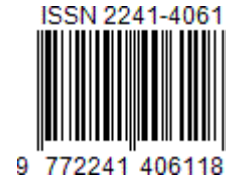




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Lucarelli, Rita, Joshua Aaron Roberson, and Steve Vinson (eds.) (2023). *Ancient Egypt, New Technology: The Present and Future of Computer Visualization, Virtual Reality and Other Digital Humanities in Egyptology*. (Harvard Egyptological Studies, 17). Leiden, Boston: Brill. xii + 609 pp. ISBN: 9789004501294 (E-Book, Open Access); 9789004501287 (Hardback, €145.00) <https://doi.org/10.1163/9789004501294> [Accessed in 12 May 2024]

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Digital Humanities (DH) and Digital Scholarship (DS) are offering research and researchers in the humanities endless facilities and tremendously effective tools which have never been available before. DH/DS methods and tools revolutionize the studies in the humanities providing innovative perspectives in practically every branch of research and every field of specialization. The beginning of Digital Humanities is traditionally marked with the unprecedented endeavor of Roberto Busa (1913–2011), the Italian Jesuit priest, who was in 1946 embarking in linguistic and literary analysis of the works of Saint Thomas Aquinas, the Italian medieval theologian and philosopher of the 13th century CE. Busa approached IBM in 1949 with his groundbreaking idea to use computer technology for the text and word analysis of this huge wealth of medieval Latin texts instead of traditional methods of linear

manual analysis through handwriting. His pioneering computational method resulted in the 1970s in the production of the first version of his entire corpus of Thomas Aquinas' works, known as the *Index Thomisticus*, which was released in printed format of 56 volumes published between 1974 and 1980. Then, the electronic version of the corpus was produced in 1992 on CD-ROM format, followed, 13 years later, by the first online version of the corpus in 2005, the *Corpus Thomisticum*¹. This was the first attempt by a humanist scholar to automate research in linguistics in the framework of medieval studies.

Therefore, while the second half of the 20th century had witnessed the dawn of Digital Humanities, the past two decades of the 21st century has been the period of the increasingly flourishing of the DH/DS practically in all fields of scholarly research in the humanities.

Especially within the past decade, the research around the ancient world is uniquely benefiting from the intersection between computational methods and the traditional research methods in a way which has not ever been witnessed in all fields of research concerned with the study of ancient civilizations. Digital History, Digital Classics, Digital Egyptology, Digital Epigraphy, Digital Papyrology, Digital Archaeology (also referred to as 'computational archaeology'), ..., and so forth are new facets of Digital Humanities which are emerging every day offering new horizons and new perspectives for the study of ancient civilizations. I may not be exaggerating to state that almost every department, specialized in ancient history or any study of ancient cultural heritage in almost all universities around the globe, is implementing nowadays digital tools and computational methods within its scholarly projects as well as within its pedagogy, applying DH/DS tools and methods in the classroom. DH courses customized to serve the research needs of Classical Studies, Egyptology, Assyriology, and other studies of the ancient world are growingly being offered by prestigious academic institutes, in addition to a vast number of post graduate academic programs and degrees. Nowadays, Digital Humanities is actually the new trend which is dominating the academia and is pushing the study of the ancient world into totally new horizons where ancient heritage meets and benefits from the application of highly advanced technologies.

¹ Hockey, S. (2006), "The Rendering of Humanities Information in a Digital Context: Current Trends and Future Developments", *Aslib Proceedings*, Vol. 58 No. 1/2, p. 91. <https://doi.org/10.1108/00012530610648699> [Accessed 10 June 2024]; Busa, R. (ed.) (1974–1980), *Sancti Thomae Aquinatis operum omnium indices et concordantiae in quibus verborum omnium et singulorum formae et lemmata cum suis frequentiiis et contextibus variis modis referuntur*, Stuttgart-Bad Cannstatt: Frommann-Holzboorg; Busa, R. (1980), "The Annals of Humanities Computing: the Index Thomisticus", *Computers and the Humanities*, Vol. 14 No. 2, pp. 83-90. <http://www.jstor.org/stable/30207304>.; Busa, R. (ed.) (1992), *Thomae Aquinatis opera omnia: cum hypertextibus in CD-ROM*, Milano: Editoria Elettronica Editel.; see also "Corpus Thomisticum." <https://www.corpusthomisticum.org/> [Accessed 10 June 2024].

Writing about digital humanities within the realm of ancient studies is being increasingly unfolding every day. An abundance of journal articles, conference papers, books, and other types of publications —printed as well as electronic— are being released on hourly bases, reflecting the rapidly progressing and innovative nature of the Digital Humanities. One of the important contributions of this nature is the book which we are shedding light on with this review.

This book plays a pioneering role of showcasing, for the first time, a big number of projects in the field of Egyptology where computer technology is implemented for the study of ancient Egyptian heritage. It provides several role-models through the stories of success of the projects presented in the various chapters. The book is the proceedings of a leading 2-days international conference held at Indiana University (Bloomington, USA) in 2019 (specifically, 29–30 March) organized by the IU Center for the Study of the Middle East, the IU Ancient Studies Program, the IU African Studies Program, the IU Department of Near Eastern Languages and Cultures and the IU School of Informatics, Computing and Engineering/IU Virtual World Heritage Laboratory. Research presented in the 2019-conference, featuring digital research in Egyptology, is represented in this book, published by Brill in 2023, by a selective collection of twenty-three distinguished papers. Over two days, the conference, entitled “Ancient Egypt - New Technology”, offered grounds for the presentation of papers, posters and digital displays fulfilling the framework of its seven subject themes: (1) Language and Text Processing, (2) Site Documentation and Epigraphy, (3) Sustainability and Ethics, (4) Reconstruction and Virtual Reality, (5) Landscapes, (6) Collection Documentation, Study and Integration, and (7) Pedagogy/Ethics. I may cite a few examples of the chapters, such as chapter 1 “Ethics of Digital Representation in Egyptology”, by Willeke Wendrich; chapter 8 “The 3D Digital Documentation of Shaft K24 in Saqqara”, by Matthias Lang, Ramadan Hussein, Philippe Kluge; chapter 17 “All Words and No Play: Identifying Paronomasia in New Kingdom Texts with Pattern Matching”, by Julia Viani Puglisi and Daniel Dakota; chapter 19 “Representing Ancient Egyptian Inscriptions of the Old Kingdom Digitally: Dynamic Visualizations of Poetic Form and Inscriptional Layout”, by Julie Stauder-Porchet; and chapter 22 “Virtual Reality Storytelling: Pedagogy and Applications”, by Julia Troche and Eve Weston.

Of the many outstanding projects covered, I may notably cite some examples, such as the Digital Rosetta Stone Project (ch. 3), the ‘*Mythophor*’ digital tool (ch. 5), the ‘*iClassifier*’ digital platform (ch. 6), the El-Hibeh Digital Archaeology Project (ch. 9), the Book of the Dead in 3D Project (ch. 10), the VÉgA online digital dictionary (Vocabulaire de l’Égyptien

Ancien, Vocabulary of Ancient Egyptian; ch. 12), The SEE project (Secondary Epigraphy in Egypt; ch. 14), the SIGSaqqâra project (ch. 15), the Giza Project at Harvard University (the ‘*Digital Giza*’ website; ch. 16), the ‘Puzzling Tombs’ project (ch. 20), the Project ‘*Croato-Aegyptica*’ (The Croato-Aegyptica Database, CADb; ch. 21), ‘*The Spirit of Egypt*’ (a Virtual Reality project; ch. 22), the Cleo platform (for museum collections; ch. 23), ... etc.

Such projects are implementing a wide variety of DH tools and methods (explained in the book in their relevant contexts), such as 3D modeling, digital photogrammetry, texts analysis, digital corpora (both archaeological & linguistic), creation and management of digital datasets, Virtual Reality (VR), digital annotation, data visualization, geospatial data, Geographic Information Systems (GIS), storytelling, gaming, and Artificial Intelligence (AI).

The various book chapters provide variant approaches and examples for the diversified application of DH tools and techniques, showing how the application of a certain DH tool/method/technique may vary from one project to the other according to the nature and components of each given project. One of the good advantages of this book is that it provides the reader with this rich chance to explore such diverse approaches towards the use of certain DH tools and methods in different contexts.

Several chapters, for instance, discuss projects dealing with the analysis of ancient Egyptian texts using text analysis DH tools in diversified approaches for the creation of digital corpora. The experiences widely vary from one project to the other dealing with the ancient Egyptian language and the different sets of texts. Same as for the examples of using digital photogrammetry techniques in different contexts for object documentation as well as reconstruction of archaeological entire sites. Similarly, for the usage of 3D modeling techniques or Virtual Reality technologies in documenting and reconstructing archaeological artifacts and studying museum objects.

Additionally, the book embraces the work of scholars and scholarly institutions from Europe, the Middle East, and North America. It is worth mentioning to highlight the contribution, in chapter 2 (entitled: “The Contribution of Photogrammetry and Computer Graphics to the Study and Preservation of Monuments in Alexandria, Egypt”), by the two pioneering Egyptian archaeologists, Mohamed Abdelaziz and Mohamed Elsayed who were the first archaeologists in Egypt to use DH tools in their field work and research; the first, was the first Egyptian archaeologist to implement 3D modeling technique for the documentation of archaeological artifacts and findings of land excavations, and the latter, was the first Egyptian archaeologist to use digital photogrammetry in documenting submerged excavated

sites, in the framework of his participation in the underwater excavations—in Alexandria, Egypt—undertaken by the Centre d'Études Alexandrines (CEAlex, CNRS) in collaboration with the Egyptian Ministry of Antiquities.

In my opinion, the uniqueness of such a book is that it, not only, explores a big number of remarkable and successful projects in the field of Egyptological research, demonstrating their current achievements, but it also expresses their future developments as foreseen by their teams and developers, as well as it envisions insights for futuristic innovations that could be accomplished in the field of Egyptology based on the current achievements of such projects.

This book is an inevitable resource for those who want to learn about the new developments in the field of the DH/DS in general and its intersection with historical and archaeological research. I think this book is effectively useful for both scholars and students who want to implement DH tools and methods in their research. It enables its readership to explore existing projects, learn from the currently running endeavors, spot relevant benchmarks, and get in touch with different applications of similar DH tools and explore how their usage may vary according to the nature of a given project.

The 2019-conference was intended to be the first of a series of future scholarly gatherings. An intention which was supported last year with an Italian response, when The University of Naples "L'Orientale"—in collaboration with the Indiana University (Bloomington, USA), the Centro Interdipartimentale Servizi per l'Archeologia (CISA, Unior) and the '*Faces Revealed Project*'—organized the second edition of the “Ancient Egypt - New Technology” international conference², taking place at Naples (Italy), in 5–7 July 2023. Diffidently, the published outcome of this newest edition is strongly awaited for a more up-to-date eye on Digital Egyptology and its most recent achievements.

O.F.

² <https://www.unior.it/it/valorizzazione/terza-missione/public-engagement/formazione-continua/altri-attivita>;
https://www.unior.it/sites/default/files/2023-05/doc_obj_34391_63a1f214aedd0.pdf