TITLE OF THE RESEARCH PROJECT

Printed tradition and lexical heritage in the history of science: the case of Pietro Andrea Mattioli's Dioscorides

SUPERVISORS

	First name	LAST NAME	University	Research Unit
Supervisor	Francesca	GEYMONAT	UNITO	Dipartimento di Studi umanistici
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Fields of study

Linguistics, history of italian language, lexicog raphy, digital humanities, history of science

Requirements (academic background, languages...) needed to apply for this research topic

Italian language C2; a good knowledge of Romance languages and Classical languages, especially Latin.

5 main KEYWORDS

Linguistics, lexicon, botany, Renaissance, digital edition

ABSTRACT *(250 words max.)*

The project aims to investigate the printed tradition and the botanical lexicon of the monumental work of translation and commentary on De materia medica by Pedanius Dioscorides, produced by the Sienese physician and humanist Pietro Andrea Mattioli (1501-1578). Constantly updated and expanded with the contributions of scholars, physicians, and apothecaries , the work soon developed into a true encyclopedia of medico-botanical knowledge, a summa of both ancient and contemporary learning, primarily in the medical and pharmacological fields, but also, closely connected to these, in the areas of zoology, mineralogy, and, most prominently, botany.

Mattioli translated the text into Latin starting in 1554 to promote its wider dissemination across Europe; it was soon thereafter translated into French (as early as 1561), German, Czech, and Bohemian, and rapidly circulated throughout the continent, becoming the foundational text of European knowledge in its field.

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Despite its success, editorial fortune, and lasting impact (and thus its enormous significante), a systematic study of the printing tradition and of the lexicon of Mattioli ' s Dioscorides is still entirely lacking. This project seeks to fill that gap by offering a digital synoptic edition of the first book from the four most imp01iant printed editions of the text as far as an historical-linguistic mapping of the botanical vocabulary, which will contribute to a better understanding of the formation of the Italian (and wider European) scientific lexicon and the transmission of ancient knowledge to Renaissance culture.

Research aims and methodology

Since the work comprises more than a thousand pages, the project aims to focus on the first book, developing a method of study that may later be applied to the rest of the volume. The first book of the text is also particularly interesting from a botanical lexicon perspective as it contains 27 aromatic plants, 37 trees and shrubs and 32 medicinal and edible fruits. The analysis will compare the four key editions that mark the fondamental stages in the evolution of the text: the princeps edition printed in 1544, the second edition in 1548, the third in 1555 and the fourth in 1568. The first book of each ofthese four editions will be digitized and and then, using software capable of highlighting textual variants, it will be possible to visually trace the evolution of the text over time. The goal ofthis phase is to carry out a comparative analysis of the content across editions, with a focus on identifying the stages and methods of expansion of the Mattioli's work, specifically within the field of botany. This will allow to reconstruct and clearly describe the complex development of the work, from the princeps edition to the final version, paying particular attention to the enlargement and refinement of Mattioli's commentaries to the original Dioscorides' text. Tools such as EVT (Edition Visualization Technology) may be used in this phase. EVT allows the TEI- XML encoding of the texts and enables side-by-side comparison of multiple versions, with the possibility of integrating a specialized glossary, in this case, of botanical terms.

The second aim of the project is the development of a glossary containing approximately 100 lexicographical entries, one for each plant described in the first book. Each entry will follow a standardized structure, including the following elements:

- Headword
- Definition
- First documented occurrence
- Contexts of usage
- Synonyms , geosynonyms, and alternative forms, including in other languages (starting from the 1555 edition, Mattioli also lists, at the end of each paragraph, the names of the plants in other languages: Greek, Latin, Arabic, German, Spanish, French)
- Attestations in Mattioli's sources (classical, Arabie, medieval, and contemporary) and in other relevant Latin or vernacular works, identified through the use of specialized dictionaries and textual databases

Relevance and added-value of the proposed research in relation to the current state of knowledge

Despite its historical success and widespread diffusion, the text has not yet been systematically studied, either with regard to the comparison among the different editions or with regard to the lexicon, and in particular the botanical vocabulary. The digital synoptic edition will make it possible to present to today's audience a foundational work in the history and lexicon of science in Europe, and will also serve as a basis for further studies on the various translations into other languages; the lexicographical study will reveal the ways in which ancient

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terminology was reinterpreted, adapted, and eventually stabilized into the scientific nomenclature still in use today.

Taken together, these two objectives render the project original in both methodology and outcomes: investigating Mattioli's Dioscorides, its formation and evolution is thus essential to understanding how scientific knowledge and language emerged, circulated, and took root in early modern Europe.

Interdisciplinary nature of the research together with the alignment with the CHORAL programme and complementarity expertise of the teams

This project stands out for its strongly interdisciplinary nature, bringing together methods and perspectives from the humanities and the sciences. Through the lens of historical linguistics, philology, history of science, and digital humanities, it aims to recover and reassess a corpus of knowledge that is central to the development of early modern scientific discourse. In particular, it offers a rare opportunity to work on a text that served as one of the most comprehensive repositories of natural knowledge of its time and played a key role in the transmission of ancient science into early modern Europe, initially through the Latin translation of 1554.

Output plan including publication and dissemination activities

In the first year, the candidate will digitise the first book of the four editions and analyse the evolution of the text.

In the second year, the candidate will draft the first part of the thesis and begin compiling the initial entries of the glossary.

In the third year, the candidate will complete the glossary and finalise the writing of the thesis.

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Estimated schedule

First year:

- Establishing the corpus and specifying the questions (among those mentionned above) it allows to deal with.
- Creation of a selected bibliography and reading the most important essays and articles.
- Development of the interdisciplinary methodology and choice of the theoretical tools to be used.

Second year:

- Thorough analysis of the corpus (film(s), novel(s) etc.) and, if necessary, processing the data collected through surveys and interviews on works's reception: analysis and synthesis of the results.
- Structuring of the thesis.
- Reading the bibliography (continued) and providing an annotated evaluation of the same.

Third year:

- Writing the thesis
- Preparation of appendices, indexes and insertion of iconographic documents.

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