

ABSTRACTS

ESTRATTO

da

PHYSIS

International Journal for the History of Science
2022/1 ~ (LVII)



Leo S. Olschki Editore
Firenze

physis

International Journal for the History of Science

LVII

1-2022



physis

International
Journal for
the History of
Science

pubblicata dalla
DOMUS GALILÆANA DI PISA

in collaborazione con
SOCIETÀ ITALIANA DI STORIA DELLA SCIENZA
SEMINARIO DI STORIA DELLA SCIENZA DELL'UNIVERSITÀ DI BARI

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2022: ABBONAMENTO ANNUALE (2 fascicoli) – ANNUAL SUBSCRIPTION (2 issues)

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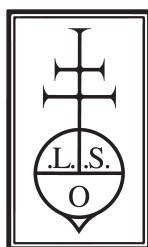
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Ogni articolo è sottoposto alla valutazione anonima di due esperti.
Each article is submitted to a double-blind scholarly peer review.

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FRANCESCO PAOLO DE CEGLIA – CARLA RITA PALMERINO
CLAUDIO POGLIANO

A PORTOLAN CHART FOR AN EXPANDING HISTORY OF SCIENCE

MATTHEW LAVINE [★] – ALEXANDRA HUI ^{★★}

DISCIPLINARY IDENTITY AND *ISIS*

ABSTRACT – As the Co-Editors for the History of Science Society, we have a unique vantage point from which to observe new and long-term trends in the field of history of science. In this piece, we offer an overview of what we believe to be the status and disciplinary identity of the field. We also offer some thoughts on where we anticipate the field of the history of science is going and some developments we find especially exciting.

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STEPHEN P. WELDON *

VIEW FROM THE BIBLIOGRAPHER'S DESK:
EXPLORING TWO-DECADES OF CITATIONS
IN THE DISCIPLINE OF HISTORY OF SCIENCE

ABSTRACT – I have been the History of Science Society's bibliographer since 2002. During that time, I have curated a large database of citation data going back to 1970. For this special issue, I surveyed the set of 16,800 journal article citations that were published in sixty core journals in the field of history of science, technology, and medicine over the eighteen-year period from 2002 through 2019. In this brief article, I have sought to highlight a few trends in the field over that time, I studied two areas of interest: co-authorship and article content. With regard to the nature of co-authorship, I find that there is a gradual but unambiguous increase in co-authorship in the discipline, a trend that is echoed in other areas of publication, including co-editing of journals. With regard to the content of articles, I made two types of surveys. First, I looked at how trends in the frequency of publication changed with regard to eight topic areas: religion and science, occult and related topics, evolution, environment, energy and climate, colonialism, race, and indigenous peoples. I show that the data tends to confirm my suspicion that with regard to such issues as environment, climate, and race, there is a very significant increase. In addition, I also look at the frequency that major historical figures are discussed in articles, concluding that there has actually been very little change in the canon over the eighteen years and that women remain quite understudied in the field.

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KOEN VERMEIR *

OPENING UP THE HISTORY OF SCIENCE:
A PERSPECTIVE FROM *CENTAURUS*

ABSTRACT – *Centaurus* was founded in 1950 and has remained so far one of the major generalist journals devoted to the study of the history of science. Since 2007, it has been the official journal of the European Society for the History of Science (ESHS), which in 2022 became its co-owner. In the last decade, *Centaurus*' mission has increasingly been aligned with the ESHS's purpose to promote cooperation in the field of the history of science understood in the broadest sense, in and beyond Europe. As a result of these efforts, *Centaurus* became a 'diamond' Open Access journal, in which authors can publish without any cost and readers can access all the content for free. Open Access will come with new benefits and new responsibilities, especially for a small humanities field such as the history of science. Transitioning to Open Access is a big challenge and a remarkable change for a journal. The first part of this article discusses recent developments in Open Access within their social, economic and political context, taking *Centaurus* as a case-study. However, Open Access is only the start of a more thorough transition to Open Science practices. The second part of this text focuses on Open-Peer Review, a new process aimed at overcoming the well-known drawbacks of blind peer-review, to open up a discussion about its advantages and disadvantages for the history of science.

* SPHERE, Laboratoire de Philosophie et Histoire des Sciences, UMR 7219, e-mail: Koen.Vermeir@univ-paris-diderot.fr. CNRS - Université de Paris. This article does not reflect any official or institutional point of view but expresses my perspective as a researcher interested in the history, sociology and ethnography of scientific publishing and the Open Science movement.

CHRISTOPH LÜTHY*

DEVELOPMENTS IN THE HISTORY OF SCIENCE
AS SEEN FROM THE VANTAGE POINT OF THE JOURNAL
EARLY SCIENCE AND MEDICINE

ABSTRACT – In this article, the editor of *Early Science and Medicine* addresses a series of dilemmas facing journals in the history of science. The first is thematic: is ‘science’ a result of an historical line that runs from the ancient Middle East through Greece up to the European Revolution; and if it isn’t, how can a journal do justice to alternative trajectories? The second, which is related to the first, is definitional: where does one trace the boundary line between what falls within the domain of the history of ‘science’ and what doesn’t? The third dilemma is editorial: how does one balance the sometimes contrary criteria of scholarly versus high-impact publications? The fourth and fifth dilemmas have to do with the advent of the internet age: how is a journal editor to respond to the challenges of on-line and open-access publishing? The article ends with some observations on the general development of ancient, medieval and early-modern history of science and medicine.

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ELENA CANADELLI *

HISTORY OF SCIENCE
FROM A VISUAL AND MATERIAL PERSPECTIVE:
NUNCIUS'S VIEWPOINT

ABSTRACT – *Nuncius* collects the legacy of *Annali dell'Istituto e Museo di storia della scienza di Firenze* and, since 2011, with the new subtitle, *Journal of the Material and Visual History of Science*, has decided not to be an all-inclusive journal in the history of science anymore and to open itself to a more international readership. This has been done while maintaining an Italian “heart,” attested to, among other things, by the importance given to the unpublished sources, hosted in the special section *Documenta inedita*. *Nuncius* has recently launched the first “Nuncius Essay Award” and plans to improve the web resources of the journal.

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KAREN RADER^{*} – MARSHA RICHMOND^{**}

HISTORY OF BIOLOGY:
CURRENT APPROACHES AND FUTURE TRENDS

ABSTRACT – Two Co-Editors in Chief of the *Journal of the History of Biology* reflect on their field, from its start within the history and philosophy of science and ‘the Darwin Industry’ to more recent work on women and gender in science and in interdisciplinary fields such as environmental history, animal studies, race and colonialism, medical humanities, and history of technology. They argue that five generations of work in *JHB* have marked some important transitions, with inflection points in research foci and training models that continue to shape the discipline’s intellectual approaches and trends.

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LAURA HIRSHBEIN *

THE EMERGING QUEST FOR RELEVANCE
IN THE HISTORY OF MEDICINE AND SCIENCE

ABSTRACT – The history of medicine and history of science have varied over time in terms of how much scholars have considered issues of relevance to contemporary society. The *Journal of the History of Medicine and Allied Sciences*, for example, emerged in 1946 from a sense that history could speak to current health issues. By the 1960s and 1970s, historians of medicine seemed to cede the question of relevance to scholars in history departments who were motivated by liberal political views and used their history to speak for social justice. Historians who addressed relevant topics often published their work in books, increasingly for general audiences. Academic journals were more sheltered. But in the last decade there has been a growing awareness among historians of medicine and science that history is not just interesting or potentially relevant, but actually an essential tool to teach critical thinking to students in medicine and the sciences in a way that is entirely relevant to the present.

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ALEXANDRA RUTHERFORD *

THE HISTORIOGRAPHY OF THE 'BEHAVIORAL SCIENCES'
IN THE 21ST CENTURY

ABSTRACT – From my vantage point as editor of the *Journal of the History of the Behavioral Sciences*, I identify and outline some of the research trends I have observed in the historiography of the behavioral sciences over the past twenty years. I start by situating and defining what is meant by 'behavioral sciences.' I note that within the history of science, the field devoted to these sciences has often been regarded as lower in status compared to histories of the natural sciences. However, with the accelerating cultural prominence and ubiquity of the behavioral sciences since WWII, there has been a corresponding expansion and richness in historical scholarship that challenges this traditional hierarchy. I identify three major trends in this historiography, including a rise in histories of recent social science, transcultural and global histories, and the decolonial turn. I argue that it may finally be time to assert that – at least in the broader landscape of history of science – the history of the behavioral sciences is a field whose time has come.

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H. OTTO SIBUM[★]

KNOWLEDGE IN ACTION.
EXPERIMENTING IN HISTORY AND IN SCIENCE

ABSTRACT – The paper aims at outlining a recent historiographical approach ‘Experimental History of Science’ developed in the 1990s. It was designed to study knowledge in action by stressing the role of materiality and the knowing body in the making, transmission and reconfiguration of knowledge in history. Reworking of past experimental practices enables the historical exploration of forms of knowing involved in performances of actions and reveals hitherto unrecognized dimensions of the formation and dissemination of scientific knowledge that have never found any literary expression in the historical records. Finally, it describes scientific knowledge making – in fact any form of knowledge making – as historically embodied cognitive practices performed in a material world and thereby transgresses the conventional boundaries between the sciences and humanities.

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SVEN DUPRÉ *

KNOWLEDGE, PERFORMANCE, CONSERVATION:
HOW ART AND SCIENCE EMBRACE TECHNOLOGY

ABSTRACT – In the twenty-first century the field of study of art and science has come to age. This field shows a continued engagement with the discipline of art history, even deepened by the renewed exchange with *Bildwissenschaft*. However, there is limited attention to technology. On the other hand, technology is central to the field of art, science, and technology studies. Yet, this new field is characterized by a growing distance to art history. Are we then witnessing the historical moment of a divide in the field of art and science? In this brief review essay, I argue that in just the past few years several research areas are characterized by intense dialogue of historians of science with art history as well as close attention to *techné*. Moreover, partly driven by performative methods, recent scholarship connects histories of materials and techniques to histories of the environment. Here conservation emerges as a key category, and conservation history as the next frontier of the field.

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LUKAS M. VERBURGT[★] – PETER BURKE^{★★}

HISTORY OF IGNORANCE: A 21ST CENTURY PROJECT

ABSTRACT – This essay introduces the history of ignorance and sketches its contours and ambitions, focusing on the field's disciplinary connections with the history of knowledge and history of science. It also contains some tentative explorations of what the history of (scientific) ignorance, as an emerging academic field, might offer to the wider study of ignorance rapidly taking shape today.

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PIETRO DANIEL OMODEO *

HISTORY OF SCIENCE AND HISTORY OF THE EARTH IN THE ANTHROPOCENE

ABSTRACT – The debate on the Anthropocene, a geological epoch marked by human technology as a driving force of geo-transformation, prompts the history of science to rethink itself in coordination with other disciplines that deal with the scientific phenomenon at a reflexive meta-level. This article discusses the various levels of such a reflection, beginning with the question of the stratigraphic evidence of the Anthropocene. A second level is historiographic: how should we rewrite history starting from a geological viewpoint according to which natural contexts can no longer be assumed as immovable and inexhaustible backgrounds of social processes? The third level concerns historical epistemology, that is, the question of the intertwining of genesis, validity and functions of scientific conceptions co-opted in the anthropic transformation of the world. The conclusion points, as a fourth level, to the role of a sustained reflection on science in political theory and practice.

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ANNE-LISE REY *

GENDER PERSPECTIVES AND NEW NARRATIVES

ABSTRACT – In this paper I present the conjunction between a) some trends in history and philosophy of science, which, under the banner of a renewed historical epistemology, articulate a new relation between conceptual history and situated history; and b) new narratives in the history of philosophy that integrate women philosophers by showing the displacements this causes in terms of corpus, objects of research, and forms of writing. By questioning the philosophical canon, new focal points are brought to light. c) Then I briefly present the tools of feminist epistemology as methodological instruments to, in fact, proceed to the decentering of the canon.¹

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DANIELE COZZOLI *

HISTORY OF SCIENCE AND POLITICAL HISTORY: INTERSECTIONS, DIFFERENCES, TRADITIONS

ABSTRACT. This essay deals with the complex relations between history of science and political history. In the inter-war years, most historians of science conceived of their discipline as a form of cultural history or as a history of scientific concepts and ideas. In doing so, they were reacting both to the hostile climate towards science after WWI and to Marxist scholars who stressed the connection between science and economics. In the following years history of science unfolded as cultural history. From the late 1970s historians of science developed their research in dialogue with other disciplines such as sociology, anthropology, art history and art theory, and theory of literature, making history of science a rich and complex field of studies where different approaches coexisted. Several historians of science became interested in the social dimension of science, but they tended to detach it from the economic dimension. Historians of science have, indeed, found it difficult to engage with the main themes and methods of economic, social and political history. Focusing on four of the main historical school of the twentieth and twenty-first century (British radical social history, the *École des Annales*, microhistory and global history), this essay argues that a dialogue between historians of science and political historians has turned out to be difficult. It analyses how political historians have considered the role played by science, technology and medicine in their narratives and how historians of sciences have engaged poorly with political history. Finally, it argues that historians of science should pay more attention to political (and economic) history.

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SIMONE TURCHETTI *

A DIPLOMACY TURN? WRITING THE HISTORY OF SCIENCE IN THE CONTEXT OF INTERNATIONAL RELATIONS

ABSTRACT – This essay offers a review of historical studies seeking to explore the sciences in the context of international relations, also in an effort to better understand if this exploration caters for an historiographical ‘turn.’ The article first looks back at literature examining the interplay between scientific and international affairs from practitioner and scholarly viewpoints. It then offers a novel perspective on the science/diplomacy nexus at the centre of this interplay by focussing on the negotiation element distinctive of both scientific and diplomatic practices internationally, and modelling these interactions as occurring on parallel diplomacy tracks. An examination of these past parallel-tracked negotiations, I conclude, is important because it underpins our understanding of science’s global reach today, in that their historical configuration sheds light on the geographical inequality of the system of global circulation of scientific knowledge. In particular, it reveals this circulation to result from negotiations that have either facilitated or prevented the spreading of scientific exchanges across the world hence shaping uneven global scientific networks.

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GIULIA GIANNINI *

TOWARDS A COMPUTATIONAL HISTORY OF SCIENCE:
LIMITATIONS AND PERSPECTIVES
OF AN EMERGING RESEARCH APPROACH **

ABSTRACT – Data science has recently emerged as a multi-disciplinary field of research where statistics, data analysis, machine learning and their related techniques are combined in a systematic way to support understanding of actual phenomena concerned with data. The growing power of storage infrastructures and the consequent availability of large amount of data opened up unprecedented opportunities to support the specification of ad-hoc data-driven approaches and tools for a number of application fields, such as biology, medicine, economy, politics, and history. In historical studies of science and knowledge, the use of data-science solutions is gaining more and more attention and the scientific debate is more topical than ever.

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** This work is part of a project that has received funding from the European Research Council (ERC) under the European Union's Horizon 2020 research and innovation programme (TACITROOTS, PI: Giulia Giannini, Grant agreement No. 818098).

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IN MEMORY OF PAOLO BRENNI (1954-2021)

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