

The Cluster of Excellence
Understanding Written Artefacts
at the Centre for the Study of Manuscript Cultures
cordially invites you to the workshop

**Facing New Materials:
Changes of Writing Substances, Implements
and Supports in Manuscript Cultures**

Thursday, 25 January 2024, 2:15 pm – 5:50 pm CET
Friday, 26 January 2024, 11:15 am – 5:40 pm CET

Warburgstraße 26, 20354 Hamburg

Organisers: Claudia Colini (Universität Hamburg)
and Michael Kohs (Universität Hamburg)

Registration:

<https://www.csmc.uni-hamburg.de/en/register/workshop49>

The introduction of new materials poses challenges to established ways of producing (hand-) written artefacts. But in turn it can also offer chances. In this workshop we aim at exploring how manuscript cultures reacted to the introduction of new materials. That comprises new writing supports, writing implements and writings substances.

Our main questions regard the reasons and modes behind the adoption of the new materials. For example, economic factors – such as cheaper production cost – and more convenient features – such as light weight or durability – can motivate the preference for a certain material. In other cases, the unavailability of formerly used materials or the restricted access to production means promoted innovation, as with the abandonment of papyrus in Europe in the early Middle Ages. Other changes were either imposed or hindered by authorities, such as the use of paper under colonial regimes. At the same time, we want to explore how the writing processes adapted to the new possibilities. The different affordances of the new materials call for changes of script, writing habits, or even revolutionise the whole manuscripts ‘production chain’.

By focusing entirely on the impact of new materials, the workshop takes into account an aspect that is often crucial to the existence of a manuscript culture.

Programme

Thursday, 25 January, 2:15 pm – 5:50 pm

2:15 – 2:30 Welcome and Introduction

Writing techniques

Chair: Simone-Christiane Raschmann (Universität Hamburg)

2:30 – 2:55 Abdurishid Yakup (Berlin-Brandenburg Academy of Sciences and Humanities)
Introduction of Printing and Changes in the Old Uyghur Manuscript Culture

2:55 – 3:20 Silpsupa Jaengsawang (Universität Hamburg)
Collection of Supreme Patriarch's Handwritten Letters: Reference to Authenticity

3:20 – 3:40 Q&A, Discussion

3:40 – 4:10 Coffee Break

Writing supports

Chair: Claudia Colini (Universität Hamburg)

4:10 – 4:35 Chiara Ruzzier (Université de Namur)
An Upgraded Support for a New Format: the Parchment of the 13th-Century Portable Latin Bibles

4:35 – 5:00 Agnieszka Helman-Ważny and Barend ter Haar (Universität Hamburg)
Why Paper? Some Thoughts on the Earliest Development of Paper in China and its Socio-cultural Impact

5:00 – 5:25 Ilse Sturkenboom and Theresa Zischkin (Ludwig-Maximilians-Universität, München)
The Introduction of Chinese Decorated Paper to Iran and Its Huge Impact on Manuscript Production in the Islamic World

5:25 – 5:50 Q&A, Discussion

Friday, 26 January, 11:15 pm – 5:40 pm

11:15 – 12:00 Lab Tour (Claudia Colini) – for speakers only

12:00 – 1:00 Fingerfood Lunch – for speakers only

Writing Implements and Substances

Chair: Thies Staack (Universität Hamburg)

1:00 – 1:25 Imre Galambos (Cambridge University / Zhejiang University)
The Shift from Brush to Pen: Chinese Manuscripts from Dunhuang

1:25 – 1:50 Olivier Bonnerot and Greg Nehring (Universität Hamburg)
A Scientific Investigation into the Origins of Iron Gall Ink

1:50 – 2:15 Martin Herde (Montblanc, Hamburg)
The Fountain Pen – Evolution of a Timeless Concept

2:15 – 2:45 Q&A, Discussion

2:45 – 3:15 Coffee Break

Interaction of Scripts and Materials

Chair: Marco Heiles (Universität Hamburg)

3:15 – 3:40 Marc Smith (École nationale des chartes / EPHE (PSL), Paris)
Wax, Papyrus, Parchment, Paper: Materials and Cursivity in Latin Palaeography

3:40 – 4:05 Marc Smith
Gothic Metal: From Technical Improvisation to Professional Traditions

4:05 – 4:20 Q&A, Discussion

4:20 – 4:40 Coffee Break

From Material to Digital

Chair: Michael Kohs (Universität Hamburg)

- 4:40 – 5:05 Nadine Chahine (I Love Typography Ltd / ArabicType Ltd, London)
 and Alba Fedeli (Universität Hamburg)
*A Return to the Early Kufi: From the Writing of the Manuscript Page to the
Digital Materiality (Implements, Support and Technology)*
- 5:05 – 5:20 Q&A, Discussion
- 5:20 – 5:40 Final Discussion and Conclusions

Abstracts and Contributors

Olivier Bonnerot and Greg Nehring (Universität Hamburg)

A Scientific Investigation into the Origins of Iron Gall Ink

Friday, 26 January, 1:25 pm – 1:50 pm

Recent research on the history of black writing ink production has unveiled the intricate beginnings of iron-gall ink, a type of ink made from the reaction between iron vitriol (iron sulphate) and tannins in an aqueous solution, with the optional addition of a binder (such as gum Arabic or animal glue). The exact time when scribes began to use this type of ink and why remain unclear, as the historical record provides no definitive answer.

Before iron-gall inks became predominant, at least in the Western world, during the Middle Ages, scribes mostly used carbon inks, made from a fine suspension of carbon pigments (made of soot or ground charcoal) with a binder in an aqueous solution. Results from several recent scientific investigations of inks from securely dated Hellenistic and Roman papyri have pointed out that besides carbon pigments, metallic compounds were occasionally used in ink production, in amounts too large to be coincidental. The first examples of such additions come already from the late fourth -early third century BCE, i.e. at the very beginning of the Hellenistic period. Such discovery echoes the earliest ink recipes mentioning metallic compounds, which date back from the Hellenistic and Roman periods. The co-existence of carbon inks with and without added metallic elements, on documents from Hellenistic, Roman and early-Byzantine Egypt, suggests a transition period. During that time, scribes may have experimented with different formulations until they arrived at the well-understood iron-gall inks we know today. The diversity in ink compositions bears testimony to the extensive experimentation and innovation taking place in ink production.

In this talk, we will discuss the latest discoveries about this transition period, from both analytical and textual evidence, and detail the methods for analysing the composition of inks.

Nadine Chahine (I Love Typography Ltd / ArabicType Ltd, London) and Alba Fedeli (Universität Hamburg)

A Return to the Early Kufi: From the Writing of the Manuscript Page to the Digital Materiality (Implements, Support and Technology)

Friday, 26 January, 4:40 pm – 5:05 pm

Digital textual objects produced by means of font technology and font design are the result of the users' interaction with the object and their mental representation of what the object performs. When the digital textual object has the function of reproducing a manuscript object and its writing system, reflecting on the change of writing supports and implements for writing is of crucial importance. Understanding how the trait of ink was performed by the scribe on the parchment support is the precondition for translating the inked letters into designed fonts. Scholars using the available designed fonts have to build the theoretical framework of the new digital materiality and technology without accepting the general explanation of technology as 'bundles of features' (Faraj-Azad 2012).

Linking inked handwritten artefacts (i.e., variable characters and script) with typed texts from these artefacts (i.e., invariable characters and script) is a provocative invitation to rethink about the digital materiality of the font technology. Adaptation and choice of writing materials are concepts that have to be taken into account in this elaboration.

The case that offered significant elements to contribute to the elaboration about the materiality of the font technology – meant as a function and a system – is the design of a typeface for expressing the writing system of early Qur'ānic manuscripts. The first three centuries of Arabic manuscripts witnessed the evolution of script styles loosely referred to as the Early Kufi or early Abbasid style (Déroche 1983) and Umayyad style (Déroche 2014), script styles that did not include the dot or vocalisation systems as is practiced today. This makes these manuscripts hard to read though their calligraphic styles manifest a bold and monumental styles of Arabic writing. The technology of the writing system of these manuscripts has not been supported in the change of writing support and implements into the digital page (Fedeli 2020).

The QUMAR typeface was commissioned as part of the research on the writing system of early Qur'ānic manuscripts conducted Alba Fedeli for the InterSaME project at the University of Hamburg in a close and fruitful collaboration with Nadine Chahine. The production of such a typeface is the result of a mutual sharing of knowledge between the font designer and the scholar in manuscript studies with the support of Carolin Kinne-Wall as IT expert.

This talk presents this type design project that is inspired by a 9th century manuscript part of the Seetzen's collection in Gotha (and its matching fragments scattered for example in Paris) and will explore the process of getting acquainted with the complexities and particularities of

that style and the design evolution of the typeface with a special focus on the materiality of tracing digital typeface and building a system that imitates the manuscript writing system.

Imre Galambos (Cambridge University / Zhejiang University)

The Shift from Brush to Pen: Chinese Manuscripts from Dunhuang

Friday, 26 January, 1:00 pm – 1:25 pm

In 786 AD, the Silk Road oasis city of Dunhuang in north-west China, which up to that point had been part of the Tang Empire, fell under Tibetan control and lost its direct ties to central China. The Tibetan rule lasted six decades, until a local warlord staged a revolt, took over the power and established his own reign. Even though he governed as an effectively independent ruler, he nominally also swore allegiance to the Tang throne, and in exchange the court recognised him as the Military Commissioner of the region, which from that point on was called the Return to Allegiance Circuit. The tens of thousand of medieval manuscripts found inside a cave near Dunhuang reveal that with the arrival of the Tibetans, local scribal culture experienced a crucial change in that while during the Tang period Chinese inhabitants wrote their manuscripts with a soft brush, afterwards they switched to using a pen. Although the pen had already been in use for other languages, it was only from this period that locals started writing Chinese texts with it. Yet somewhat unexpectedly, even after the end of the Tibetan rule, the habit of writing with a pen persisted. The typical explanation for the switch from the brush to the pen is that the region remained cut off from with central China and people could not import brushes. I disagree with this explanation and argue that the shift to a new writing utensil was not caused by a shortage or scarcity but changes in cultural preferences. These, in turn, indeed reflect a Tibetan influence. That following the end of the Tibetan rule over the city there was no reversal in writing habits was likely because culturally Tibetans continued to have a strong presence for the following centuries.

Agnieszka Helman-Ważny and Barend ter Haar (Universität Hamburg)

Why paper? Some Thoughts on the Earliest Development of Paper in China and its Socio-cultural Impact

Thursday, 25 January, 4:35 pm – 5:00 pm

This talk explores the origins of paper in China and its technological and socio-cultural impact on the history of writing. Although it is made up primarily of cellulose fibres, paper is a sophisticated and complex material resulting from advanced technological processes. We will look at early papers in the context of other competitive writing materials (such as silk, bamboo, wooden

slips, tapa, bones, and other) existing in the period when paper was invented and further developed. We will discuss the timeline of their use, and briefly explore why and how paper took over from other writing supports. Using the written and archaeological sources, as well as research based on material culture we will discuss the properties of raw materials, technology, economic factors, durability, and social context of paper production.

Martin Herde (Montblanc, Hamburg)

The Fountain Pen – Evolution of a Timeless Concept

Friday, 26 January, 1:50 pm – 2:15 pm

TBA

Silpsupa Jaengsawang (Universität Hamburg)

Collection of Supreme Patriarch's Handwritten Letters: Reference to Authenticity

Thursday, 25 January, 2:55 pm – 3:20 pm

At Vat Suvannakhili, a monastery where the Buddhist Archive of Luang Prabang is located, a notebook is stored which contains handwritten entries that were copied from letters issued between 1954 and 1956 by the Supreme Patriarch of Laos seated at Luang Prabang. These letters were sent off to ministers, heads of districts, Buddhist dignitaries, and international institutes, as well as to laypeople as official announcements of the Supreme Patriarch. The letters were written by means of placing a sheet of carbon paper between the notebook and a separate sheet of paper, or vice versa, to make sure that the handwriting in the notebook and in the paper was identical. The handwriting of the Supreme Patriarch could therefore be kept for posterity. The copy was in some cases used as a master version for typing the written text in a new paper document with a typewriter because the Supreme Patriarch's handwriting was sometimes untidy. This is the way to preserve the originality of the Supreme Patriarch's handwriting and his genuine authority. Besides carbon paper, to make the notebook a reference to authenticity, other kinds of material were chosen for the production: paper, glue, and staples; each of which has its own meanings and purposes. The presentation will discuss how and why the material was used for keeping originality. It will investigate whether and to what extent the selected materials were related to recipients, and who possibly dealt with the authenticity reference process.

Chiara Ruzzier (Université de Namur)

An Upgraded Support for a New Format: The Parchment of the 13th-century Portable Latin Bibles
Thursday, 25 January, 4:10 pm – 4:35 pm

The European book production of the 13th century shows a notable phenomenon: the miniaturisation of the manuscripts containing one of the longest texts copied during the Middle Ages, the Latin Bible. This production sets a material challenge: how to fit into a small codex the same amount of text as into a large one, without reducing its readability? The solution can be found in increasing the number of written lines and using a smaller writing, and in increasing the number of leaves. To avoid volumes that were too thick, and therefore unwieldy and unattractive, it was necessary to reduce the thickness of the support to a point that had not yet been reached in the Middle Ages. Indeed, the parchment of portable Bibles, and especially those of Parisian origin, is of very high quality and remarkably fine. The communication will show the characteristics of this support and evaluate the role of its thickness in the miniaturisation process, at a time when complete Latin Bibles moved from a mainly collective to a mainly personal use.

Marc Smith (École nationale des chartes / EPHE (PSL), Paris)

Wax, Papyrus, Parchment, Paper: Materials and Cursivity in Latin Palaeography
Friday, 26 January, 3:15 pm – 3:40 pm

Cursivity in handwriting is an elusive notion: it may be described in terms of simplified letter formation and of ligatures or connections between letters, and explained as adaptation to lower levels of formality and to greater speed of execution — a parameter which, however, can hardly be assessed in retrospect. In the Latin tradition, the ductus of formal letters is usually divided into separate strokes, the pen being drawn downwards and from left to right, and constantly repositioned between strokes. Less rigorous writing modes tend to produce different effects according to materials and techniques, with changes in stroke sequence and pen direction affecting mostly secondary (ornamental/connecting) elements and more seldom primary (structural) elements of letter forms. A general history of the development of letter forms should take into account not only changes in writing materials but also their respective roles and prevalence in different periods. Writing with a stylus on wax tablets, in particular, was a predominant medium from Antiquity to the later Middle Ages, and it may be argued that the physical characteristics of wax played a key role in maintaining the principle of fractioned strokes, even on parchment. (The distinction between fractioned and cursive writing on parchment itself, starting in the 12th century, should be envisioned as the result not only of greater speed, but also of different technical conditions, such as the presence or absence of a writing desk.) The spread of papyrus in the later Roman period and even more clearly of paper in late medieval Europe — both materials

challenging the predominance of wax in the respective periods — coincided with the development of new principles of cursive writing, in which more fluid pen movements resulted in fundamental changes even in the directions and sequence of primary letter elements, allowing writers to produce whole letters in sequence with no pen lifts. Whatever the practical gain might have been in terms of actual linear speed, highly connected writing also translated into other essential advantages for the writer and the reader, such as clearer, more regular letter formation and possibly other productivity factors such as less frequent pen dips.

Marc Smith (École nationale des chartes / EPHE (PSL), Paris)

Gothic Metal: From Technical Improvisation to Professional Traditions

Friday, 26 January, 3:40 pm – 4:05 pm

Late medieval epigraphy offers many examples of unusual letterforms, occasionally to the point of illegibility. Some of the artisans responsible for their execution appear to have been partly or completely illiterate, or at least unfamiliar with the formal letters expected for an inscription: professional experience in a given medium such as metal did not necessarily include notions of epigraphy, and a commission for an inscription could produce bizarre results. In some cases, letters seem to have been copied as abstract forms, with no previous knowledge of reading and writing. The metal doors of two tabernacles (from Avioth, late 15th c., and from the Avignon area, early 16th c.) show two metalworkers experimenting with opposed technical solutions for cutting out letters, one in positive and the other in negative, both with visually confusing outcomes. A broader and still unexplored corpus is that of incised lettering by late medieval and Renaissance goldsmiths, which attests to the development of common methods and extremely simplified letterforms for quick execution in diminutive sizes mostly on the inside or outside of rings, but also on other jewels and various metal objects. Whereas early examples in Gothic majuscule (13th c.) suggest a variety of individual or local solutions, later work shows a broadly unified tradition developing across much of Europe, with Gothic minuscules routinely reduced to an elementary grid of vertical and horizontal strokes. Later lettering (until the 17th c.) incised on more modest objects made of tin or pewter shows similar principles applied to other styles of writing. Such professional traditions, almost esoteric, raise the question: apart from the metalworkers who produced the inscriptions, who was supposed to be able to read them? Magical rings, in particular, suggest that the power of writing could be quite independent from its legibility.

Ilse Sturkenboom and Theresa Zischkin (Ludwig-Maximilians-Universität, München)

The Introduction of Chinese Decorated Paper to Iran and Its Huge Impact on Manuscript Production in the Islamic World

Thursday, 25 January, 5:00 pm – 5:25 pm

Long before a certain kind of decorated paper was introduced to Greater Iran in the fifteenth century, the Islamic world had a well-established tradition of manuscript production and embellishment. Luxurious manuscripts such as Qurʿans were decorated with illuminated frontis-, head- and finispieces as well as (verse) markers, while especially narrative texts were illustrated with figurative paintings placed within the text area.

The introduction of long sheets of brightly coloured and gold-embellished papers from China to Iran provided new opportunities for the production of luxurious manuscripts. As the papers were coloured on both sides and boasted extensive gold decoration in the form of flecks, sprinkles and whole compositions of landscape designs, various plants and flower-and-bird motives, texts could now be written on top of completely decorated paper rather than being embellished only selectively and usually after the writing process. Furthermore, the possibility of combining sheets of different colours and gold designs provided further chances to, for example, alternate colours within quires or write on top of the coloured paper in contrasting tones.

This talk will offer insights into the circumstances under which Chinese paper was used in Persianate manuscripts and reasons for its employment. It will also consider possible disadvantages of Chinese paper that may have led to the discontinuation of its use around 1500 such as its rarity or even unavailability, heavy weight and unsuitability for writing upon with (Persian) inks.

A further aim of this talk is to investigate instances of the adaptation of Chinese paper's aesthetics in manuscripts produced in Iran, Central Asia and India. Examples derive from manuscripts analysed as part of the recently started ERC-project GLOBAL DECO PAPER (Decorated Paper in the Early-Modern Islamicate World: Aesthetics, Techniques and Meaning in Global Contexts). They shed light onto the local appropriation and techniques of gold sprinkling and flecking, paper colouring, and embellishment with (Chinese-inspired) floral and figurative designs behind and around texts. They also demonstrate how existing techniques such as stenciling were revived and (presumably) new techniques such as paper marbling and paper cutting were developed in another step in the appropriation of Chinese paper's aesthetics and towards local and/or dynastic manifestations of paper decoration.

Abdurishid Yakup (Berlin-Brandenburg Academy of Sciences and Humanities)

Introduction of Printing and Changes in the Old Uyghur Manuscript Culture

Thursday, 25 January, 2:30 pm – 2:55 pm

In the 13th century, the Old Uyghurs introduced the technique of block printing and began to produce printed books and texts. Meanwhile, the Old Uyghurs were in the process of developing movable type printing. Among the most important testimonies to the printing culture of the ancient Northern Silk Road, the Old Uyghur prints and wooden letters represent the most extensive group of texts, considered to be the oldest examples of printing in an alphabetic script on the Silk Road and unique for the study of printing culture. Despite the long history of the edition and study of Old Uyghur prints, there is neither a general overview of the printed texts nor a content-based or systematic formal classification of the entire corpus of Old Uyghur prints; the reasons for the selection of the respective texts for printing have not been investigated; of the 1535 fragments, only 13 fragments have been clearly dated; the technical aspects of Old Uyghur prints have not been carefully explained; the role of the Old Uyghurs in the spread of printing technology along the ancient Northern Silk Road and from there to the West has not yet been sufficiently investigated. In this talk, I will focus on one important aspect of Old Uyghur printing: the changes observed in Old Uyghur manuscript culture after the introduction of printing, e.g. the use of wooden letters in the production of manuscripts, the copying of texts from prints, changes in the orthography, and so on.