
Mapping Spaces is a masterly account of the intersection of space, science and art in the Low Countries during the seventeenth century. The thirty-seven essays by art historians, scientists, mathematicians, geographers, philosophers and theologians analyze the concept of space in relation to the topography of the Netherlands, drawing on a vast and well-illustrated network of material from historic surveying equipment such as yardsticks, compasses and telescopes, to fortification treatises, geodesy manuals, prints and paintings. This book, which accompanied an exhibition in 2014 at the Zentrum für Kunst und Medientechnologie Karlsruhe (ZKM), developed from a research project begun by Ulrike Gehring in 2006 at the University of Trier on the rationalization of space in seventeenth-century Dutch painting. The intimate connections between art and technology detailed throughout the volume are closely aligned to the institutional brief of the ZKM, which aims to promote international collaboration and present exhibitions on aspects of technology, art and new media.

As the subtitle “Networks of Knowledge in 17th Century Landscape Painting” suggests, one of the aims of the project was to challenge the hypothesis that the realism of Dutch art was based purely on the perception of nature. Svetlana Alpers’s influential and controversial argument in The Art of Describing (1983)—that Dutch art was centered on a Northern practice of description and observation of the natural world—is challenged here by the thesis that instruments mediated between the eye and the world. Taken together the essays here constitute a powerful argument that new conceptualizations of space emerged in the seventeenth century from a closely-knit community of scholars, engineers, instrument-makers, mathematicians, surveyors and artists who exchanged current information and ideas. The beginnings of an autonomous landscape painting tradition, it is argued, was not based on a new way of looking, but on a geometrization of space that was the product of new methods of surveying, measuring and map-making that were linked to the scientific discoveries about the nature of the
universe and the concept of infinity. The idea of an immeasurable world was not limited to the heavens but also transformed how people understood the space around them. The medieval conception of “islands of space” was replaced by an awareness of topography as a continuum. As Gehring and Weibel put it: “The world did not become any larger, but the spaces into which human knowledge penetrated were extended. It comes as no surprise that the pictorial space in painting opened up in a time when the finitude of the cosmos and the Christian worldview were put into question” (15).

The arguments articulated in this volume are reminiscent of Michel Baridon’s earlier concerns about the need to read the space of the baroque garden in terms of the period’s new scientific knowledge of optics and geometry, with the long *allées* in gardens such as Versailles designed to evoke a sense of infinite distance made possible by new telescopic observations of the infinity of space. The contributions are also indebted to the larger research questions raised by cultural geographers such as Denis Cosgrove who argued for the direct connection between the process of land transformation in the Venetian *terraferma* and the artistic representation of landscape. But where the authors here break new ground is in their meticulous demonstration of how connections between surveyors, mathematicians, mapmakers and landscape painters worked in practice. Seifert and Cocquyt discuss the major developments and innovations in surveying during the period, describing the exact nature and function of the instruments involved in measuring the land, such as the planchet, yardstick, goniometer, and Holland circle. Seifert highlights the ways in which surveying and measuring the land made it calculable and altered people’s experience and perception of it. He suggests that it was only by presenting the land in such a way that it became visible. The reader is taken step by step through the array of instruments involved in measuring and calculating distance, moving from the instruments themselves to prints that explain how they were used in the field, to the ways in which these diagrams and prints were enlisted for strategic purposes on the battlefield, and finally to the way these prints were used by artists. The exchange of image sources at the core of the hypothesis advocated here is also reflected in the layout of the book, which relies heavily on a juxtaposition of numerous illustrations, cross-referenced
between individual essays, to make visual arguments. This works well throughout, although for the English translation it is a little frustrating to find that most of the image captions are not translated.

During the seventeenth century the landscape of the Low Countries was extensively transformed by water engineers. Their efforts were directed towards land reclamation projects, canal building and strategic warfare. In pursuit of the latter goal the course of rivers was changed and the countryside regularly flooded during sieges of individual towns. The chapters on land reclamation chart the shift from land reclamation through a network of dikes in coastal marshland to more complex engineering works to drain shallow inland lakes. Marine landscape paintings such as Jan van Goyen’s *The Harlem Sea*, of 1656 are analyzed in the light of current debates about the need to drain the internal sea, which was expanding.

The synthesis of art, technology and science in the Low Countries during the seventeenth century is exemplified by the Flemish painter Pieter Snayers (1592–1666/67), the subject of a long introductory essay by Gehring. As the official battle painter for the Hapsburgs in the Southern Netherlands, Snayers’s main task was to commemorate Hapsburg victories, and to do this he needed the co-operation of the military strategists, engineers, cartographers and commanders. His battle paintings fuse cartographic and chorographic views to create images that are part painting and part map. They convey a sense of the global by means of a slightly curved horizon line while remaining a faithful depiction of a particular site seen in bird’s-eye view in the middle ground with figure groups in the foreground. The transitions from foreground to background are Gehring’s particular concern: how does the painting perform simultaneously as a technological and measured space of knowledge and as a vast expanse of landscape extending in all directions? Particularly interesting is the way the illustrations juxtapose maps and didactic prints explaining battle strategies with Snayers’s paintings, which transform their core material into panoramas that open up space into vistas extending to the horizon. Dutch painters, by contrast, eliminated the cartographic by avoiding the bird’s-eye view and lowering the horizon, which had the effect of compressing the middle distance and drawing attention to an expanded sky.
For scholars interested in the “spatial turn” in the humanities, this volume is an invaluable contribution to the field. For its breadth of research and its unearthing of rare, exotic and unusual instruments and illustrations it represents an important resource. It also argues convincingly for the necessity to situate landscape painting within the context of scientific discoveries and rapidly changing technologies in order to understand it. Cumulatively the essays provide a valuable overview of intellectual, scientific and philosophical concerns during the period. Most importantly, the project that gave rise to this publication demonstrates that it is possible for apparently disparate disciplines and nationalities to coalesce around a common scholarly goal. The strong advocacy for the geometrization of space by many of the contributors makes this volume a manifesto for the opening up of a new research frontier in which geographical space becomes the conceptual framework for the humanities. Its polemical stance is a powerful call to art history, which has been slow to incorporate developments in cultural geography, environmental history and media history. Research into all forms of landscape is becoming one of the most exciting areas of research investigation, not least because of the contribution made by this volume.


Michael Braddick has assembled a highly useful compendium of recent research by thirty international scholars on a subject of perennial interest. The state of the field surrounding the revolutionary events of the middle decades of the seventeenth century has created an opportunity for stock taking of precisely the sort this volume offers. Illuminating the various strands of scholarship that have addressed the English Revolution for the past two generations, the book’s chapters range widely from politics to literature, from religion to social groups, and all across the British Isles.

Braddick and Peter Lake each write introductory chapters. Braddick provides an overview of the volume as a whole against the backdrop