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## From fear of rain to dragons descending from the skies: perceptions and records of natural phenomena (from the 7<sup>th</sup> to the 8<sup>th</sup> century)

Explanations of natural phenomena in Western culture underwent a transition between medieval and modern times, in which the prevailing religious notions gave way to rational thinking based on science. It was a slow transition and, rather than creating limits or boundaries, the different ways of perceiving and giving meaning to what would later be classified as 'scientific' or 'non-scientific' coexisted for several centuries. Although this classification appears at times to be based on methodology, there are, in fact, other motives for deciding whether to accept the validity of theories from the past on the basis of current criteria. For example, one decade after Descartes published his *Discourse on the Method*, James Ussher calculated the date of the Creation as 22nd October 4004 BC based on an analysis of Biblical texts that was very similar to the work of Johannes Kepler or the "natural philosophy" of Isaac Newton, amongst other scholars. In the view of these authors, the method used to calculate the age of the world was no different from the methods employed to explain or justify astronomical, geological or biological phenomena using observation, measurements and experiments. In fact, what differentiates these calculations from the ones used today is not the method, but the nature of the data under analysis.

For the researcher today, the Bible is not valid for studying the origins of the Earth or the universe but may be a useful source for studying other phenomena and an essential source for studying how they were perceived in the past. Interpreting celestial movements as messages and natural catastrophes as divine punishments continued throughout the medieval and modern ages and any analysis of records from the past should take these experiences and this perspective into account. Aware that an eclipse or a meteorite does not have the same significance for a contemporary astronomer as they would have had for a monk in the twelfth century or a peasant in the sixteenth century, researchers know that the way in which these phenomena were experienced and interpreted over time has influenced the way in which they were felt and recorded.

Nowadays, concerns about climate change have led to a number of interdisciplinary projects focussing on the study of atmospheric phenomena, many within the field of environmental history. In these projects, data collected from geology, biology and physics is supplemented with other data preserved in written sources produced by contemporary witnesses and therefore recorded

using different criteria, which has to be understood in order to ‘translate’ the sources and work with the data. The symbolic function which celestial phenomena maintained for centuries, the meaning attributed to plagues, or the way in which the seasons affected everyday life are therefore important, not only in terms of developing a better understanding of ways of thinking in past times, but also for interpreting the records which the people of those times produced.

In launching the challenge for this thematic edition, we had the opportunity to offer the *Journal of the History of Society and Culture* a collective contribution to develop a scientific debate that is of great interest to historiography and reflects the concerns of the academic community and civil society nowadays. Following our call for papers and subsequent review of the proposals, we now present a collection of studies written in English, Spanish, French and Portuguese, produced by researchers from the universities of Granada, Reykjavik, Girona, St. Petersburg, New York City, Evora and Porto. Although it the Journal is exclusively dedicated to publishing historiographical articles, this thematic edition has also benefited from contributions from literary studies and musicology.

Containing analyses of perceptions, reactions and records of natural phenomena in a spatial area that includes the Near East, the Mediterranean, Central and Northern Europe, the Iberian Peninsula and the Azores, this issue invites us to reflect on the importance of environmental conditions in the everyday life of different societies and cultures between the seventh and eighteenth centuries. It addresses nature in all its different manifestations: browsing through the pages, we encounter simple events, such as the sun, wind and rain on an ordinary day, more violent and extemporaneous phenomena, including earth tremors, droughts and floods, and even more visually striking examples, such as eclipses and the aurora borealis.

The collection encompasses a plurality of historiographical approaches, based on a plethora of different sources, since the geographies and chronologies in question are also very different. Chronicles are the main focus of analysis, highlighting the frequency with which they are used and the wide range of secular and religious contexts in which they were produced, although the documentary base for these studies also includes sources such as liturgical texts, correspondence, travel literature and journals. Perceptions of nature have therefore been analysed on the basis of individual, subjective records which are, nevertheless, founded on collectively structured discourses in which the different phenomena convey an ideological – religious and political – message and are imbued with meaning.

As a whole, the studies contribute towards developing an understanding of how humanity perceived natural phenomena over more than ten centuries of history, offering interpretations of the effects of weather, seismicity and astronomy on the natural, built and sonic landscape, social and spiritual experiences and the political construction of different powers. Largely framed within an earlier chronology than the one normally established for the consolidation of scientific thinking, this publication provides essential data for a real understanding of the knowledge and awareness of nature in medieval and modern societies. Thus, its overall interpretation allows for comparative approaches and a more profound diachronic understanding, focussing on the human vision and comprehension of nature and its different manifestations.

Published at a time when humanity's capacity to intervene and threaten the atmospheric balance is the subject of controversial and heated debate, this publication presents us with humanity's perceptions of the natural world over more than one thousand years. Individually or collectively, the different articles offer important conclusions on how societies react to and perceive nature and how they are affected by its material and psychological consequences, just as, one day, our society will also be analysed. By enabling us to explore various chronologies and geographies, presenting us with evidence of the influence of nature on the material conditions and mental processes in different ages and civilisations, and forcing us to reflect on and constantly question humanity's real understanding of the environment, it has fulfilled the initial objectives of the coordinators, who now present it for the enjoyment and the study of the reader.

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