

les, *De motu animalium / Über die Bewegung der Lebewesen*, Herausgegeben von K. Corcilus, O. Primavesi, Hamburg, Meiner, 2018, pp. xi-cxlv: xxxv-xl. Citazioni da vari italiani secondo la mia traduzione si trovano, per es., in R. Hendel, *Steps to a New Edition of the Hebrew Bible*, Atlanta, SBL Press, 2016; V. Adluri, J. Bagchee, *Philology and Criticism: A Guide to Mahābhārata Textual Criticism*, London, Anthem Press, 2018. Il manuale è stato anche oggetto di una giornata di studi svoltasi il 20 gennaio 2017 all'University of Laval in Canada (*Problèmes théoriques et pratiques de l'édition des textes, imprimée et numérique. Autour du livre de Paolo Trovato*, Everything You Always Wanted to Know about Lachmann's Method). Quella giornata è iniziata con una relazione di Paul-Hubert Poirier, il cui titolo (quale che sia stato il contenuto!) mi imbarazza e inorgoglisce insieme: «De Karl Lachmann à Paolo Trovato. Quelques réflexions sur la pratique éditoriale».

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### *Philology Manuals: Elena Pierazzo's Digital Scholarly Editing*

Elena Pierazzo's book, *Digital Scholarly Editing*<sup>1</sup> presents theoretical and practical approaches to the subject of textual scholarship in the digital age. Both Pierazzo and Patrick Sahle<sup>2</sup> make cases for the uniqueness of digital editions. I have written about the points of contention I find with their arguments in an article published in *Digital Philology* in 2018 entitled «Digital versus Analogue Textual Scholarship or the Revolution is Just in the Title», where I explain why none of the models which they consider characteristic of digital editions are exclusive to them.<sup>3</sup> There is more to write about this subject, particularly in what refers to the digitality of editions, and how computers have influenced the work of editors and the production of editions. However, those matters fall beyond

<sup>1</sup> E. Pierazzo, *Digital Scholarly Editing: Theories, Models and Methods*, Oxford, Routledge, 2015, <https://www.routledge.com/Digital-Scholarly-Editing-Theories-Models-and-Methods/Pierazzo/p/book/9781472412119>.

<sup>2</sup> P. Sahle, «What Is a Scholarly Digital Edition?», in *Digital Scholarly Editing: Theories and Practices*, ed. M. Driscoll and E. Pierazzo, Cambridge, Open Book Publishers, 2016, pp. 19-40.

<sup>3</sup> B. Bordalejo, «Digital versus Analogue Textual Scholarship or The Revolution Is Just in the Title», *Digital Philology: A Journal of Medieval Cultures*, 7, no. 1 (Spring 2018), pp. 7-28, <https://doi.org/10.1353/dph.2018.0001>.

the scope of this forum. Instead, I consider the sections of Pierazzo's book which might be useful for someone searching for guidance in the production of digital editions.

Pierazzo's book is most useful in its most practical parts, where she tends to present less contentious perspectives (although she remains fiercely critical of those she disagrees with).<sup>4</sup> From chapter 5, «Work and Workflow of Digital Scholarly Editions», to chapter 8, «Trusting the Edition: Preservation and Reliability of Digital Editions», aspiring editors will find useful material which will also cause reflection.

Let us consider chapter 5 which considers the modelling of editions or, as expressed by Pierazzo: «the model of an edition must foresee all the possible questions editors and end users are likely to pose and must embed the knowledge necessary to answer such questions». The features Pierazzo listed for documentary editions are now suggested for all editions:

1. The purpose of the edition
2. The needs of the users
3. The nature of the documents
4. The capabilities of the publishing technology
5. Costs and time

This list would be accepted by almost any editor who has had a hand in the production of a digital edition. If it were not for the use of the word “users” one could apply this to the making of any edition, whether produced in print or digitally using manual or computer-assisted methods, and so these parameters can be useful to various types of editors with very different objectives.

Still, even in this chapter, Pierazzo sees a fundamental dichotomy between what she has decided are two different types of attitudes towards computers as tools for editors. Accordingly, she synthesizes:

1. Computers have to take care of the difficult, boring tasks that litter the editorial path to the production of an edition. Editors, then, seek tools that will assist their work; the tools themselves and their heuristics are not questioned, as long as they do what they are “told”.
2. Editors interact deeply with computational methods, shaping their

<sup>4</sup> See for example, her contrasting views of Shillingsburg and Crane (Pierazzo, *Digital Scholarly Editing*, p. 104)

work using markup language, using advanced analytical methods and building the tools they need to process their texts. The tools and their heuristics are considered an integral part of the scholarly endeavour and so they should be published and open to examination along with the editions.<sup>5</sup>

These attitudes are presented, credibly, as opposed to each other. The first one, referred to as computer-assisted philology is considered dangerous as Pierazzo thinks it shows a lack of engagement between editor and software which leads to the misunderstanding of how data is handled. Such misunderstanding might or not occur, i.e. it doesn't necessarily follow that it will. This is precisely why often digital editing projects are produced in collaboration. In such cases, researchers with digital expertise work with field specialists. A few editors and editions are exceptions to this rule, where the person in charge of the intellectual work is also the technical expert.

My own experience is that even when editors are able to carry out the programming work of their editions, this is not necessarily the most efficient use of their time. For most scholars, it is enough to understand some of the basics of how specialized software works, rather than to struggle over matters which can be competently handled by a computer scientist.

There is more to the above quotation, as Pierazzo's reading of her computer-assisted philology appears to pass a moral judgement on matters. I might be biased, but I have never found any editorial tasks boring. They can be difficult, yes. However, difficulty is not the reason why we use computers: we use computers because they are more reliable than humans for counting. Moreover, some software can offer analyses which might present a different perspective from what researches might have originally conceived. These are valid reasons to use computers to further our research.

Pierazzo laments the misgivings some scholars have about the TEI, which has been critiqued on various accounts, but particularly in its inability to handle overlapping hierarchies.<sup>6</sup> Various methods have been proposed for dealing with the problem of overlapping hierar-

<sup>5</sup> Ivi, p. 109.

<sup>6</sup> Ivi, p. 119. The TEI allows structuring texts which produce a single tree. Frequently, however, documents present concurrent structures, i.e. they exhibit more than one tree. For example, the *Divine Comedy* is divided in three *cantiche*, each of which has 33 cantos. Each canto is divided in tercets composed of lines. A manuscript of the Comedy

chies because of the interest in presenting both the abstract textual divisions while also encoding the physical support of texts. Someone considering the production of a TEI encoded text should think in advance about the purpose of the encoding being produced and how the problem of overlapping hierarchies might affect the textual markup.

A major problem with digital outputs in general is their long-term sustainability. This is a valid concern and one of the main reasons to use a standardized format as proposed by the TEI which presupposes that even when hardware and software might change enough as to make a digital edition unusable, the marked-up text could be repurposed with an alternative output.

Unlike print books, digital editions require upkeep and, for this reason, funding agencies are requesting that the original materials are deposited in digital repositories and that institutions become more actively involved in their preservation. In this way, the edition of the Codex Sinaiticus,<sup>7</sup> for example, will be maintained “in perpetuity” by the British Library. And to answer the important question of what happens to a digital edition of this magnitude once the project finishes, the answer is nothing: it remains the same as the moment in which it was published. The Sinaiticus edition came out in July 2009 and the edition remains unmodified since then. It is starting to look a bit dated, but more worrying, some of the promised translations to English, German, Russian and modern Greek were never uploaded. Eventually, the site will have to be recreated but, without funding, it is unlikely that anyone will be able to commit the resources required for a successful update. In contrast, the “Online Variorum of the Origin of Species,”<sup>8</sup> which was also published in 2009, was upgraded in 2012, and will be due for a further upgrade in the near future.

All digital publications are liable to becoming dated, and this happens much faster than with printed texts. Print editions, however, also have a limited lifespan which is generally about one generation. This is particularly true within humanities subjects since they are notably slower

presents the texts in folios, each of which contains text which might run from a folio to the other. The Saskatchewan Textual Communities project, in which I am involved, proposes a way around this difficulty, essentially by representing the act of communication (the *Commedia*) and each document in which it occurs as distinct trees (<https://wiki.usask.ca/pages/viewpage.action?pageId=1324745355>).

<sup>7</sup> <http://www.codexsinaiticus.org/en>.

<sup>8</sup> C. Darwin, *Online Variorum of On the Origin of Species*, ed. B. Bordalejo, Darwin Online, 2009, <http://darwin-online.org.uk/Variorum/>.

in scholarly advances in contrast with scientific fields which move at a much faster pace.

A question which has been frequently asked is whether digital editions can be completed.<sup>9</sup> This is an intriguing problem because, with digital materials, particularly those under the control of an editor rather than a publisher, it might seem that an edition is never really finished. In truth, because the constraints of time, one should consider what is possible in the context of the production of a particular edition.

The subject of readers and users, which Pierazzo highlights in various places in her monograph, but tackles directly in the chapter entitled «Using Digital Scholarly Editions», where she argues that «digital editors are not addressing the needs of the readers/users of printed scholarly editions, nor are they really considering the need of a wider public, failing to recognise their real target audience and their reading requirements».<sup>10</sup> It is unclear how editors are not addressing the needs of readers/users, a conclusion which is drawn from Dot Porter's article, «Medievalists and the Scholarly Digital Edition»,<sup>11</sup> since plenty of editions, particularly those online, have been very successful.<sup>12</sup> The interface, naturally, presents some challenges because they need to be designed to be intuitive, but the complexities of interfaces can interfere with some specialized uses of the underlying text. The synthesis presented by Pierazzo will be useful as a thought-provoking experiment for anyone designing the interface of a digital edition. Design for the web used to centre on the computer display. Today, the wide availability of mobile devices, from tablets to mobile phones requires optimization for each specific one. This makes interface design even more complicated than it used to be, and the likelihood is that the situation will continue to increase in complexity.

Editors are warned about the various ways in which digital editions might present other problems none of which is minor. Rapid obsolescence of the product, constant technological changes, the problems surrounding data preservation as well as those about recording the defunct

<sup>9</sup> See Sahle, «What Is a Scholarly Digital Edition?», in Pierazzo, *Digital Scholarly Editing*.

<sup>10</sup> Pierazzo, *Digital Scholarly Editing*, p. 154.

<sup>11</sup> D. Porter, «Medievalists and the Scholarly Digital Edition», *Scholarly Editing*, 2013, <http://scholarlyediting.org/2013/essays/essay.porter.html>.

<sup>12</sup> Besides the Walt Whitman Archive, quoted by Pierazzo, the «Codex Sinaiticus», «Darwin Online», and «Wallace Online», for example, all appeal to the general public as much as to the scholarly community. Moreover, our own work on the CantApp, an edition for mobile devices, shows a willingness to move forward and try different approaches to the presentation of digital editions.

interfaces, the question of peer-review are all warning flags for anyone attempting the creation of an electronic edition. Pierazzo solved many of those problems by publishing her own edition of *Lo Stufaiuolo*,<sup>13</sup> which was published online by the reputable journal *Scholarly Editing*. With this arrangement, the editor does not have to concern herself with matters of long-term preservation, obsolescence or future re-issues of the edition. Moreover, because *Scholarly Editing* is a peer-reviewed journal, interested parties are reassured this edition has gone through this process which lends it credibility within academia. In contrast, editions self-published online might be of uneven quality and yet, the useful ones will eventually stand out as they will be quoted, which will lead them to be recognized just as other online sources have become more and more widely accepted as references.

Pierazzo concludes her book by considering the present and the future of digital editions. She analyses terminology and presents various arguments in reference to the possible names for the very diverse products editors have manufactured and will continue to produce in the future.

One of the most interesting statements in *Digital Scholarly Editing* refers to the modelling of these editions, about which Pierazzo states:

A method that has proved to be successful for modelling digital scholarly editions is to start from the end, namely designing the final product... and then working backwards, trying to understand which methods and tools will be required in order to achieve the desired output.<sup>14</sup>

If one could take one thing away from this book, it would be this idea of starting from the end-product. My experience in text encoding has taught me that only by knowing precisely where we want to go with an edition, can we design an encoding system allowing its production. Pierazzo is correct when she states that editors need to learn TEI-XML and related technologies. Without that knowledge and without the understanding of what can be done with them, it is not possible to foresee the potential of the marked-up text. If editors are not ready to put in that effort, they will face many troubles in the making of their editions.

<sup>13</sup> E. Pierazzo, «Lo Stufaiuolo by Anton Francesco Doni: A Scholarly Edition», *Scholarly Editing: The Annual of the Association for Documentary Editing*, 36 (2015), <http://scholarlyediting.org/2015/editions/intro.stufaiuolo.html>.

<sup>14</sup> Pierazzo, *Digital Scholarly Editing*, p. 105.

