Antoni van Leeuwenhoek (1632 – 1723) and his impact on the history of microscopy

K

H

B







and the second

rijksmuseum boerhaave BIBLIOTHECA HERTZIANA MAX PLANCK INSTITUTE FOR ART HISTORY



Antoni van Leeuwenhoek (1632 – 1723) and his impact on the history of microscopy

Three hundred years ago the Dutch microscopist Antoni van Leeuwenhoek died. He had been corresponding with the Royal Society for fifty years. Leeuwenhoek, born in Delft in the Netherlands in 1632, developed himself into one of the most prolific early microscopists. He made his own lenses and small hand-held microscopes which were more versatile than most other devices at the time. With these instruments and his outstanding preparation and observation techniques, he was the first to see and describe red blood cells, bacteria and many other things.

In this conference we will take a close look at Leeuwenhoek's seventeenth- and eighteenth-century microscopic practices as well as the development of the field of microscopy from his death to the twenty-first century. We will show how Leeuwenhoek was working as part of a large European network of scientists exploring the natural world with microscopes. The papers in this conference will make clear that microscopic practices and the way in which scientists communicated their findings to each other started in Leeuwenhoek's time and are still used today.

Conference organisers: Dr Sietske Fransen, Bibliotheca Hertziana – Max Planck Institute for Art History; Drs Tiemen Cocquyt, Rijksmuseum Boerhaave; Professor Dr Eric Jorink, Leiden University & Huygens Instituut.

Programme

Thursday 14 September

9am Welcome and opening remarks Sietske Fransen, Bibliotheca Hertziana - Max Planck Institute for Art History, Rome, Italy

Session 1: The Royal Society and Antoni van Leeuwenhoek

9:15am Instrumental visions in the early Royal Society Sachiko Kusukawa, University of Cambridge

> Idol of the tribe: Leeuwenhoek, the Dutch and the Royal Society Eric Jorink, Leiden University & Huygens Institute, Netherlands

10:45am Coffee and Networking (25 minutes)

Session 2: Antoni van Leeuwenhoek in his historical context

11:10amThe nutmeg and the mite: on Antoni van Leeuwenhoek's ecological expertiseChristoffer Basse Eriksen, Humboldt-Universität, Berlin, Germany

Leeuwenhoek and the study of plants in the seventeenth-century Dutch Republic Fabrizio Baldassarri, Marie Sklodowska Curie fellow at Ca' Foscari, Venice, Italy and Indiana University, Bloomington, USA

12:40pm Lunch (50 minutes)

Session 3: Early microscopy and images

1:30pm Many hands, many oaks: Leeuwenhoek and Grew in conversation Pamela Mackenzie, SSHRC visiting Postdoctoral Scholar, University of Cambridge

> The Making of the microworld: observation, drawing, print Ellen Pater, Huygens Institute & Leiden University, Netherlands

3pm Coffee and Networking (30 minutes)

Session 4: Instruments and Philosophical Questions

3:30pm Positioning Leeuwenhoek's microscopes in seventeenth-century microscopy practice Tiemen Cocquyt, Rijksmuseum Boerhaave, Leiden, Netherlands

> But what were they actually looking for? Christoph Lüthy, Radboud University, Nijmegen, Netherlands

5pm Close

Friday 15 September

Session 5: Circulating microscopic discoveries

9am Reading images – understanding texts – replicating experiments Sietske Fransen, Bibliotheca Hertziana - Max Planck Institute for Art History, Rome, Italy

> **Microscope modification and use by Antoni van Leeuwenhoek** Lesley Robertson, Delft University of Technology, Netherlands

10:30am Coffee and Networking (30 minutes)

Session 6: Microscopy post-Leeuwenhoek

- 11amFit for polite society: Pierre Lyonet (1706 1789) on publishing natural history
in the eighteenth century
Larissa van Vianen, University of Amsterdam, NetherlandsThe Royal Microscopical Society where it came from and where it is going
John L Hutchison, Royal Microscopical Society
- 12:30pm Lunch (60 minutes)

Session 7: All about lenses

1:30pmChanging perspectives: practising with solar microscopesPeter Heering, Europa-Universität Flensburg, Germany

What's new about an old optical (hi)story? Re-thinking the 'birth' of the achromatic lens Marvin Bolt and Michael Korey, Technische Universität Berlin and Mathematisch-Physikalischer Salon, Dresden, Germany

3pm Coffee and Networking (30 minutes)

Session 8: Bringing Antoni van Leeuwenhoek into the twenty-first century

 3:30pm
 The Collected Letters of Antoni van Leeuwenhoek – the publishing history of the Leeuwenhoek Committee (1931 – 2023)

 Douglas Anderson and Huib Zuidervaart, Editors of the Collected Letters, Netherlands; Guest researchers Huygens Institute

 Portraying micro-life with seventeenth-century microscopes

 Wim van Egmond, Visual Artist, Netherlands

5pm Close

Speaker biographies

Douglas Anderson and Huib Zuidervaart are the editors of the last volumes of *Alle de Brieven / The Collected Letters*

Fabrizio Baldassarri is a Marie Sklodowska Curie fellow at Ca' Foscari Venice and Indiana University, Bloomington. He has published widely on Descartes' natural philosophy, method, medicine, botany, and the life sciences. He also works on plant philosophy and vegetal life in the early modern period. He has co-edited special issues for *Early Science and Medicine* and *Nuncius*, and co-edited volumes such as *Vegetative Powers* (Springer, 2021) and *Plants in the 16th and 17th Century* (De Gruyter, 2023).

Marvin Bolt and Michael Korey have teamed together to pull telescopes apart for the past 20 years. Marv is currently extending and summarising this work while on a research fellowship at the Technische Universität Berlin. When not tending to optics, Michael is busy making mischief with Renaissance planetary clocks and the app BEHIND THE STARS at the Mathematisch-Physikalischer Salon in Dresden.

Tiemen Cocquyt is curator of natural sciences at Rijksmuseum Boerhaave, the national museum for the history of science in Leiden, the Netherlands. In the 'Visualizing the Unknown' research project, he has been deploying the museum's famous microscope collection as a source for studying seventeenth-century microscopy practice. He is curator of the exhibition 'Unimaginable', organised in commemoration of the 300th anniversary of Leeuwenhoek's death.

Wim van Egmond works in Delft and happens to live at the exact spot where Leeuwenhoek found microbes for the first time. Wim is a visual artist who has spent the past 30 years working with microscopes. He portrays micro-organisms. He pioneered digital imaging techniques such as focus stacking and builds his own installations to capture inconspicuous life forms such as fungi. His passion for the microscope led him naturally to studying the work of Leeuwenhoek and other early microscopists.

Christoffer Basse Eriksen is an internationalisation fellow at the Institut für Geschichtswissenschaften, Humboldt-Universität zu Berlin, supported by Independent Research Fund Denmark. Fascinated by knowledge of flowers, bees, and seeds, he is currently investigating the eighteenth-century discovery of insect pollination and has published widely on early-modern microscopy in journals such as *BJHS*, *History of Science*, and *Nuncius*. His first monograph, *Scaling Science: Microscopes, Mechanism, and Generation in the Early Royal Society*, is in preparation.

Sietske Fransen is Max Planck Research Group Leader of 'Visualizing Science in Media Revolutions' at the Bibliotheca Hertziana – Max Planck Institute for Art History in Rome, and coinvestigator of the NWO-funded project 'Visualizing the Unknown'. She previously held a postdoctoral position at the University of Cambridge in the AHRC-funded project 'Making Visible: The Visual and Graphic Practices of the Early Royal Society, 1660 – 1710'. She published on the drawings and printed images in the correspondence of Antoni van Leeuwenhoek.

Peter Heering has been professor of physics and its didactics at the Europa-Universität Flensburg since 2009. His research focuses on the analysis of historical experimental practices (in which he employs the replication method), on the historical development of teaching demonstrations in physics, and on the use of history of science in science education.

John L Hutchison studied chemistry at Glasgow University, and completed his doctorate in 1970, moving to Oxford where he developed high resolution electron microscopy and its applications in solid state chemistry. He later moved to the Department of Materials, where he ran a state-of-the-art high resolution EM facility. His links with the Royal Microscopical Society go back to when he won a micrograph competition, joining its Materials Section Committee some time later. John has served as Secretary, President and is now Chair of its History Committee.

Eric Jorink holds the Teylers chair 'Enlightenment and Religion' at Leiden University and is senior researcher at the Huygens Institute, Royal Netherlands Academy of Arts and Sciences. In 2012 – 2013 he was the Andrew. W. Mellon professor at the Courtauld Institute of Art. He is the author of *Reading the Book of Nature in the Dutch Golden Age (1575 – 1715)* (Brill, 2010) and many other publications on the relation between art, science and religion in early modern Europe.

Sachiko Kusukawa is Professor of History of Science at the University of Cambridge and Fellow of Trinity College, Cambridge. Her *Picturing the Book of Nature: Image, Text, and Argument in Sixteenth-Century Human Anatomy and Medical Botany* (2012) was awarded the Pfizer Prize of the History of Science Society of America.

Christoph Lüthy is Professor of the History of Philosophy and Science at Radboud University, Nijmegen (The Netherlands).

Pamela Mackenzie is currently a SSHRC visiting Postdoctoral Scholar at the History and Philosophy of Science department at the University of Cambridge. Her research deals with early modern scientific illustration and the role of images in supporting knowledge-making. She previously held positions in the research groups Visualizing Science in Media Revolutions at the Bibliotheca Hertziana - Max Planck Institute for Art History and the 4a_lab at the Kunsthistorisches Institute in Florence - Max Planck Institute.

Ellen Pater is an art historian and visual artist and illustrator. Her PhD research in the NWO-funded research project 'visualizing the unknown' focuses on seventeenth-century images made with the microscope, especially on the correspondences between materials and makers. She is deeply interested in the embodied knowledge and skill involved in the production of images with epistemic functions. In her research she hopes to uncover more about the materials, artistic and artisanal practices involved in the making of images of the microworld.

Lesley Robertson has been at Delft University of Technology for most of her career, mainly researching the sulphur and nitrogen cycles associated with industrial wastewater treatment. She also established the Archive of the Delft School of Microbiology. In recent years, Dr Robertson's main research interest has been Antoni van Leeuwenhoek, especially the replication of many of his experiments as closely as possible while using exact replicas of his microscopes and modern digital photography.

Larissa van Vianen recently completed her Master's degree in the History of the Book at the University of Amsterdam with her thesis on Pierre Lyonet and his publications. For the past year and a half she has been a research intern at the NWO-project 'Visualizing the Unknown.' Her interests lie in scientific print culture and the interaction between different agents in the early modern publishing industry.

Abstracts

Douglas Anderson & Huib Zuidervaart

Editors of the Collected Letters, Netherlands

The Collected Letters of Antoni van Leeuwenhoek – the publishing history of the Leeuwenhoek Committee (1931 – 2023)

Antoni van Leeuwenhoek's entire scholarly output is contained in the hundreds of letters that he wrote from 1673 to 1723. This presentation will cover the history and transformation of the Leeuwenhoek Committee, founded in 1931 with the intention of publishing a complete edition of Leeuwenhoek's letters in the original Dutch or Latin language and in English translation. The first volume of *Alle de Brieven / The Collected Letters* was published in 1939, with linguistic, scientific, and historical annotations. After more than eight decades, the project will finally be completed with the (digital and PoD) publication of volumes 18-20 in the autumn of 2023.

This presentation examines the policies instituted by the original Committee, the changes made by the five editors and other contributors preceding the current editorial team, and the contents and contexts of the 601 letters to and from Leeuwenhoek published in the 20 volumes.

Fabrizio Baldassarri

Marie Sklodowska Curie fellow at Ca' Foscari, Venice, Italy and Indiana University, Bloomington, USA

Leeuwenhoek and the study of plants in the seventeenth-century Dutch Republic

In this talk, I aim to discuss the role played by Antoni van Leeuwenhoek in Dutch botanical studies, especially focusing on his experiments with plants. After the work of Carolus Clusius, an experimental attention to plants developed in the Dutch Republic. It took a meaningful turn, as corpuscularianism and mechanical theories acquired a prominent role among scholars and the erudite who combined it with Baconian experimentalism and the uses of *lunettes à puces*. The case of René Descartes is well known. It represents a crucial step in Dutch experimentalism with living nature. In my talk, I discuss the ways Leeuwenhoek is part of this strand developing from Cartesian botany, and how much he influenced the second half of seventeenth-century plant studies in the Netherlands and Europe. I discuss the role of microscopy, the study of plant embryology (and spontaneous generation), and the explanation of the ascent of sap in plants, a relevant phenomenon in seventeenth-century culture, in Leeuwenhoek's work.

Marvin Bolt and Michael Korey

Marvin Bolt Technische Universität Berlin, Germany and Michael Korey, Mathematisch-Physikalischer Salon, Dresden, Germany

What's new about an old optical (hi)story? Re-thinking the 'birth' of the achromatic lens

While numerical data provided by modern laboratory tools can give valuable insights into historical lenses, an overemphasis on them can lead us astray. We will critically examine the case of telescope achromatic lenses, a story that played out some of its significant moments at the Royal Society. We

will dismember devices, discuss practitioners and patents, disentangle tropes from their texts, disambiguate historical and contemporary laboratory practices, and discover a new way to look at a familiar tale.

Our presentation urges caution about how we tell the tale of optical history, using telescopes as a parallel case for writing the story of microscopes and for our understanding of Leeuwenhoek's instruments. For those coming afresh to writing histories, it points to the challenges of anachronisms that can easily enter into narratives. For those new arrivals to the material culture of the history of science, it shows some of the merits (or perhaps the necessity) of finding and closely examining surviving artifacts for writing a contextually rich history of optics.

Tiemen Cocquyt

Rijksmuseum Boerhaave, Leiden, Netherlands

Positioning van Leeuwenhoek's microscopes in seventeenth-century microscopy practice

Leeuwenhoek's single-lens microscopes have been praised for their high magnification and their unsurpassed optical quality. But this was not all that set them apart from contemporary microscopes. In my talk, I will survey the demands that were posed on microscopes from their emergence in the seventeenth century onwards, with a particular focus on the decades that preceded Leeuwenhoek's discoveries. By looking at the playing field of microscopy in the 1660s, it becomes evident how high-magnification microscopy was not the evident way forward back then.

Subsequently, I will set out how the discoveries of the 1670s imposed new criteria on microscope capabilities, and how these new demands were responded to. Evaluating the microscope in this way challenges the assumption that higher magnification was the main driving force behind seventeenth-century microscopy. It exposes how the instrument operated in an intimate relation with the operating conditions it was being deployed in. This suggests how 'the microscope' was all but a stable concept in the seventeenth century. Instead, its meaning was continually being shaped and adapted in the social context the instrument operated in.

Wim van Egmond

Visual Artist, Netherlands

Portraying micro-life with seventeenth-century microscopes

In his talk Wim will give an introduction to his photographic work and how he uses microscopes to create images and movies. In the Visualizing the Unknown team he was in charge of the imaging through the original seventeenth-century microscopes. During the 'MicroLabs' of the Visualizing the Unknown project he photographed and filmed various subjects that were observed, described and drawn by Leeuwenhoek, Huygens and the other fellows of the Royal Society. Insects, blood, semen, and the various animalcules that they discovered for the first time. You can't come much closer to looking through the original microscopes. Wim will also present a close look at the instrument itself. He will give an account of his experiences working with several types of microscopes. He will clarify what the advantages of the single lens microscope are and how to build such a microscope the easy way.

Christoffer Basse Eriksen

Humboldt-Universität, Berlin, Germany

The nutmeg and the mite: on Antoni van Leeuwenhoek's ecological expertise

This talk examines how Antoni van Leeuwenhoek approached the study of the invisible relations between natural substances. While Leeuwenhoek is best known for his observations of isolated microscopic entities – sperm cells, blood cells, and a range of different kinds of 'animalcules' – I will show that he was also engaged in figuring out how the life cycles of things like seeds and insects relate to each other. This line of research, I argue, was encouraged by powerful officers of the Dutch East India Company (VOC) like Paul Hermann and Antonie Heinsius, who supplied Leeuwenhoek with colonial materials – cotton seeds, nutmegs, coffee beans – in return for expert knowledge on preservation, fumigation, and insect generation useful to their enterprise of intercontinental trade. Building on the work of Ursula Klein, I discuss Leeuwenhoek's role as an expert navigating the intersecting worlds of global commerce and natural history within the networks of the VOC. I suggest that Leeuwenhoek's wide-ranging interests in plant anatomy, insect anatomy and generation theory should be viewed as attempts to manage and control the inter-species ecology of plants and insects.

Sietske Fransen

Bibliotheca Hertziana - Max Planck Institute for Art History, Rome, Italy

Reading images – understanding texts – replicating experiments

When we nowadays see an image photographed through a microscope, we probably (think that we) understand at least part of it without reading any accompanying text. How did this work for seventeenth-century microscopists? And for the Fellows of the Royal Society? Did they also have or need a visual fluency to understand their colleagues' letters? In this paper I will discuss how descriptions of microscopic observations together with visual reports were interpreted and disputed. How the authors tried to convince their audiences with textual and visual analogies. And how these texts and images often formed the basis for replicating the experiment in order to see the same, which often led to scepticism and frustration.

Based on our own experiences in re-enacting some of the microscopic observations from the seventeenth and eighteenth centuries in the Visualizing the Unknown project, I will show how images and texts related to the actual observations done by the scientific practitioners in early modern Europe. And how text and image together form a 'picture' closest to what could be observed.

Peter Heering

Europa-Universität Flensburg, Germany

Changing perspectives: practising with solar microscopes

Solar microscopes were extremely popular optical instruments in the second half of the eighteenth century. However, their status changed with the beginning of the nineteenth century: they were transformed (apart from a brief episode in the history of photography) from being a scientific instrument to a device for entertainment purposes. This latter attribution was then also often formative for subsequent perception.

However, a significantly different account can be developed from the analytical reconstruction of practice with solar microscopes. According to this, these instruments possessed specific properties that made them appear particularly suitable in view of some of the standards of experimental practice of the Enlightenment. In particular, the collective viewing of the images (especially with microscopy novices) and the discourse associated with it were essential elements in this respect. With the changing standards at the beginning of the nineteenth century, however, the previous strength of solar microscopes was then more of a weakness, from which they could also be denied the status of scientific instruments.

In my presentation, I will focus in particular on the analysis of the practice with solar microscopes. Special emphasis will be placed on the discussion of projected objects and their significance for understanding cultural aspects of this practice.

John L Hutchison Hon FRMS

The Royal Microscopical Society - where it came from and where it is going

This contribution will describe the growth of the Royal Microscopical Society (RMS), from its beginning in 1839 to its current position as one of the world's leading microscopy societies, as well as being the oldest. It started as group of 17 men, all with an interest in microscopes, who decided to 'have a Society' – and founded the Microscopical Society of London. In 1866 Queen Victoria granted this small society its Royal Charter. Among its early contributions, the standard size of glass slides was set at 3 x 1 inches, which remains the standard in worldwide use today. And virtually all modern optical microscopes with interchangeable objective lenses still use the 'RMS standard thread' for mounting them. From its earliest years the Society has also been active in publishing, with the *Microscopic Journal* appearing in 1841, and now the *Journal of Microscopy*.

As well as its publications the RMS is active in promoting all fields of modern microscopy, through a wide range of meetings, courses, workshops and major international conferences and exhibitions. It also supplies 'Microscope Activity Kits' to junior schools throughout the UK and also overseas.

From its small beginnings as a London club of wealthy gentlemen, the RMS has become a leading microscopy society with over 1000 members including many from overseas, including e.g. Georgia, Dubai, USA, India and Pakistan.

Eric Jorink

Leiden University / Huygens Institute, Netherlands

Idol of the tribe: Leeuwenhoek, the Dutch and the Royal Society

Commemorating Leeuwenhoek means looking back. The Delft microscopist is mostly remembered for his discovery of microorganisms, communicated to the Royal Society in 1676. As is well known, the Fellows were only able to confirm these astonishing observations a year later.

In this presentation I will take a closer look at the relation between Leeuwenhoek and the Royal Society. Presenting himself as an outsider of the world of learning, Leeuwenhoek was able to fashion himself as an observer who could observe things others could not see – or would not believe. His first

communication sent to Oldenburg in 1673 is often seen as the start of a cumulative series of observations, leading to his election as a Fellow in 1680 and his status as the most productive contributor to the *Philosophical Transactions*.

Leeuwenhoek's presentation as a sober, common-sense observer perfectly matched the Dutch selfimage, then as well as now. However, as I will demonstrate, this conception is much based on Leeuwenhoek's own letters. By taking a closer look at English sources – including Birch's *History of the Royal Society*, Robert Hooke's diary and the Hooke Folio – a rather different picture emerges.

Sachiko Kusukawa

Trinity College, University of Cambridge, UK

Instrumental visions in the early Royal Society

In this paper, I offer a comparative view of the challenges of telescopic and microscopic observations, and the various visual strategies deployed to communicate them in the early Royal Society. While there were some obvious differences in the observational practices of celestial objects and terrestrial creatures, their images often functioned in similar ways – to invite colleagues to make similar observations, to refute or criticise others' observation, or to demonstrate the quality of one's lenses or observational acumen. The reliability of images was often underpinned by the quality of lenses as well as witnesses. Against this background, I argue that Leeuwenhoek had a keen awareness of the effectiveness as well as the limitations of images when dealing with the Royal Society.

Christoph Lüthy

Radboud University, Nijmegen, Netherlands

But what were they actually looking for?

Antoni van Leeuwenhoek espied life in every drop of liquid that he examined under his magnifiers. Since the nineteenth century, he has been praised as the discoverer of all kinds of entities: bacteria, unicellular algae, flagellates, spermatozoa, etc. But these were not his terms; for him, they were all just 'animalcules' (*diertgens*). What, then, is it that he thought he saw? And what was he looking for? What were microscopists generally looking for, in the second half of the seventeenth century? This lecture will try to embed Leeuwenhoek into what might be termed a context of expectations.

Pamela Mackenzie

SSHRC visiting Postdoctoral Scholar, Cambridge University, UK

Many hands, many oaks: Leeuwenhoek and Grew in conversation

For those interested in the early history of microscopy, Antoni van Leeuwenhoek and Nehemiah Grew will be familiar names. They are known for their individual contributions to microbiology and plant physiology respectively, both pioneering in their use of the microscope to derive new insights into the natural world. However, less explored or appreciated is the fundamentally collaborative nature of many of these discoveries, with rich correspondence networks operating via the Royal Society connecting these two men in their studies, along with investigators further abroad such as Marcello

Malpighi in Italy. This paper will explore the correspondences shared between these men, with a focus on the rich illustrations that were produced as a result of their conversations about the pores and vessels in wood.

Ellen Pater

Leiden University / NWO Visualizing the Unknown, Netherlands

The making of the microworld: observation, drawing, print

Making convincing images takes knowledge: knowledge of materials, media and, importantly, experience handling them. There is always a relationship of correspondence between makers and their materials. This relationship is especially intriguing considering images with an epistemic function, as they are a translation of something as observed by natural historians, and therefore playing a role in a scientific discourse, while also being clearly being something that was made. Moreover, images go through different stages, from quick doodle, to sketch, to fully finished drawing to, eventually, an engraving. Each time the image is translated, it is reshaped. Involving different materials and, in the case of engravings, different hands.

In this paper I will take a closer look at the artistic processes and materials involved in producing images of the microworld; from drawing to print. To do this I will analyse the drawings and engravings of a contemporary of Antoni van Leeuwenhoek, namely Johannes Swammerdam. Swammerdam's drawings evidence some of the re-drawing/re-shaping practices involved in producing images. Furthermore, he left us with commentary on selecting suitable engravers, as well as corrections added on previously done work, indicating the knowledge and artistic sensibility that could be involved in the production of eloquent images of the microworld.

Lesley A. Robertson

Delft University of Technology, Netherlands

Microscope modification and use by Antoni van Leeuwenhoek

Mention of Antoni van Leeuwenhoek generally brings his famous little microscope, usually a brass or silver rectangle about 5 cm long with a single lens, to mind. However, if one considers his wide range of samples and experiments, it immediately becomes apparent that the basic design could not cope with all of them. For example, some were too large or needed back-lighting, some were liquid. His microscopes are sometimes described as 'crude', but he can be seen as a man with a mission to suitably mount samples in front of his lenses and manipulate them for examination. His microscopes generally performed remarkably well in the standard form, but Leeuwenhoek also described modifying his design to allow the observation of red blood cells moving in the capillaries in the tails of living eels and fish, and provided drawings of the modifications with one of his letters.

This presentation will discuss other adaptations needed to achieve some of the results found by Leeuwenhoek, with possible supporting evidence using drawings from his time and modern digital photography with facsimile microscopes.

Larissa van Vianen

University of Amsterdam, Netherlands

Fit for polite society: Pierre Lyonet (1706 – 1789) on publishing natural history in the eighteenth century

Far less well-known than his contemporary foreign members of the Royal Society like René-Antoine Ferchault de Réaumur (1683 – 1757), Charles Bonnet (1720 – 1793), or Abraham Trembley (1710 – 1784), Pierre Lyonet (1706 – 1789) was celebrated by all three as a diligent observer, a skilled draughtsman, and a gifted engraver. Using a wealth of new archival material from Mons and Leiden, this paper looks at the publishing strategies Lyonet employed in the process of communicating his studies on insects.

His notebooks, drawings and personal correspondence allow us to consider the influence of authors on the appearance of their publications and grasp at the practical considerations that went hand in hand with publishing natural history at large in the eighteenth century. Lyonet became increasingly involved in the publication of his research. From the perspective of Lyonet as editor, draughtsman, engraver, and finally self-published author, this paper argues that the beauty and taste of their publications had become as important for natural historians as the credibility and precision of their studies.

The abstracts in this booklet are provided by the presenters and the Royal Society takes no responsibility for their content.

Cover image:

Figures showing *Animalcula on the roots of duckweed* in a letter by Antoni van Leeuwenhoek to the Royal Society, 1704.

Registered Charity No 207043 July 2023 DES8599_2