



*Workshop*

## History of Scientific Publication

*Royal Swedish Academy of Sciences, Linnésalen, 3-4 December 2015*

We would like to invite you to attend an international workshop on the history of scientific publication at the Royal Swedish Academy of Sciences, on 3-4 December, 2015. The workshop will explore the norms and practices of scientific publication 1760-2010. The main emphasis is on the nineteenth century and the rise of print media, particularly scientific journals.

The workshop is organised as part of the research programme “Science and Modernization in Sweden: An Institutional Approach to Historicizing the Knowledge Society”, funded by Marianne and Marcus Wallenberg’s foundation and hosted by the Center for the History of Science at the Royal Swedish Academy of Sciences.

The workshop will take place at the Royal Swedish Academy of Sciences, and includes lunch and dinner at the Academy on December 3, and lunch on December 4. Information about how to get to the Academy is available on the Academy homepage, [www.kva.se/en/contact/](http://www.kva.se/en/contact/).

The number of participants is limited, so please contact Jenny Beckman ([jenny.beckman@idehist.uu.se](mailto:jenny.beckman@idehist.uu.se)) as soon as possible if you like to attend, or if you have any questions.

Jenny Beckman and the Programme Committee



## Program

### *Thursday December 3*

- 12.00     *Lunch*
- 13.30     Welcome and practical information (Kalle Grandin)
- 13.45     Introduction (Jenny Beckman)
- 14.00     Marie-Claude Felton, “Self-publishing Science in France, 1750-1820”
- 14.45     *Coffee*
- 15.15     Jonathan Topham, “The Scientific, the Literary, and the Popular: Commerce and the Reinvention of the Scientific Journal in Britain, 1815–25”
- 16.00     Jens Eriksson, “Bibliopolitics and the Measurement of Science”
- 18.00     *Dinner at the Royal Academy of Sciences*

### *Friday 4 December*

- 09.00     Peter Josephson, “The threat of the autodidact. Books, self-teaching and the transformation of universities into research institutions, 1768-1810”
- 09.45     Alex Csiszar, “The Rise of Proceedings in Britain and France”
- 10.30     *Coffee*
- 11.00     Aileen Fyfe, “Circulating the *Philosophical Transactions*, 1750-1950”
- 11.45     Nils Güttler, “The Colourists: Hand-coloring Maps in Modern Cartography”
- 12.30     *Lunch*
- 13.45     Bettina Dietz, “Pehr Osbeck’s travelogue and the culture of collaborative publishing in eighteenth-century botany”
- 14.30     Maeve Olohan, “Foregrounding translation?”
- 15.15     *Coffee*
- 15.45     Matts Lindström, “Microfilm as a scholarly medium”
- 16.30     Concluding discussion



## Abstracts

### **Alex Csiszar (Harvard University): "The Rise of Proceedings in Britain and France"**

Beginning in the 1820s, detailed proceedings of European learned societies and academies became regular features in many periodicals and journals. These proceedings, normally inserted into commercial publications, were gradually issued as separate publications under the control of societies and academies, and by the end of the 1830s distributing *Proceedings* or *Comptes rendus* was a near universal institutional practice in science. This development was fundamental to the legitimation of scientific journals as the signal format for publishing science. This talk will explore the broader context of proceedings in the cultural politics of publishing, comparing the cases of France and Britain. In both these nations, the regular publication of proceedings to broader publics in newspapers and magazines had become central to the legitimacy of governing bodies by the early 19<sup>th</sup> century, and this standard of legitimacy ultimately came to be applied to scientific institutions as well.

### **Bettina Dietz (Hong Kong Baptist University): "Pehr Osbeck's travelogue and the culture of collaborative publishing in eighteenth-century botany"**

This talk explores the culture of collaborative publishing in Linnaean botany by tracing the publication trajectory of Pehr Osbeck's report of his journey to Canton in southern China during the period 1750 to 1752. Osbeck, a Swedish naturalist and student of Linnaeus, divided his material between a number of publications that appeared successively, building on and complementing each other. The aim of his project was to make a first version of his new material available to an interested public as quickly as possible, while leaving the process of completing and correcting it to be undertaken by stages at a later date. This long-term project was conceived as a collaboration from the start, and involved a number of authors. It began with most of Osbeck's newly discovered plants being published first not in his own book but, by mutual agreement, in Linnaeus' *Species plantarum* (1753). After Osbeck's travel report was published in Swedish (1757), translations into German and English gave additional authors a chance to expand and correct the text. This layering of information along with the documentation of the provenance of each individual addition shaped not only the appearance of the published text, but also a concept of collective scientific authorship.



**Jens Eriksson (Uppsala University): “Bibliopolitics and the Measurement of Science”**

When men of learning wanted to take stock of the progress that German science had made towards the end of the eighteenth century, the Leipzig Book Fair Catalogue offered them what appeared to be an unrivalled resource. Advertised as a list over everything published in the German language area each year, it invited the inquisitive to count the number of publications that had appeared in the region between Easter and Michaelmas. The numbers could then be used, it was argued, to gain a rough understanding of the scientific and literary vitality of an area or city in the region, compare its yearly scientific performance with those of other places, and gauge long-term changes. In the first decades of the nineteenth century, this bibliopolitical use of the fair catalogue had begun to fall out of favour. Critics lambasted the catalog for advertising pirated merchandise as new and respectable publications. According to the catalogue’s most vehement critics, the abuse of the catalogue had gone so far that readers were now being duped to believe that scholarly publishing in the German language area went through a period of blossoming and expansion. Instead, they argued, Germans lived in an Age of Piracy. This paper draws on these discussions to address questions about boundary work in the history of the sciences and the book. How, I ask in the paper, did the historical actors define a *new* scientific publication? How did it differ from an unauthorized copy? Who commanded the authority to draw the line of demarcation?

**Marie-Claude Felton (McGill University): “Self-publishing Science in France, 1750-1820”**

For any *savant* in the 18th century, getting published was a crucial step toward finding recognition. Since its foundation in 1666, the Parisian *Académie des Sciences* was the privileged guardian of scientific principles and maintained a tight control over the publication of *travaux savants*. As the next century progressed, however, more and more amateurs wanted to take part in the various scientific debates, with or without having obtained the royal institution’s benediction. As my past research has shown, for these enthusiastic amateurs, publishing their works on their own terms was crucial in order to get another form of recognition, that of the reading public. Through self-publication – a process that became totally legal in France in 1777 when authors were allowed to sell their own books – amateur and renowned scientists alike could defend their views and engage more directly with the learned public, even outside of the closed academic circles. How has the place and role of scientific self-publication evolve after the Revolution of 1789? Preliminary results tend to show that, far from disappearing, self-publishing continued to play a role in the publication of science at the beginning of the 19<sup>th</sup> century. For this paper, I propose to examine how the different legislative and commercial frameworks that characterized the book trade in France – and especially Paris both before and after the Revolution of 1789 – had a significant impact on how men of science were able to publish their works on their



own, regardless of their institutional affiliations, and also to study the many challenges they met. What circumstances would propel scientists to self-publish? Was there a growing stigma associated with the practice in the 19<sup>th</sup> century? In what way did self-publishing constitute a viable alternative to institutional publications? These are only a few questions I look forward to discussing in the coming workshop at the Royal Swedish Academy of Sciences.

**Aileen Fyfe (University of St Andrews): "Circulating the *Philosophical Transactions*, 1750-1950"**

The Royal Society's *Philosophical Transactions* (f.1665) has usually been celebrated for its role in creating the genre of the scientific journal that would later come to dominate the communication of scientific research and the building of scientific careers. But as well as enabling communication among scholars, the learned society transactions was also crucial to facilitating relationships and library-building amongst a network of international learned societies. I will focus, not on translations, but on the physical circulation of copies of the *Transactions* around Europe and, later, the world, and will reveal how the Royal Society ended up with an unrivalled library of scientific journals (which later formed the basis of the *Catalogue of Scientific Papers*). The Royal Society's institutional exchange scheme rose from a handful of recipients in the 1760s, to around 60 in the 1840s, to an incredible 460 in the early 1900s. I will investigate the rationale for, and operation of, this scheme, and will consider what this can tell us about the global circulation of knowledge before the internet.

**Nils Güttler (ETH Zürich): "The Colourists: Hand-coloring Maps in Modern Cartography"**

Situated at the intersection of semiotics, aesthetics and economics, color has become a boundary material in modern cartography. Since the early 19th-century cartographers have used it as a symbol and reading aid. Apart from making maps more meaningful and legible, color has also been applied to increase their aesthetic and economic value. Thus, the use of color in modern map-making reflects the rise of maps as scientific media and market commodities. Whereas historians of cartography have revealed the semiotic importance of color, little attention has been paid to the question who actually gave maps their color. Before the advent of lithography, and even beyond, map coloring was nearly exclusively a female business, carried out by teenagers and young women. Over the course of the 19th century hand coloring manufactures emerged all over Europe. The colorists accumulated a tremendous knowledge on the application of color to maps and its mass reproduction for popular and scientific markets. Some of the manufacturers existed well into the second half of the 20th century.

By concentrating on the color departments of two major cartographical publishing companies in Great Britain and Germany, this paper traces the history of hand coloring in



modern cartography. Why has this practice been so exclusively performed by women? Answers to this question reach from social history – women were a cheap labor force –, to cultural history, and pedagogical gender discourses in particular. The alleged female perceptivity for color was a common argument in 19th-century school manuals for drawing classes. But what about adding another, more ontological dimension to the history of the colorists, by borrowing anthropologist Michael Taussig’s notion of color as being “bodily unconscious”? It points to an indeterminacy of color as it is applied to the scientific medium map. What features of color in modern cartography have been “suppressed” by forgetting the female dimension of this paper practice? What do we gain by gendering the history of color as a boundary material?

**Peter Josephson (Södertörn University College & Uppsala University): “The threat of the autodidact. Books, self-teaching and the transformation of universities into research institutions, 1768-1810.”**

In the late 18th century, German scholars abandoned Latin for German as the language of academia. At the same time, there was a great increase in the publication of printed works. Knowledge that had previously circulated primarily in academic environments was now more generally accessible. Even though scholars had led and prepared the way for this development, it nevertheless placed them in a difficult position. How were they to distinguish themselves from other, book-taught scholars with an interest in science and philosophy? The paper analyses some of the strategies academics employed in order to bolster their threatened group identity. My central thesis is that the attempt to create boundaries distinguishing scholars from autodidacts would leave traces in what Wilhelm von Humboldt once called the “inner organization” of the university. The paper concludes that the modern research university was conceived partly as an answer to challenge posed by the mass-produced book and the opportunities for autodidacticism it entailed.

**Matts Lindström (Stockholm University): “Microfilm as a scholarly medium”**

While microfilm, in the popular imagination of newspapers and Hollywood movies, has frequently been associated with clandestine or covert operations – a means to steal, conceal and transport government and industrial secrets – it has a far wider and more varied history of use, with close ties to the systematic organisation of scientific knowledge and to scholarly publishing.

During the 1930s, at a time when commercial microfilming was introduced in Europe and the United States, the medium was often lauded for its perceived abilities to intervene in and change established practices of scholarly publishing. In this context microfilm was not understood as a medium of concealment and theft, but rather as one of unlimited storage and dissemination, capable of mobilising scholarly and scientific knowledge in service of a modern utopia of scientific transparency.



In my talk I will explore some of these early perceptions of microfilm as a new medium of scholarly communication and knowledge dissemination. My point of departure is that in an era of seemingly ever-growing output of scientific articles and journals, microfilm promised to solve problems related to information overflow and a threatening loss of epistemological footing within the international scientific community.

Through the examples of two American proponents of the new medium – Watson Davis and Robert Binkley – I will try to answer a series of questions concerning the relationship of science and microfilm: how was the medium perceived and anticipated within the context of scientific practice? What futures were imagined and projected in relation to the new technology? How did the specific materialities and practices which constitute microfilm affect these perceptions and anticipations?

### **Maeve Olohan (University of Manchester): "Foregrounding translation?"**

This paper explores how studying practices of translation and the publishing of translations may enhance our understanding of the circulation of scientific knowledge and the nature of interactions across linguistic and cultural boundaries in scientific and publishing fields. A product-oriented approach to translation scholarship is likely to compare source texts and their translations to examine how specific scientific concepts are understood and then conveyed in the target language, with some contextualization to posit explanations for certain translation decisions and strategies. However, growing interest among translation scholars in sociologically informed research encourages us to examine translation as a socially situated activity and to reflect on the interactive and socially conditioned nature of translational behaviour. Translators, as agents involved in social practices, are thus considered not only in terms of how they shape the translation product but also in terms of how they participate in and shape those practices.

The latter perspective prompts study of how translations are selected, produced and received in their specific contexts. We may focus on the circumstances in which translators of science work, the collaborative and competing relationships between translators, science authors and publishers, and the economic, political and material dimensions of scientific translating and publishing practices. Of considerable interest too are the factors and interests that condition the power relations inherent to scientific translation. Among others, questions of what is translated and what is not, who translates, and who decides, are instrumental in producing directions and flows of translation across linguistic and cultural boundaries that can have much wider scientific or cultural significance. Questions of how translation reshapes or localizes scientific knowledge for target audiences also direct our attention towards translation reception and the implications of specific translational strategies and behaviour.

I would like to illustrate some of these issues by drawing on a case study of the London-based periodical of translations, *Scientific Memoirs*, (1837-52) and the work of Richard Taylor as its editor and publisher. Further exemplification is offered from the translation



history of Alexander von Humboldt's works and an ongoing study of the practices of present-day translators in an international scientific research centre. My aim is to prompt reflection and discussion on the insights that might be afforded by focusing our attention on translation in this way but also on the methodological and conceptual challenges of doing so.

**Jonathan Topham (University of Leeds): “The Scientific, the Literary, and the Popular: Commerce and the Reinvention of the Scientific Journal in Britain, 1815–25”**

The first commercial science journals in Britain were founded in the 1790s, but these were all private speculations by aspiring but low-status editors. It was not until the years following the end of the Napoleonic Wars that leading publishers entered the market, becoming involved in the founding of four new scientific journals that were all edited by reputable men of science. In the same period, the editors of the magazines of general literature rapidly redefined their remit, placing a new emphasis on the literature of taste, while radically reducing the attention given to scientific topics and rendering the mode of its treatment more self-consciously ‘popular’. Together, these journalistic ventures contributed to the creation of newly distinct notions of the ‘literary’ and the ‘scientific’, responsive to a growing sense of a divided literary market. In this paper, I examine the founding and running of these four new scientific journals (*Annals of Philosophy*, *Journal of Science and Arts*, *Edinburgh Journal of Science*, and *Edinburgh New Philosophical Journal*), focusing especially on how their editors and publishers sought to build sustainable markets for them. I argue that the commercial imperatives that operated in what was now a crowded market impelled them to seek ways to render science ‘popular’, an aspiration in which they found themselves again somewhat in competition with the new literary magazines.



## Practicalities

The workshop will take place at the Royal Academy of Sciences. Information about how to get there is available at the Academy homepage, <http://www.kva.se/en/contact/>. We have reserved accommodation at the Victory Hotel, Lilla Nygatan 5 (<http://www.thecollectorshotels.se/en/victory-hotel/>). It is in the Old Town, on the same underground line as the Royal Academy of Sciences. Accommodation will be booked for 1-3 nights, depending on your travel dates. Please let us know when you book your flights so we can confirm hotel reservations – or if you need to make other arrangements.

Costs for travel and accommodation will be covered by the organisers. Please use the travel agency Reseproducenterna to book your flights. Contact them via email at [rese@reseproducenterna.se](mailto:rese@reseproducenterna.se), with copies to me and the director at the Centre for the History of Science at the Royal Academy of Sciences, Karl Grandin ([karl.grandin@kva.se](mailto:karl.grandin@kva.se)), and give Karl Grandin and the Royal Academy of Sciences (KVA) as references.

Most airlines fly into Arlanda Airport, approximately 35 km north of the city. There are bus services to the city (Flygbussarna, approximately 40 minutes), or a train to Stockholm Central Station (Arlanda Express, 20 minutes). More information about transportation is available on the airport website (<https://www.swedavia.com/arlanda/>).