Pál Kelemen,
Nicolas Pethes (eds.)

PHILOLOGY IN THE MAKING

Analog/Digital Cultures of Scholarly Writing and Reading

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Philological practices have served to secure and transmit textual sources for centuries. However – this volume contends –, it is only in the light of the current radical media change labeled ›digital turn‹ that the material and technological prerequisites of the theory and practice of philology become fully visible. The seventeen studies by scholars from the universities of Budapest and Cologne assembled here investigate these recent transformations of our techniques of writing and reading by critically examining core approaches to the history and epistemology of the humanities. Thus, a broad praxeological overview of basic cultural techniques of collective memory is unfolded.

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Introduction

How do we know what we do? For a long time, this question has been a subordinate one in the history of the sciences in general and within the self-concept of philology in particular, because both seemed to be focused on the objects of this knowledge and not on the processes of its production. In the natural sciences, the discipline of Science Studies began to question this hierarchy between knowledge and practice and to ask about the tacit knowledge of the materially conditioned processes of research, social rituals of scientific communication, and media technologies used for the distribution of results.[1] Science Studies are based on the "practical turn"[2] because they consider knowledge to emerge from technically and institutionally embedded practices rather than from 'rational' and 'goal oriented' accounts that are given in retrospect once a project is completed. Contrary to such accounts, contemporary Science Studies consider contingencies, accidents, and involuntary findings as well as social hierarchies, technical equipment, and personal interaction equally relevant for the process of establishing valid facts, standards, and formats within a field.[3] Science, as Bruno Latour famously put it, is not "ready made" but "science in the making", and scientific facts are constructions by an isolated professional community rather than representations of the world out there or empirical manifestations of theoretical ideas.[4]

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1 | Mario Biagioli (ed.), *The Science Studies Reader* (New York: Routledge, 1999).

2 | Cf. David G. Stern, "The Practical Turn", in *The Blackwell Guide to the Philosophy of Social Sciences*, eds. Stephen P. Turner and Paul A. Roth (Malden e.a.: Blackwell, 2003), 185-206; cf. Andrew Pickering, *Science as Practice and Culture* (Chicago: University of Chicago Press, 1992).

3 | Cf. Hans-Jörg Rheinberger, *Toward a History of Epistemic Things. Synthesizing Proteins in the Test Tube* (Stanford: Stanford University Press, 1997); Christoph Hoffmann: *Die Arbeit der Wissenschaften* (Zürich/Berlin: diaphanes, 2013).

4 | Bruno Latour, *Sciene in Action. How to Follow Scientists and Engineers Through Society* (Harvard: Harvard University Press 1987), 4; cf. Karin Knorr-Cetina, *The Manu-*

In the light of the success of Science Studies it is surprising that analyses of knowledge making practices within the humanities are still rare.[5] One of the reasons for this delay could be that philological research has been carried out methodically and technologically almost unchanged for over two centuries – so the knowledge of philological practices has actually remained tacit due to their assumed self-evidence. For this reason, it is no coincidence that the interest in "philology in the making" arises at a time when this methodological and technological continuity faces a challenge: the challenge of digitization.[6] As we witness the growing impact of e-books, full text-databases, hypertext editions, distant reading projects, and open access publications,[7] our awareness that these technological changes may have fundamental consequences for our understanding not only of literature and culture but also of scholarship in the humanities is raised. While new media often claim to simply enhance, accelerate, or expand the spatial and temporal range of previous communication devices and the cultural concepts that derive from them, the suspicion grows that they actually establish new modes of collecting, storing, editing, interpreting, and teaching literary history and philological theory. And if it

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facture of Knowledge. An Essay on the Constructivist and Contextual Nature of Science (Oxford: Pergamon Press, 1981).

5 | Cf. Peter Becker/William Clark (eds.), *Little Tools of Knowledge. Historical Essays on Academic and Bureaucratic Practices* (Ann Arbor: University of Michigan Press, 2001); Steffen Martus/Carlos Spoerhase, "Praxeologie der Literaturwissenschaft", in *Geschichte der Germanistik* 35/36 (2009), 89-96, as well as the systematic account by Glenn Most (ed.), *Aporemata*, 5 vols. (Göttingen: Vandenhoek und Rupprecht, 1997-2001) and the suggestions by Hans Ulrich Gumbrecht, *The Powers of Philology. Dynamics of Textual Scholarship* (Urbana: University of Illinois Press, 2003).

6 | Cf. Pál Kelemen/Ernö Kulcsár Szabó/Ábel Tamás (eds.), *Kulturtechnik Philologie. Zur Theorie des Umgangs mit Texten* (Heidelberg: Winter, 2011); Marcus Krause/Nicolas Pethes, "Scholars in Action. Zur Autoreferenz philologischen Wissens im medialen Wandel", in *Deutsche Vierteljahresschrift für Literaturwissenschaft und Geistesgeschichte* 91 (2017), 73-108.

7 | Susan Schreibman/Ray Siemens/John Unsworth (eds.), *A New Companion to Digital Humanities* (Chichester: Wiley-Blackwell, 2016); Franco Moretti, *Graphs, Maps, Trees. Abstract Models for Literary History* (London: Verso, 2005); Adriaan Weel, *Changing our Textual Minds. Towards a Digital Order of Knowledge* (Manchester: Manchester University Press, 2011); Matthew L. Jockers, *Macroanalysis. Digital Methods and Literary History*, (Urbana: University of Illinois Press, 2011); Ann Burdick e.a., *Digital_Humanities* (Cambridge MA/London: The MIT Press, 2012); Alan Gross/Joseph Harmon (ed.), *The Internet Revolution in the Sciences and the Humanities* (Oxford: Oxford University Press, 2016).

is true that philology is "the fundamental science of human memory",[8] then the transfer of the praxeological approach from Science Studies to the study of philological practices is not only one possible extension of this methodological approach among many, but a crucial precondition for a fundamental understanding of the current consequences of the 'digital turn' for managing our cultural tradition as well as of the influence of our media technological competences on our self-understanding as a culture.

This awareness for the significance of media in philological scholarship also means to account for the actual materiality of objects and documents within the process of tradition. Contrary to an abstract notion of 'text' and the interpolation of its content or meaning, a praxeology of philological scholarship has to examine "the sociology of texts"[9] with respect to material specifities, medial differences, and everyday practices such as browsing, skimming, scrolling, and scanning. Thus, the concept of "material philology"[10] is extended far beyond the realm of book history and methodologies of editing.

The following articles will raise the question whether new media support or modify concepts of culture and tradition by examining philological practices such as collecting and comparing, archiving and editing, commenting and interpreting, quoting and referencing etc. with respect to the changes they underwent during the past two decades due to the introduction of digital media. They result from a two-year cooperation between the Departments of Literary Studies at the Universities of Budapest and Cologne, in the course of which the historical, methodological and theoretical prerequisites for such a philological praxeology were developed and discussed.[11] Two research questions were at the center of this cooperation:

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8 | Jerome McGann, "Philology in a New Key", *Critical Inquiry* 39 (2013), 327-346: 345.

9 | D.F. McKenzie, *Bibliography and the Sociology of Texts* (Cambridge: Cambridge University Press, 1999); Jerome McGann, *A Critique of Modern Textual Criticism* (Charlottesville/London: University of Virginia Press, 1992).

10 | Stephen Nichols, "Why Material Philology? Some Thoughts", in *Philologie als Textwissenschaft. Alte und neue Horizonte* (*ZdPh* 116, 1997), eds. Helmut Tervooren and Horst Wenzel, 10-30; Almuth Gressilon, *Literarische Handschriften. Einführung in die "critique génétique"* (Frankfurt/M.: Peter Lang, 1999).

1. What are the medial technologies and material appearances of what we will refer to as 'texts' in a digitized future? Does it change our notion of the literary artwork whether we read it on paper or on an electronic reader? Do new technologies of marking, referencing, quoting, and excerpting texts change the way we understand, interpret, use, and functionalize our textual heritage? Does it change our notion of a scholarly edition whether we have to look up numerous heavy volumes in a library or search for references online? And, through this simplified access: will digital media also transgress the border between academic and non-academic practices of reading and writing? It seems likely that computer technology will not replace 'paper culture' entirely but create an awareness of the historical role and ongoing function of using paper inside and outside the academia. But how do we avoid merely repeating the myths and fetishes of 'paper authenticity' and 'close reading'? Maybe the future for paper based media such as the book and paper based practices such as collecting will migrate into new contexts and forms of use that seem irritating only from a traditional point of view.

2. Which changes of practices connected to working with texts can be observed in the light of the digital turn in the Humanities? Since new media technologies never simply continue the *modus operandi* of old ones but rather implement fundamental changes in structures of communication as well as concepts of culture, knowledge, and art, new methods (e.g. quantitative analysis), formats (e.g. the digital catalogues), and institutions (e.g. divisions for Digital Humanities) have to be analyzed with respect to the transformation of practices, theories, and concepts within our routines of editing, analyzing, and teaching historical texts: What are the standards that scholars have to meet in order to successfully produce valid statements within a digitized scholarly community? How are authorities, categories, and methods implemented and canonized (or replaced) in the field? Will qualitative rereadings of selected texts still be a viable option for scholarship and teaching or will we have to contextualize these readings with the large data pools digital archives provide? Can we (and should we at all) maintain our understanding of humanities scholarship as a mode of aiming for the exemplary instead of for totality?

It may well be that computers will simply transfer the material sources, textual formats, and routines of reading from the paper realm into the digital one, so that eventually the formats of cultural tradition and philological communication are going to be similar *on* and *off* paper (as can already be observed on the e-book market). But it is also possible that entirely new arrangements of texts and reading may emerge (as some smart phone applications already suggest). Either way, this is the right time to take stock of both sides: Will cultural competences that evolved by using paper still be relevant in a computer age? Or will they become more and more obsolete once historical material will be available at all times to everybody? Is our notion of culture memory going

to change once scholars realize it is not only based on great minds and ideas but rather on algorithms? How will the implementation of computer technologies (if not ubiquitous computing) recontextualize and maybe even change traditional paper-based practices of writing and reading, reconstructing and interpreting, or cross-referencing and applying knowledge?

Within the methodological framework of Science Studies, Actor-Network-Theory (ANT) seems especially useful for this approach because of its focus on semiotic structures: Latour is interested in the variety of scientific "inscriptions" and "paperwork" when he analyses the modes of "Drawing Things Together" *from* various sources of information *onto* the two-dimensional sphere of the written page.[12] That is to say, literary studies use paper and books not only as (historical) *objects*[13] but also as *tools* of scholarly writing[14] when they reconstruct and interpret written material of the past. Therefore, besides the *Laboratory Life* that Latour/Woolgar analyzed as a system of various types of "literature" in their study from 1979,[15] there is a *Library Life*[16] to be discovered as paper based institutions of knowledge undergo fundamental media changes, i.e.: fundamental changes within their network of materialities and agents.

To be sure: the debate about philology has been dominated by an ongoing diagnosis of changes, turns, and crises long before the advent of digitized text analysis (and probably ever since philology was introduced at Universities in the late eighteenth century). But the following articles will neither focus on the history of various philological disciplines nor on the constitution of what has been recently labeled "metaphilology", i.e. a philological analysis of historical positions within literary studies.[17] Neither is it going to contribute to the impressive number of manifestos on the "Return to Philology", on its redefinitions as "New", "Post", or "Future Philology", or to the debate on "Rephilologisierung" in Germany.[18] And they will not follow sociological approaches that reconstruct

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12 | Bruno Latour, "Drawing Things Together", in *Representation in Scientific Practice,* eds. Michael Lynch and Steve Woolgar (Cambridge: MIT Press, 1990), 19-68.

13 | Christian Benne, *Die Erfindung des Manuskripts. Zur Theorie und Geschichte literarischer Gegenständlichkeit* (Frankfurt/M.: Suhrkamp, 2015).

14 | Michael Hagner, *Zur Sache des Buches* (Göttingen: Wallstein, 2015).

15 | Bruno Latour/Steven Woolgar, *Laboratory Lives. The Construction of Scientific Facts* (Princeton: Princeton University Press, 1979).

16 | Friedolin Krentel e.a., *Library Life. Werkstätten kulturwissenschaftlichen Forschens* (Lüneburg: meson press, 2015).

17 | Pascale Hummels (ed.), *Metaphilology. Histories and Languages of Philology* (Paris: Philologicum, 2009).

18 | Paul de Man, Paul, "The Return to Philology", in *The Resistance to Theory* (Minneapolis: University of Minnesota Press, 1986), 21-26; Jonathan Culler, "The Return to Philology", in *Journal of Aesthetic Education* 36 (2002), 12-16; Edward Said, "The

the process of scholarly knowledge making, but in doing so are focused on hier-archies and economic interests within institutionalized humanities[19] and only reluctantly extended to the analysis of practices.[20] Considering the practices of Digital Humanities as a challenge for philological knowledge is still an open field of research today: Computational Philology has been almost exclusively promoted programmatically[21] and hardly ever contextualized historically,[22] let alone praxeologically.[23]

On the basis of these considerations, the following essays deal with four overarching topics: With regard to the *theory* of philology, Hanjo Berressem proposes to reflect on the changing media environments of reading within the framework of an ecology of philology and to ask about the respective technical framings of producing meaning. Marcus Krause pursues the way in which the concept of 'philology' has become a label for the appropriate handling of texts, even though there is no stable theory of philology in the history of phi-lology, but merely changing relations between theory and philology. Finally, Björn Sonnenberg-Schrank asks how the establishment of Digital Human-ities as a promising label was able to assert itself against this background by alluding to the old myths of totality and completeness, which can be evaluated

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Return to Philology", *Humanism and Democratic Criticism* (New York: Columbia Univer-sity Press, 2004), 57-84; Matthew Restall, "A History of the New Philology and the New Philology in History", *Latin American Research Review* 38 (2003), no. 1, 113-134; Michelle Warren, "Post-Philology", in *Postcolonial Moves. Medieval through Modern*, ed. Patricia C. Ingham and Michelle Warren (New York: Palgrave, 2003), 19-45; Sheldon Pollock, "Future Philology? The Fate of a Soft Science in a Hard World", in *Critical Inquiry* 35 (2009), 931-961; Walter Erhart (ed.), *Grenzen der Germanistik: Rephilologisierung oder Erweiterung?* (Stuttgart: Metzler, 2004).

19 | Pierre Bourdieu, *Homo Academicus* (Paris: de Minuit, 1984); Peter J. Brenner, *Geist, Geld und Wissenschaft. Arbeits- und Darstellungsformen von Literaturwissen-schaft* (Frankfurt/M.: Suhrkamp, 1993).

20 | Peter Burke, "The Cultural History of Intellectual Practices", in *Political Concepts and Time. New Approaches to Conceptual History,* ed. Javier F. Sebastián (Santander: Cantabria University Press, 2011), 103-128.

21 | Starting with J.F. Burrows, "'Delta': A Measure of Stylistic Difference and Guide to Likely Authorship", in *Literary and Linguistic Computing* 17 (2002), 267-287; cf. Jerome McGann, *Radiant Textuality. Literature after the World Wide Web* (New York: Palgrave, 2014).

22 | David I. Holmes, "The Evolution of Stylometry in Humanities Scholarship", in: *Literary and Linguistic Computing* 13 (1998), 111-117.

23 | Vivian Lewis e.a., *Building Expertise to Support Digital Scholarship: A Global Perspective* (Council on Library and Information Resources, 2015).

negatively as a pathological hoarding as well as positively as a dissolution of boundaries in shape of 'cyborg philology'.

With regard to the concept of *materiality*, Ádam Rung reminds us that classical philology never disposed of original autographs anyway and instead followed the ideal of 'pure text' – a dematerialization that is currently drawn into question by Digital Humanities and their ability to visually depict the materiality of texts. Nicolas Pethes refers to the fundamental material basis of philological research before textual structures or digital storage media, paper, which in contemporary cultural studies becomes the focus of interest at the very moment when it threatens to transfer to a paperless culture. As Livia Kleinwächter shows, the next genetic stage corresponding to paper is manuscripts, which in the eighteenth and nineteenth centuries became both a reference point for the invention of authorship as for the historicist fetishization of authentic documents, and whose materiality still represents a boundary point for philological interpretation today. Charlotte Jaekel reconstructs how, in the 19th century, this knowledge of the materiality of culture was made more and more invisible, thus preparing the ground for methods in Science Studies that aim at revealing the inscription apparatuses of knowledge by way of 'reverse blackboxing'. In closing, Júlia Tóth-Czifra asks what significance traditional paper technologies still have in today's digitally supported editing practices and discusses practices archiving preliminary stages of the edited texts in digital databases.

With regard to the *practices* of philology, Matthias Bickenbach points to the practice of browsing as an approach to books that does not simply aim at decoding meaning and that cannot simply be reproduced digitally. It is therefore not the status of the text itself that changes through digitalization, but only the way in which it is used, i.e. the media differentiated body techniques of reading, which reconstitute the text anew in every reading event. Charlotte Coch reconstructs technically supported reading and memorizing techniques using the example of the slip box that Hegel still uses as an encyclopaedia of the mind but is reconceptualized by Niklas Luhmann as an active communication partner. Gábor Mezei deals with the complementary question of the operation of writing and analogizes it with the spatial design of maps, insofar as writing not only sketches a topography of signs, but is also structured by the gaps between them and can thus be revealed as a grid of interruptions. Julia Nantke concludes the section with a description of the mutual relationship between traditional philological practices and new digital technologies.

The last section is devoted to this interrelationship with a view to the new possibilities, but also to the implicit limitations of philological practice through digital *technologies*: In the sense of blackboxing, Gabor Palkó argues that the computer also generates a blind spot of research, especially since computer surfaces simulate old media practices. Daniel Kozák, on the other hand,

shows how Digital Humanities in the field of edititorial philology allows a broader commentary on ancient sources – without drawing the consequence that digital results necessarily have to be more objective than the analog ones, which they still supplement today. AMÁLIA KEREKES identifies the daily press since the 19th century as the most obvious modern corpus for DH, which even in predigital times could only be viewed as big data and raises the question of the relationship between macroanalysis (with respect to knowledge about journals) and microreading (with respect to understanding their contents). Conversely, GÁBOR VADERNA shows for historical research that computers must not only be understood as tools that change concepts of history by macroperspective analyses, but that microhistory can also be digitized. MELINDA VÁSÁRI concludes the volume by showing that the relationship between philology and computer not only concerns digital text structures, but also the question of archiving and analyzing computers and hard disks of writers and scholars, so that philology approaches the practice of autopsy from forensics – an examination of dead bodies of data that once again underscores the vitality of philology in the digital age.