, 13th–15th century. A status quaestionis
By 1300 paper was known as a writing support for administrative purposes in the Low Countries. Despite the growing popularity of paper in administration, it was only accepted as the formal carrier much later. As of 1280 Bruges, the commercial and economic metropolis in the North, also acted as a marketplace for paper. Until 1370 predominantly Italian paper was used in the Low Countries. In the first half of the 15th century, Italian paper disappeared in favour of French paper.
It took until the middle of the 15th century before local paper production in the Low Countries developed. The first papermaker was of French origin and installed a paper mill in Linkebeek near Brussels. By the end of the 15th century, 18 paper mills, all concentrated around Brussels and many on ducal domains, indicating the important role Duke Philip the Good played in the emergence of the local paper making industry. His court needed a lot of paper and not only for writing. The Dukes had a high demand for luxury goods. Besides manuscripts, the Flemish tapestry industry flourished, supplanting the old cloth industry. Our working hypothesis is that the locally produced paper was used to make the "tapestry cartoons".

Erwin Frauenknecht
Paper mills in Württemberg. Research approaches regarding the example of the paper mills in Urach and Söflingen
The example of two paper mills in the County of Württemberg illustrates research approaches and research gaps of paper use in the Late Middle Ages. In 1477, the paper mill in Urach was first mentioned which makes it the oldest in the County of Württemberg. Dwelling on both, the records as well as the watermarks, the analysis of these sources sheds new light on the early history of this paper mill. Furthermore, the Count of Württemberg has had an important influence on the early printing in Urach, which was closely connected to the paper production in this region. In addition, this relation between local authorities and paper production can also be observed with regard to the example of the paper mill in Söflingen near Ulm whose foundation was initiated by the abbess of the monastery Söflingen. Hence, the analysis of these two paper mills offers new insights into the crucial issue of medieval paper production in Württemberg.

Evamarie Bange

Watermarks as source for economic and social history. A study based on the account books of the city of Luxembourg

Although Luxembourg's paper mills only started production in the late 17th century, as early as 1388 imported paper was introduced to the administrations of cities and monasteries. This study of paper use is based on the accounts of the city of Luxembourg dating between 1388 and 1480. The following aspects were examined: Where does the paper come from and who purchased it? How was the paper distributed within the writing community of Luxembourg? Are the production lines of paper reflected in its use? How reliably can watermarks be used for dating documents? Correlating watermarks with known account holders and city clerks as well as scribes, identified through their handwriting, lead to the following results: Paper was imported in the late 14th century from Italy and France. From the 15th century onwards, French paper dominated the Luxembourg market. Consistency in administrative staff leads to consistency in watermark occurrence. The distribution of differing watermarks in a given year shows that account holders and/or scribes individually bought paper for their own use from different suppliers or at different times. Paper with identical watermarks was used for up to ten years.

Thomas Klinke and Carla Meyer

Folded, lacerated, thinned. Traces of use on old paper in a cultural and historical perspective

Until the 'digital era' of our days, the production and reception of texts was inevitably connected with the touching and handling of the material medium 'paper'. Any use, however, leaves its mark on the sheets, traces of use, which are no longer solely classified by today's conservators and historians as 'exogenous damages' but valuated as 'patina' worth preserving. This valuation reflects the awareness that traces of use are not only proof of the authenticity of a document, but can furthermore reveal the frequency and form of usage in past times. However, up to now there is still a lack of overall consideration, which links observations on material features systematically to the question of their cultural and historical significance. Our essay brings together the expertise of restoration and historical science and can therefore be understood as an experiment: We first want to ask, which traces actually can be observed on the material object? Secondly, we focus on categories and terms to describe them. Thirdly, we reflect on the cultural-historical information they convey.

Franz-Josef Arlinghaus

Materiality and differentiation of communication. Functions of parchment and paper use in late medieval hierarchical society

There is no doubt that writing has the potential to make the world more efficient and more rational. However, recent research on writing and its use in pre-modern society emphasise a) that writing, more than creating a sphere of its own (as it does today), was still an intrinsic part of an oral culture, and b) that communication as such was more oriented to the social than to the factual. Against this background, the article suggests that the introduction of a new material for writing, more than a tool to rationalise administration, may be seen as a way to modify and differentiate communication. Using parchment or paper may be seen as an enhancement of the repertoire of forms to communicate, so badly needed in a society that is growing more and more complex. In this respect, the use of parchment or paper is not necessarily oriented along differentiations like expensive/cheap, difficult/easy to get etc. Rather, parchment and paper may have functioned as ‚distinguishers' – together with other ‚tools' – for certain fields of communication. To illustrate this, the paper will draw on a wide range of different sources mainly from the 15th and 16th centuries.

Hendrik van Huis

The use of paper and parchment in the city books of Greifswald

Over the course of the last few decades, historians have frequently pointed out that paper was unanimously and immediately favoured as a writing material in chancelleries of the Late Middle Ages from the birth of the development of city administrations. However, this was not the case in two Hanseatic cities in Northern Germany. Greifswald and Hamburg accepted the new writing material only reluctantly in their city administrations, although both cities started using paper from the middle of the 14th century. The first city book made out of paper in Greifswald was the *Liber censuum civitatis* – a tax book that was started in 1360. The first city book made out of paper in Hamburg was the *Pfundzollbuch von 1369*, a book that lists the pound toll. Nevertheless, both cities have a history of parchment-use that outlived the end of the Middle Ages by centuries: In Greifswald parchment was used until the 17th century. The longest use of parchment in a city book can be found in the *Liber civitatis, liber de hereditatum resignatione*, which was started in 1460 and used until 1676. In Hamburg, parchment was used until 1844 (the *Erbebuch von 1844* was started and finished in 1844). Although it cannot be denied that paper was used extensively in many parts of the city administrations in Hamburg and Greifswald, the role of parchment as a writing material has to be reassessed as one that is much more significant in Hanseatic cities of Northern Germany, especially when it comes to documents that needed to be valid for a long time.

Heike Hawicks

Situational use of parchment and paper in the Late Middle Ages. A case study based on the inventories of the City Archive of Duisburg and the University Archive of Heidelberg

Using the examples of the inventories of the City Archive of Duisburg and the University Archive of Heidelberg, the replacement processes and different usages of traditional parchment in comparison to the new writing surface of paper during the Late Middle Ages are examined. As an old imperial city, trading centre and educational institution respectively, these two places of writing permit a differentiated approach, in which not only the age and origin of each document, but also the type of text and especially the situational meaning can be observed. Depending on the state of transmission, the processing stages of the individual type of document from one place of writing can be compared with one another. Particularly suitable for this purpose are the city accounts of Duisburg, which have survived since 1348, as they have existed in parallel since 1412 in the form of draught-copies in paper notebooks, as well as the official copies on scrolls of parchment. But official registers and charters can also be examined with regard to the use of parchment and paper in situational terms. In addition to the writing surface, the respective use of language and variations in the graphemics are also to be included in the examination.

Paul Needham

Book Production on Paper and Vellum in the fourteenth and fifteenth centuries

In the 1490s Abbot Tritheim argued that printing was a *res papirea* and scribal work (implicitly) a *res membranacea*. If paper lasted even 200 years, he wrote, it would be a marvel: "posterity will judge." Now, 520 years after Tritheim wrote, we can judge: does 15th-century paper last well? Do books printed on vellum/parchment survive better than those on paper? And, in general: what kinds of early books were printed on vellum as opposed to paper: what were their respective markets? Several hundred thousand incunables survived, and so we have an extensive body of information. Moreover, we can put these incunables into the wider context of books written on paper and vellum from the late 13th century through the 15th century. From all these surviving books, we may look again at Tritheim's dictum; and also at the more recent dictum of L. Febvre and H.-J. Martin (L'Apparition du livre, 1958) that without paper, printing could not have come into being.

Birgit Kata

Paper and cardboard in the spectrum of archaeological finds – remarks on an underestimated source for the history of daily life in the Middle Ages and the Early Modern Times

Paper, cardboard and parchment have very little significance when it comes to archaeological excavations. Even more so than other organic materials, paper only survives in dry settings, but not in soil. Due to this circumstance, archaeological paper finds are usually bound to archaeological building inspections. There, paper is sometimes found in cavities. Besides paper, which was deposited intentionally (e.g. in the tip of a church tower or in a Genizah), usually random collections of paper are found that were used as fill. Still, the conservation conditions for paper in building cavities are not the best. Due to chewing by insects and rodents, and dampness from rodent urine and leak water, these finds are often damaged. A stroke of luck in Kempten (Allgäu) led to some finds of very interesting fills in the dead space under the floors in a group of medieval buildings. These finds include many hundreds of objects of daily use from the 14th to 17th century, which stand out through their quality of conservation and age. Most of these finds are made from organic materials such as wood, leather, textiles and paper allowing us to make conclusions on who lived in these houses and how these objects were used. In addition, the paper finds transmit forms of texts and use, which cannot be found in traditional transmission (e.g. in archives). These concealed finds give us a very good impression of day-to-day paper use in medieval times and the early modern age.

Authors

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Johannes Follmer originates from a papermaking family, which has been producing paper since 1853 in Homburg near Wurzburg. A carpenter by training, Johannes Follmer taught himself the craft of hand papermaking. He is one of the very few tradi-

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Since 2012, Dr. Heike Hawicks has been a lecturer in the Department of History at the University of Heidelberg. After studying History, German Studies and Geography in Duisburg, she was a Research Associate in the DFG-project "Niederrheinische Sprachgeschichte" (Linguistic History of the Lower Rhineland). Afterwards she assisted in the DFG-project "Nomen et gens" and in the new edition of the "Reallexikon der Germanischen Altertumskunde". She was awarded the Prize of the Henning-Kaufmann-Foundation for name research in 2004, and the Sparkasse Essen's Science Prize in 2007.

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