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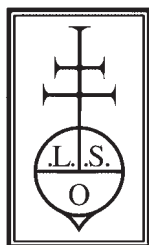


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E. PAPARAZZO

ARISTOTLE'S THREEFOLD CONCEPTION OF FIRE IN *METEOR.* I-III

The present paper deals with the threefold conception of fire in Aristotle's *Meteorologica* I-III. At the beginning of the work, fire is described as (a) an element, while in the rest of the treatise it is presented either as (b) a smoky exhalation or as (c) an excess of hot and a sort of boiling. The aim of this paper is to show that those different characterisations of fire are by no means contradictory, and that they peacefully coexist within the same cosmological and meteorological framework. What makes this possible is that their physical status does not overlap: (c) is a process rather than a body, whereas (a) and (b) are both bodies, but the former is only to be found potentially in the cosmos, the latter, actually. In doing so, the general and fundamental issue of the relationship between elements and exhalations within Aristotle's meteorological perspective will be addressed as well.

S. HIGASHI

GRAPPLING WITH THE ANCIENTS: PETRARCA AND THE PROBLEM OF SCIENCE IN *ON IGNORANCE*

Petrarca's *On Ignorance*, often regarded as exemplifying humanism's manifesto against Medieval learning, deserves further study as an essay on the nature, foundations, and limits of human knowledge, including the natural disciplines. The thoughts constituting the text undoubtedly took shape under the influence of opposing views regarding the knowledge enterprise: Greco-Roman philosophy and science on the one hand, and Christian morals on the other. To situate Petrarca's views in the development of Medieval and Renaissance theories of science, this article first surveys past literature and considers anew the religious values at the core of the poet's statements. The article also attempts to fill a lacuna in existing studies by examining the question of skepticism in the text. Comparisons with some predecessors in the transmission of skepticism since Antiquity will enable further understanding on Petrarca's epistemological outlook.

B.R. GOLDSTEIN, J. CHABÁS

CONTINUITY AND CHANGE: THE PLANETARY EQUATION TABLES
OF JOHN VIMOND
AND NICOLAUS COPERNICUS

We offer a survey of some significant tables for the planetary equations from Ptolemy to Erasmus Reinhold including the *zij* of al-Battānī, the Toledan Tables, the tables of John Vimond (ca. 1320), the Parisian Alfonsine Tables, and the tables of Copernicus, and demonstrate the continuity in their presentations as well as their divergences from the standard tables that go back to Ptolemy. Despite Copernicus's shift from geocentric to heliocentric models, the presentation of his planetary equation tables is essentially the same as that of his predecessors. Both Vimond and Copernicus modified the presentation of the equations of anomaly in the same way, but there is no evidence that Copernicus was aware of the work of his predecessor.

D. PIETRINI

IL MECHANICORUM LIBER
DI GUIDOBALDO DEL MONTE: "ESPERIENZE", GEOMETRIA E
RAPPRESENTAZIONI DI MACCHINE

In the sixteenth century we witness a large circulation of the vernacular translation of Vitruvius' *De architectura* and of treatises on Greek mechanics. In this period, the technicians begin to pay attention to the utility of the geometrical principles to design buildings and machines. In this context Guidobaldo del Monte writes the *Mechanicorum Liber*. In this text, Guidobaldo defends the idea that geometry must be placed at the basis of the practical realisation of simple machines. To better explain his point of view, Guidobaldo combines the geometrical representation, more suitable for the analysis of constraint reactions, with the three-dimensional representation, typical of the visual culture of technicians, to illustrate a same object. By examining the description of the machine Axis in the wheel contained in the *Mechanicorum Liber*, we argue in favour of the importance of three-dimensional and geometrical representation of the same machine to make the functioning of the mechanical components more understandable to architects, engineers and builders.

L. FRIGERIO

LE EMOZIONI E L'ALIENISMO: GIOVANNI CLERICI (1799-1868)

An intuitive and original interpreter of early Italian alienism, Giovanni Clerici (1799-1868) was a precocious and significant voice in counterpoint to the prevailing 'organicist slope' prevailing in Italian psychiatry of his time and later. As assiduous contributor to the publications of Andrea Verga's Milan psychiatric school, he sought to elaborate a conception of madness and a classification of its various pathological forms starting from the emotional dimension, considered as primary and autonomous with respect to intellectual functions. At the basis of psychic functioning Clerici submitted three 'radicals' (or 'primary feelings'): affectability (radical of love), irascibility (hatred) and fear (dread), to which he tried to bring back the different psychopathological types of mental illness.

E. ZANONI

THE BEGINNING OF THE OIL INDUSTRY IN ITALY: ANTONIO STOPPANI AND THE CONTRIBUTION OFFERED BY GEOLOGY

A turning point for the establishment of the Italian oil industry was national unification and the need for new governments to reorganise the mining sector in order to exploit the scarce raw materials on the peninsula. Geology also made a contribution by developing tools that provided a more precise understanding of the composition of the subsurface. At the beginning of the twentieth century, geology established itself as a supportive science for mineral prospecting. Nevertheless, it is little known that entrepreneurs had already begun to involve geologists in the mid-nineteenth century by asking them about the origin and location of oil, and suitable drilling sites. This essay focuses on the pioneering contribution made by Antonio Stoppani, one of the first men of science to be involved in an enterprise of this kind.

NAUKOVEDENIE: THE SOCIAL STUDIES OF SCIENCE IN THE USSR AND THEIR INTERNATIONAL CIRCULATION

During the 1960s and 1970s – in the climate of the Cold War – a new interdisciplinary field of research emerged in the West that took the name of Science and Technology Studies (STS). But STS was not the first intellectual project that lay at the crossroads of epistemology, sociology, history, anthropology, and psychology of science. STS had an important intellectual ancestor: a field of study called naukovedenie (literally translated as “Science Studies”) in the USSR. In this article, we propose to reconstruct the evolution of this interdisciplinary research field by showing its main theoretical blocs and positionings. A cross-reading of the existing literature on the history of naukovedenie highlights the profound discontinuity that characterized its development. Although it emerged in the 1920s, the naukovedenie research program came to an abrupt halt in the 1930s and only re-emerged at the end of the Stalinist period, becoming consolidated as a scientific field during the 1960s. However, it would subsequently disappear in the 1980s. In this article we show that the evolution of this field can only be understood through an analysis of the transnational circulation of ideas from the perspective of international relations between Western and Eastern European countries.

I. PODGORNÝ

FROM QUILMES TO GONDWANA: EXPLORING A "LATIN AMERICAN" HISTORY OF SCIENCE

This essay is a survey of some of the symbolic and real conditioning factors that shape the practices of the history of science in Hispanic America. It presents an overview – partly autobiographical – of the topics that historians of science working or born in Latin America – in places such as “Quilmes” – have chosen in order to establish a dialogue either with other local historians or with the international community.

This essay reflects on the role of neocolonialism and national historiographies as well as on the need of questioning the mere idea of Latin America as a space that defines our field. It proposes to rather adopt – as some scholars are already doing – a spatial historical reference such as Gondwanaland, to think in terms of the areas of a network opened to multi-sided exchanges and connections from all over the world. It also argues that theories, concepts and words far from replacing each other according to the accumulation of knowledge and experience, far from progress and paradigmatic changes, coexist in synchrony, mixing or not, with different degrees of conflict. Far from a characteristic of the history of science in our countries, it appears as a general sign of contemporary academic practice.

Direttore responsabile: prof. Stefano Carrai

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