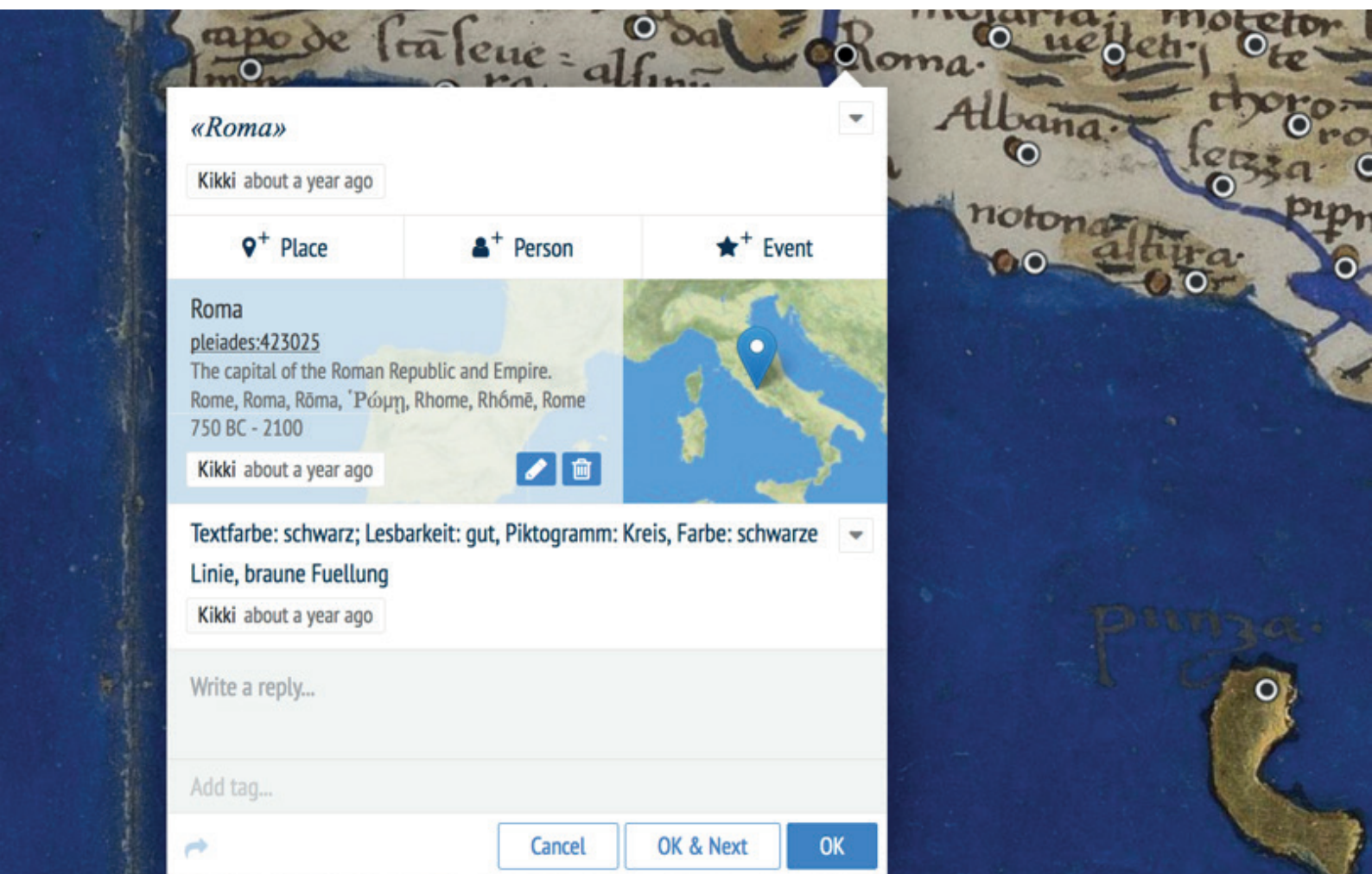


Walking Through History

An Interdisciplinary Approach to Flavio Biondo's Spaces in the "Italia illustrata"

Edited by Tanja Michalsky & Martin Thiering



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This volume presents the results of an ongoing re-search about the use of digital humanities methods for analyzing spatial meanings in Renaissance texts and maps, specifically focusing on Flavio Biondo's Italia Illustrata. The authors use computational and corpus-driven text and map analysis, as well as cognitive anthropology and gestalt theory, to identify and visualize spatial concepts encoded in historical maps and texts. They aim to discover sources and provide a cognitive map for readers by encoding information in a way that helps readers understand spatial information. The text also discusses the plurality of spaces and the changing perspectives of spatial concepts over time, particularly from the Renaissance to the digital age.

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Introduction

Tanja Michalsky &
Martin Thiering (eds.)

Prologue: Spring 2016

In 2016 various researchers from different disciplines and different research focuses met to work on a canonical Italian text, Flavio Biondo's *Italia Illustrata*. They were interested in the spatial cues in the text and in the contemporary maps available (mostly portolans), but also in creating a virtual map of the text based on additional maps from the Renaissance. Establishing a common language and common research questions proved challenging, but the diversity of research backgrounds and research cultures made it fruitful. After a workshop at the Bibliotheca Hertziana – Max Planck Institute for Art History in Rome and some initial publications and conference presentations, we decided to publish a co-edited volume. And then time passed and many unforeseen obstacles made it difficult to arrive at a point we could call final, and at which we would have been able to call the pilot a successfully accomplished project.

Winter 2022

Tanja Michalsky & Martin Thiering

Introduction

Many of the most recently-developed research methods in the humanities are called 'digital humanities'. The term covers several research heuristics and methods. This book deals specifically with one, computational and corpus-driven text and map analysis, and provides a glimpse into its possibilities and limits. For empirical sources based on Latin texts or maps, for example, digital humanities and its often quantitative focus offers a means to the end of qualitatively analyzing spatial meanings. We joined forces to narrow the scope of spatial meanings and meaning-making processes in a textual source that, because of its content, invites such an analysis: Flavio Biondo's *Italia Illustrata* (1474), a detailed topographical (and historical) description of Renaissance Italy based on different sources in different media. One of the major issues is carrying out a comparative diachronic approach to spatial concepts and how they change over time based on different contemporary maps and a canonical text on Italian topography. Of course, *Italia Illustrata* represents only one moment in the constant change and evolution of spatial concepts, orientation and navigation. To name one such change, consider the different applications of perspective – a fairly modern way of structuring and perceiving spaces – based on its use in different media like photography, texts, maps, advertisements, graphic novels, video games, but also design objects, building-information modeling in architecture (BIM and also CAD) and exhibitions.

With the advent of the spatial turn, the humanities adopted different spatial concepts and ideas from different disciplines to gain a better understanding of the plurality of spaces and notions of space. Space is a heterogenous, polyphonic, multiperspectival concept. For example, one very specific concept of space – the

idea of spatial frames of references – comes from cognitive anthropology and, in particular, gestalt theory. In this understanding, spaces are not only based on the human body as a relative space, but also on the intrinsic qualities and affordance of objects (the so-called ‘intrinsic frame’) and on environmental spaces based on landmarks (the so-called ‘absolute frame’). Space as heterogeneous means also the empty space of a blank sheet of paper, the digital and virtual space, the urban and rural space, the safer space etc. It is this plurality of space that the volume addresses.

This volume shows the intricacies and interplay between two semiotic systems – texts and maps – and their performative practices of manifesting spaces. These manifestations are based on the map producer’s techniques and knowledge systems, and also on the author’s way of producing a spatial narrative. This narrative triggers ways of conceiving space that were arguably also at work in the Renaissance author’s mind. The point of departure is a discussion about what kind of spatial concepts (re)emerged in the Renaissance and how these conceptual changes are encoded in historical maps and texts over time. Spatial concepts such as visual perspective and different viewpoints are historically embedded in cultural- and media-specific meaning-making processes. The perspectives have changed from the Renaissance to the digital age but also neo-analogue processes of today. We are interested not only in identifying fundamental spatial concepts in the selected text and map examples, but also how different spatial data points are represented in various mental maps.

The first step is to identify spatial concepts based on the existing maps and text. This requires a focus on linguistically morphosyntactic and semantic parts-of-speech that encode the spatial relations in the text or map. This is a nitty-gritty job done in a semi-automatic computational annotation environment, word for word, sentence for sentence and place by place or location in the respective maps. We decided to provide a semi-automated annotation procedure, in which parts-of-speech are given a label. We then use these labels to visualize the different spatial relations based on simple diagrams. These diagrams are graph-relate, and indicate the semantic

relationships of words in a sentence. In Biondo’s text and the different contemporary maps, we based the information on a number of established cognitive-semantic parameters.

As mentioned in the prologue, this book is the result of “Flavio Biondo’s *Italia Illustrata*: Representations of spatial language and spatial thinking in text and maps”, a workshop held in Rome in May 2018. The project benefited from the orchestrated work of a number of dedicated researchers in Rome, Berlin, and Erlangen from 2016 to 2019. The case study takes a prominent historical, map-like text as its source. Biondo’s narrative is a detailed textual description of the topography of Renaissance Italy based on a number of empirical sources, some of which are known, others unknown and subject to speculation. The project aimed at discovering some of the sources using a number of analytical tools such as computational parsers and annotation techniques (these techniques are discussed in the contributions). Furthermore, the project applied not only computational methods onto texts and maps, but used also the theoretical framework of cognitive semantics and of course the better known hermeneutical and philological approaches.

The case study proved to be a fruitful data analysis for such a rather limited data set.

The broad research questions were:

- a) What kind of spatial information do we find in the text and in different maps?
- b) How best to encode the information so that it can not only serve as anchorage for *Italia Illustrata*, but also help the reader to construe a cognitive map?
- c) Which maps might Biondo have used and what sort of maps actually existed in his time?
- d) Can this digital work tell us anything about spatial representations in the Renaissance and how those might have changed over time?

Our particular interest was in the processes associated with the reconstruction of cognitive maps: how ‘real’ spatial objects such like landmarks are represented as cognitive mental models. We sought to map the spatial cues onto a modern GIS (Geographic Information System) based map representation. We annotated the

text and maps with their places, people, and events in order to visualize the different spatial entries on modern and historical maps and to add relevant text descriptions. With a special configuration of the visualizing tool BRAT, we explicitly referenced the meta-language as developed in cognitive semantics using digital computational annotation and parsing techniques. This allowed us to show the intricate and detailed network of spatial relations from a modern perspective. As such, the different papers in this edited volume shed light on various facets of the text and maps. The main conclusion of the workshop was that, because of its detailed geographical description of actual and metaphorical spatial cues, Biondo's text serves as a cognitive map or county guide, a textual co-ordinate system that enables readers to travel mentally through the different regions of Italy.

The aim was to analyze the topographical knowledge in the text, together with its forms of organization, based on various information cues, among them toponyms (place names, points-of-interest), landmarks, streets, places, rivers, walls, historic sites, but first and foremost based on ancient authors such as Livy, Pliny or Strabo (the latter for the Latium chapter only).

We were especially interested in the epistemology of spaces from a panchronic perspective, that is, from a historical (diachronic) and a contemporary (synchronic) background.

In addition to the more general questions listed above we were interested in:

- a) Which knowledge systems represent spatial relations in the text and in maps?
- b) How can texts, maps and images that represent spatial relations be contextualized?
- c) What is the relationship between culture-specific practices of spatial orientation and cognitive spatial representations?
- d) How did different social groups use their respective texts, maps and pictures?
- e) What is the relationship between historical spatial concepts and current spatial conceptions?

This volume presents a case study and current state of spatial description of a single paragraph of text, and offers an in-depth description from different analytical angles. Philologists meet

cognitive linguists, geographers, historians, and computer linguists. When we began the project, this variety of research backgrounds presented a novel approach to a text that, because of the level of detail in its portrait of Italy, was itself novel.

The Individual Chapters

The volume begins with a theoretical framing of the project, followed by two case analyses of maps. Chapters four and five offer two philosophical descriptions of the data. These more historical treatments of Biondo are followed by two case studies based on cognitive linguistic applications, which leads to a semiotic outlook in the last chapter.

In their contribution *Linked Biondo: Modeling Geographical Features in Renaissance Text and Maps*, Günther Görz, Chiara Seidl and Martin Thiering present a case study on annotating the Latin text and selected maps, and show how to use a cognitive-semantic analysis to link Flavio Biondo's *Italia Illustrata* (1474) with contemporary maps. Their aim is to explore the historical understanding of space and the knowledge associated with it, combining cognitive-semantic parameters with computational linguistic analysis. They argue that all maps are cognitive maps, depicting culture-specific spatial knowledge and practices. The chapter outlines the data modeling infrastructure of the project. It comprises all research data generated, their storage and access as well as their publication as Linked Open Data. The annotation platform Recogito is being used as the main tool for static annotations in maps. Based on geographic coordinates, Recogito helps to identify and label a place or region on a map. These are complemented by cognitive-linguistic spatial role descriptions that is, we use simple linguistic terminology to show the meaning-making processes in the text. The goal of this contribution is to discuss a selection of linguistic constructions of textual spaces as examples of different "worlds" or worldviews from which insights about the spatial organization of cultural practices in the Renaissance are gained.

Chapters three and four focus on maps. Kurt Guckelsberger and Klaus Geus present a study on *Measurements, Maps and other Source Material in Biondo's Italia Illustrata: The Example of Latium*.

They start with the observation that the *Italia Illustrata*, published posthumously in 1474, is widely considered as one of the master models for topographical and geographical works. But while modern scholarship has paid much attention to its objective, content, sources, and style, the geographical elements – the toponyms and measurement specifications – have been almost entirely neglected. Their study analyzes and discusses the use of numerical data in Biondo's *Italia Illustrata*. Emphasis has been placed on the Latium chapter where Biondo allegedly used Strabo's *Geographika* as a key source.

In chapter four, *Two Great Maps of Italy – A Comparison*, Kurt Guckelsberger compares the Cotton map and the Strasbourg map in the hope of identifying the maps Biondo used as sources for *Italia Illustrata*. As shown in the preceding chapter, Biondo reports more than 2000 toponyms, more than any other map of the 15th century hitherto known and discussed, except one: the 12th-century Cotton, with its 1220 vignettes signaling habitats from single buildings to large cities. In addition, an extended river system provides hundreds of landmarks like sources, confluences and estuaries for orientation and localisation. Strangely enough, this early masterpiece of Venetian map-making somehow escaped attention, having received only very few scholarly descriptions. Guckelsberger argues that it was perhaps not available for Italian scholars in the British Library, where it was carefully kept, presumably perceived interesting, but at the same time just “another map of Italy” among thousands. It was a surprise, Guckelsberger states, that both maps share almost identical content, shape and size at radically different style. This discovery opens a new window on early map-making and “database” studies. Early on in this study, it became clear that despite the richness of content and obvious overlap, Biondo certainly did not use the Cotton map, as the structure and content of his text being very different. Guckelsberger's focus is on the geographical ground-truth which he presents for the Cotton's main features, that is, the coastline, the cities and the river system, followed by a description of the Strasbourg map with its unique grid system and a discussion of its southern end. Following this Guckelsberger

explores the similarities between the two maps by first looking at the coastlines and then at the possible distortions of the parchment, which introduces changes in the images, independent of the mapmaker's choices. The chapter concludes with a discussion of the probability of a common source and an outline of some of the differences, such as design of the rivers and the rendering of extended objects including a strange “mutilation” of the Strasbourg.

Chapters five and six, Marc Laurey's '*Illustrating*' Italy: *Biondo's Concept of Illustration* and Nathalie Bouloux's *L'usage des cartes dans l'Italia illustrata de Biondo Flavio* (*The Use of Maps in the Italia Illustrata of Biondo Flavio*) are the philological parts of this volume. Laurey starts by underlining *Italia Illustrata*'s popularity, and highlights the fact that it is one of Biondo's most personal and pioneering writings. In a highly original fashion, he combined chorography, prosopography, and historiography in an effort to record the historical legacy of 'Italia', interpreted not as a geographical space but as a humanistic concept. All three fields share precedents that stretch back to classical antiquity, but until Biondo, they had never been merged in a single project, nor indeed one with an aim as specific as his: to document the sustained Roman-ness of the core province of the ancient Roman empire. By showing that Biondo's understanding of 'illustratio' spans nearly the entire semantic range the term can cover in Latin, Laurey points to the wide semantic net of this concept. All possible facets of the word in classical antiquity consistently derive from the basic meaning of the verb 'illustrare': to shed light (*lux*) on a person or an object that was previously indistinct or unknown. This general notion can be made more specific in three ways: 'illustratio' can mean (1) vivid description or visualization, (2) explanation or elucidation, and (3) celebration or glorification. Laurey states that the natural semantic opposite of 'illustrare' is 'obscurare' translated as 'to cast darkness (*obscuritas*) over someone' or 'something who/that was previously distinctly perceptible or well-known'. According to Laurey, Biondo's conception of space is (1) determined by an ancient, not a contemporary political or ecclesiastical geographical

framework, (2) structured into modular units on various geographical (national, regional, and local) levels that constantly interact, (3) inspired by cultural and historical rather than political or diplomatic claims, (4) visualized by rhetorical means rather than empirical evidence, (5) underpinned by references to classical and medieval, predominantly literary, sources that serve as a commentary to the localities mentioned and described, and (6) filled with history more than with topographical or ethnographical details.

In *L'usage des cartes dans l'Italia Illustrata de Biondo Flavio*, Nathalie Bouloux studies how Biondo uses maps to construct the *Italia Illustrata*. Italy is described topographically based on a survey of the texts of ancient geographers and historians, modern data collected from various sources and maps of various kinds. In order to better understand Biondo's working method, Bouloux examines the modes of composition in *Italia Illustrata*, the nature of the maps Biondo mentions, and the way he uses them. It is still difficult to be certain which modern map or maps of Italy he used, though, and it should be borne in mind that he used several ways of representing the world – modern and ancient maps, and geographical descriptions – in tandem. While the use of the map as a tool for constructing geographical writings is not so exceptional, the way Biondo discriminates between ancient and modern space is remarkable, as for example in his application of the principles of philological method to the Ptolemaic ancient maps. The discussion of the contribution of map data is a distinctive feature of the humanist geography then being developed, and in this respect Biondo's contribution was seminal.

Chapters seven and eight are two case studies. Raphale Berthele's and Martin Thiering's *Flavio Biondo's Italia Illustrata. Spatial Language Analyses of the Latium* Chapter uses insights from spatial text annotation. The analysis is enriched by formal ontologies and based on cognitive semantics. Their main assumption is that Biondo's textual elements are grounded in cognitive maps or mental models which help the reader to navigate different spatial references and spatial relations. In this way, the reader can add missing information – cognitive contours – to form a coherent gestalt.

Berthele and Thiering argue that the analysis of historical texts spanning from antiquity to the early modern period and beyond improve the understanding of spatial cognition and its epistemological development. They discuss Biondo's description of Latium and outline the fundamental cognitive parameters in the spaces in Biondo's text. These fundamentals lead to the basic matrix of a cognitive map built upon semantic cues embedded in a skillfully organized spatio-historical description.

Biondo's main goal was to provide a description that was not just accurate from the contemporary point of view, but that at the same time reconstructs and integrates the historic landscapes evoked in the texts of the classical authors who have described the same land. He draws on authors of Roman antiquity such as Livy, Vergil, Pliny the Elder, as well as Ptolemy, and in the Latium chapter a Latin translation of Strabo. Biondo also aimed at reconstructing toponyms and their changes over time. Places, towns, cities were built up and destroyed. Some places simply vanished; others sprang up as new habitats. *Italia Illustrata* is therefore on the one hand a description of places, and on the other a history of these places and their names.

In contrast to the first six chapters, which mostly deal with textual criticism, biographical, literary and art-historical references, Berthele and Thiering's goal is to provide a linguistic analysis of what we refer to as 'construal', i.e., the linguistically triggered mental pathways and maps. Spatial role labels are applied, based on a cognitive-linguistic framework. The expression of static spatial relationships as well as dynamic pathways are at the center of their analysis. The goal of this contribution is to discuss a selection of linguistic constructions of spaces as examples of different "worlds" or worldviews from which insights about the spatial organization of cultural practices are gained.

In his contribution *The Description of Places in Biondo's Italia Illustrata: Outlining an Analysis of their Granularity and Spatial Relationship*, Kai-Florian Richter presents an approach to analyzing location descriptions using quantitative measures. Such an analysis allows for the identification of the predominant features

of these descriptions and, given a sufficiently large corpus, some statistical inferences. The analyzed features include the frequency (distribution) of the level of granularity of those entities referred to in the descriptions; which hierarchical structure appears most frequently; and which spatial relationships between entities dominate the descriptions. This quantitative data in turn allows for conclusions about stylistic preferences in describing locations. More interestingly, it tells us something about both the underlying spatial knowledge and conceptualization of space (the mental image) of those providing the descriptions, and the knowledge and level of familiarity the author assumes in the recipients. Richter demonstrates that his sample corpus can in principle be employed to any collection of verbal or textual location descriptions. The approach was originally developed for analyzing verbal descriptions collected through a location-based game that asked participants to “tell me where you are.” Using it on a different corpus may require some adaptations in practice, but Richter shows that such an approach helps to understand spatial cognition in a rather diachronic fashion.

The volume concludes with a semiotic account and outlook: *Challenges and Potentials in Connecting Historical, Meaning and Memory as Maps* by Francis Harvey. Harvey argues that, while contemporary cartography faces numerous challenges in adequately accounting for hodological descriptions, Biondo’s *Italia Illustrata* (1474) could be imagined in the form of a topographical map, based on consistent spatial dimensions. At the same time, however, basic cartographic uncertainties in the text require that we improve the reliability of our analysis. After centuries of refinement the topographic map may well become the ubiquitous cultural

and material representation of geography in the humanities and sciences. According to Harvey it has already become a central part of many fields of science and scholarship, although he states that readers lack full comprehension of how maps influence our understanding. Given what is known about the ambiguity of knowledge representations from the sociology of science, it seems highly relevant to broaden the scope of considerations through semiotics to examine maps’ representations of geographical and cultural memory as institutionalized mnemonic devices that distill complex meanings into symbolic representations.

Analyzing Biondo, Harvey argues that, leaving behind the certitude and exactitude of contemporary geoscience representations, researchers can begin to reflect on explicit as well as implicit issues and ideological claims. Considerations of the so-called cartographic gaze of modernity arise, which has in the passing centuries become second nature for most makers and users of maps, also in the fields of science and humanities.

Epilogue: Winter 2022

The reader will decide whether or not we have found a common language. We made a promising effort, but in transdisciplinary approaches such as this, common ground – let alone a common theory of Biondo’s spaces – is hard to find. But we nevertheless walked through the history of Biondo’s Renaissance as he walked through Italy and its history. Thus the book’s title: *Walking Through History. An Interdisciplinary Approach to Flavio Biondo’s Spaces in the “Italia Illustrata”*.

We hope that reading the different chapters is an interesting challenge, and invites for food for thought, new ideas and projects. Join us walking through different disciplines and approaches.