Tara Andrews and Caroline Macé, eds. *Analysis of Ancient and Medieval Texts and Manuscripts: Digital Approaches*. Turnhout, Belgium: Brepols, 2014. 346 p., 27 b/w and 51 col. ill. ISBN: 9782503552682. €97.00 (hardcover).

For many, the detailed study of ancient and medieval manuscripts may evoke images of a sort of textual archeologist working alone in a painstaking effort to unearth and dust-off forgotten texts. During the earliest days of formalized modern manuscript studies in the nineteenth century, this picture might have been apt as collectors, enthusiasts, and scholars mined caches of manuscripts across Europe and the Near East in a race to discover and recover ancient and medieval texts. As the field evolved in the twentieth century, scholars shifted their focus to the application of a range of critical theoretical approaches to the countless texts their predecessors had made available. Now, in the twenty-first century, emerging (and constantly advancing) digital tools have instigated a new wave of scholarship that uses technology to look at manuscripts in novel ways that allow us to marry the varying and distinct sensibilities of nineteenth- and twentieth-century manuscript studies in order to revise established scholarly conclusions, devise alternate solutions to old problems, and generate entirely new questions inspired by our computer-aided ability to assemble and process vast data-sets. The 16 essays included in this volume all focus on how this recent "digital turn" has impacted manuscript studies. Rather than attempt to define the theoretical boundaries of the digital humanities as they relate to manuscript-based scholarship, however, these collected essays present a series of practical studies that effectively demonstrate what scholars are already doing and achieving with digital technology.

The volume is divided into five sections that explore the way digital technologies and tools can support and facilitate new research in fields like codicology, paleography, textual studies and criticism, and historical and literary studies of the ancient and medieval worlds and across all languages and genres of manuscripts. The first section includes four essays demonstrating how computer-aided analysis can help scholars reconceptualize traditional approaches toward stemmatology. Tuomas Heikkilä's account of his own research into the transmission history of the medieval *Vita et miracula s. Symeonis Treverensis* offers a particularly useful overview of the development of stemmatology culminating in the establishment of the Lachmannian-Maasian method that has dominated the field for generations. However, Heikkilä also notes how the emergence of computer-assisted stemmatology in 1991 has allowed researchers to transcend some of the analytical

limitations inherent in earlier methodologies by facilitating the consideration of a work's entire textual and scribal tradition, rather than focusing solely on attempting to recover a "quasi-mythical" textual archetype. Heikkilä's own digital-stemmatological analysis, for instance, uncovers five different layers of authorship evident in nearly thirty different copies of the life of St. Symeon of Trier produced across Europe between the eleventh and fifteenth centuries, each of which, in turn, sheds light on contemporary religious practice and literary tastes. The other essays in this section each offer additional models for new approaches to stemmatological research, all of which demonstrate how digital methodologies can help us move beyond the establishment of a traditional stemma of textual primacy to manifest more expansive comparative models that articulate the relative degree and variety of interdependency between different manuscript copies of the same text.

The second set of essays describes how digital tools can facilitate the statistical and stylistic analysis of texts. Armin Hoenen demonstrates a fascinating computer-assisted method for simulating scribal letter substitution as a means for producing – or deriving – an "artificial tradition" that can help test the viability of a text's previously hypothesized stemma in order to speculate about a given scribe's native language, proficiency in writing, and relative concentration level while writing. This essay, along with Francesco Stella's exploration of the historical development of Latin epistolography and Karina van Dalen-Oskam's examination of how authorship attribution methodologies can help scholars detect and interpret significant variations between a text's diplomatic transcription and edited version, all draw attention to the ways that digital tools can help scholars answer the many complex questions about how we are to understand and think about the contributions of both medieval scribes and modern editors as cooperative – and at times combative – transmitters of ancient and medieval texts. Section three includes a quartet of essays that highlight the important role digital technologies have to play in the inter-textual analysis of manuscripts. Linda Spinnazè's contribution stresses that most digital textual *corpora* do not provide access to a body of "scholarly" texts, *per se*, but to "vulgate" versions of texts often lacking valuable critical and historical context. Instead, they comprise assemblies of the most popular editions of texts, not necessarily those that are most reliable and helpful. By creating digital resources like the Latin poetry database *Musique Deoque*, she argues, we can begin to address this weakness by providing scholarly access to both authoritative texts and their variants in order to shed new light on comparative readings and textual transmission. The other essays in this section

add valuable context to Spinnazè's own case, demonstrating how full-text databases and the data-mining they facilitate offer not just a wide scope for potential research, but a fluidity in approach that can illuminate the conditions underlying linguistic development, scribal practice, and textual interdependence and transmission.

The volume's final two sections provide models for computer-aided paleographical and codicological research. Of particular importance throughout these essays is the repeated demonstration of how the use of digital technologies can help introduce a degree of objectivity into traditional modes of analysis in disciplines that traditionally have relied heavily on personal and subjective observation and interpretation. Whether examining the contours and characteristics of Visigothic script or the chemical composition of different inks, digital tools enable paleographers and codicologists to measure and interpret manuscript features with more precision than ever before.

At its heart, this book is about *potential*, not about authoritative or fully-formed conclusions. Even when a particular essay describes an established tool or project, it is clear that they are still only models – useful and productive though they may be – of what *could* be done in the future. Much of what "manuscript studies" consists of today is still – and always will be – rooted in traditional approaches to paleographical, codicological, and textual analysis, but the essays in this collection effectively demonstrate the exciting and diverse possibilities for new scholarship that are emerging in the discipline's new, digital third age.

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