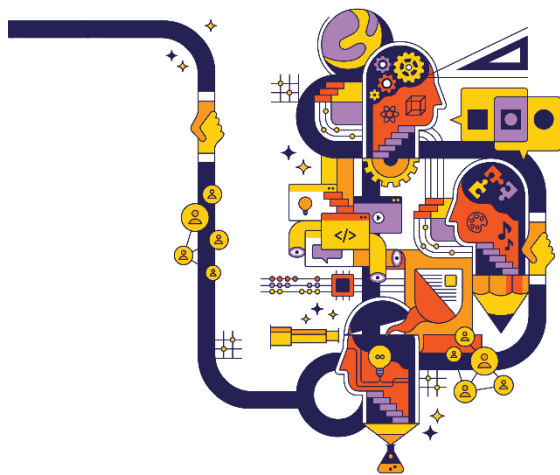


11th Gewina Woudschoten Conference

Woudschoten, 19-20 June 2026

Normal science?

Everyday knowledge practices in times of calm and crisis



Gewina

Belgisch-Nederlands genootschap
voor wetenschaps- en universiteitsgeschiedenis
Soci t  Belgo-N erlandaise
pour l'histoire des sciences et des universit s
Belgian-Dutch Society
for the History of Science and Universities



Freudenthal Institute

11th Gewina Woudschoten Conference

*Normal science? Everyday knowledge practices in times of calm
and crisis*

Zeist, 19 – 20 June 2026

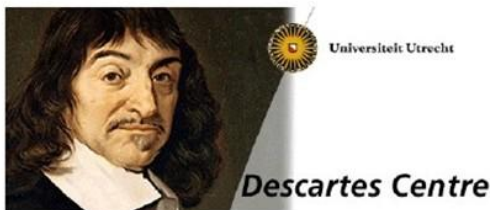
Organising Committee:

David Baneke, Hieke Huistra, Toine Pieters, Stephen Snelders, Daan Wegener, Robert-Jan Wille,
Nathalie Kuijpers, Wilma van Eijsden
Freudenthal Institute / Descartes Centre, Utrecht University

Conference Address:

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Programme Overview

Friday June 19, 2026

9:00 – 9:30		Arrival, registration, coffee
9:30-9:45	Room A	Opening by conference organizers
9:45-11:15		Parallel Session I
	Room A	Ia: <i>Contested public knowledge</i>
	Room B	Ib: <i>New narratives in the history of knowledge</i>
11:15-11:45		Break
11:45-13:00	Room A	Creative session I: <i>Sequencing scenes; or, drawing HPS infographics</i>
13:00-14:30		Lunch
14:30-16:00		Parallel Session II:
	Room A	IIa: <i>Big Science as crisis science? Nuclear physics in early Cold War Europe</i>
	Room B	IIb: <i>Medical knowledge beyond disciplines</i>
16:00-16:30		Break
16:30-17:30	Room A	Creative session II: <i>Story time; or, fiction for historians of science</i>
17:30-18:30		Drinks
18:30-20:00		Dinner
20:00-21:00	Outside	Creative session III: <i>Spirit making; or, after dinner seance</i>

Saturday June 20, 2026

9:00-10:30		Parallel Session III:
	Room A	IIIa: <i>Salt, smoke and fermentation: cross-domain epistemics of food conservation practices in the Early Modern Low Countries</i>
	Room B	IIIb: <i>History of meteorology</i>
10:30-11:00		Break
11:00-12:30		Parallel Session IV:
	Room A	IVa: <i>Twentieth Century Health Science</i>
	Room B	IVb: <i>Global and Imperial Science</i>
12:30-14:00		Lunch
14:00-15:00	Room A	Pecha Kucha
15:00-16:30		Parallel Session V:
	Room A	Va: <i>Ocean governance</i>
	Room B	Vb: <i>Twentieth Century Technoscience</i>
16:30-16:45	Room A	Closing words

Conference programme

Friday June 19th:

- 9:30-9:45 Opening
- 9:45-11:15 **Parallel Session I:**
Ia: *Contested public knowledge*
Chair: **Emma Mojet (UU)**
Noortje Jacobs (EUR), *History of science and the making of moral communities*
Marieke Gelderblom (UU), *A dispute on diagrams: Epistemic conflict on the graphic method in Dutch national statistics, 1870–1890*
Elske de Waal (UU), *Mathematics education: a (constant) crisis?*
Tim Overkempe (UA), *Fairs at the frontiers: Travelling showpeople's knowledge networks and the impact of the Franco-Prussian War*
- Ib: *New narratives in the history of knowledge*
Chair: **Frans van Lunteren (VU / Leiden)**
Marij van Strien (Radboud U), *Classical physics: Its overcoming and its creation*
Adriana Markanatonatos (FSU Jena), *Crises (of the Mind) and Resilience (of the Body). Reflections on and between Paul Valéry and Reinhart Koselleck*
Gerhard Wiesenfeldt (U of Melbourne), *Dead Scientists: Mortality in Scientific Research*
- 11:15-11:45 Break
- 11:45-13:00 **Creative session I: Sequencing scenes; or, drawing HPS infographics**
Gerco Hiddink (Studio Hartebeest) & Robert-Jan Wille (UU)
- 13:00-14:30 Lunch
- 14:30-16:00 **Parallel Session II:**
IIa: *Big Science as crisis science? Nuclear physics in early Cold War Europe*
Chair: **Chaokang Tai (UvA)**
Jos Aarts & Frans Kingma (UU), *The cyclotron that Utrecht never got: the early postwar history of the Physical Laboratory of Utrecht University*
Luca Forgiarini (UU), *Science for Europe: CERN and the conceptual construction of European Big Science collaboration*
Machiel Kleemans (UvA), *Secrecy and early Cold War atoms in Europe*
- IIb: *Medical knowledge beyond disciplines*
Chair: **Noortje Jacobs (EUR)**
Mariana Sanchez (KUL), *Everyday medicinal knowledge in the Manila Galleons*
Toine Pieters (UU), *Indonesian Enigma: Lepra bubalorum and the interdisciplinary toolbox of history of the life sciences*
Charlotte Meijer (Radboud U), *(En)countering parasitic worms at home: everyday knowledge practices in the eighteenth-century Netherlands*
Timo Bolt (EUR), *The rise of the risk factor: making sense of a concept that is transforming biomedical research and healthcare*

16:00-16:30 Break

16:30-17:30 **Creative session II: *Story time; or, fiction for historians of science***
Fenneke Sysling (UL), Caroline Schep (UL), David Baneke (UU), Daan Wegener (UU)

17:30-18:30 Drinks

18:30-20:00 Dinner

20:00-21:00 **Creative session III: *Spirit making; or, after dinner seance***
Dirk Vis & Toine Pieters (UU)

Saturday June 20th:

9:00-10:30 **Parallel Session III:**

IIIa: *Salt, smoke and fermentation: cross-domain epistemics of food conservation practices in the Early Modern Low Countries*

Chair: **Marieke Hendriksen (Huygens)**

Thijs Elfrink (Huygens) *Salting Fish under Stress, Wartime Circulation of Curing Knowledge in the Early Modern Dutch Herring Fishery, 1620-1650*

Tijmen Moesker (Huygens), *Smoke in the Chimney: A Preliminary Study of Meat Smoking Practices at Farmhouses in the North of Holland (1650-1850)*

Carmen Schmechel (Huygens), *Ferments and Fermentation: Theory and Practice in the Early Modern Low Countries*

IIIb: *History of meteorology*

Chair: **Elske de Waal (UU)**

David Baneke (UU), *Code red! Extreme weather and changing cultures of prediction, 1860-2010*

Rienk Vermij (U of Oklahoma), *The firedragon in medieval meteorology*

David Skogerboe (UU), *Imagining Europe through Space Infrastructures: Meteorology in ESRO's Agenda, 1960-1971*

Valentine Delrue (UGent), *Like Father, Like Daughter? Helping Hands in Ezra Stiles's Journal during the American Revolution*

10:30-11:00 Break

11:00-12:30 **Parallel Session IV:**

IVa: *Twentieth Century Health Science*

Chair: **Elian Schure (UU)**

Tom Saborowski (UU), *How ECSC Members Organized Knowledge Production during Prohibition*

Martijn van der Meer (EUR), *Marching in the columns - how paperwork helped preventive child health care survive*

Juliette Bouillon (Cambridge), *Advancing Adult ADHD: The Dutch production of a new European diagnosis*

Hieke Huistra (UU) *'It's what the donor would have wanted': Handling donated bodies in Dutch anatomy departments, 1970-2025*

IVb: *Global and Imperial Science*

Chair: **Floor Haalboom (EUR / UU)**

Elian Schure (UU), *Transitioning South Africa: a history of the 'transition' framework in South African gut microbiome research*

Floris Solleveld (KUL), *Colonial language studies as 'normal science'?*

Robbert Striekwold (UL), *Naturalists in the Dutch imperial project*

Ad Maas (Boerhaave) en Afrodita Naydenova (Universiteit Leiden), *Rubber and the Dutch Indies*

12:30-14:00 Lunch

14:00-15:00 **The Great Pecha Kucha Show**

15:00-16:30 **Parallel Session V:**

Va: *Ocean governance*

Chair: **Bert Theunissen (UU)**

Stephen Snelders (UU), *Ecopiracy, Science and Whaling c. 1945-c. 2015*

Erik de Lange (UU), *Frontlines of the Deep: Oceanography, Law and Submarine Telegraph Cables in Times of War*

Pieter Zhao (EUR), *Who Guards the Sea? Modern Piracy, Private Security, Knowledge Production and the Changing Norms of Maritime Violence*

Marcella Schute (EUR), *Legal Knowledge, African Indentured Labor Migration and Ocean Governance in the Mid-Nineteenth Century*

Vb: *Twentieth Century Technoscience*

Chair: **Marieke Gelderblom (UU)**

Robert van Leeuwen (UvA), *The "beginning of the end of physics" and the closure of Cold War science*

Chaokang Tai (UvA), *The Workflow of Astrophotographic Research at Leiden Observatory, 1920-1960*

Ab Flipse (VU), *War and Peace at the Vrije Universiteit Amsterdam: the case of polemology*

Abel Streefland (Delft), *Too Unscientific? The Electronic Music Studio at TH Delft (1957-1960)*

16:30-16:45 Closing words

ABSTRACTS

Creative Sessions

Creative session I: Sequencing scenes; or, drawing HPS infographics

Friday, 11:45-13:00

Gerco Hiddink (Studio Hartebeest) & Robert-Jan Wille (UU)

Have you ever thought about how to represent science and history in pictures? The Vienna Circle and the Normans of the Bayeux Tapestry did. The artists behind the Utrecht and Leiden 'wall formulas' do. In this session Gerco Hiddink from Studio Hartebeest and historian of science Robert-Jan Wille will talk about their collaboration in teaching the history of the earth and climate sciences in new ways, having students make infographics instead of only writing essays. In this session we will make you draw your subject too, drawing inspiration from murals, Gerd Arntz, Mona Chalabi and Randall Munroe.

Creative session II: Story time; or, fiction for historians of science

Friday, 16:30-17:30

Fenneke Sysling (UL), Caroline Schep (UL), David Baneke (UU), Daan Wegener (UU)

This panel discusses the value of fiction for historians of science and medicine. How do we use fiction for our work? Do we read novels (etc) to understand the cultural context that informed scientific developments? Do we read them to access (fictionalized) individual experiences around health and medicine, or hopes and fears around new scientific ideas? Do we use it as a heuristic tool for our own research and writing?

We discuss these questions with an alternative panel structure: participants start by reading an excerpt of their novel, they then explain the storyline, and finally they reflect on what they have learned from this work and how it informs their historical work. Audience members will be invited to share their own favorite works of fiction. An important aim of this panel is to share our enthusiasm for fiction with the audience.

Creative session III: Spirit making; or, after dinner séance

Friday, 20:00-21:00

Dirk Vis & Toine Pieters (UU)

During this evening séance in the garden of Woudschoten, writer, poet and performer Dirk Vis invites the audience into a mesmerizing encounter with trees, plants and nature.

A quiet, poetic experience in which language, imagination and surroundings come together.

Let yourself be carried along and connect with the living landscape around you in a new way.

The Great Pecha Kucha Show

Saturday, 14:00-15:00

Master students present their research in pecha kucha format: 20 slides, 20 seconds each

Parallel Session 1

1a: Contested public knowledge

Noortje Jacobs (EUR), *History of science and the making of moral communities*

Over the past decades, historians of science have increasingly examined the moral dimensions of scientific life. Historians have studied virtues and vices, moral economies of research communities, and the formation of scholarly personae. Meanwhile, historians of medicine and bioethics have analyzed how normative expectations become codified in ethical frameworks, professional guidelines, and regulatory infrastructures. Although both strands address the normative life of science, they have largely developed in parallel.

This paper brings these historiographical traditions into dialogue and asks whether such historical perspectives might also have a constructive role to play in the present. If historians have often used history to relativize the authority of science, might historical work also contribute, in a reflective way, to strengthen societal trust in science? In an era of contested expertise, reflecting on how scientific communities have historically sustained moral commitments may offer a valuable resource for the ethical life of science today.

Marieke Gelderblom (UU), *A dispute on diagrams: Epistemic conflict on the graphic method in Dutch national statistics, 1870–1890*

When around 1880 the Dutch government started to structurally publish graphics as part of their statistical reports, fierce criticism was voiced. Critics rejected graphics as imprecise, expensive and less clear than numerical tables. Proponents, by contrast, argued that graphics finally posed a solution to the ‘unusable’ stream of official data. The contested status of diagrams stemmed from a belief that statistical graphics not only visualized the statistical facts themselves, but also the meaning or interpretation of these facts; a duality that was sometimes embraced and sometimes problematized.

By contextualising this dispute over Dutch governmental graphics, this paper situates statistical graphics within the history of quantification and Dutch statistics. This is not just a Dutch case, however, but also a conceptual intervention. I argue that the most common narrative about the rise of quantification (that it standardised knowledge and claimed legitimacy through objectivity) does not fully apply to statistical graphics. By tracing how the newly coined graphic method was debated, legitimised, and institutionalised, this paper highlights the situated nature of statistical visualisation and the historical development of everyday, non-expert mathematical conventions.

Elske de Waal (UU), *Mathematics education: a (constant) crisis?*

In the past two decades Dutch education news has been alarmist, warning of the decline in students’ mathematics skills. Although most people would agree with the purpose of such messages – the improvement of education – an investigation into the origins of such rhetoric reveals that what constitutes a crisis in mathematics education is not straightforward. Both the origin *and* the solutions to the crisis depend on (implicit) ideas on what scientific research can do for educational practice.

In this paper I will show how the narrative of a crisis in mathematics education was built, in part, on changing meanings and interpretations of research results, like the Trends in International

Mathematics and Science Study (TIMSS), and policy aims. Second, I illustrate how ideas about what ‘good science’ is informed proposed solutions to the crisis.

Tim Overkempe (UA), *Fairs at the frontiers: Travelling showpeople's knowledge networks and the impact of the Franco-Prussian War*

Travelling showpeople were important knowledge actors in introducing new science and technology to large and diverse audiences through interactive live performances at the fairground. In crossing national, linguistic and cultural borders, itinerant showpeople often encountered difficulties. International conflicts like the Franco-Prussian War caused transnational patterns and travelling networks to shift drastically. This paper illustrates some of these difficulties and changing patterns between German, French and Belgian fairs. Nineteenth-century fairgrounds are interpreted as changing, performative arenas of knowledge,¹ constantly updating attractions to keep them exciting and profitable, as well as early media ecologies,² combining different media like posters, theatre, X-ray- and telegraphy instruments, and audiovisual devices. As early adopters of these new technologies, showpeople were technically competent mediators that operated diverse and complex attractions, turning them into multimedia spectacles. They popularised science through demonstration and entertainment, always carefully balancing investments, expertise and opportunities to expand or improve their businesses.

1b: New narratives in the history of knowledge

Marij van Strien (Radboud U), *Classical physics: Its overcoming and its creation*

The early twentieth century witnessed revolutionary developments in physics, namely the introduction of relativity theory and quantum mechanics. As Richard Staley has shown, during this period the term ‘classical physics’ first appeared, as a contrast to the new ‘modern’ physics, and was retrospectively applied to all physics of the eighteenth and nineteenth centuries. In this talk, I examine how physicists of the 1920s and 1930s used the category of classical physics to write the history of their own discipline, and how this still shapes our understanding of the past. From the outset, ‘classical physics’ was often equated with ‘Newtonian physics’, implying a unified framework that remained in place from Newton up to Einstein. This narrative obscures the heterogeneity and openness of nineteenth-century physics. The contrast between ‘classical’ and ‘modern’ physics suggests a discontinuous history, and a narrative of crisis and revolution, which can lead to continuities between nineteenth and twentieth century being overlooked.

Adriana Markanatonatos (FSU Jena), *Crisis (of the Mind) and Resilience (of the Body). Reflections on and between Paul Valéry and Reinhart Koselleck*

Interestingly, Paul Valéry (1871–1945), the author of *Crisis of the Mind* (1919), was astonishingly physical, or bodily in his *Geistesarbeit* (Martus and Spoerhase, 2022), as was Reinhart Koselleck (1923–2006), known as the author of *Critique and Crisis* (1954/1959), as a conceptual historian of crisis, or as a participant of the famous Castelgandolfo-Conversation On the Crisis (1985). As this paper wants to highlight, the intellectual histories of these two crisis writers tell about all kinds of physical, and bodily everyday knowledge practices, like drawing uncountable sketches in notebooks, as both of them did, or sketching sharp-witted caricatures and taking photographs

¹ Johan Östling, ‘Circulation, Arenas, and the Quest for Public Knowledge: Historiographical Currents and Analytical Frameworks’, *History and Theory*, 59.4 (2020), pp. 111–26, doi:10.1111/hith.12184.

² Peter W. Marx, *Early Modern Media Ecology*, (Cambridge University Press, 2024), doi:10.1017/9781009298148.

in motion, as Koselleck did, or “grazing (...) brain meadows,” as did Valéry (Cahier), or carving a “Philosopher’s Way” into the Teutoburg Forest around the Bielefeld Center for Interdisciplinary Studies. As this paper suggests, these concrete, i. e. physically, or bodily everyday practices of knowledge can be understood as forms of intellectual resilience in times of crisis. To that end, the paper will present selected works and archival material, also because Valéry is remarkably present in Koselleck’s scholarly archives, and it will look at selected caricatures drawn by Koselleck telling of an intellectual mobility grounded in physical mobility that allows to think about the body as a central cite of knowledge, especially in times of crises. And the paper will reflect on Valéry’s concept of “Denkgymnasik” (Cahier), gymnastics in thinking, as an everyday knowledge practice that puts things in motion – and thus maybe out of a crisis. “Denkgymnastik” seems to have been Valéry’s source of resilience against Crisis of the Mind, for “what gives the critical condition of the mind its depth and gravity is the patient’s condition when he was overcome” (Ibid.). “The idea of gymnastics is crucial; it is the foundation of my philosophy,” Valéry noted (Cahier), like in his *Philosophy of the Dance* (1957), in which “my philosopher stands right there: indecisive on the dreaded threshold that separates the question from the answer,” to have him “draft the step of questioning.” Koselleck, in turn, was more into swimming, having wished for a swimming pool for the Bielefeld University, when it was built, and a personal preference for taking baths, and having caricatured Karl Jasper in thinking (1953) by imitating one of Honoré Daumier’s “Swimmers” (1841) – which also invites us to think more generally about to the role of the arts in everyday knowledge practices.

Gerhard Wiesenfeldt (U of Melbourne), *Dead Scientists: Mortality in Scientific Research*

All scientists die - eventually. In some cases, their death has come unexpectedly in the middle of scientific research. Yet, how did scientists and how do historians of science conceptualise the sudden death interrupting the progression of normal science? This presentation will use selected cases to explore under which circumstances the death of a scientist constituted an epistemic crisis. Accidental death is often described as tragic, an intrusion that put an end to a career destined to even greater heights. It also could be seen as heroic, filling the narrative of scientists that sacrificed their lives to advance scientific knowledge. In those cases, death appears as an occurrence of normal scientific research practice, often as a calculated risk that takes the fatality rates of researchers into account. Scientists exist for posterity and transcend their own mortality. On the other hand, death can also be interpreted as the inevitable consequence of questionable research practices. Here, the death of a scientist epitomises the failure of a research programme that ostensibly was inferior to its rivals. Survival justifies epistemology, death does not. However, is there a clear difference between heroism and failure?

Parallel Session II:

Ila: Big Science as crisis science? Nuclear physics in early Cold War Europe

Big Science is crisis science. From the development of radar and the atomic bomb in World War II to the Space and Arms Races of the Cold War, the history of Big Science cannot be disentangled from the history of rivalry and conflict, hot or cold. As Western Europe started its reconstruction process, its scientific community looked to American Big Science as a model to imitate.

Using the example of nuclear physics, the archetypal big science, this panel aims to explore the post-war shift towards Big Science in Western Europe in both national and international contexts. Together the contributions highlight some of the profound implications for the organization and practice of nuclear science that this shift precipitated during the 25 years following the end of World War II.

Jos Aarts & Frans Kingma (UU), *The cyclotron that Utrecht never got: the early postwar history of the Physical Laboratory of Utrecht University*

The personal archive of dr. C. Aarts, a former director of the Physical Laboratory of Utrecht University between 1952 and 1958, contained a detailed plan to construct a cyclotron in the physics building in the center of the city. The plan was hitherto not found in the university archives. The plan was most likely conceived late 1953 by professor J.W.M. Milatz, the academic director of the laboratory, and discussed in a staff meeting in January 1954. Before the war Pim Milatz was under his predecessor professor Leonard Ornstein responsible for nuclear physics instrumentation. As one of the founders of FOM, Milatz played after the war a key role in transforming Dutch physics research into Big Science with major capital investment. We describe the early postwar history of the Utrecht physics laboratory between 1945 and 1955 and the impact of the transformation, which resulted in the cyclotron plan. Our research is based on archival sources and contemporary research publications; recently a personal archive of Milatz was made available to the Utrecht University Museum. The research is guided by Peter Gallison's perspective how physics research transformed from prewar table-top work to multimillion dollar experimentation.

Luca Forgiarini (UU), *Science for Europe: CERN and the conceptual construction of European Big Science collaboration*

As the epitome of a collaborative Big Science organization in Europe, the European Organization for Nuclear Research (CERN), created in 1954, set the stage for the development of an entire ecology of similar bodies in the decades to follow. Though CERN's mission was clearly scientific, its founders also imagined it as contributing to the project of European unity. CERN's creation thus not only required convincing the various member governments to finance the project, but also involved reconceptualizing science and scientific cooperation as a resoundingly European endeavor.

In my contribution, I uncover the ideational and conceptual work surrounding CERN during its early years. Drawing on a diverse body of sources, I show how CERN was continually being portrayed as the manifestation of a shared European cultural identity based on a common scientific past. The example of CERN serves to highlight the development of a particular (Western) Europe mode of collaborative Big Science projects as a response to the new geo-political order of the early Cold War.

Machiel Kleemans (UvA), *Secrecy and early Cold War atoms in Europe*

After World War II, nuclear physics re-emerged from the Manhattan Project as a mature but largely classified field, limiting the spread of nuclear knowledge and technology. It was not until the mid-1950s that these were more widely shared. Nonetheless, when secrecy was most restrictive, the Netherlands and Norway managed to build and operate a joint nuclear reactor by July 1951. These countries were aided by their early possession of heavy water (Norway) and uranium (the Netherlands). Furthermore, a small uranium enrichment capability was realized in the Netherlands by the summer of 1953. In this contribution, I will show how scientists in the Netherlands and Norway dealt with the restrictions of secrecy and managed to work around them. Furthermore, I will show how the boundaries of secrecy shifted, reflecting changing power relations in Cold War science. Secrecy itself turns out to be a convenient historiographical instrument to reveal essential historical patterns.

IIb: Medical knowledge beyond disciplines

Mariana Sanchez (KUL), *Everyday medicinal knowledge in the Manila Galleons*

On long voyages across the Pacific, where fresh food and water were scarce, disease was a constant threat to the success of the enterprise. Accordingly, prior to the galleon voyages, proper ingredients had to be stocked and supplied, so as to ensure remedies could be prepared along the way in face of injury, occasional illness, or even epidemics. Medical knowledge and techniques were therefore central to preserving the health of the ship's crew, as can be seen in the choice of diets and the ingredients used in the preparation of treatments. In this presentation, we focus on certain lists of provisions used by medical practitioners, which give us an insight into this everyday knowledge. We will also discuss the possible remedies that could be effectively produced on-ship based on these ingredients.

Toine Pieters (UU), *Indonesian Enigma: *lepra bubalorum* and the interdisciplinary toolbox of history of the life sciences*

This paper revisits the unresolved case of *lepra bubalorum*, a presumably mycobacterial skin disease observed in water buffaloes in Indonesia during the early twentieth century, and reframes it as a case of scientific continuity across shifting historical, institutional, and methodological contexts. First described in 1926 and later defined by Lobel (1934) as a nodular leprosy-like condition, *lepra bubalorum* was diagnosed in at least 146 buffaloes by the mid-1950s, primarily in Java and Celebes (now Sulawesi). Although peripheral nerve involvement was not reported, the disease displayed striking clinical and histopathological similarities to Hansen's disease, including chronic nodular skin lesions and granulomatous reactions with acid-fast bacilli. Rather than disappearing after 1961, this presentation argues that *lepra bubalorum* remained an object of sustained, if fragmented, scientific attention.

This continuity is traced through multiple forms of evidence. First, it foregrounds the work of Indonesian veterinarian and physician prof. Abdul Ressang, who in the early 1960s produced a film reel documenting a direct, real-life visual comparison between leprosy-like skin lesions in humans and in water buffaloes. This rare audiovisual source reflects ongoing comparative reasoning between human and animal leprosy beyond the printed record. Second, the paper highlights water buffalo tissue samples collected by Japanese researchers during the World War II occupation period in Sulawesi, which are preserved in the Parasite Museum in Tokyo. These specimens constitute a largely overlooked biological archive with significant potential for retrospective molecular analysis.

Finally, the presentation situates the author's own fieldwork within this longer trajectory. Two field trips to Sulawesi in 2021 and 2023 were organized with the explicit aim of identifying possible contemporary cases of *lepra bubalorum* and reconstructing local veterinary and medical knowledge surrounding historical buffalo skin disease. While no confirmed cases were identified, these expeditions demonstrate how historical questions continue to shape present-day research practices.

By integrating archival texts, visual media, preserved biological material, and contemporary field investigation, this paper argues that the *lepra bubalorum* question remains scientifically open. More broadly, it shows how continuity across time, disciplines, and laboratory-based methods can inform current debates on zoonotic reservoirs of *Mycobacterium leprae*, *Mycobacterium lepromatosis* or another representative of the *M. leprae* complex and the entangled histories of human and animal disease.

Charlotte Meijer (Radboud U), *(En)countering parasitic worms at home: everyday knowledge practices in the eighteenth-century Netherlands*

In the Western medical tradition during the 18th century the traditional view of illness as emerging within the body – the “physiological theory” – made way for an “ontological theory” in which disease entered the body through environmental factors (DeLacy 2017). When it came to worm infections, however, these parasites were still seen as both the cause and consequence of illness (Huenniger 2024). This presentation uses Murk van Phelsum's *Natuurkundige verhandeling over de wormen welke veeltijds in de darmen der menschen gevonden worden* (1762) as a starting point to ask what this kind of treatise tells us about everyday knowledge practices surrounding health in the eighteenth-century. It does so by asking which (non-human) actors were involved, where and when knowledge was produced, what kind of experiments were conducted by the physician Van Phelsum outside of his professional practice, and what complications might arise when working with small and fragile organisms. It connects to the conference's themes of daily practices and crisis, adding a multi-species perspective.

Timo Bolt (EUR), *The rise of the risk factor: making sense of a concept that is transforming biomedical research and healthcare*

The starting point of this paper is a simple, but fundamental truth expressed medical historian Andrew Lea: *'Medical data are extremely complex. For them to be useful and meaningful, some kind of order must be imposed on them. In the process of imposing that order, however, decisions and judgments must be made, and biases and errors can be introduced.'*

Disease entities and classifications have traditionally been a central part of the order imposed on biomedical knowledge. However, in recent decades, (in the words of Giroux) an 'alternative way of modelling health phenomena' has gained prominence in the health sciences: the *concept of risk factor has become a central ordering principle*, organizing (big) data in many fields of biomedical and epidemiological research, and directing data analysis and the set-up of clinical decision support tools and systems.

The concept of the risk factor is more layered and ambiguous than as it is often conceived of by actors and stakeholders in the biomedical field. Its precise meaning and application vary widely in place, time and context. Moreover, a number of important historical changes require analysis from a longer-time perspective, including: (1) a shift in emphasis from the risk (e.g. mortality, serious illness, impairment, economic loss) to the factor (e.g. blood pressure, diet, occupation), (2) an increasingly 'restrictive' focus on individual parameters, and paradoxically, (3) the rise of

a 'holistic' approach within 'precision medicine'. In addition, (as argued by Aronowitz), there is a trend of convergence and conceptual confusion of disease and risk (factor). This ambiguity, variability, historical changeability and interference with other styles of modelling is reflected in the constant expansion, ever-increasing differentiation and frequent adjustments of medical taxonomies and classifications. Ironically, precisely these tools of ordering and standardisation give a chaotic picture of 'plastic diagnostics' (as Green and colleagues recently argued).

To bring some clarity and to be able to really grasp the significance of the risk factor today, it is helpful to 'genealogically reconstruct' its rise, evolution and impact. At present, this history is insufficiently understood. As medical historians Jones and Oppenheimer have recently shown, the widely accepted 'standard narrative' that the risk factor originated in the 19th century world of life insurance and was introduced into medicine in the early 1960s by the researchers of the Framingham Heart Study is seriously flawed. They argued that much additional research is still needed on this topic, especially on non-English-language literature and contexts, in order to address the (positive and negative) consequences of the central role of the risk factor concept in biomedical research and practice. This paper picks up the gauntlet thrown down by Jones and Oppenheimer by mapping the evolution of the concept of risk factor in the Dutch-language literature.

Parallel Session III:

IIIa: Salt, smoke and fermentation: cross-domain epistemics of food conservation practices in the Early Modern Low Countries

In the early modern period, large-scale food conservation practices such as fermenting, smoking, and salting were crucial for globalizing trade and increasing food security, especially in times of crises. Recent research indicates that domestic and trade practices like food conservation were key to the development of natural philosophical and chemical knowledge and vice versa. Yet we still know very little about how knowledge on early modern food conservation was produced, adapted, and circulated across these domains. In the ERC Consolidator project PRESERVARE (2024-2029), we research how embodied, practical knowledge of food conservation developed in conjunction with formalised, scholarly knowledge in the early modern Low Countries. In this panel, we present our preliminary results.

Thijs Elfrink (Huygens) *Salting Fish under Stress, Wartime Circulation of Curing Knowledge in the Early Modern Dutch Herring Fishery, 1620-1650*

During the Eighty Years' War (1568-1648), disruptions in the supply of Spanish and Portuguese salt posed a significant material and epistemic challenge to the Dutch herring fishery. These salts were crucial for curing herring, and their use was prescribed in ordinances and placards issued annually by the Boards of the Big Fishery at the start of the herring season. Building on recent scholarship on the relationship between everyday practices in households and science and on the relationship between informal, embodied knowledge and formalized knowledge such as recipes, this paper examines how salting practices and regulations responded in dialogue to the wartime salt scarcities. Drawing on the archives of the Boards of the Big Fishery, I argue that ordinances and placards functioned as mediating instruments that sustained a knowledge community of herring fishers, processors, and merchants. Through these texts, actors coordinated and negotiated acceptable salting practices under conditions of uncertainty and material constraint.

Tijmen Moesker (Huygens), *Smoke in the Chimney: A Preliminary Study of Meat Smoking Practices at Farmhouses in the North of Holland (1650-1850)*

In early modern households, the fireplace was more than a source of heat - it was a hub for food preparation but also preservation. Secondary smoke, channelled through smoke hatches and smoking huts, was harnessed to cure meats like hams and sausages in the upper floors of farmhouses, particularly in North Holland and Texel. Preserving meat in this way was particularly important in times of crises to ensure continuous food supply. While this practice became more widespread in the late 17th and 18th centuries, knowledge and practice of this domestic technology remains poorly understood, as written records are scarce.

This paper explores the unwritten knowledge and practices of small-scale food-smoking in early modern households. By integrating written sources - such as early modern recipes for smoking meat and fish and contemporary scientific understandings of smoke by scholars like Van Helmont, Glauber, and Boerhaave - with architectural analysis of farmhouses equipped with smoke hatches, visual evidence from paintings and engravings, ethnographic interviews, and archaeological findings, this paper examines domestic food smoking technologies as epistemic practice.

Carmen Schmechel (Huygens), *Ferments and Fermentation: Theory and Practice in the Early Modern Low Countries*

In premodern times, fermentation designated a key phase of metallic transmutation beyond applying to everyday processes of food production. It generally denoted a critical process whereby matter turns irreversibly into something different and better than before. These transformations were essential in early modernity thanks to the life-sustaining role of fermented foods which could be preserved in times of crises, such as food shortages in winters or in wartime.

Relying on available transcriptions of early modern texts (e.g. TOME, NOSCEMUS, Delpher) this paper investigates the semantic context of “ferment” and “fermentation” via word co-occurrence with close conceptual cognates such as “coction” or “elixir”, but also products like wine, beer, cheese, and bread. Focused on the Low Countries, it explores alchemical-philosophical treatises as well as medical texts and local practical household guides such as Den Nederlandtsen Hovenier or the De volmaakte hollandsche keuken-meid, in order to shed more light on the transmission of knowledge regarding food preservation.

IIIb: History of meteorology

David Baneke (UU), *Code red! Extreme weather and changing cultures of prediction, 1860-2010*

Storm warnings were the most visible part of the new culture of prediction of modern meteorology in the 19th century. Like weather forecasts, they were controversial. In the Netherlands, the storm warning system was changed several times in subsequent decades, up to the introduction of ‘weather alarms’ in 2010.

The discussions surrounding storm warnings are closely related to differing views on the role of experts and the relation between science-based and experience-based expertise. They are also closely related to expectations of the role of the state in dealing with extreme weather, especially in the context of emerging worries about climate change-induced increase of extreme weather events. In this paper, I will analyze the changing culture of prediction of storm warnings from 19th-century liberalism via the 20th-century welfare state to 21st-century neoliberalism.

Rienk Vermij (U of Oklahoma), *The fire dragon in medieval meteorology*

Aristoteles' boek *Meteorologia* ging niet over weersvoorspellingen, maar bood verklaringen voor allerlei verschijnselen rond het aardoppervlak. Toen in de Middeleeuwen de aristotelische filosofie in Europa ingang vond, werden ook sommige verschijnselen die Aristoteles zelf niet had vermeld in de theorie opgenomen. Dat betrof fenomenen vermeld door andere klassieke schrijvers, maar ook dingen die lijken ontleend aan populaire voorstellingen, zoals dwaallichtjes en bloedregens. Een interessant geval is de vliegende draak (draco volans). Auteurs over meteorologie kwamen met rationele verklaringen voor de vuurspuwende draken die sommige mensen in de lucht zouden hebben gezien. Dit gebeurt vrij abrupt vanaf het midden van de dertiende eeuw, zowel in geleerde commentaren als in de volkstaal. Dit roept de vraag op: waar komt dit idee zo plotseling vandaan? En zagen mensen werkelijk draken vliegen in de Middeleeuwen?

David Skogerboe (UU), *Imagining Europe through Space Infrastructures: Meteorology in ESRO's Agenda, 1960-1971*

The post-war emergence of Western European scientific cooperation - represented by institutions like CERN, ESRO, ELDO, and ESO - was driven by anxieties about superpower dominance and a belief that intergovernmental “Big Science” was essential for Europe's future.

These institutions became sites where scientific, industrial, and political communities anticipated and negotiated sociotechnical futures for Europe that had to be imagined before they could be engineered. This presentation examines how such competing visions shaped the development of ESRO's meteorological satellite programme. Founded in 1964, ESRO initially reflected space scientists' vision of Europe as an apolitical scientific community. Policymakers and industry instead imagined a Europe unified through shared space applications, while meteorologists envisioned Europe as part of emerging planetary infrastructures such as the WMO's World Weather Watch. Through negotiating these imaginaries between 1960 and 1971, meteorology shifted from exclusion to becoming central on ESRO's evolving agenda. This transformation shows how institutionalized imaginaries reoriented European cooperation and contributed materially to its post-war scientific transformation—a form of “hidden integration.”

Valentine Delrue (UGent), *Like Father, Like Daughter? Helping Hands in Ezra Stiles's Journal during the American Revolution*

Many natural historical practices in the early modern period took place at home, but it often remains unknown whether family members or servants contributed to this work. Ezra Stiles's diary, begun in 1763, is a striking exception: he openly credits his daughter, Elizabeth Stiles Jr., with keeping his meteorological journal from 1772 onwards, when she was just fourteen years old. In this presentation, I draw on Ezra Stiles's papers to show how the events of the American Revolution deeply impacted this collaborative meteorological practice. Political events became increasingly intellectually and physically intertwined with his research, and ultimately, the disruptions of war shifted the collaborations he relied on from helping hands inside to support beyond his home.

Parallel Session IV

Iva: Twentieth Century Health Science

Tom Saborowski (UU), *How ECSC Members Organized Knowledge Production during Prohibition*

During the global “War on Drugs”, European scientists faced unprecedented constraints on altered states of consciousness (ASC) research. Psychiatrist Hanscarl Leuner and colleagues established the European Collegium for the Study of Consciousness (ECSC) in the 1980s– 2000s as an institutional workaround and interdisciplinary forum for knowledge exchange.

The ECSC case reveals that crisis in science is not merely an external constraint but can also act as a creative force. Prohibition functioned simultaneously as destruction (delegitimization, network fragmentation) and as a generator of alternative knowledge practices. While ECSC members officially pursued ASC research through legal methods, they simultaneously maintained scholarly discussion of illegal substances, advocated for legal reform, and sometimes created experiential spaces where researchers could directly explore altered states. This 20-minute presentation demonstrates how some members organized intellectual networks and collaborative strategies through which knowledge production occurred during prohibition in a pre-digital era.

Martijn van der Meer (EUR), *Marching in the columns - how paperwork helped preventive child health care survive*

On 24 November 1983, Dutch pediatric organizations celebrated a triumph of paperwork: the *Dossier Jeugdgezondheidszorg*, a standardized file meant to be used in every child-health clinic in the Netherlands. This paper traces how such mundane paper technologies (growth charts, triptychs, checklists, folders and other unspectacular devices) assembled local preventive routines into a national bureaucracy between 1960 and 1985. I show that the expansion of preventive child health care after infant mortality declined was not driven by a new epidemiological emergency, but by an infrastructural crisis of purpose solved through longitudinal observation and standardization. The *Dossier Jeugdgezondheidszorg* acted as an immutable mobile. It made children comparable and stabilized “normal development” as an epistemic benchmark. At the same time, the *Dossier* enabled regional mergers and welfare-state accountability to work in practice. Attention to jammed drawers, sliding sleeves, and cardboard covers reveals how material frictions, not grand policy, shaped national coordination.

Juliette Bouillon (Cambridge), *Advancing Adult ADHD: The Dutch production of a new European diagnosis*

Since 2000, Attention Deficit Hyperactivity Disorder (ADHD) has changed from a predominantly paediatric diagnosis into a general psychiatric category and, for some, into an identity. In this talk I will explore the construction of ‘adult ADHD’ in Europe from the mid-1990s to 2010, with an emphasis on the Netherlands. The Dutch story of adult ADHD is important because the creation of institutions that consolidated adult ADHD in the Netherlands served as the springboard for the creation of Europe-wide networks and collaborations. I will situate this history in the upheavals within Dutch (mental) healthcare around this time, including the increased privatization of the healthcare system. This talk avoids a top-down approach by constructing the introduction of adult ADHD as a complex interaction among patients, advocacy groups and medical professionals during wider social and technological change.

Hieke Huistra (UU) *‘It’s what the donor would have wanted’: Handling donated bodies in Dutch anatomy departments, 1970–2025*

Anatomists have long collected dead bodies for research and teaching. In managing these bodies, they accept some uses of the bodies, but resist others through declaring them 'not respectful'.

In this presentation I explore how their decisions have helped establish norms about what could (not) be done with dead bodies in Dutch medical institutions in the past fifty years. National regulations on this were lacking. Thus, decisions were made locally, in the anatomy departments of the eight academic hospitals. If other parties wanted to use donated bodies, they had to file a request with these anatomy departments. Thus, the people working there had the power to determine the norms for the use donated bodies.

To analyse their decision-making practices, I combine oral history interviews and archival research. Thus, I unravel how 'respectful use' was defined in practice, and how this definition shaped the actual use of donated bodies.

IVb: Global and Imperial Science

Elian Schure (UU), *Transitioning South Africa: a history of the 'transition' framework in South African gut microbiome research*

In the daily practice of gut microbiome researchers in South Africa, human categorisation is a key concern. The gut microbiome refers to the microbial activity in the human gut, associated with various human health states. In gut microbiome research, humans are categorised in different ways, such as racial, ethnic, and national categories. Unlike other fields of biomedical research, gut microbiome scientists in South Africa often categorise the South African communities under study as 'in transition'. Based on South African gut microbiome papers and research on 'transitions' in public health papers, I trace the transition framework to its origins in the 1970s and demonstrate how gut microbiome researchers in South Africa apply it. I argue that the 'transition' category needs to be reconsidered, as it does not accurately describe the situation in South Africa and implicitly reformulates ideas of linear human progress, implying that humans unilaterally move towards a 'Western' lifestyle.

Floris Solleveld (KUL), *Colonial language studies as 'normal science'?*

In the 19th/early 20th century, as the 'science of language' took shape as a discipline, the standards and practices of that science were also exported to (and in part developed in) colonial situations. But these situations were anything but 'normal': European explorers, missionaries, administrators, and scholars were operating in a cultural environment that was thoroughly foreign to them and destabilized by colonial pressure, while their native interlocutors sought to navigate the changing circumstances. Languages changed in the course of being studied; 'salvage linguistics' became common practice.

My presentation offers an overview of these dynamics on a global scale. Particularly it looks at three aspects: 1) standardized means of registration, such as questionnaires, phonetic alphabets, and wax cylinders; 2) 'controlled environments' for language study such as (mission) schools and translation industries with teams of local literati; 3) the interplay between different sets of hierarchies: colonizer/colonized, expert/amateur, oral/literary, high/low-status languages and registers.

Robbert Striekwold (UL), *Naturalists in the Dutch imperial project*

During much of the early to mid-19th century, the Dutch were in a difficult position, imperialistically speaking. They were widely seen as a small power with a big empire, and the

French and British were regularly covertly (and sometimes overtly) eyeing its colonies in Southeast Asia. In addition, local resistance to the Dutch occasionally erupted into full-blown uprisings that proved hard to quell. Dutch officials, acutely aware of this, used scientific expeditions as a means of asserting control over parts of the archipelago where their presence was still mostly a paper reality. The naturalists involved in these expeditions were not primarily concerned with this struggle, but nonetheless had to deal with it. After all, it did have implications for their safety, who they could collaborate with, and so on. I'm primarily interested in how they saw their own role in the imperial project, given these circumstances.

Ad Maas (Boerhaave) en Afrodita Naydenova (Universiteit Leiden), *Rubber and the Dutch Indies*

In our presentation we aim to reflect historically on the phenomenon of 'critical materials' by means of a nineteenth-century case study. In this period, submarine telegraphy caused a revolution in the field of communication-technology, enabling information to travel across the globe extremely fast, without depending on ships, trains, horses or other physical forms of transportation. The telegraph cables were covered with gutta percha. This rubbery substance was the only insulating material that was able to resist the salty seawater - submarine telegraphy consequently fully came to depend on it. This resulted in a scarcity and a world-wide craze for the material, which could only be harvested in certain parts of the Malay Archipelago, under British and Dutch control, where the *Palaquium gutta* tree naturally grows. From the 1840s onwards, this somewhat obscure material thus became what we now would call a 'critical material' for a high-tech and highly strategic technology, including the aspects of human exploration and environmental exhaustion that also characterize the extractions of current critical materials like cobalt or the rare earth minerals.

Parallel Session V

Va: Ocean governance

The governance of what happens, and what is allowed to happen, on and in the ocean has always been fraught with controversy and confrontation. Knowledge practices have been crucial in contributing to and legitimising governance of and activities on the ocean. This panel presents four cases studies studying these entanglements: from legal practices to enable the transport of forced African labour over the ocean to the engagement of oceanographers and lawyers in building a submarine telegraph structure on the seabed in the 19th century; and from the controversial and diametrically opposed involvements of scientists in (the fight against) whaling to the everyday knowledge practices and risk calculations underlying private security policies against piracy in the late 20th and early 21st centuries.

Stephen Snelders (UU) *'Ecopiracy, Science and Whaling c. 1945-c. 2015*

Science contributes in different and often diametrically opposed ways to ocean governance. This paper discusses this Janus face in the case of whaling. On the one hand, scientists have been involved in bringing public attention to the extermination of whales and other species on the 'high seas', the extraterritorial waters comprising half of our planet. Since the 1960s-1970s a number of scientists took their involvement outside of academia and joined ships of activist NGOs such as Greenpeace and more recently Sea Shepherd. On the other hand, some scientists continued to deny the danger to whales posed by industrialized whaling. Japanese scientists contributed to the whale hunt in a so-called 'scientific research programme' (1987-2019) after the international moratorium on commercial whaling. This paper analyses scientists on the high seas within different cultural traditions, posing the cultural influences of the sixties counter culture and its progeny against older anthropocentric traditions.

Erik de Lange (UU), *Frontlines of the Deep: Oceanography, Law and Submarine Telegraph Cables in Times of War*

Officials initially welcomed submarine telegraph cables as harbingers of global peace. But by 1869, just three years after the construction of the first working trans-Atlantic telegraph cable, they began to worry about acts of war against this seabed infrastructure. This was a time shaped by conflicts, including the Ten Years' War for Cuban independence (1868-1878) and the Franco-Prussian War (1870-1871), that shook the foundations of the nineteenth-century European order. These wars gave submarine cables a new military significance. They also impacted the uses (and conduct) of science. As war came to the deep, oceanographers and lawyers started to engage differently with the seabed. This paper discusses how international conflicts influenced knowledge practices and their uses. It analyses the role of scientific expertise in the making of the Paris Convention on the Protection of Submarine Cables (1882-1884), which still forms the basis of current ocean governance on seabed infrastructure.

Pieter Zhao (EUR), *Who Guards the Sea? Modern Piracy, Private Security, Knowledge Production and the Changing Norms of Maritime Violence*

This paper examines how crises at sea reshape knowledge production in regard to ocean governance and the norms regulating the use of force, focusing on the rise of private maritime security companies (PMSCs) since the early 2000s. The surge in Somali piracy constituted a systemic crisis for global shipping, exposing capacity gaps in naval protection and prompting an unprecedented reliance on armed non-state actors aboard commercial vessels. This development was not driven by states alone but shaped by everyday knowledge practices and

risk calculations of shipping companies, marine insurers, shipmasters and crew associations, and legal experts. Together, these actors helped normalize armed protection at sea, gradually altering long-standing assumptions about state monopoly, civilian shipping, and the use of force in international waters. Situating this recent episode within a longer historical perspective, from privateering to chartered companies, the paper argues that such crisis-driven adaptations are recurrent features of ocean governance.

Marcella Schute (EUR), *Legal Knowledge, African Indentured Labor Migration and Ocean Governance in the Mid-Nineteenth Century*

This paper studies the development and application of legal knowledge practices, linking ocean governance with African indentured labor migration. Amid ongoing migration crises at sea, often tied to debates over labor exploitation, historical case studies can help legal experts and policymakers clarify how to define free and unfree labor. Using the French African Emigration Scheme (1853–1862) as a case study, this paper explores how imperial powers navigated legal ambiguities and applied distinct legal knowledge practices in transporting African contract laborers overseas. Under this scheme, the French allowed private companies to recruit African laborers for their colonies in the Indian Ocean and the Caribbean. The British recognized this scheme and the frequent incidents on French ships as a disguised continuation of the transatlantic slave trade. From the French perspective, however, the scheme served as a tool to challenge Britain’s naval superiority and Britain’s role in shaping the post-abolition world order.

Vb: Twentieth Century Technoscience

Robert van Leeuwen (UvA), *The “beginning of the end of physics” and the closure of Cold War science*

Around 1985, some prominent scholars suggested that the traditional particle physics, concerned with the empirical properties of elementary particles, might be coming to an end. They did so in the context of superstring theory, a mathematical framework for unifying all elementary particles and gravity. We discuss how the practices of particle theorists developed out of the experimentally-oriented 1960s and 1970s into the highly mathematical superstring practice. Subsequently, we explore connections between this development and shifts in society and policy during the end of the Cold War: the decline in funding in US particle physics; an increase in the professional valuing of mathematical skills over engineering ones; and Fukuyama’s well-known 1992 argument for the “end of history” in political philosophy. This suggests parallels (presently, no more than that) between the end of a period of geopolitical tension, and the daily manner in which some particle physicists continued their perceived historical mission.

Chaokang Tai (UvA), *The Workflow of Astrophotographic Research at Leiden Observatory, 1920-1960*

Scientific photography demanded a lot of work. Despite the promises of objectivity and automation, early twentieth century scientists working with photography had to develop intricate techniques to stabilize photographic images and extract information from photographic plates. This paper focuses on the workflow of astrophotographic variable star research at Leiden Observatory. With workflow, I mean the routinized daily practices that were performed by various astronomical workers to produce knowledge about variable stars using photographic plates. This includes activities such handling telescopes for stable exposures, measuring photographic plates through specialized instruments, and reducing the resulting measurements into stellar properties. As I will illustrate, this workflow was standardized but flexible, with the labour being distributed among astronomical workers ranging from professors and observers to human computers and students.

Ab Flipse (VU), *War and Peace at the Vrije Universiteit Amsterdam: the case of polemology*

On February 19, 2026, the Centre for Defense and Resilient Society (CDWS) opened at the Vrije Universiteit Amsterdam. Representatives from all faculties and the Executive Board attended the opening. The Center is to work closely with the Ministry of Defense and the Army, and many military personnel in uniform were also present. The announcement of the establishment of this center had already caused quite a stir within the VU community. The university newspaper *Ad Valvas* published an opinion piece entitled 'Oppose the militarisation of VU', and many students expressed their criticism in a debate. Both opponents and supporters seem to assume that this is the first time that ties between the university and the army have been established.

In this paper, I want to look at the history of the relationship between the university and the defense sector, particularly at the VU. What examples are there of close cooperation? But also, how has armament been viewed critically in the past? In the 1970s and 1980s, for example, there was a thriving working group 'Polemologie' at the VU that had ties to the peace movement. In this presentation of work in progress, I look at the differences and similarities between discussions then and now.

Abel Streefland (Delft), *Too Unscientific? The Electronic Music Studio at TH Delft (1957-1960)*

Between 1957 and 1960, the Technische Hogeschool Delft ran the first Dutch studio where composers worked hands-on with electronic equipment. I will examine how daily work in this studio blurred the line between technical research and art.

Unlike Philips, where technicians executed composers' instructions, Delft required composers to operate machines themselves. Many dropped out as few had both musical and technical skills. Those who stayed developed working routines that fitted neither the physics lab where it was located, nor the conservatory.

The TH closed the studio in 1960, months after renovating it, calling the work "unscientific". But several alumni went on to found STEIM in 1969, which became a leading institute for live electronic music until 2020. Delft's short-lived experiment mattered not despite its awkward institutional position, but because of it.