

INTRODUCTION

DISCIPLINES AND FORMS OF KNOWLEDGE IN EARLY MODERN THOUGHT

Invited editors: Dana Jalobeanu, Oana Matei, and Laura Georgescu

The sixteenth and seventeenth centuries were a time of unprecedented change, in almost every respect, but particularly in the modes, practices, norms and methods associated with the production of knowledge. They also saw the emergence of new disciplines and forms of knowledge, and the serious reformation of existing ones. Regardless of whether one is the partisan or adversary of the historiographical thesis of the ‘scientific revolution,’ and regardless of whether one sees continuity or major breaks in the emergence of early modern modes of knowledge, one cannot deny that the late sixteenth-century was a flourishing period for a plethora of new disciplines, disciplinary clusters, discourses and systems and forms of knowledge that fell between the disciplinary divides. Natural history, natural and moral histories, anatomies of the world, cosmographies of the human body and various forms of a ‘medicine of the mind,’ were contemporary with a revival of the mixed-mathematics, the reformation of alchemy, the radical transformation of the utopian discourse and serious innovation in metaphysics, epistemology or the traditional ‘sciences.’ Interestingly enough, some of these new forms of knowledge were only recently brought to the attention of scholarly communities. This was partly due to a recent historiographical trend in the exploration of the early modern world, which goes beyond the interdisciplinary or cross-disciplinary approach into questioning the very notion of ‘discipline’ and emphasizes the intricacies and shifting borders of the aggregation of disciplines in the early modern Europe.¹

This volume brings together articles from different fields that adopt different methodologies and angles of approach. What they all have in common, however, is an interest in new and emerging forms of knowledge in early modern Europe. Among the many new forms of knowledge of which some are still waiting further exploration, this volume is particularly centered on three major themes. The first of these themes is the reformation and reformulation of utopian thought. The second is the exploration of new forms of ‘scientific’ knowledge: the newly reformed Baconian natural history and Bacon’s original conception of experimentation and the art of experiment. The third major theme considers the reformulation and reorientation of existing disciplines, specifically chemistry (or “chymistry” in its seventeenth-century form) and metaphysics.

Our volume opens with an exploration of the way in which the favorite form of knowledge in the Renaissance, the encyclopedia - or “circle learning,” - got transformed by Francis Bacon and the Baconians of the mid seventeenth-century. Christopher Johnson’s paper groups together a number of Baconians who are not usually treated in the same breath: the French libertine Gabriel Naudé, the pansophist and illuminated reformer Jan Amos Comenius, the universal ‘intelligencer’ Samuel Hartlib and the extremely difficult to classify Thomas Browne. Johnson’s sees them all as engaged in a creative reading of Bacon’s “utopian” plan for the production of knowledge and supplementing it with what was missing: the project of a universal library.

Sandra Dragomir’s article is a comparative study of two texts usually classified as utopias: Thomas More’s *Utopia* and Francis Bacon’s *New Atlantis*. Dragomir emphasizes a number of significant differences between the two and claims, on the basis of them, that Bacon’s *New Atlantis* does not have a couple of essential features of ‘utopianism’ (as defined by More) and therefore is, at best, a utopia in disguise. More precisely, Dragomir claims that Bacon used the language and literary conventions of utopia to promote an essentially non-utopian plan.

Oana Matei’s paper addresses the same theme of using the clothing of utopian thought to disguise concrete political proposals or societal projects. Her object of study is the relatively little studied manifesto of *Macaria*. Matei offers on the one hand a Baconian reading of the text, and, on the other, shows how a couple of major Baconian themes gets transformed in such a way as to provide the conditions of possibility (or even the grounding of) a Puritan ethics in the mid 1640s.

Martian Iovan’s article also explores a facet of seventeenth-century utopian thought, this time focusing on the eclectic and daring text of Campanella’s *City of the Sun*. Iovan claims that Campanella’s political thought goes beyond the conventions of sixteenth-century utopian literature, into the forms and themes of modernity.

While also addressing the theme of fictional worlds, Alexandra Ibad-Torrero opens up the second major direction of exploration present in our volume, namely the emergence, in the seventeenth century, of new modes of thought that we associate, today, with early modern ‘scientific thought.’ Her paper is a comparative analysis of two texts that look, at first sight, as if they belong to the genre of “fables,” cosmological stories or alternative accounts of creation: Descartes’ account of the formation of the world in *Le Monde* and Gassendi’s parallel account featured in the *Syntagma*. Alexandra Ibad-Torrero shows that, despite their apparent similarities, the two ‘fables’ serve different purposes in the rational and argumentative demonstration of Descartes and Gassendi.

While also addressing the ‘new’ form of ‘scientific’ knowledge, Dana Jalobeanu’s paper opens another important theme of our volume, that of the new philosophy of experiment. Jalobeanu’s paper explores the meanings of Bacon’s ‘experiments’ and ‘experimentation’ by looking into the way they appear in and are integrated into *natural history*. Her paper identifies an important constructional

feature of Baconian experimentation along with a link between experimentation, the generation of natural histories, and a more general concern for the education and ‘medicining’ of the mind.

Laura Georgescu’s article is a further development in the same direction of exploration into the functions and characteristics of Baconian experimentation. Georgescu addresses the specific problem of Bacon’s particular methodology of experimentation, namely *experientia literata*. Her paper provides examples that show how this method is supposed to work and in what way it relates to Bacon’s larger program for the production of knowledge.

Mihnea Dobre’s article focuses on another changing discipline of the seventeenth century, that of chymistry. In the sixteenth century, and through a partial separation from the alchemical tradition, the discipline of chymistry became strongly associated with medicine, the production of medicines, and the evolving conception of illness and health. Meanwhile, the chymical arts got transformed within the alchemical tradition, due to the lasting influence of Paracelsus and the new matter-theory of the Paracelsians. How did the new philosophers received these forms of ‘reformed’ chymistry? Dobre’s article analyses Descartes’ reception and critique of chymistry and the way his followers read and elaborated on these critiques. However, unlike other recent explorations of the same theme, which focus mainly on the hidden chymical themes in Cartesian natural philosophy, Dobre’s article discusses the disciplinary status of chymistry in Descartes’ system of philosophy.

In the early modern period, new and old forms of knowledge were supplemented by new forms and devices of argumentation. In metaphysics, this is the case with the principle of sufficient reason, one of the metaphysical innovations of early modern Europe. Landon Frimm’s contribution to this special issue is a comparative study of the principle of sufficient reason in *Spinoza’s Treatise on the Emendation of the Intellect* and Spinoza’s *Ethics*.

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¹ Among the relevant publications in this direction of study are: Pomata, G. and Siraisi, N., eds., *Historia: Empiricism and Erudition in Early Modern Europe* (Cambridge, Mass.: MIT Press, 2005); Kelley, D.R. and Popkin, R. H., eds., *The Shapes of Knowledge from the Renaissance to the Enlightenment* (Dordrecht: Kluwer, 1991); Kelley, D.R., “The Problem of Knowledge and the Concept of a Discipline”, in Kelley, D.R., ed., *History and the Disciplines: The Reclassification of Knowledge in Early Modern Europe* (Rochester, NY: University of Rochester Press, 1997); Grafton, A. and Siraisi, N., eds., *Natural Particulars: Nature and the Disciplines in Renaissance Europe* (Cambridge, Mass.: MIT Press, 1999).