



THE ROLE OF *OSIRIS* IN THE DEVELOPMENT OF THE HISTORY OF SCIENCE

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Abstract

This article examines the historical significance of *Osiris*, one of the most critical journals in the field of the "history of science." It outlines the history of the journal's establishment, its founder, the key figures who demonstrated dedication to this process, its publication scope, as well as its scholarly style and chosen thematic directions. The primary objective of this research is to elucidate the role of *Osiris* in the formation of the history of science and its impact on the scholarly process within the discipline. By addressing these issues, the study demonstrates how journals that have long held a prominent position in the history of science continue to serve as vital reference sources for both society and the academic community.

Keywords: George Sarton, Isis, Osiris, History of Science, May Sarton, source, university, philosophy, library, scholarly activity.

Introduction. As science developed at a rapid pace during the twentieth century, the need to deeply investigate its historical roots, formation patterns, and epistemological foundations increased dramatically. The history of science, which analyzes the social, cultural, and philosophical aspects of scientific knowledge, began to coalesce as an independent academic discipline. In this process, scholarly publications, particularly specialized journals, played a pivotal role. The journal *Isis* rapidly transformed into an international editorial board, a permanent subscriber base, and the official community of historians of science. However, the manuscripts arriving from universities worldwide could no longer fit within the constraints of brief articles. Scholars began to experience a profound need to publish complete transcriptions of medieval astronomical and mathematical manuscripts in Latin, Arabic, Greek, or Chinese, along with their comprehensive textual and philological analyses, as well as integrated monographs spanning several hundred pages.

Research Methodology. To achieve the primary objectives of this study, the article employs historical principles, comparative analysis, systematization, classification, and problem-chronological methods to clarify the essence of the research question.

Analysis and Results. Since the journal *Isis* was a periodical published four times a year, accommodating such massive works within each issue would disrupt the editorial agenda and the diversification of the journal. Sarton grew deeply concerned about these strict page limitations, and every year he was forced to reject dozens of fundamental monographs due to a lack of space (Pyenson, 2007a).

As a solution to this problem, Sarton founded a new scholarly publication—the journal *Osiris*—in 1936 in Bruges, Belgium (Sarton, 1936). George Sarton's overarching scientific concept occupied a central place in the creation of *Osiris*. He viewed the history of science as an inseparable part of human culture and aimed to illuminate the progressive development of



science through the deep analysis of historical sources (Pyenson, 2007b). His goal was to transform Isis into a platform dedicated exclusively to brief articles, reviews, and current bibliography, while establishing Osiris as a specialized venue for major, monumental works, full translations of primary sources, and comprehensive, long-form investigations (Sarton, 1936).

The name of the journal was derived from ancient Egyptian mythology, where Osiris was recognized as the husband of Isis, the ruler of the underworld, and the god of order, justice, and natural regeneration. Together, Isis and Osiris symbolized the scientific foundation of human civilization during this era, bridging its past and future (Shryock, 1956). Sarton conceptualized these two journals as twin pillars supporting the history of science. Although Osiris initially emerged as Sarton's personal publication enterprise, it soon elevated to the status of a premier academic journal for global historians of science (Guerlac, 1958).

The history of the journal Osiris must be analyzed by dividing it into two major periods. The first period encompasses the years 1936–1954. The initial phase of Osiris was fundamentally built upon Sarton's scholarly wealth and international networks (Pyenson, 2007b). The first 7 volumes (1936–1939) were printed with exceptional typographic quality at the prestigious "Saint Catherine" Press in Belgium (Guerlac, 1958). Utilizing his influential circles, Sarton secured grants and donations from various international foundations and wealthy benefactors to finance the publication of these volumes (Servos, 1990).

With the outbreak of World War II in 1939 and the Nazi German occupation of Belgium, communication with the "Saint Catherine" Press was severed, placing all manuscripts in grave danger (Hunting, 2001). Consequently, the journal's operations were suspended for nearly a decade. Only after the conclusion of the war did Sarton, with immense effort, restore these connections and succeed in publishing the subsequent 8th volume of the journal in 1948 (Toynbee, 1948). By 1954, the 11th volume of the journal was released, which marks the final volume edited during Sarton's lifetime. Following Sarton's death in 1956, securing private financing and attracting prominent international authors became increasingly difficult, forcing Osiris to cease its operations ("Dr. George Sarton...", 1956).

The second period spans from 1985 to the present day. Nearly 30 years after Sarton's passing, the History of Science Society (HSS) in the United States initiated the revival of the journal. Observing the deep branching of the history of science field, the Society recognized a vital need for an annual integrated collection of studies dedicated to specific, pressing thematic problems. Consequently, the Second Series of Osiris was launched in 1985 (University of Chicago Press, 2026).

The revitalized journal completely transformed its organizational structure. It began to appear only once a year, formatted as a massive, single-theme monographic volume encompassing 350–500 pages (University of Chicago Press, 2026). The journal abandoned the model of a single permanent editor-in-chief. Instead, for each issue, the History of Science Society invites leading scholars from the world's most prestigious universities who are prominent experts in that specific volume's theme to serve as "Guest Editors" (History of Science Society, 2026). The technical and commercial production of the journal was assumed by the University of Chicago Press, one of the world's most renowned academic publishers (University of Chicago Press, 2026).

While Isis remains an open platform that publishes any peer-reviewed article concerning the history of physics, chemistry, biology, mathematics, or astronomy from



antiquity to the modern era—where authors are unlinked and an article on Galileo Galilei can sit directly alongside a study on the 9th-century Baghdad scientific school—Osiris functions strictly as a thematic monographic publication (Kuhn, 1968). Each of its volumes is dedicated to a pre-determined global topic, such as "Science and the Cold War" or "Visualization and Imagery in the Natural Sciences." All articles within a volume elucidate different dimensions of that single overarching problem.

As a result, the reader receives a comprehensive, fundamental analysis of a single subject rather than a collection of scattered research papers (Pyenson, 2007a).

Several volumes of the journal have been dedicated to exploring the relationship between science and political power. In the volume titled "Science in Germany and Italy," archival documents were utilized to expose how the disciplines of physics, anthropology, and genetics were weaponized to serve state racial policies under the ideologies of Nazism and Fascism (History of Science Society, 2026). Similarly, the volume "Science in the Cold War" analyzed the profound impact of the geopolitical rivalry between the United States and the USSR on fundamental physics, cosmonautics, oceanography, and meteorology (History of Science Society, 2026).

In 1938, within the 4th volume of Osiris, Robert K. Merton—widely regarded as the father of the sociology of science—published his seminal work, "Science, Technology and Society in Seventeenth Century England." This work subsequently entered the global sociology of science under the designation of the "Merton Thesis" (Merton, 1938). Utilizing extensive statistical data, Merton demonstrated that the emergence of the Scientific Revolution in 17th-century England (including the activities of Newton, Boyle, and the Royal Society) was fundamentally stimulated by the religious tenets of Puritanism, which emphasized rationality, diligence, and understanding the glory of the Creator through the study of nature (Merton, 1938; Shapin, 1996). The publication of such a groundbreaking study within Osiris significantly elevated the historical prestige of the journal.

Discussion. During the final quarter of the twentieth century, attention toward women and gender issues within the historiography of science intensified (Hunting, 2001). In the special volume titled "Women, Gender, and Science," scholars utilized historical facts to reveal how medieval and early modern scientific institutions were structurally established as "men's clubs," and exposed the mechanisms through which the intellectual labor of female researchers was frequently appropriated under the names of their husbands or male colleagues (History of Science Society, 2026).

In recent years, the history of science has increasingly shifted toward studying ideas not as abstract concepts, but as products of architectural and social environments situated within specific geographical locations. In the volume "Scientific Places and Spaces," researchers analyzed the geographical placement and internal architecture of observatories, botanical gardens, anatomical theaters, and modern nuclear test sites (Pyenson, 2007a). For instance, the study demonstrated that the geographical location of a medieval observatory on a mountain peak or in a city center was not merely a technical necessity, but was deeply intertwined with the political and astrological ambitions of contemporary rulers.

The peer-review and assembly process of the journal operates through a highly rigorous mechanism. Each year, leading global historians of science select a pressing problem and prepare a comprehensive volume proposal spanning 15–20 pages. This proposal outlines the relevance of the prospective volume, the list of participating scholars, and abstracts of their



proposed articles. The submitted project undergoes a stringent analysis by a specialized Editorial Board of the US History of Science Society. Out of dozens of such proposals, only one is selected as the winner each year and approved for the upcoming Osiris volume (History of Science Society, 2026). Once a project is approved, the authors draft their initial papers, and a dedicated scientific symposium is organized with all contributors in attendance. During the symposium, every article is collectively debated, and authors read one another's work to ensure that the methodology, style, and overarching philosophical direction of all chapters are perfectly aligned.

Following the symposium, the revised articles are individually dispatched to at least two independent international reviewers via a double-blind peer-review process identical to that of Isis, where the reviewer and author remain mutually anonymous. If an individual article fails the review process, it is immediately expelled from the volume. Through this multi-tiered intellectual filter, every volume of Osiris emerges not merely as a compilation of articles, but as the latest and most sophisticated encyclopedic consensus of global scholarship on that specific branch of the history of science.

Thomas S. Kuhn, the renowned American physicist, historian, and one of the most influential figures in the 20th-century philosophy of science, expressed the following views regarding the journal: “The nature of the history of science is such that it is not a chronology of isolated discoveries. It is the process of global paradigm shifts in human thought. To comprehend this process, we require integrated monographic analyses far more than individual research papers. Through its thematic volumes, Osiris is the only unique and unrepeatable scientific phenomenon in the world capable of displaying these fundamental concepts of science in their full stature. In my own research, I have consistently relied upon the methodological foundation provided by Osiris.” (Kuhn, 1968)

Another prominent American historian, sociologist of science, and Professor Emeritus at Western Michigan University, Lewis Pyenson, also evaluated the journal highly: “When George Sarton established Osiris, he merely intended to resolve the page shortages of Isis. However, history has shown that Osiris advanced far beyond its original technical mandate. It rescued the history of science from being a mere collection of documents and elevated it to the level of sociology, cultural anthropology, and philosophy. Today, anyone reading the pages of Osiris observes how science was formed not within formulas, but within the environment of a living human society” (Pyenson, 2007b).

The journal is successfully indexed in premier international databases such as Scopus and Web of Science, firmly maintaining a Q1 (First Quartile) ranking in the categories of History as well as History and Philosophy of Science (University of Chicago Press, 2026). Despite being published only once a year, its citation metrics remain exceptionally high. Because its articles possess a monographic and fundamental character, global scholars continue to cite them for decades. Furthermore, the journal features complete digital integration; its entire archive from 1936 to the present day has been digitized across electronic platforms such as JSTOR, Project MUSE, and the University of Chicago Press Journals, remaining accessible to universities holding international academic subscriptions (IsisCB Explore, 2026).

Conclusion. Osiris has played an instrumental role in the scholarly careers of numerous young academics, as its stringent methodological requirements and rigorous editorial policy are of paramount importance in shaping the research culture of rising scholars. The journal addresses deeper, more specialized academic themes compared to Isis (Kuhn, 1968). In today's



global scientific community, *Osiris* is recognized as an elite, Category-A academic journal. Its articles serve as the foundational basis for contemporary research concerning scientific policy analysis, the history of technological innovations, institutional dynamics, and the formation pathways of scientific thought (Pyenson, 2007a). Modern issues of the journal frequently encompass cutting-edge domains such as global history of science, colonialism and indigenous knowledge systems, the history of environmental sciences, and the history of medicine (History of Science Society, 2026). Ultimately, *Osiris* remains a monumental academic arena that dictates the directions of the history of science, facilitates theoretical discourse, and fosters the formation of new scholarly schools.

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