

DAVID HAMIDOVIČ, CLAIRE CLIVAZ, SARAH BOWEN SAVANT (EDS.), IN COLL. WITH ALESSANDRA MARGUERAT, *ANCIENT MANUSCRIPTS IN DIGITAL CULTURE. VISUALIZATION, DATA MINING, COMMUNICATION*, BRILL, LEIDEN–BOSTON 2019 (DIGITAL BIBLICAL STUDIES, 3), PP. XVI + 284, ISBN 9789004346734.

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The volume entitled *Ancient Manuscripts in Digital Culture. Visualisation, Data Mining, Communication* collects the works of seventeen experts in Biblical Studies from all around the world. The book, edited by David Hamidovič, Claire Clivaz and Sarah Bowen Savant, in collaboration with Alessandra Marguerat, all of them distinguished scholars, witnesses the rapid diffusion of the humanities throughout digital channels, emphasising the need to modernise the techniques and methodologies of analysis and the studies applied to practical cases. By making use of new technologies, experts acknowledge the broadening of the study objectives of their research and confirm the innumerable advantages of using some of the most innovative programmes for Social Sciences and Humanities applied to specific cases. This book presents a compendium of twelve chapters that reflect the digital shift in the working methodology of the world's most renowned scholars in Biblical and Christian manuscripts, within internationally funded research projects.

This third volume of the collection bears witness to the spread of the digital humanities and presents, through an in-depth analysis, the gradual growth of visual culture and various case studies on ancient manuscripts. The reader will be able to find out which are the most sophisticated visualisation tools, how to develop complex stylometric analyses, how to handle data from a didactic point of view, how to take advantage of the tools used by authors in research related to epigraphy – just to mention some of the contents covered in the book. The quality of the work is considerably acknowledged by the editorial and scientific committee that directs the collection, composed by some of the most important experts in Ancient, Biblical, Arabic and Semitic Studies from universities in Norway, Germany, United Kingdom, United States, Spain, Belgium, France or the

Netherlands such as Daniel Apollon, Marco Büchler, Hugh Houghton, Hayim Lapin or Juan Pedro Monferrer-Sala.

The work is divided into three different parts, and is preceded by a comprehensive introduction recapitulating the entire work by Claire Clivaz and Sarah Bowen Savant. The first part, « Visualising the Manuscripts », consists of two overviews on the topic (Ingeborg Lied and Peter M. Phillips) and two additional studies on digital editing and visualising of manuscripts and papyrus fragments (Brent Landau, Adeline Harrington & James C. Henriques, and Stephen J. Davis). The second part, « Data Mining and Visualisation », includes two articles on qualitative/quantitative analysis of ancient texts (Thibaut Clérice & Matt Munson, and Paul Robertson), an article on natural language processing and textual referencing (Brett Graham), and a third article on electronic transcriptions and the processes of documentation involved (Hugh Houghton). Finally, the third part, « Communication », includes two articles focusing on the process of teaching and learning (Heather Dana Davis Parker & Christopher A. Rollston, and Jennifer Aileen Quigley & Laura Salah Nasrallah), an article on communication in academic settings and the concept of 'forgery' in digital humanities (James F. McGrath), and finally, the report of the results of a research project using 3D, academic modelling (Bradley C. Erickson).

In the first part, Lied presents an article entitled « Digitization and Manuscripts as Visual Objects: Reflections from a Media Studies Perspective » (p. 15–29). The article deals with visualisation and its epistemological consequences from the point of view of textuality. Specifically, she studies the digitalization of manuscripts in libraries and reviews the impact of online manuscripts and the consequences they have for their study, especially with regards to editing tasks. The author comments on publishing practices as well as the expectations of the reader who visualizes manuscripts online.

The next author, Phillips, in the article « The Power of Visual Culture and the Fragility of the Text » (p. 30–49), decides to tackle an issue that is becoming increasingly frequent in academic environments: the disappearance of the texts themselves, using arguments that include the image of the European social imaginary and the concept of 'pictorial turn' in order to « explore the interaction between visual culture and the Bible » (p. 35). To illustrate this proposal, the author draws on three visual case studies, including *Noah's* recent film.

The third article in this first part is signed by Landau, Harrington & Henriques, and is entitled « *What no eye has seen: Using a Digital Microscope to Edit Papyrus Fragments of Early Christian Apocryphal Writings* » (p. 50–69). In it, the authors present an interesting article in which they introduce us to the digital microscope (having an infrared lighting mode) that they employ to study three fragmentary writings: *P.Oxy. 210*, *P.Oxy 4009* and *P.Oxy. 4469*.

The fourth article is entitled « Manuscripts, Monks, and *Mufattishin*: Digital Access and Concerns of Cultural Heritage in the Yale Monastic Archaeology Project » (p. 70–86), and is signed by Davies. The author explains what analysis and work with digital monastery manuscripts consists of and how they can be made visible online, considering at all times the « importance of context for determining the limitations [...] of digitization efforts connected with archaeological and archival work in Egypt » (p. 80). The author summarises the steps to be followed, the procedures and digital methods related to Egypt's monasteries, and proposes as examples the fragments found in the White Monastery near Sohag and in the Monastery of the Syrians in Wadi al-Natrun.

The second part of the work begins with the article by Clérice & Munson, entitled « Qualitative Analysis of Semantic Language Models » (p. 87–114), in which the authors show that the projection of algorithmic results is an indispensable part within the arsenal of resources of any humanist as a method for understanding the Digital Humanities. Their goal is « to move the assessment of the results returned by semantic extraction algorithms closer to the actual hermeneutical tasks carried out in the, e.g., historical, cultural, or theological interpretation of texts » (p. 87).

Graham signs the second article of this part, entitled « Using Natural Language Processing to Search for Textual References » (p. 115–132). After describing and presenting a generic algorithm (NLP) and a compendium of syntactic rules used for textual references, the author shows us how to locate textual references in any type of text, whether oral or written.

« Electronic Transcriptions of New Testament Manuscripts and their Accuracy, Documentation and Publication » is the title of the article signed by Houghton (p. 133–153), in which the author points out the procedures and transformations that have been carried out in the new digital editing of the Greek New Testament.

In the article « Visualizing Data in the Quantitative Comparison of Ancient Texts: a Study of Paul, Epictetus, and Philodemus » (p. 154–188), Robertson applies the notion of 'polythetic classification', specifically to the texts that make up his corpus of work (Paul's letters, Epictetus's *Discourses*, and Philodemus's *On Piety and On Death*). He claims that « Hand-coding the data is necessary in order to capture the complex nature of literature, literary style, content, and a nuanced classificatory framework » (p. 181).

The third part of the work begins with an interesting article by Dana Davis Parker & Rollston entitled « Teaching Epigraphy in the Digital Age » (p. 189–216). In it, the authors propose a model based on the delineation of Semitic epigraphy, in order to take advantage of the new digital technologies applied to the study of ancient texts from a didactic perspective.

Aileen Quigley & Salah Nasrallah comment on the results of a case study centred on online teaching throughout MOOC courses (p. 217–240). It is thanks to

their study that they can confirm the importance of attracting students' attention on critical and pedagogical reflection in order to bring the Bible closer to them. They see the online courses as an opportunity to encourage thinking and criticism from students and scholars anywhere in the world. The title of their article is « HarvardX's Early Christianity: The Letters of Paul: A Retrospective on Online Teaching and Learning ».

In « Learning from Jesus's Wife: What does forgery have to do with the digital humanities? » (p. 241–260), McGrath decides to take a look back at the famous *Gospel of Jesus' Wife* episode from a pedagogical point of view, in order to focus the attention on what can be learned from interaction and debate amongst specialists in a digital communication environment.

The last article of this volume is entitled « Synagogue Modelling Project Report: a Multi-faceted approach to 3D, academic modelling » (p. 261–276). In it, Erickson demonstrates « how 3D modelling addresses difficulties intrinsic to fields dealing with material culture through a survey of a recently completed Byzantine synagogue modelling project that produced scaled, virtual reality environments of the 4th-6th century CE synagogues of Beth Alpha, Hammath Tiberias, and Sepphoris » (p. 262). The author defends photogrammetry and 3D modelling as the methods of production of his research project.

As we have been able to assess throughout this brief tour in the pages above, the future of humanities is inextricably linked to new technologies as the result of the digital culture era in which we live. Thus, the authors who have collaborated in this collective work show that it is possible to adapt working methodologies to make the most of research progress through the advantages of digital culture, especially in the context of ancient manuscripts. The authors who have participated in the making of this volume want to share their know-how, talent and dedication with readers, and the result could not be anything else but outstanding. It is an original work for the DBS (Digital Biblical Studies) series, representing a turning point in the trends carried out so far in the collection, and a whole new landscape for the digital humanities in Biblical, Early Jewish, and Christian Studies. The quality of the work is a source of pride for the three research groups that have devoted most of their time to the digital Biblical and Christian humanities, as demonstrated at the annual meetings of the Society of Biblical Literature (SBL), the SBL International (ISBL) and the European Association of Biblical Studies (EABS) in recent years. We are confident that the book may constitute an excellent initial step toward digital humanities and that it shall be a perfect guide for all those readers and researchers interested in deepening their knowledge of antiquity from an updated and digital perspective.