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SUMMARY 'BOOK OF NATURE'

Eric Jorink

This book's objective is to shed new light on the manner in which Dutch natural philosophers and scholars interpreted the wonders of nature during the long seventeenth century. The contemporary notion of the 'Book of Nature' serves as our point of departure. Traditionally, the changing worldview of the seventeenth century is studied using twentieth-century concepts such as 'the scientific revolution' and 'the mechanisation of the world picture', and is therefore considered a process of increasing rationalisation and scientific progress. It has become customary to attribute these developments to the growing realisation that nature adhered to definite 'laws' and to conclude that as a result it lost much of its magical, hermeneutic character. Accordingly, or so the story goes, religion and science parted ways.



SOURCE: ERIC JORINK, HET 'BOECK DER NATUERE' (BOOK OF NATURE)

Nederlandse geleerden en de wonderen van Gods schepping 1575-1715. Primavera Pers, Leiden 2006

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NATURE IS A BOOK

The idea that nature was a book had a respectable tradition which runs back at least as far as Augustine. Initially, the Dutch context proves to have substantiated this in a very specific way: according to Dutch sources of the time, the *liber naturae* should be interpreted on the basis of the *textus receptus* of the Bible. This was a point of departure which at the start of the seventeenth century was hardly controversial and very influential. The notion of the 'Book of Nature' played a central role in the Republic's intellectual life, in natural philosophy, natural history, poetry, emblems, and theology. Over the course of the seventeenth century, several factors conspired to question this interpretation of the Book of Nature. Was the written Word the exclusive *clavis interpretandi* of the second book of God? Was not the correct reading of the Bible a problem in itself? Did Creation not need to be seen as an autonomous Revelation of which not the Scriptural references, but the underlying order and structure referred to God? The central postulate of this study is that it is a mistake to attribute these changing ideas solely to the emergence of rationalism (in *casu* Cartesianism and Spinozism). It demonstrates that developments in the field of textual criticism and exegesis were of crucial importance as well.

CHAPTER I

Chapter I discusses the objectives and structure of this dissertation on the basis of a quote from Constantijn Huygens' Hofwyck.

CHAPTER II

Chapter II examines the history of the idea that nature is a book in more detail. More in particular it dwells on the culture of the Dutch Reformed Church. Right from the start of the Dutch Revolt, theologians embraced the notion of *liber naturae* and discussed the precise explanation of the Book in the intersection between revealed and natural theology. A highly influential substantiation was provided by the adherents of the so-called mosaic physics, who argued that the Book of Nature could only be understood on the basis of the literal text of the Bible. This conviction, expressed as early as 1580 by Professor Lambertus Danaeus from Leiden, would find its most influential exponent in Gisbertus Voetius, a celebrated professor of theology from Utrecht. However, this biblicism plays an enormous role in almost all scientific fields up until around 1640. Countless natural phenomena were understood and interpreted on the basis of a

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relatively unproblematic reading of Scripture. The chapter goes on to discuss a number of developments which created serious problems for this definition of the Book of Nature. It seems as if voyages of discovery, progress in the field of classical philology, and the emergence of historical-critical Bible criticism did more to dismantle the orthodox interpretation of the *liber naturae* than Cartesian epistemology. Chapter II pays particular attention to the influence of scholars such as Joseph Scaliger, Isaac la Peyrère and Isaac Vossius, who all in some way or another considered the Hebrew and Greek texts which had come down to them as being (in principle) on equal footing with any other source handed down from Classical Antiquity, including all the linguistic and interpretive complications this entailed. The suggestion that the original text of the Pentateuch and thereby the key to the Book of Nature had been lost was of great importance. A preliminary conclusion is that the changing conceptions of God's revelation in creation went hand-in-hand with the mounting problems concerning scriptural authority. The following four chapters illustrate this hypothesis on the basis of a number of case studies.

CHAPTER III

Chapter III focuses on the changing attitude towards comets. The appearance of these mysterious tailed stars had been seen as a harbinger of divine punishment since Classical Antiquity. In the seventeenth-century Republic natural philosophers also wrote elaborately on these 'heavenly signs', constantly referring to biblical loci on 'wondrous signs in the heavens'. Around 1660, however, Dutch intellectuals started to argue that comets were not signs of God's wrath. Since the Enlightenment, this change of perception has been attributed exclusively to the emergence of new natural scientific insights: comets were now supposed to obey 'the laws of nature' and therefore could not carry supernatural meaning. However, this dissertation demonstrates that the new vision on comets was only partially the result of changing physical explanations. First of all, the new interpretation of old texts should be taken into account. In 1665, the philologist from Utrecht Johannes Graevius argued that the corpus of Greek and Latin texts concerning prodigia were the product of a world view which differed fundamentally from that of the seventeenth century. In addition Graevius suggested that as far as comets were concerned, Voetius cum suis were wrong to refer to Scripture, a line of reasoning that was further detailed in 1683 by the Calvinist minister Balthasar Bekker. Although Bekker still felt that comets were signs from the Book of Nature, he went on to argue that this book should be regarded an autonomous

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work of God, entirely separate from the text of the Bible.

CHAPTER IV

Chapter IV deals with the insect world. Throughout the seventeenth century, Dutch scientists and artists displayed a remarkable fascination with insects. Initially insects were viewed from the perspective of the Bible and classical literature, and they regularly occur in emblem books and poetry. Partly under the influence of the pioneering research undertaken by Jan Swammerdam at the close of the 1660s, the emphasis shifted from symbolic meanings to the order and multifarious nature of the world of 'bloodless creatures'. Swammerdam wrote that it was the microscopic anatomy of these creatures which surprised the readers of the 'Bible of Nature'. Meanwhile, the relationship between biblical text and Creation was not unproblematic. Here too, we should not focus exclusively on developments in (natural) philosophy, but should also take into account the activities of humanists and philologists. In this chapter it is demonstrated that this group of intellectuals, including most notably Constantijn Huygens and Jacob Westerbaen, systematically used the microscope well before 1660 to study the smallest wonders of God's creation, an activity we should understand from the notion of the Book of Nature.

CHAPTER V

Chapter V analyses the cabinets of curiosities of a number of famous and some lesser known Dutch collectors. It argues that the very diverse objects brought together in these collections should be understood from the perspective that all God's creatures are 'like characters'. It shows that objects like unicorn horns, mummies, shells, and other natural objects were partly intended to retell biblical history and to illustrate classical texts. However, here too we can perceive a shift towards a growing emphasis on nature's regularity and structure. This process was partly caused by the problematic nature of classical and biblical texts. The canonical framework of interpretation gradually proved inadequate for the explanation of the dispersion of peoples, the variation in languages, and the astounding multiplicity of nature.

CHAPTER VI

Chapter VI highlights a remarkable genre of books, the 'wonderboeken' ['books of marvels']. This type of publication, in which the wonders of God's creation are pointed out to the reader in great

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detail, was very popular in the seventeenth century. The authors – often dilettantes with an interest in natural research or ministers – addressed the general public in ordinary language, and as far as their content is concerned, these books reveal a remarkable similarity with the cabinets of curiosities and continually refer explicitly to the Book of Nature. More in particular, these books of marvels reveal the initially dialectical character of speculations on nature and Bible study. Around 1665, however, the relationship between the Book of Nature and the Bible becomes increasingly problematic. The widely read minister Johannes de Mey who questioned the commensurability of *liber naturae* and *sacra scriptura* on the basis of his great philological knowledge and his empirical-rationalist attitude, played a crucial role in this. Subsequently, the ‘books of marvels’ took on the role of apologies for the insights produced by the new science of nature. On the basis of the evolution of this genre we can also prove that Bernard Nieuwentijt’s classic *Regt gebruik der werelddeschouwingen* (1715) should rather be regarded a variation of an old theme, deeply rooted in Dutch intellectual culture, than as the adaptation of the works of foreigners such as John Ray and William Derham.

CHAPTER VII

Finally, Chapter VII summarises the results of this research and attempts to provide a broader framework for them. The Dutch scientific culture of the Golden Age has often been qualified as descriptive, utilitarian and non-metaphysical. However, if we view seventeenth-century intellectual culture from the contemporary discussion of the Book of Nature then a different picture emerges, which allows us to put the activities of theologians, philologists and ‘virtuosi’ such as Constantijn Huygens, Johannes de Laet, Andreas Colvius, Gerardus and Isaac Vossius, Nicolaes Witsen and Jan Swammerdam into a useful framework. The changed attitude vis-à-vis the wonders of nature was to a great extent the result of a hermeneutic view of Creation and the struggle with the texts of the Bible and the classical corpus.

ABOUT ERIC JORINK

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