W. van Peursen, E.D. Thoutenhoofd, A. van der Weel, eds., *Text Comparison and Digital Creativity. The Production of Presence and Meaning in Digital Text Scholarship*. Scholarly Communication 1, Leiden: Brill, 2010. Pp. xviii + 296. Hardback, €119.-/$ 169.-. ISBN 978-90-04-18865-5.

[1] These collected essays are the first volume of a new series published by Brill focusing on "Scholarly Communication". Fourteen articles present the results of an international colloquium named "Text Comparison and Digital Creativity" held in Amsterdam in October 2008 on the occasion of the 200th anniversary of the Royal Netherlands Academy of Arts and Sciences (KNAW).

[2] The purpose of this colloquium was to inquire "on the effects of digital transformations in text culture on textual scholarship" (1); and scholars tried to consider the manuscript and the book from the perspective of digital culture. The main challenge illustrated by the volume is to question "our tradition's valuation of intellectual content over physical form" (xvi), according to the expression used in the foreword by Ray Siemens. The volume is divided into four parts: continuation and innovation in e-philology; scholarly and scientific research; case studies; and wider perspectives on developments in digital text scholarship. As announced by these subtitles, the contributions have diverse impacts, but all of them illustrate in various ways the fact that form and content are correlative and influence each other.

[3] The common determiners of all the articles are electronic textuality and digital scholarship. Nevertheless, the diversity of the academic fields represented by the authors is striking: computer science (Boyle, Hiary), linguistics (Crystal, Sandborg-Petersen), literature (Siemens, van der Weel), librarian and information science (Dahlström, Ohrstrom, Zafrin), digital humanities (Hunt, Lavagnino, Thoutenhoofd), theology (Lundberg, Parker, Schmid, van Peursen, Talstra, Zuckerman), and editors (Salemans). Such a diversity is characteristic of the transdisciplinarity characteristic of the Digital Humanities network. By means of the official designations of the chairs, one can guess the present evolution in academia: Siemens and van der Weel are officially working respectively in departments of English and Dutch literature, but they are working more and more in the emerging field of Digital Humanities; van Peursen, Talstra and Zuckerman represent the field of the Hebrew Bible, but are working on interactions between their field and computing sciences, whereas other scholars present themselves as already anchored in the Digital Humanities field (Hunt, Lavagnino, Thoutenhoofd). Regarding that point, the volume is representative of the present state of academia, where classical fields are meeting the emerging Digital Humanities. As expected, contributions have consequently diverse impacts, but together they bring forth a general horizon. All in all, these collected essays offer a bright and enlightening presentation of all the mutations and transformations happening to "texts" and "textuality" in the digital landscape: one can only rejoice to read them and get some strong aspects of the significance of the topic.

[4] Twenty nine color plates accompany the articles at the end of the volume. The first one shows the 17th century poem "Easter Wings" by George Herbert. It helps Ray Siemens to illustrate in his foreword that form and content influence each other. These color plates show diverse manuscripts from various centuries and also some screenshots from "Second life".

[5] In the introduction to the collected essays, Wido van Peursen presents the main and strongest ideas of the volume. Peursen begins by underlining that biblical studies are one of the starting-points for pioneering initiatives in e-philology, with a long tradition behind them to create annotated "databases" (2). Text comparison and the formation of concordances also belong to the heart of biblical studies from Origen's *Hexapla* to the 16th century Polyglots. Then, Peursen insists wisely on the fact that "digital humanities" is quite different from "humanities computing." Beyond the association with "calculation and computing," "'digital' has become a designation of electronic information and communication technology and the processes and techniques related to it. 'Digital' relates to 'creativity'" (3). In digital humanities, text is decisively perceived as a document, something that brings a distance to the text and prevents, for example, biblical texts from an immediate reading without any mediations. New questions arise at that point, as to the sort of presence created by digital technology. For example, the digital Codex Sinaiticus is completely available only on its virtual website. Moreover, all the classical concepts of philology are in transformation from the basic notion of 'text' to the definition of linguistic features as well as text editing and text comparison. As Peursen summarizes, the challenge is to pass from the 'Order of the Book' to the digital order.

[6] In the first part, Eep Talstra inquires what it means when biblical scholars are dealing with computer-assisted textual research. He illustrates the case by studying the transition between Isa 63:19 and 64:1. He outlines a kind of analysis integrating the data from the texts as documents (here, codices) on the level of discourse structure. Other examples are also studied in this sense: Jer 33:10-11; Isa 61; Ez 36. He claims that "the task of e-philology […] is to produce text databases of ancient texts that do not need to be the outcome of our final analysis of the difficult balance of design and history, [but…] flexible enough to allow for a study of that phenomenon – that is, the interaction of design and history" (55). Ulrik Sandborg-Petersen and Peter Ohstrom analyze how the word 'ontology' was constructed by Jacob Lorhard, because "ontologies" are frequently used in semantics computing, such as on Web 3.0. They underline that 'ontology' means one singular system of thought claiming that the computing 'ontologies' "are seen as information tools, and they do not necessarily claim any degree of truth outside the domain for which they were designed" (59). One regrets that the authors do not offer specific examples of computing "ontologies", a notion probably unknown for the major part of their readership. (Of relevance, the Text Encoding Initiative has a Special Interest Group devoted to ontologies.)

[7] The second part focuses on critical editing and critical digitizations. Mats Dahlström underlines usefully the cohabitation of two models, the quantitative mass digitization notably produced by the Google Book search and European initiatives, and a specific approach inscribed in the tradition of textual criticism, qualitative critical digitization. At a time where the perception of the archives is more and more cumulative, it could be tempting to pass the task of an established critical text to the individual user. Developing the analysis, he underlines two orientations: text-oriented and image (or document)-oriented editions, at the same time distinct (83) and "often combined" (88). Assuming, like Peursen does, that the notion of "text" is evolving a lot, Dahlström refers to Peter Robinson working with the notions of "the one text" and "the many texts".

He mentions also the ground tension between an open-ended mode of edition and a field classically inclined to conservatism. With such paradoxical features, the author advocates the developing "critical digitization" against a mass digitization: "critical digitization is qualitative (or idiographic) in the sense that it concentrates on what is unique and contingent in the documents, whereas mass digitization is quantitative in its design to capture what are common, regular, foreseeable traits in large amounts of documents (i.e. nomothetic)" (91).

[8] John Lavigno "reconsiders the practice of textual emendation in the light of corpus methods" and underlines the tension between textual critical choices and automation (99). One should probably think about the relationship between 'errors' – simply signaled in critical editions – and textual choices or variants – sometimes discussed at length – as a continuum. "Important parts of the emendation methods are amenable to corpus methods" (110). Ben Salemans presents what he calls his own "neo-Lachmannian approach", in which he uses biological cladistic insights to build genealogies in order to preserve the Lachmannian idea of the stemma (113). He underlines that in Lachmann methodology 'common errors' remain unverifiable and so 'unscientific', because they are based on an "unsystematic and unverifiable *Fingerspitzengefühl*" [i.e., "instinctive feeling"] (116). Encounters between mathematicians and scholars of textual criticism since the 1980s have begun to change this situation. Developing his own software, Salemans systematizes his text-genealogical hypotheses (122). He confidently concludes that "IT enables us to turn unscientific deductive theories into fully verifiable, deductive theories" (125).

[9] The third part offers five case studies. In the first, Roger Boyle and Hazem Hiary present the enrichment for codicology when computer science is used, with the test-case of watermark location and identification. The authors underline the successful attempts by Terras to improve "the reading of ink and stylus texts discovered at the British Roman fort of Vindolanda", and by Huang *et al.* to demonstrate "the potential for modern computational techniques in difficult papyrological problems" (132). In their own case studies, they try to push further the detection and inspection of watermarks on the Mahdiyya Quran, written in 1881 in Sudan (138). Several illustrations show amazing watermarks they were able to make visible in this fruitful cross-boundary collaboration (140-143). The second test-case is presented by Lea Hunt, Marilyn Lundberg and Bruce Zuckerman. A methodology of 'access' is required to consider texts from an image point of view, "in order to provide a solid foundation for intuitive access", through a strong relationship between the model and the 'real world' (149). They look for implementations of images in an online context to illuminate some of the most important data relationships, keeping in mind the usual general aim to facilitate the reconstruction of ancient texts (157). New words are required such as "InscriptiFact" to designate "'facts' embodied in an 'inscription found on an artifact'", and that is the name of the platform that they develop (160). One of the most important challenges in a methodology of access is of course the ability to move from one database to another. "InscriptiFact" tries to facilitate "the side-by-side comparison of RTI (Reflectance Transformation Imaging) images with conventional images" and the "viewing of the reproduction with more than one light source" (167). In short, the "rules of the game" in academic scholarship need to be rewritten.

[10] The third test-case is the digital Codex Sinaiticus, presented by David Parker. He presents in short the history of the codex and the setting up of the project, that

are fully presented in his 2010 monograph *Codex Sinaiticus: The Story of the World's Oldest Bible* (London). This oldest full manuscript of the Bible has the distinction to be available as a whole only online, since four libraries share its precious folios. Such an enterprise will probably remain quite exceptional for a codex, as Parker maintains: "one could not justify the outlay of resources except in the case of the most precious treasures" (187). Behind this concluding sentence stands the question of the relationship between digital projects and their Western social context. The fourth test-case, with inspiring thoughts by Ulrich Schmid, focuses also on the Bible and on the possibilities offered by a digital edition to reconsider a New Testament edition. It is a special case regarding its number of Greek manuscripts (more than 5,700 today), and the range of ancient languages used in other manuscripts. Schmid envisages a "fully integrated digital edition ('fide') of the New Testament", that would allow one to get a multilingual NT edition, and with the potential to have an apparatus related to the images of the manuscripts (199). The possibility to check, expand, and develop the editorial work for an edition with such a huge number of textual witnesses is revolutionary, even if it demands time, means, and patience to be obtained. In his wish list, Schmid asks for a "technical infrastructure, a workspace" for collaborative editing (201). Since the publication of this collection of essays, this wish is now a reality thanks to the "NT Virtual room manuscripts", created by INTF and ITSEE together (http://ntvmr.uni-muenster.de/). But such a great enterprise still has to be encouraged and developed. As Schmid points out, diverse actors have to agree and support it, such as holding institutions, researchers, funding bodies, and publishers. He concludes saying that "ideally, a fully interactive digital edition is of service to all partners" (205): one could add "and to be in full open access." The last test-case analyzes the topic of annotation in textual editions and is by Vika Zafrin. She pleads for a collaborative conception of the encoding task, and presents the annotation engine she developed with Brown's Scholarly Technology Group (214ff). She presents other tools such as Zotero or Project Bamboo. Scholarly communities are the perfect setting for born-digital objects (226).

[11] The final part opens doors for future conceptions in digital text scholarship with three outstanding articles. David Crystal faces the important linguistic turn taking part in digital textuality with the use of emoticons, animateness, hypertext linkage, etc. Digital communication opens the doors to empirical inquiries in literature (231). As he asserts, "digital mediated communication is identical to neither speech nor writing, but selectively and adaptively displays properties of both" (235). He underlines that the turn-taking is dictated by the software, not by the participants: a new rhythm of communication is imposed here (238). He fancies hot points, such as the role of spam filters, or the ranking in web searches (244-245). He summarizes: "although Internet is supposedly a medium where freedom of speech is axiomatic, controls and constraints are common place to avoid abuses" (247). He concludes by evoking the question of an author's responsibility in contexts where there is moderation or interactivity. The numbers of questions – for lack of answers – raised by the switch from authorial intentionality to digitally mediated communication furnishing the *raison d'être* of this volume, as he concludes (251).

[12] Adriaan van der Weel presents an essential problem with thoughts on new perspectives on knowledge production, as published afterwards in his *Changing Our Textual Minds: Towards a Digital Order of Knowledge* (2012). In this

article, he underlines how we have difficulties thinking otherwise than according to the "Order of the Book", "based on a bibliographic frame of mind, fed by pervasive and intricate book-based information ordering, referencing and other aspects of our 'knowledge system'" (254). The digital textual medium, with its connections to the "Universal Machine," takes us far beyond the possibilities of the book, and is not as transparent for us as the book itself (259-260). Van der Weel distinguishes three stages of digital textual transmission: imitation stage (we think to pursue what we used to do); construction of a new medium for knowledge and dissemination, including transdisciplinarity for the Humanities; and finally a third stage, this one of "democratization", "beyond the IT scholarly priesthood" (262-263). The door is now open to build new knowledge instruments (264). Last but not least, Ernst D. Thoutenhoofd thinks about "presence beyond digital philology". Referring to Gumbrecht's philological concept of textual presence from a sociological perspective, he wishes to demonstrate that "there is common cause in shared humanities and social science research on digital textuality and conceptualizations of presence" (269). Challenging at the same time STS - Science and Technology studies - and Jacques Derrida's point of view, he claims that philological activity can connect a conception of presence with historical and contemporary aspects of social shape (274). Testing Gumbrecht's pre-modern ontology of direct correspondence between subject and object and Luhmann's self-governing and disinterested systems of communications, he argues that "from both STS and sociological perspectives it may be the case that the digital achievement of textual presence is best treated as generative interaction among various scholarship practices" (279). Between "digital-era conceptualisations of presence or 'e-presence'" and "e-philology as network" Thoutenhoofd has started a fundamental discussion (287-288).

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