

ROLDUC 2019

History of Science
and Humanities
PhD Conference

#rolduc19
#histsci

Dear participants,

Thanks for travelling to Rolduc Abbey, and welcome!

When the first edition of this PhD conference was organized in January 2007, its purpose was to bring together early career scholars working in the history of humanities and science in Belgium and the Netherlands. Five subsequent editions have contributed a lot to fulfill this aim, and we are honored to continue that discipline-building tradition by organizing this year's conference at Rolduc!

The 7th edition of the *History of Science and Humanities PhD Conference* involves 23 speakers, representing no less than 10 different universities and institutions in Belgium and the Netherlands. We are very proud of this diversity, and thrilled about the many different subjects and approaches included in the programme.

In this booklet, you find the programme for the coming two days, all abstracts, and a list of participants.

We also want to use this spot to say thanks to our generous sponsors for their financial support. Vossius Center, Descartes Centre, and Huizinga Institute: thank you very much!

We are confident that some very interesting days lie ahead of us, and wish you all a great time!

Emma, Jaco, Chaokang, Sjang

THURSDAY FEBRUARY 14TH

| | | |
|--------------|--|--------------|
| 10:00 | <i>Walk-in and Registration</i> | |
| 10:45 | <i>Opening</i> | |
| 11:00 | Victor Xu | p. 8 |
| 11:30 | Tom Kayzel | p. 9 |
| 12:00 | Lucie Bastiaens | p. 9 |
| 12:30 | <i>Lunch</i> | |
| 13:30 | Jaco de Swart | p. 10 |
| 14:00 | Wouter de Vries | p. 10 |
| 14:30 | Emma Mojet | p. 11 |
| 15:00 | <i>Break</i> | |
| 15:30 | Jessie Wei-Hsuan Chen | p. 12 |
| 16:00 | Sjang ten Hagen | p. 13 |
| 16:30 | Lourens van Haaften | p. 13 |
| 17:00 | <i>Break</i> | |
| 17:30 | Robert van Leeuwen | p. 15 |
| 18:00 | Hein Brookhuis | p. 15 |
| 19:00 | <i>Dinner</i> | |
| 20:30 | <i>Drinks</i> | |

FRIDAY FEBRUARY 15TH

| | | |
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| 07.00 | <i>Walk</i> | |
| 07.30 | <i>Breakfast</i> | |
| 09.00 | Andrew Morris | p. 18 |
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| 11.00 | Jorrit Smit | p. 20 |
| 11.30 | Sara Serrano Martínez | p. 21 |
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| 13.30 | Didi van Trijp | p. 22 |
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| 15.00 | <i>Break</i> | |
| 15.30 | Reinout Vander Hulst | p. 24 |
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THURSDAY

15.02.19

History of Science
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PhD Conference

11.00 - 12.30

Chair: Sjang

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Knowing the Unseen: Representing Exotic Aromatics in Song China's Materia Medica, 960-1279

Victor Xu, Leiden University

As much as in medieval Europe, exotica with aromatic scent were staged at a central place in Chinese medicine during the Song period (960-1279). Among them, there were agarwood, cloves, frankincense, sandalwood, pepper, long pepper, brazilwood, etc. Most of them were not native to China and had to be imported from as far as the Indian Ocean World. The question, as we have already encountered in medieval European medical history, was how the contemporary pharmacologists in China attempted to make sense of the medical nature of these exotica while without getting a chance to visiting and seeing their habitats. By analyzing the visual and textual sources from the Song period, this article argues there was a visual and naturalistic turn around the eleventh century in Chinese *materia medica* in terms of representing and knowing these exotica. That turn should be positioned in an epistemological change during that period which was intertwined with the thoughts towards the fiscal policies of the state (by semi-monopolizing the import of exotica) and the classification of things (by recompiling *materia medica*). In the long term, that turn would also contribute to a great transformation of Chinese medical theory by demystifying the emblematic meanings of exotic aromatics and eventually lead to the deodorization of Chinese medicine in the following centuries.

The Scientific Expertise of the Future

Tom Kayzel, University of Amsterdam

In the late 1960 and 1970s, growing concerns about environmental problems and social disruptions in many Western nations created a new category of political issues: problems that would only become visible in long-term perspectives, such as pollutions, finitude of resources, population growth; these problems were often referred to as 'future issues'. In the Netherlands, renewed enthusiasm for societal planning among social scientist during the same period quickly led to the development of new modes of scientific expertise that could deal with these future issues. In my contribution, I will shed some light on this larger development by investigating the history of one specific form of such 'expertise of the future': the so-called 'future explorations' (*toekomstverkenningen* in Dutch), a series of studies that aimed to map future issues for the Dutch government from the late 1970s and early 80s, and conducted by the Dutch Scientific Council for Government Policy. In particular, I am interested in how the modelling techniques used to produce these studies helped in creating a vision of the future as a manageable policy object. *Vice versa*, I will also investigate how the emergence of a new expectation-horizon of the future issues informed modelling practice of these studies. The paper will track the development of the future exploration back to the modelling practices of the Dutch Central Planning Bureau in the early 1970s and the use of system analysis in futurology circles in the late 1960s. Given that the scientific long-term policies analyses that are now common practices in Dutch politics have their roots in future explorations, my paper holds some relevance in understanding these present practices.

History of public health in Maastricht 1880-1900: developments of knowledge and expertise

Lucie Bastiaens, Maastricht University

How did knowledge and expertise on public health develop in Maastricht? This has barely been questioned in the small amount of literature available on the history of public health in Maastricht. Concepts and insights from Science and Technology Studies are helpful in getting more understanding of the developments of knowledge and expertise on public health. More specifically, by focussing on the *performance* of experts, we can get an insight in how individual actors tried to shape their role as experts.

Although this research focusses on the period 1880-1960, results from studying the first two decades, 1880-1900, already show interesting 'first developments'. Just as in the rest of the Netherlands, in Maastricht the view developed that public hygiene determined the health of the population. This group of reformers is referred to as the hygienists. In the last two decades of the nineteenth century, they met in two organizations, both pioneered by doctors. Studying the performance of these two doctors shows which strategies and instruments they used in trying to convince various audiences (colleagues, town council, and the population), for example the use of statistics. It also becomes clear that their performances differed, and subsequently also their successfulness in being acknowledged as experts.

Only a few actual public health measures, with small impact, were taken until 1900. In the twentieth century much more public health initiatives came into being. However, the foundations had been laid down between 1880 and 1900. The efforts of the public health organizations and their front men resulted in new views on public hygiene and public health, more awareness in the town council and also among the population in Maastricht.

13.30 – 15.00

Chair: Chaokang

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The Renaissance of Cosmology and the Birth of the Dark Matter Problem

Jaco de Swart, University of Amsterdam

In 1974, two landmark papers were published by independent research groups in the U.S. and Estonia, that concluded on the existence of missing mass: a yet-unseen type of matter distributed throughout the universe. Their conclusion formed the foundation of today's dark matter problem. In this talk, I reflect on the establishment of this problem in the early 1970s. In particular, I address the broader historical conditions that made its establishment possible: the maturation of the field of cosmology in the 1950s and 1960s.

Image and Idea in the History of the Earth, 1650–1750

Wouter de Vries, VU Amsterdam

The seventeenth century witnessed a surge of studies that deal with the interior, history and make-up of planet Earth. In the realms of theology, (biblical) history, mining, geography, alchemy or the study of fossils, natural philosophers and other specialists were exploring the different histories of the Earth's creation, development and make-up. Over the course of roughly a century, the understanding of 'Earth' changed radically – not only in terms of ideas, but also in terms of representation. Many of the works that dealt with the subject include rich and complex illustrations.

This presentation will focus on the role of visual material in constituting the different conceptions of and ideas on the history of the earth between 1650 and 1750. The status of visual knowledge notably changed in this period, as did the way in which visual knowledge was produced and constituted. In the case of the earth, the epistemological nature of visual material is even more complex: one of the great problems these authors were facing was the fact that they are discussing (and representing) something that cannot be seen, but has instead to be *imagined*. Their use of visual material both shows the changes in visual epistemology in this period, as well as the intricate relationship between image and idea.

Taking the Dutch (biblical) historian and art-theorist Willem Goeree (1635–1711) as a starting point, it will trace print-traditions of representing the earth through different disciplines and publications, showing the intricate connections between changes in ideas on and in visualizations of the matter at hand – sometimes showing that the two do not move in sync, and that we should be careful in letting images tell the stories of ideas and vice versa.

Statistics: failed discipline or interdisciplinary triumph?

Emma Mojet, University of Amsterdam

After the Belgian astronomer and statistician Adolphe Quetelet died in 1874, the 9th International Statistical Congress in 1876 turned out to be the last one ever. Quetelet's pioneering work to combine the fields of 'political arithmetic' and more mathematically inclined branches of statistics, seemed to have failed. The reason: the topics and interests were seen as too diverse to be unified, even after having discussed the unification for more than 20 years (Randeraad (2011)).

Statistics did not disappear, however. Statistical and probabilistic thinking has become an integral part of a wide range of academic disciplines (cf. Porter (1985) & (1995); Krüger, Daston, and Heidelberger [eds] (1990); Stigler (1986); Hacking (1975)). Furthermore, there are chairs at universities for statisticians, journals on statistical theory and methods, and internationally renowned institutes such as the Institute of Mathematical Statistics, founded in 1930. So can we speak of a discipline of statistics? Or did the discipline formation process fail? Should we maybe see statistics as an interdisciplinary success story instead of a failed discipline? These questions involve a discussion on what it means to call something an academic discipline and what terms such as failure and success imply in this context.

15.30 - 17.00

Chair: Jaco

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Everlasting Flowers Between the Pages: Seventeenth-Century Botanical Watercolors

Jessie Wei-Hsuan Chen, Utrecht University

The recent embrace of citizen science recognizes non-experts as important producers of knowledge. To understand the historical grounds of how these issues of data quality control and expertise were decided, this project delves into the epistemic value of seventeenth-century flower books. The flower book is an assemblage of flower watercolors, which amateur collectors commissioned as records to document their plants. Amateur collectors were among the most important figures to cultivate and study rare and exotic plants. Thus, while early modern treatises by physicians and botanists represent experts' contributions to the development of botany, flower books offer a new window into the botanical visual expertise that was brought to the foreground by the collectors.

This project will explain how botanical watercolors in seventeenth-century flower books contributed to the generation of (natural historical) knowledge by amateur collectors in the early modern Low Countries. The three aspects of inquiry include: 1) The practice of visualizing early modern nature-collecting culture. 2) The material significance of watercolor. 3) The position of flower books in the visual culture of botanical imagery. This interdisciplinary project participates in the current international discourse about how (botanical) art and imagery impacted scientific advancement in the early modern period. It provides a new model to study watercolors as carefully thought-out and finished artworks instead of as preparatory sketches for oil painters by studying the materiality of watercolor. Additionally, it brings further insight into how amateurs acted as producers of knowledge within the cultural phenomenon of collecting nature.

Epistemic virtues in mid-nineteenth-century Berlin physics and historiography: a comparative approach

Sjang ten Hagen, University of Amsterdam

In my PhD project, I study the changing relations between humanities (*Geisteswissenschaften*) and science (*Naturwissenschaften*) in the 19th-century German-speaking context. I do so through several case studies, in which I trace so-called “cognitive goods” (e.g. concepts, methods, or epistemic virtues) that were fundamental in the formation of scientific and humanistic disciplines.

In the case study presented here, I focus on epistemic virtues in mid-nineteenth-century German physics and historiography. Physicists and historians would often embrace the very same epistemic virtues. But what did epistemic virtues like “objectivity” and “exactitude” precisely mean in different disciplinary settings? And how can the differences and similarities be explained? In order to answer these questions, I study contexts of practice-oriented, specialized training at the University of Berlin in the mid-nineteenth century (including, for example, state-sponsored seminars and private *Übungen*).

Subject-making in the emergence of management education in India: 1960 to present

Lourens van Haften, KU Leuven

In 1961/62, India opened its first management education institutes. The schools were initiated by the Indian government as part of the industrialization politics of Nehru, in collaboration with the Harvard Business School and MIT. Today, India houses thousands of business management institutes to educate the many young Indians dreaming of a career in the national or international corporate sector or in administration. The introduction and diffusion of this management knowledge is part of a process of ‘modernization’ of the South Asian subcontinent, in which the rationalities of management knowledge have been increasingly embraced to shape the Indian society.

This paper explores how the introduction of a new field of management knowledge into the Indian context gave rise to the emergence of a new subject: the modern Indian manager. Therefore I will use a conceptual framework derived from Michel Foucault’s subjectivity and governmentality. To study the emergence of the modern Indian manager in the process of objectification of management knowledge in India, this study will make a localized analysis of one of India’s leading management institutes, the Indian Institute of Management (IIMA). Concretely, the study looks into the evolution of the self-understanding of the modern Indian manager that was propagated at the institute in relation to the pedagogical practices, the rationales behind them, and the knowledge that was transferred to the students, in the period from 1961 to present. The research uses a wide range of sources, including educational materials, annual reports, documents with mission statements and reflections on the development of the institute, speeches, and interviews.

The paper will show how pedagogical techniques and knowledge derived from western management schools were appropriated to the local Indian context. Furthermore, it will expose how against the background of this knowledge a new categorical division was created, juxtaposing the modern Indian manager to the traditional manager, and how this category was given meaning with new norms, values, and virtues. In this way the paper will contribute to our historical understanding of the process of modernization of India in relation to the diffusion of western management knowledge, addressing the issue of multiple modernities in the non-western world.

17.30 - 18.30
Chair: Emma

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The early history of the nuclear research center SCK•CEN: Belgium and its place in the postwar nuclear landscape

Robert van Leeuwen, SCK•CEN, Belgian Nuclear Research Centre, KU Leuven

In this talk, I would like to present the historiographical framework of my research on the history of Belgian nuclear research center SCK•CEN. The major historical picture for the postwar nuclear landscape is the thesis of American ‘co-produced hegemony’. According to this picture, the US government used its access to nuclear knowledge in order to both help Europe rebuild its scientific infrastructure as well as securing US hegemony. More recently, however, the active role of European nations in the development of nuclear research infrastructure has been stressed by historians of science.

The Belgian response to postwar nuclear research has until now received only scant attention from historians. In this talk an outline of the European political and scientific context is presented. Two aspects are of central importance in the exploration of the literature. Firstly, the diplomatic level of international affairs and governmental contacts between nations and (supra)national institutes on nuclear research. Secondly, there is the issue of scientific manpower and expertise: how did various European nations form and train a new generation of nuclear scientists and engineers? The main objective of this presentation is to formulate new questions and identify research topics that are relevant for the case of the SCK•CEN.

New Big Science in Belgium: Transformation and Evolution of SCK•CEN 1991–2022

Hein Brookhuis, SCK•CEN, Belgian Nuclear Research Centre, KU Leuven

“Big Science has not vanished, but has transformed.” This statement, coming from Olof Hallonsten’s book *Big Science Transformed*, reflects the starting point of my research project. What happened with the big science institutes that have been studied so often within the context of ‘Cold War Science’? Recently, there has been an upswing of research that focuses on two phenomena: newly established forms of Big Science, and the transformations of former Big Science institutes. Research has shown that despite a change of purpose and political context, most of the US National Laboratories still exist, and that their financial situation has altered only marginally, because of their institutional adaptability. Within the context of Europe, recent studies have mostly focused on new initiatives i.e. the ESS and MAX IV (Lund, Sweden).

In order to contribute to the understanding about these topics, my project will focus on the recent history of SCK•CEN (Belgian Nuclear Research Centre), an institute with a long history of nuclear research in the country of Belgium. How did SCK•CEN adapt to the changing climate about nuclear energy and the societal support for Big Science? In my talk I would like to discuss the theoretical and historiographical outline of this project.

FRIDAY

15.02.19

History of Science
and Humanities
PhD Conference

09.00 – 10.30

Chair: Jaco

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How waterwheels became part of the vis viva controversy: J.T. Desaguliers' appropriation of Edme Mariotte's work in hydrostatics

Andrew Morris, VU Brussel

In 1759, John Smeaton (1724–1792), an English engineer, published *An experimental Enquiry concerning the natural Powers of Water and Wind to turn Mills, and other Machines* in the Philosophical Transactions of the Royal Society. He attempted to show by experiment that the overshot waterwheel was more efficient than the undershot wheel, because motive force was lost in the collision between the water and the blades of an undershot wheel. This result meant that motive force was measured by vis viva (mv^2) instead of momentum (mv).

In this talk, I would like to discuss a work in progress on how John Theophilus Desaguliers (1683–1744) first linked the study of waterwheels to the vis viva controversy, and how this was a result of his appropriation of the work of the French experimentalist Edme Mariotte (1620–1684).

This paper will be divided into four sections. First, I will provide an overview of the vis viva controversy. Second, I will describe Desaguliers' and Smeaton's respective accounts of waterwheel functioning in the context of this controversy. Third, I will introduce Mariotte and briefly discuss his work on hydrostatics. Finally, I will provide a close reading of two passages in the second volume of Desaguliers' *Course of Experimental Philosophy* (1744) which provide evidence for the claim that Desaguliers appropriated elements of Mariotte's natural philosophy when he linked our understanding of waterwheel functioning to the status of vis viva or momentum in the rules governing collisions.

“A New World of Observation”: Microscopists, Matter and Media, ca. 1850-1900

Lea Beiermann, Maastricht University

In the mid-nineteenth century, microscopy became immensely popular. Although the nineteenth century saw a specialisation and professionalisation of science, technology and medicine, practitioners in these fields continued to be connected by their interest in the microscope. A community of microscopists emerged, which relied on far-reaching networks for exchanging publications, instruments and specimens. Simultaneously, new media appeared – cheap periodicals and popular science books, which were widely circulated within and between Britain and America. My research regards circulating microscopy artefacts as a primary factor in connecting microscopists, asking how they spurred the formation of a heterogeneous microscopy community.

The microscope being not only a scientific instrument but also an optical toy, historians of science have neglected the field of microscopy, although it provided a remarkably interdisciplinary forum where amateurs and professionals could collaborate. As present-day online platforms are similarly facilitating lay participation in science, technology and medicine, research into nineteenth-century microscopy offers an opportunity for placing present-day citizen science in historical perspective. My research will draw on this parallelism, inviting amateur scientists to a crowdsourced investigation into nineteenth-century microscopy publications.

I will build on novel approaches to rhetorical analysis – circulation studies – to examine microscopy artefacts circulating across nineteenth-century Britain and America, analysing how they facilitated cooperation among geographically dispersed microscopists and enabled them to build a community. Thus, my research will show how participants with different disciplinary backgrounds and levels of education can collaborate in science, technology and medicine, which is crucial to ensuring the success of ongoing citizen science initiatives.

The fowl of the air and the fish of the sea: the nature of species concepts in 19th century natural history

Robbert Striekwold, Leiden University, Naturalis Biodiversity Center

Natural history, to a large extent, consists of creating characterizations of animals, plants and minerals by collecting, describing, depicting and classifying them. I look at the ontology of these characterizations in 19th century natural history, by comparing birds and fishes. Images of birds were usually very realistic, and often the animals were shown posing in their natural environments. Correspondingly, stuffed specimens of birds were often mounted in realistic positions. With fishes, on the contrary, the outside appearance of the animals couldn't be preserved well at all, and there was no tradition of making images of fishes in their natural environments. Instead, they were drawn in strict profile, somewhat schematically, and without any kind of background.

Classification was, at every level, based on one or more particular characteristics of the animals. In this context, fish images and descriptions served as idealized versions of the specimens, where the characteristics that were necessary for classification were strongly emphasized, while those that were not important were left vague, or left out altogether. For birds, much more extensive accounts were given of behaviour, ecology, and so on. Fish species as objects of natural history were thus essentially clusters of anatomical characteristics, whereas birds were represented much more as living beings.

I will explore why 19th ichthyology tended to be much more reductionistic in this way than ornithology, pointing both to the particular problems the two groups of animals presented to the naturalist, and to the ways in which the fields were practiced.

11.00 – 12.30

Chair: Chaokang

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From Solomon's House to Silicon Valley: a history of spatial imaginaries of useful scientific research

[Jorrit Smit, Leiden University](#)

In *New Atlantis* Francis Bacon created a vision of a society based on the fruits of modern science, strictly organized in a research institute called the House of Solomon. This early modern utopia (literally 'nowhere', a non-place) arguably was the root for the later installation of the Royal Society in Britain, and still carried rhetorical force in 20th century European science policy. However, new institutes came to dominate the spatial imagination, usually tied closely to the world wars: from Fritz Haber's *Kaiser Wilhelm Institute* – exemplary of the 'German model' – to the Manhattan project as paradigm of the American 'military-industrial-academic complex'. By the 1980s a new spatial imaginary came to shape the ideal of knowledge transfer worldwide: Silicon Valley stood for the endless potential of scientific research for commercialization into technological artefacts. To this day, many cities and universities establish 'science parks' with explicit reference to the success of this valley on the American west coast.

Each imaginary implies a different society; not just the spatial organization of science and its relation to society differs, they also entail alternate political economies, epistemologies and ecologies. By contrasting the 'science park' ideal with the fictional 'Solomon's House', it is possible to point to such changes and the consequences for the epistemological model of knowledge transfer. Ultimately it invites reflection upon what makes something a 'utility spot', i.e. a place that comes to embody trust in the usefulness and value of scientific research for wider society.

The voices of criminals, victims and witnesses in trials as sources for the history of science

Sara Serrano Martínez, Utrecht University

Court files can be useful sources for historians of science. The participation of scientists in trials is a practice that has increased exponentially from the 19th century on. Furthermore, its relevance in the process of professionalisation of some disciplines, like psychiatry, has been described by many historians.

However, these sources present a methodological problem: should historians, and how should they, tackle the voices of criminals, victims and witnesses? This problem emerged in 1973, when Michel Foucault and other scholars published the court files of the murder committed by Pierre Rivière. They decided not to analyse the perpetrator's discourse, for avoiding to bring it "within the power relation" that the discourses in the court files showed. Their choice was contested by the microhistorian Carlo Ginzburg and the anthropologist Philippe Lejeune. In 1985, a similar concern arose among historians of medicine, when Roy Porter advocated addressing the point of view of patients. On the other hand, court files have been used by social historians, who have described them as unique sources of popular and non-hegemonic voices.

In my presentation I will discuss this methodological debate, and I will explain how I am planning to address it for my research topic: the practices of forensic scientists in trials for murder, infanticide, and rape in Spain, 1931-1975.

Charting Time: Nature, Culture and History at the Académie Royale de Bruxelles around 1785

Mathijs Boom, University of Amsterdam

Around 1800, in a matter of decades both nature and culture acquired a history. Pioneering earth scientists discovered deep time and envisioned a succession of different worlds, inhabited by strange creatures long vanished, while the historians of Enlightenment Europe constructed a history of civil society and human culture. They all reshaped the concept of time. Yet, the parallel historization of nature and culture and its relation to the history of time has never been the subject of thorough research. We are still hampered by the nineteenth-century division between natural and cultural thought.

My project charts exchanges between natural and cultural concepts of time and history in the decades around 1800. My research centers on learned networks in the Netherlands and their transnational ties. Here, Haarlem's learned societies played a pivotal role in the international debate on the age of the Earth, while Leiden's university was a hothouse for European philology and biblical criticism, fueling the need for a more historical understanding of God's creation and the natural world.

My presentation will focus on a case study within this project: the *Académie Royale* in Brussels, where a small circle of naturalists and humanists experimented with different approaches to the deep past. It examines published works, correspondences, society archives, and scholarly networks to reconstruct the ideas and practices of the academy's members.

13.30 - 15.00

Chair: Sjang

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Ichthy-whatever: Eighteenth-Century Fish Classification and Specialization

Didi van Trijp, Leiden University

What should an ichthyologist do, and how (and why)? These questions occupied the mind of the Swede Peter Artedi (1730–1735), himself an avid researcher of fish. He unfolded his ideas on the matter in his *Ichthyologia* (Leiden, 1738) that was posthumously published by his close collaborator and friend Carl Linnaeus. In this book, Artedi described all the fish that he encountered in earlier natural historical works or during his field work. He did so according to a method of organization that was decidedly new, namely a system of classification that divided fishes into classes, genera and species based on specific external features. Over the years, this system was gradually taken up by other European naturalists. His approach privileged certain characteristics of fish over others, which had consequences for what parts of the piscine world were studied, preserved and conveyed in word and image. In his book, for example, Artedi explicitly excluded any kind of knowledge that he considers “a-methodic”, such as the expertise of fishermen, fish mongers and chefs. This talk examines how Artedi presents the ichthyologist as an expert that is separate from both other researchers of nature as well as those that busy themselves with fish in any other than systemic manner. By studying this development in the making of ichthyology as a separate field of knowledge, I hope to explore the relation between the introduction of classification systems and the increasing specialization within the field of natural history during the eighteenth century.

Emancipating Africa through the writing of History: Envisioned Practice

Larissa Schulte Nordholt, Leiden University

In 1964 UNESCO approved of the drafting and publication of an 8-volume ‘*General History of Africa/Histoire Générale de l’Afrique.*’ One of the main goals of this ‘General History’ and indeed of early African historical studies was to change the way African history was written and perceived in a broad sense. Moreover, the history aimed to provide the African continent and its emerging nation-states with a decidedly Afro-centric, rather than Eurocentric, history of their own. This chapter describes and analyses the practices of these emancipatory aims and goals.

The, mostly, African historians working on the project were invested in the methodology of ‘oral history’ as a distinct way to decolonize African history writing. Why was Oral History seen as ‘typically African’ and thereby a unique way of ‘provincializing Europe?’ Secondly, the chapter will look at the remarkable way in which the GHA set out to produce a history ‘to end all histories’: one that would cover the entire continent and provide its people with a standard work of reference. From the very start of the project the committee also stipulated that the eight volumes had to be published in abridged versions at a low price and in various African languages, with the explicit goal of making the History available to Africans and people of African descent across the globe.

This chapter therefore investigates how educational, emancipatory and the ultimately epistemic aims of writing an 8-volume work of history influenced one another and the creation of African history as a new field within the broader discipline of history.

The double disappearance of the person in the Dutch educational sciences (1920-2000)

Pieter van Rees, University of Groningen

Based on a historical analysis of a leading educational journal in the Netherlands (*Pedagogische Studien*), this paper traces the development of scientific knowledge on citizenship education in the period 1920-2000.

In current debates on education, the preparation for citizenship on schools is a hot topic. There is a broad consensus that schools can and should do more to prepare pupils for their social and political roles in a globalizing, individualizing, multicultural and democratic society under the name 'citizenship education'.

Yet 'citizenship' is a contested notion and social, ethical and political education in schools raises all kinds of pedagogical questions. Should we want to teach children to become a certain kind of citizen? Is this an appropriate educational goal in a democratic society? Who should decide on what kind of citizenship we teach? And what should be the role of the educational sciences in debates over citizenship education?

These questions touch upon longstanding debates within the educational sciences and philosophy regarding the place of values in educational research and practice, the 'scientific' status of different forms of educational research and the relation between educational research and politics. Using publications in *Pedagogische Studien*, this paper traces interactions between changing ideas on citizenship and the role of education in a democratic society, and shifting research paradigms in the educational sciences in the Netherlands during the twentieth century. It shows how a philosophically oriented pedagogy, devoted to the development of democratic persons, was replaced by a focus on educational equality between 1945 and 1980, and how these two educational goals imply their own forms of scientific research and objectivity.

15.30 – 17.00

Chair: Emma

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The hybrid identity of the Catholic physician: the Belgian Society of Saint-Luc (1922-1965)

Reinout Vander Hulst, KU Leuven

The historiography of Belgian medicine indicates that the Catholic world had an ambiguous attitude towards medicine. On the one hand, the church intelligentsia was reluctant to embrace science as an essential characteristic of modern medicine. On the other hand, Catholic physicians saw their complete devotion to the sick as an expression of their faith in God. In the aftermath of World War I political Catholicism in Belgium was in relative decline. As a reaction to this evolution, so-called Catholic Action organisations sprung up in all spheres of Belgian society. These organizations worked under the auspices of the church establishment and their main aim was to rechristen society through a specific emphasises on youth mobilisation. In this way a number of physicians founded the *Société Médicale Belge de Saint-Luc* in 1922. This medical association had an outspoken Catholic profile and argued more than ever that medicine and religion were highly complementary. The society saw itself as essential in the battle against moral decay. The Catholic physician perceived his medical profession more as a vocation akin to that of the priest than as a means of earning money. By analyzing the journals of the society and building on the medical vocation concept introduced by Guillemain (2009), I will consider how these Catholic physicians balanced their professional and religious identities.

The animals of the field versus the creatures of the sea. Species organisation in in ichthyology and other zoological fields in the sixteenth century

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Mid-16th century an endeavour to map all of living nature resulted in a fast-increasing number of described and depicted species. Within animal studies, new developments can first be observed in 'fish studies', as is epitomised in the publication in rapid succession of four richly illustrated works, by Belon (1551), Salviani (1554), Rondelet (1554) and Gessner (1558). Gessner incorporated the three former publications, which he discusses critically besides adding new information. In addition he published works on other fields of zoology, such as mammals and birds, making his work a good starting point to explore the study of fish in relation to other fields in the sixteenth century.

A major difference in Gessner's work on distinct zoological fields lies in his organisation of species, often overlooked due to the alphabetical presentation of his main work. While Gessner's classification of other animals is often based on their usefulness and behaviour, his organisation of fishes is largely based on physical characteristics. This classification is reflected in other aspects of his description, such as nomenclature and illustration. His depictions of fishes, described as 'ad vivum', emphasise the characteristics based on which species are distinguished, in certain cases to the point where the depiction no longer resembles the fish as it is seen in nature.

Several reasons for the discrepancy between ichthyology and other fields of zoology can be suggested. There are many more species of fish than of mammals or birds, requiring a more detailed description in order to identify species. This is amplified by the fact that far fewer species of fish had been described. In terms of usefulness, while a criterion for classification of other animals, there is little difference between fish species. And lastly, fishes were far less often observed while alive, therefore less was known about their behaviour. A more detailed description in order to identify species. This is amplified by the fact that far fewer species of fish had been described. In terms of usefulness, while a criterion for classification of other animals, there is little difference between fish species. And lastly, fishes were far less often observed while alive, therefore less was known about their behaviour.

Precision and Exactitude in Stellar Spectral Analysis: How Conviction and Circumstance Shaped Anton Pannekoek's Scientific Persona and Practice

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The astrophysical research of Anton Pannekoek (1873-1960) is characterized by epistemic virtues like precision, diligence, and exactitude, which he valued over expeditiousness or scope. In theoretical research these virtues were present in his development of laborious numerical methods for the fine analysis of stellar spectra, while in observation research, they were evident in the excruciating detail with which he and his students measured the spectra of only a small number of stars. In part, his approach to astrophysics was shaped by the fact that he was an isolated astronomer without an observatory. The early twentieth century saw the founding of large photographic observatories taking on massive broad-scope cataloguing projects. To establish his own niche, Pannekoek decided to focus on the precise measurement of stellar spectra, spending years measuring only a small number of borrowed photographic plates. While Pannekoek's adherence to precision and exactitude complied with practical constraints, it also reflected his ideas on the role of science in society. A reputed astronomer, Pannekoek was also a noted and influential Marxist theorist. In his socialist and historical writings, he emphasized that science had above all to be beneficial for society – not only by providing technological advances, but especially by exemplifying a way of thinking. From this standpoint, Pannekoek's projected self-image of an observational astronomer who focused on precision and work ethic over expeditiousness or scope coincided with the general role he envisioned for scientists in society.

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