Tara L. Andrews and Caroline Macé, eds, *Analysis of Ancient and Medieval Texts and Manuscripts: Digital Approaches*, Lectio Studies in the Transmission of Texts and Ideas, 1 (Turnhout: Brepols, 2014). ISBN 978-2-503-55268-2. 346 pp.

Few collections of articles may achieve so many goals, even undeclared ones, as the one under review. Few such collections may aim at lasting in relevance as long as this one probably will. Few indeed offer to their reader a thought-out structure and cohesion of contents in respect of the individual contributions, whilst providing a true dialogue between the different parts of the book.

The challenge posed by the editors in the introductory pages is bravely faced in each contribution. The overall care in the contents and their organization, including the selection of graphics and images which truly support the arguments of the present publication provides for a pleasant and interesting reading that is highly informative, precise and clear. The overall quality of the final product is thus to be attributed to the careful and thoughtful work of the editors. The reader will find here not just a collection of articles originating in a workshop from which to draw out single parts of interest but a work well worth being read from the first to the last page as it provides a coherent and articulated view.

Young researchers are especially encouraged to pick this book from the shelves if they have not done so yet, and use it to form their ideas on the basis of several unbiased, well exposed, essential concepts, questions, methods, examples and also some suggestions of tools which might be used.

The volume's five main parts, excluding the editors' 'Introduction' (pp. 11–14) and the final contribution by Joris J. Van Zundert 'Truly Scholarly, Digital, and Innovative?' (pp. 335–346), group the contributions under the themes of 'Stemmatology', 'Statistics and Stylistics', 'Intertextuality', 'Script Analysis', and 'Codicology'.

The first group is indeed the more solidly formed of these, and contains the following contributions: Tuomas Heikkilä, 'The Possibilities and challenges of computer-assisted stemmatology: the example of Vita et miracula s. Symeonis Treverensis' (pp. 19–42), Philipp Roelli, 'Petrus Alfonsi, or On the mutual benefit of traditional and computerised stemmatology' (pp. 43–68), Jean-Baptiste Camps and Florian Cafiero, 'Genealogical variant locations and simplified stemma: a test case' (pp. 69–94), Alberto Cantera, 'The problems of the transmission of Avestan texts and the Tools for Avestan Text Criticism (TATEC)' (pp. 95–116). These five articles, in clear dialogue with one another, when read together give a very wide view of the section topic. It is a perfect starting point for any scholar in any phase of their career to approach this complex part of their work, regardless of the type and chronology of the

text studied, and not only where the manuscript tradition is complex. Also Armin Hoenen contribution 'Simulation of scribal letter substitution in the Avestan text tradition' (pp. 119–139) could have been in this first section, and in its current position provides a perfect bridge to the following section.

The second section is probably the most complex to follow in the volume requiring several prerequisites to understand where the results achieved by the authors actually bring to some interesting observations, especially for the non-specialist. It includes, together with the abovementioned contribution by Hoenen, the articles by Karina Van Dalen-Oskam, 'Authors, scribes, and scholars: Detecting scribal variation and editorial intervention via authorship attribution methods' (pp. 141–158) and by Francesco Stella, 'Generic constants and chronological variations in statistical linguistics on Latin epistolography' (pp. 159–179).

The section called 'Intertextuality', although the title might be misleading, provides the reader with the description of four diverse and interesting research projects, all giving a different answer to different concerns related to the edition and meaningful correlation between text sources: Linda Spinazzè, 'Intertextual research with digital variants in Musisque Deoque: a case study' (pp. 183–202), Samuel Rubenson, 'A Database of the Apophthegmata Patrum' (pp. 203–212), Charlotte Tupman and Anna Jordanous, 'Sharing Ancient Wisdoms across the Semantic Web using TEI and ontologies' (pp. 213–228), Maxim Romanov, 'Writing digital history: a database of biographical records from the pre-modern Muslim world' (pp. 229–244). The latter two papers are especially relevant and interesting in this section.

The fourth section, 'Script Analyis', is made of two contributions, Ainoa Castro Correa, 'Digital tools applied to the study of Visigothic script' (pp. 247–272) and Eugenio R. Luján and Eduardo Orduña, 'Implementing a database for the analysis of ancient inscriptions: the Hesperia electronic corpus of Palaeohispanic inscriptions' (pp. 273–290).

The two contributions are well connected indeed with the study of the inks by Ira Rabin, 'Ink identification to accompany digitisation of manuscript' (pp. 293–307), opening the last section, 'Codicology'. The final contribution, by Patrick Andrist, 'Going online is not enough! Electronic descriptions of ancient manuscripts, and the needs of manuscript studies' (pp. 309–334), stands out for those interested in the cataloguing and online presentation of data about manuscripts giving a learned and greatly valuable overview of a possible presentation model from the end user and software user perspective. This should be made a core reading for any institution and individual involved in the production of manuscript catalogues online.

The volume manages to keep the focus on the research questions but also avoid overly theoretical approaches. While it critically asks whether there is progress in these methodologies, it provides astonishing evidence of a positive answer.

The contributions follow a clear structure of exposition which comprises a brief introduction to the research topic, a description of the tools used and of the steps undertaken, to conclude with the results obtained and an open discussion thereof. This approach in general provides neat access to the topics and allows the reader to understand all the intellectual steps involved in the research process, including the stages assisted by the use of computational methods. Not only is the reader offered case studies, which are made accessible also to non-specialists of the specific field of research, but is also equipped with most of what it takes to be able to reproduce the presented studies, to find useful filters and to interpret the results in order to answer other research questions. Finally, the reader is provided with a solid theoretical basis and completeness of references to the date of publication, which can support further interests and reasoning on one's own work and research tasks.

Although already four years old this volume has all it takes to remain a relevant reading for all scholars in the study of ancient and medieval texts and manuscripts for at least another ten years if not longer. The reader formed in a 'traditional' (non-digital) methodology of work will immediately perceive that the methodologies presented are not so different from what one is accustomed to. They are rather a sign of the progress in the refinement of human thought of which we are now capable. Indeed, one could argue that publications like this one prove quite well that the current traditional methodology is the one using also computer-assisted analyses and that using only office tools to achieve research objectives is no longer sufficient, if not retrograde, obsolete and definitely not trustworthy.

What is clear from this book is that we can ask more accurate questions on the basis of better data, we can give more accurate answers with more precise methods, which means a lot more work to get perhaps to the same results we got in the last century without all this, yet it is very persuasive in demonstrating with facts that this is indeed a good way to proceed.

Following some of the contributions in the book does take a bit of Maths, unfortunately excised from Humanities curricula for a long time before Digital Humanities brought them finally back into the game, but the reader will see in that a further stimulus and find food for thoughts and curiosity. Full references are provided for all the tools used: some of the links have unfortunately expired in the meanwhile, but can be partially found in the Internet Archive.

To conclude this review which struggles not to be only of complete praise of the volume so well curated by Tara Andrews and Caroline Macé, let me add that this volume takes a mostly unbiased approach at presenting software and tools without arguing in favour of one or the other, and it instead focuses on the models, methodologies and questions in the realization and interpretation of the data, which is exactly what the researchers need and want to read and reflect upon.

Pietro Maria Liuzzo Universität Hamburg