

# preface

I wonder about the future – and the past – but never about the present. That might be, in essence, all you need to know about this book. (But I do, of course, invite you to read on.)

First things first: This book is based on my doctoral thesis which I submitted at the University of Cologne in October 2020 and defended in January 2021. Since doctoral dissertations must be published in the German system in order to secure the doctoral title, I wrote it with that in mind – half thesis, half monograph. Although I received no notes from my supervisors requesting any changes, I felt I could improve on the version I had submitted and withheld publication until I could revise it, however marginally or substantially. Some chapters benefitted from this more than others. Time is, after all, a limited resource. Almost three years after first committing my arguments to paper, I finally release them into the world. I do this in a hybrid open access format because that is an ethical choice for me. Sometimes, it's that simple.

This is where the simple part ends. There are some things that I ought to explain before we can proceed. Most of them concern the scope of the book, some of them the disciplinary background:

1. Clarifying “Beyond Text”
2. Assumptions Regarding Editions
3. Why *Digital* Scholarly Editions?
4. An Update on the Literature
5. On the Matter of Language

Before I begin addressing these points, I want to characterize this book very briefly in general: You will not find a tutorial within. This is not a handbook or a how-to guide. You will, in fact, find very few thoughts on

current technologies and the capacities or advantages and disadvantages of their implementation. This is not to say that those aspects of digital humanities research are not important since they are, self-evidently. But TEI, IIIF, ML, all those acronyms that you might or might not be familiar with, will only feature in the margins because this book is entirely concerned with the uncovering of principles. Calling it the ‘discovery’ of principles would be wrong. Most conceptual work is a work of reconceptualization in these contexts, not of invention. If there is originality to be found, it is within the connection of discourses, within the weaving of those webs that some will call ‘theory’ although that is too lofty a term to apply to this book. Methodologically, one of the central questions that will be explored throughout is whether it is possible to approach research in the digital humanities from the ground of thought rather than the parapet of practice. These interact, of course, and necessarily inform each other. Still, no practical work (in the sense of software development or application) was undertaken in the making of this ~~film~~ book and it is, if nothing else, a testament to this type of intellectual exercise, if you will. (Calling it an ‘experiment’ would be wrong, given the implications this word has for the ‘scientificity’ of research in the digital humanities. More on this under point 5.) Now on to the list of clarifications:

### 1. CLARIFYING “BEYOND TEXT”

A digital scholarly edition *beyond text* could refer to a scholarly edition that is, in itself, presented in a non-textual way. It could also refer to an edition of non-textual materials. This book focuses on the latter, but these issues are interrelated, seeing as they both engage with the question of representational *Abbildbarkeit* (‘the capacity to depict something in the image of something else’).

The other limitation that I have placed on this book was a focus on visual work variance. In the discussion of filmic work variance, audio-visual aspects do play a role, naturally, but neither can I claim any expertise in auditory matters nor is the edition of such aspects entirely unexplored, although one could argue that theories about the edition of music works owe much to their philological antecedents and are themselves entangled in the edition of notation more so than the edition of

sound.<sup>1</sup> The edition of audio recordings, such as multi-versioned recordings by the same artist of the same song, would be very interesting to me and I suspect that rights issues have prevented any serious foray in that direction (unless there is such a project of which I am unaware), as one might also suspect in the case of scholarly film editions (where there have been some attempts which I will chronicle). I am thinking of the 1920s and the 1930s here, by way of example, of Louis Armstrong and the early days of jazz, of 78 rpm shellac records, many of which have been diligently digitized in the Internet Archive (<<https://archive.org/>>) where one can already find indications for the versioning of songs in a section called ‘Related Music’ – there, versions, compilations, and covers are differentiated and linked, with versions being defined as “different performances of the song by the same artist.”<sup>2</sup> Armstrong’s *I Can’t Give You Anything But Love* from 1929 links to eight versions; however, while some of these are versions from later years, others appear to be reissues.<sup>3</sup> On the other hand, the *St. Louis Blues* performed by Duke Ellington and his Orchestra with vocalist Marian Cox in 1949 is not linked to the same song performed by Duke Ellington and his

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**1** The tradition of scholarly music editions has been influenced by textual criticism but poses its own challenges. For a long time, efforts were predominantly focused on the edition of (early) modern European composers and thus accommodated a particular type of common ‘Western’ musical notation. Editions of earlier works and other notation systems have often been published in the form of facsimile editions, if that, such as the *Monumenta Musicae Byzantinae* series. When it comes to digital editions, it should be noted that the MEI (Music Encoding Initiative) standard is derived from the TEI (Text Encoding Initiative) standard and acknowledges its Eurocentrism, see <<https://music-encoding.org/about/>> (accessed 30 October 2022). For further reading, see CHRISTIAN MARTIN SCHMIDT, ‘Editionstechnik,’ in: *MGG Online* (= Die Musik in Geschichte und Gegenwart), ed. by Laurenz Lütteken, Kassel [et al.]: Bärenreiter / Metzler, 2016, online: <<https://www.mgg-online.com/mgg/stable/13438>> [first published in print 1995, published online 2016]. See also JAMES GRIER, ‘Editing,’ in: *Grove Music Online* (2001), online: <<https://doi.org/10.1093/gmo/9781561592630.article.08550>> [published in print 20 January 2001, published online 2001, bibliography updated 31 January 2014], and FRIEDERIKE WIßMANN, THOMAS AHREND and HEINZ VON LOESCH (Eds.), ‘Vom Erkennen des Erkannten:’ *musikalische Analyse und Editionsphilologie* (Festschrift für Christian Martin Schmidt), Wiesbaden [et al.]: Breitkopf & Härtel, 2007.

**2** See, for example, the section on *I Can’t Give You Anything But Love* by Louis Armstrong with the flip side of *Mood Indigo* by Duke Ellington, <[https://archive.org/details/78\\_mood-indigo\\_louis-armstrong-and-his-orchestra-louis-armstrong-fields-mchugh\\_gbia0093720/](https://archive.org/details/78_mood-indigo_louis-armstrong-and-his-orchestra-louis-armstrong-fields-mchugh_gbia0093720/)> (accessed 16 January 2023).

**3** Ibid.

Orchestra in 1932 with Bing Crosby as his vocalist.<sup>4</sup> This observation of mine is entirely random but suggests to me that an annotated, semantically enriched and cross-referenced scholarly edition of such a corpus of materials could be a desideratum from the perspective of musicology, especially since much work has already gone into their digitization.<sup>5</sup> In terms of curated collections, the Louis Armstrong House Museum has made many archival records available digitally<sup>6</sup> – I note this example because the intersection of editorial and archival concerns is an interesting one that we will briefly return to under point **3**. Generally speaking, there has been an increase in projects working on digital music editions in the last ten years. An example for this would be *Beethovens Werkstatt* (2014–present) which is primarily interested in applying principles of genetic criticism to Beethoven’s compositional process and the traces it left in his manuscripts and other documents of the material *Überlieferung* (‘transmission’ – hereafter always translated as such although it is a flawed translation).<sup>7</sup> There are also projects that do not refer to themselves as digital scholarly editions although they could fall under that umbrella or are, at the very least, related to editorial efforts. One project that would fit this description is the *Measuring Polyphony* (2018–2020) project that digitally encodes late medieval music.<sup>8</sup> Equally noteworthy is the research done at the Austrian Academy of Sciences which presents several digital music editions, such as the *Passauer Liedertisch* (2018),<sup>9</sup>

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**4** See <[https://archive.org/details/78\\_st-louis-blues\\_duke-ellington-his-orchestra-marian-cox-wc-handly\\_gbia7014001b](https://archive.org/details/78_st-louis-blues_duke-ellington-his-orchestra-marian-cox-wc-handly_gbia7014001b)> and <[https://archive.org/details/78\\_st-louis-blues-ein-blues-am-st-louis\\_bing-crosby-duke-ellington-and-his-orchest\\_gbia7013163b](https://archive.org/details/78_st-louis-blues-ein-blues-am-st-louis_bing-crosby-duke-ellington-and-his-orchest_gbia7013163b)> (both accessed 4 January 2023).

**5** The closest project that comes to mind with regard to the comparison of song versioning is the non-academic (but no less valuable) resource *SecondHandSongs*, <<https://secondhandsongs.com/>> (accessed 13 June 2023).

**6** See <<https://collections.louisarmstronghouse.org/>> (accessed 4 January 2023).

**7** See *Beethovens Werkstatt*, ed. by Bernhard R. Appel [et al.], Detmold University of Music, Paderborn University, Academy of Sciences and Literature Mainz, Beethoven House Bonn, 2014–present, <<https://beethovens-werkstatt.de/>> (accessed 4 January 2023).

**8** See *Measuring Polyphony: Digital Encodings of Late Medieval Music*, ed. by Karen Desmond [et al.], Brandeis University, 2018–2020, <<https://measuringpolyphony.org/>> (accessed 4 January 2023).

**9** See *Passauer Liedertisch*, Austrian Academy of Sciences, 2018, <[http://www.digital-musicology.at/en-uk/edi\\_tisch\\_pre.html](http://www.digital-musicology.at/en-uk/edi_tisch_pre.html)> (accessed 4 January 2023).

on their *Digital Musicology* platform.<sup>10</sup> Obviously, there is an entire, much more expansive world of such projects out there than I could reasonably list here.

All of this to say: Music works and sound are severely underrepresented in this book and could form a natural extension to the thoughts presented in it, someday in the future. For the sake of media theorists, I should also state that I am aware that the triumvirate of text – image – sound is not the sole distinction one might want to draw. Even within those categories, the definition of which is contentious to say the least, particularly when it comes to the much-discussed ‘text’ definition,<sup>11</sup> we may identify all kinds of phenomena, intermingled and otherwise. Sketchbooks, tapestries, comic books, murals. Sculptures, theatre productions, architectural works, video games. The list could go on and on. Sometimes we speak about objects. Sometimes about genres. All that I see are multimodal, multimedia units of meaning and their physical and ideational transmission. I would not want to pretend that the limits imposed on the scope of this book are necessarily compelling from a categorical or ontological point of view. Nor do I anticipate obstacles in eventually incorporating these expressions of art and culture into the thinking advanced in the following chapters. They would likely introduce new important points of divergence and a ‘sharpening’ of terminological differentiations. It should suffice to say that the importance of first branching out to pictures and then to ‘motion pictures’ when considering editions beyond text lies in the extension of dimensions that they provide: from the semiotic layer of notation that guides our perception of text towards *space* (with images) and *time* (with film). This already accounts for two important extensions in our conceptualizations, given that they are mirrored in other media, such as audio in the case of time-based media.

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<sup>10</sup> See *Digital Musicology*, Austrian Academy of Sciences, 2018–present, <<http://www.digital-musicology.at/en-uk/index.html>> (accessed 4 January 2023).

<sup>11</sup> In the context of digital editorial theory, Patrick Sahle has written about this most extensively; see PATRICK SAHLE, *Digitale Editionsformen* (Schriften des Instituts für Dokumentologie und Editorik; vols. 7–9), Norderstedt: Books on Demand, 2013 [the volumes are hereafter referred to as Sahle 2013a, 2013b, and 2013c where required].

As a last consideration when it comes to the scope of the book, I want to highlight that the subtitle of the thesis originally read *Modelling Medieval Picture Programmes and Modern Motion Pictures*. This feels more precise than the subtitle I chose for the published version, but it is also misleading and here is why: The book is not a comparison of medieval picture programmes and modern motion pictures. Singling out epochal affiliations suggests that I want to relate them to each other. I do relate, but I do not relate medieval picture programmes (or picture cycles) and modern films in any way that is supposed to infer some kind of *Erkenntnis* ('insight') about historical times and different types of cultural expression. The conversation in this book is merely a conceptual one about the principle of edition, one that benefits from considering different (multimedia) evidences and the different (or similar) considerations we have to entertain in terms of editorial concern. I think this will become even clearer when tracing the arguments of the book through the chapters and learning how they connect and interact in a linear reading (which is how the book is supposed to be read, although I realize that the interdisciplinary nature of the book invites selective reading). Furthermore, the focus of the book is as narrow as it is broad – neither do I cover any and all kinds of medieval picture programmes nor do I cover any and all kinds of film variance. The book is Eurocentric and, in some ways, more specifically Germanocentric, if such a word exists. At its heart lies a source of knowledge and a limit of knowledge.

## 2. ASSUMPTIONS REGARDING EDITIONS

Why pursue the central inquiry of this book at all? There are different ways to answer this, several of them good and right. We can approach this from two directions: On the one hand, we could say that the prevalence of digital scholarly editions has changed the landscape; that there is now a different framework for different editorial objects, one that favours image, motion, sound. We could say that the transformational process that scholarly editions are undergoing naturally calls into question whether the notational reproduction of 'text' should not rather be replaced with a notion of reproducing 'content' in other shapes and forms, especially given how multimedia-oriented 'the digital medium' and subsequently

digital scholarly editions already are; hence the increased incorporation of ‘digital facsimiles’ (more on the question of *digital* scholarly editions under point 3 – and more on this entire topic throughout, particularly in **CHAPTER III**).

On the other hand, we could justify the inquiry of this book through the consideration of the variety and diversity of cultural heritage as such, rather than the changed media environment in which we might embed its representation. Personally, I would emphasize this perspective. It stands to reason that there is a degree of craftsmanship involved in editorial work; that questions of feasibility have always played a role in crafting the (re-)presentation of information – and it is therefore entirely fair that Martha H. Fleming, in her 1999 edition of the *Genus nequam* pope prophecies, should have stated: “Unfortunately it is not possible to construct an adequate apparatus for an ‘edition’ of the images similar to that for the text.”<sup>12</sup>

There is, however, a traditional lack of interest in the theoretical implications of an ‘edition’ of images that we must recognize regardless of how feasible an implementation might or might not be (and one supposes that these thoughts would go both ways: that one would only know whether an implementation is possible if one had tried conceptualizing it). I do not wish to characterize this as a neglect, necessarily, but rather as an effect of a particularized academia where disciplinary boundaries seem to pose barriers of a real kind, the kind that guides conventions and inhibits cross-domain imagination. In the case of art history, the challenge that presented itself during the writing of this book was not one of digital considerations but rather of hermeneutical ones; meaning that it was entirely unclear what threads one might pull on if one wanted to pull together a conceptual (or, indeed, ‘theoretical’) foundation on which to build the reflection necessary to give any and all endeavour in the (digital) humanities structure, meaning, purpose, and purchase in

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**12** MARTHA H. FLEMING (Ed.), *The Late Medieval Pope Prophecies: The Genus nequam Group* (Medieval and Renaissance Texts and Studies; vol. 204), Tempe: Arizona Center for Medieval and Renaissance Studies, 1999, 17.

posterity.<sup>13</sup> As a side note: The term ‘art’ in the subtitle of this book is merely used to indicate the subject of the discipline of art history, not any value attachment (e.g. to imply that films could not be art which is not something that I would propose) or otherwise fraught relationship with this type of notion. You will find that I rarely, if ever, refer to the *Bildwerke* (‘picture works’) that I will be discussing in this way and I would like to be excluded from any narrative complicating this matter of discoverability, even though I acknowledge that any serious discussion of the term would have to be much more involved.

To summarize the philosophy underpinning the entire book, I would like to believe that it proceeds from the following suppositions: (1) that the humanities (in the German sense of *Geisteswissenschaften*) are concerned with the totality of cultural heritage and record, and that their task of making-sense requires them to have a comprehensive view on these sources as well as reliable access to them; (2) that digital scholarly editions serve the same function as non-digital scholarly editions, viz. the preservation and presentation of extant documents, artefacts, and monuments (i.e. material manifestations of human expression) that are carefully reconstructed, contextualized, or otherwise enriched so as to offer information about their genesis and tradition in a way that may be

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**13** It does not appear that the field of digital art history has, thus far, discussed the possibility of the digital scholarly edition of images. By way of example, the *Routledge Companion to Digital Humanities and Art History* (2020) does not, in all of its articles, make any mention of the potential creation of digital scholarly editions of multi-transmitted visual works, save for an acknowledgment of the existence of the *3D Scholarly Edition* initiative which is focused on the 3D modelling of architecture; see LISA M. SNYDER, “Research, Process, Publication, and Pedagogy: Reconstructing the World’s Columbian Exposition of 1893,” in: *The Routledge Companion to Digital Humanities and Art History*, ed. by Kathryn Brown, London / New York: Routledge, 2020, 459–479, here 473. On 3DSE and the attempts to relate digital scholarly editing to the 3D reconstruction of cultural heritage sites, see the *Scholarship in 3D Digital Publishing Cooperative*, <<https://3dpublishingcooperative.com/about/>> (accessed 4 June 2020; not accessible anymore 4 January 2023; see the archived version in the Internet Archive) and publications such as SUSAN SCHREIBMAN and COSTAS PAPADOPOULOS, “Textuality in 3D: Three-Dimensional (Re)Constructions as Digital Scholarly Editions,” in: *International Journal of Digital Humanities* 1 (2019), 221–233, online: <<https://doi.org/10.1007/s42803-019-00024-6>>, and COSTAS PAPADOPOULOS and SUSAN SCHREIBMAN, “Towards 3D Scholarly Editions: The Battle of Mount Street Bridge,” in: *Digital Humanities Quarterly* 13/1 (2019), online: <<http://www.digitalhumanities.org/dhq/vol/13/1/000415/000415.html>> (accessed 4 January 2023).



useful to a scholarly audience; (3) that such manifestations may contain symbol systems and through these symbol systems meaningful information and that such meaningful information is not merely, necessarily, or even primarily communicated through ‘text’ but can also be expressed, for example, in imagery; (4) that all such information should be part of the edition, especially vis-à-vis the analysis, description, and recording of a variance in transmission; (5) that the debate in or perhaps rather about digital scholarly editing that centres around the purported advantages and disadvantages that digital scholarly editions may have when compared to their printed counterparts is irrelevant to the edition of material that was not attended to in printed editions to begin with. This last aspect is coincidental but worthy of being stated at least once.

As the term ‘textual criticism’ clearly indicates, editorial theory is characterized by the primacy of textual scholarship, with different established editorial schools of thought giving voice to numerous convictions and conventions, often demarcated along national lines.<sup>14</sup> With that in mind, it follows (6) that the main focus of the book must not lie with the edition of texts (that a rich tradition of textual scholarship has already accounted for in many regards) but with the edition of other types of material, in particular visual material that arguably represents the largest corpus of cultural heritage material that has not yet been subject to scrutiny from this specific (and, admittedly, philologically informed, for better or worse) editorial point of view.

It further follows that (7) the premise of the book, i.e. its consideration of the different parts of an edition and how they relate to each other, necessarily moves towards formulating a type of model that may be able to accommodate new or otherwise reconceptualized components; and that model must be, given the focus on conceptualization, a conceptual model. How we may conceive of different types of models in the (digital) humanities will have to enter into the conversation as well.

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**14** Several of these theories are discussed throughout the book, insofar as this knowledge of editorial theory is relevant to a further development of editorial theory. Here it should suffice to refer to NEIL FRAISTAT and JULIA FLANDERS (Eds.), *The Cambridge Companion to Textual Scholarship*, Cambridge: Cambridge University Press, 2013, and the vast archive of the journal *editio* as an introduction to the topic.

A scholarly edition is said to be an argument.<sup>15</sup> What does it argue? It argues for an interpretation of a ‘document’ or a series of ‘documents’, all of which are bound together by being perceived to be iterations of one ‘work’ or a ‘corpus’ of work bound to one person or one other commonality.<sup>16</sup> Hence, a scholarly edition is not an edition of a work so much as it is an edition of the material evidence of that work out of which it extracts what it perceives to be the work, with varying degrees of idealization. A scholarly edition is, therefore, no matter the format or medium, always the result of a modelling process: a process of ordering, shaping, compiling, relating, structuring. Nowhere is this more evident than in the creation of a stemma to relate the surviving witnesses of a work to each other (see **FIG. 1**).<sup>17</sup>

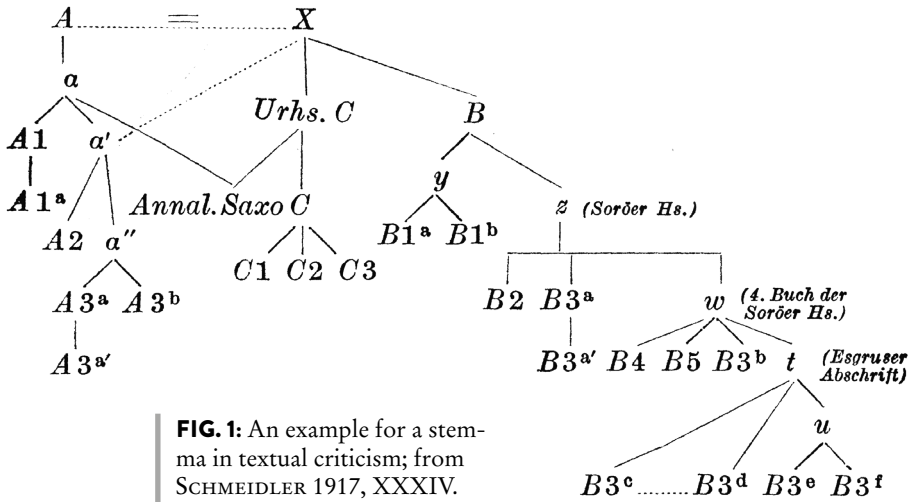
As it so happens, models and modelling processes are key components of computing as well. It might be for this reason that digital scholarly editing has a relatively long history to look back on and continues to draw

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**15** This is a common notion; see, for example, Elena Pierazzo reporting that Shillingsburg, at a conference in 2013, “strongly maintained that the difference between editions and archives is that the former make a scholarly argument, while the latter do not.” (ELENA PIERAZZO, *Digital Scholarly Editing: Theories, Models and Methods*, London / New York: Routledge, 2016 [first published by Farnham, Surrey [et al.]: Ashgate, 2015], 196.) See *ibid.* furthermore 151 and 155. See also the statement by Peter Robinson at the same conference: “A scholarly edition is still, as it has been for centuries, an argument about a text.” (PETER ROBINSON, “What Digital Humanists Don’t Know about Scholarly Editing; What Scholarly Editors Don’t Know about the Digital World,” paper presented at the *Social, Digital, Scholarly Editing* conference at the University of Saskatchewan, 11–13 July 2013, online: <<https://doi.org/10.5281/zenodo.4024290>>; this paper is also referenced in PIERAZZO 2016, 196, there by the more incendiary title “Why Digital Humanists Should Get Out of Textual Scholarship.”) See also Joris van Zundert stating: “Textual scholars from Bernard Cerquiglini (1999) to Peter Shillingsburg (2013) hold that an edition of a text is not that text itself, but an intellectual argument about it.” (JORIS VAN ZUNDELT, “Screwmenetics and Hermenumericals: The Computationality of Hermeneutics,” in: *A New Companion to Digital Humanities*, ed. by Susan Schreibman, Ray Siemens and John Unsworth, Hoboken, New Jersey: John Wiley & Sons, 2016, 331–347, here 341.)

**16** In the case of letter editions, digital editions are beginning to explore networks of people more widely; see, for example, the project *Berliner Intellektuelle 1800-1830*, ed. by Anne Baillot [et al.], Humboldt University of Berlin, 2011–2017, <<https://www.berliner-intellektuelle.eu/>> (accessed 4 January 2023). However, traditionally, letter editions are either centred around the correspondence to and from one famous person or between two famous people.

**17** On stemmatology, see PHILIPP ROELLI (Ed.), *Handbook of Stemmatology: History, Methodology, Digital Approaches*, Berlin / Boston: De Gruyter, 2020.



interest within the community of humanities computing.<sup>18</sup> Although this has produced a sizeable amount of research literature on models and modelling in this specific context, typically focused on what is called ‘data modelling’ (which is then narrowed down to text markup),<sup>19</sup> the non-computational side of modelling an edition has been curiously absent in these discussions and its relation to the computational side of modelling has consequently proven elusive, one explanation for which is that both tend to be collapsed; meaning that the ‘non-computational’ part of modelling an edition, insofar as we understand conceptual modelling to be a ‘non-computational’ cognitive activity in this context,

**18** On the history of the development of digital scholarly editing in the USA and the pioneering role it had there in the formation of digital literary studies, see AMY E. EARHART, *Traces of the Old, Uses of the New: The Emergence of Digital Literary Studies*, Ann Arbor: University of Michigan Press, 2015, esp. Chapter I ‘The Rationale of Holism: Textual Studies, the Edition, and the Legacy of the Text Entire’, 11–37.

**19** The context here extends from the modelling of digital scholarly editions to a more general modelling of textual phenomena. See, for example, FABIO CIOTTI, “A Formal Ontology for the Text Encoding Initiative,” in: *Umanistica Digitale* 3 (2018), online: <<https://doi.org/10.6092/issn.2532-8816/8174>>; JULIA FLANDERS and FOTIS JANNIDIS (Eds.), *The Shape of Data in Digital Humanities: Modeling Texts and Text-based Resources*, London / New York: Routledge, 2018; and ARIANNA CIULA [et al.] (Eds.), *Models and Modelling between Digital and Humanities: A Multidisciplinary Perspective* (HSR; suppl. 31), Köln: GESIS, 2018, online: <<https://nbn-resolving.org/urn:nbn:de:0168-ssoar-62883-7>>.

is inherently present but not made explicit, either in the particular edition that is being created or in the pertinent discussion about modelling scholarly editions in general. Distinctions between different layers of modelling exist but they tend to favour the concrete over the abstract, the implementation over the conception.<sup>20</sup>

It is therefore necessary to engage with these meta-methodological questions in order to acquire a renewed understanding of the method of creating a scholarly edition, especially a digital scholarly edition where modelling as a scholarly process in the humanities and modelling as a computational necessity coincide.

All these basic assumptions that I have sketched only very briefly should suffice to create a rough outline of the book.

### 3. WHY DIGITAL SCHOLARLY EDITIONS?

As with the previous point, there are several ways to answer this and one of them has already been mentioned: The transition of scholarly editions from printed books to digital presentations changes what we can and cannot edit. To some extent, it is this technological evolution that allows us the edition of non-textual (or multimedia) materials in the first place. This would appear to be self-evident. The other obvious answer to the question above would be one that proponents of digital scholarly editions like to advance, namely that digital scholarly editions are superior to printed scholarly editions and are in the process of replacing them altogether, having already “become the norm in all disciplines.”<sup>21</sup>

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**20** This is made evident by the *concretization* and *Handhabbarmachung* (‘making-manageable’) of conceptual modelling in different disciplines; see DAVID W. EMBLEY and BERNHARD THALHEIM (Eds.), *Handbook of Conceptual Modeling: Theory, Practice, and Research Challenges*, Heidelberg [et al.]: Springer, 2011.

**21** This sentiment is expressed in the “Manifest für digitale Editionen” that was published by the Institut für Dokumentologie und Editorik in March 2022 and gathered many signatories from the German-speaking regions; original: “Im Gefolge eines grundlegenden Paradigmenwechsels sind digitale Editionen inzwischen in allen Disziplinen der Normalfall.” (CHRISTIANE FRITZE [et al.], “Manifest für digitale Editionen,” blog post, ed. by the Institut für Dokumentologie und Editorik, in: *DHdBlog: Digital Humanities im deutschsprachigen Raum* (11 March 2022), online: <<https://dhd-blog.org/?p=17563>> (accessed 6 January 2023)).

According to this view, there is no question to begin with. Focusing on *digital* scholarly editions when considering the theory of scholarly editions is not seen as the aberrant position; rather, it is implied that one would have to justify writing about scholarly editions from the perspective of a printed paradigm. I question these descriptions of the status quo and do not, as a general rule, endorse value judgements, but I do understand this position to be an assertion designed to secure the field of digital scholarly editing the consideration and resources it requires in order to fulfil its goals and tasks. There is a pragmatic dimension to this, one of infrastructure and academic credit, to name only two issues.

If we were to take the aspect of pragmatism seriously, we would have to engage in other discussions as well: One aspect to mention in this context would be, for example, the need for minimal computing solutions.<sup>22</sup> It might appear convenient for this book to retreat onto an abstracted ground of conceptual modelling and thereby avoid having to address such questions of project design but the opposite is the case: The book seeks to contribute to a technology-agnostic discourse about digital scholarly editions, insofar as that is possible, precisely in order to disentangle their conceptualization from the kind of technological implementability that can only be realized through a presupposed availability of certain technological, monetary, and human resources. This should not be mistaken for a pretence of universalism. It only means that even when or perhaps especially when we turn our conversations

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**22** See, for one pragmatic approach to such a solution, TILL GRALLERT, “Mapping Ottoman Damascus Through News Reports: A Practical Approach,” in: *Digital Humanities and Islamic & Middle East Studies*, ed. by Elias Muhanna, Berlin / Boston: De Gruyter, 2016, 171–193, online: <<https://doi.org/10.1515/9783110376517-009>>. On minimal computing, see the DHQ special issue 16/2 (2022) and the introduction by the editors: ROOPIKA RISAM and ALEX GIL, “Introduction: The Questions of Minimal Computing,” in: *Digital Humanities Quarterly* 16/2 (2022), online: <<http://www.digitalhumanities.org/dhq/vol/16/2/000646/000646.html>> (accessed 6 January 2023). On the notion of ‘minimal editions’, see furthermore SUSANNA ALLÉS TORRENT and ALEX GIL, “Minimal Editions in the Classroom: A Pedagogical Proposal,” in: *Digital Humanities 2016: Conference Abstracts*, ed. by Maciej Eder and Jan Rybicki, Kraków: Jagiellonian University & Pedagogical University, 2016, 426–428, and GIMENA DEL RIO RIANDE, “Mini Lazarillo,” review, in: *Reviews in Digital Humanities* 1/4,5 (2020), online: <<https://doi.org/10.21428/3e88f64f.de565313>>.

about scholarly editions towards *digital* scholarly editions, we must be conscious of all that can (or cannot) follow from it.

The field of digital humanities has, in all its chequered history, rarely defined what the term ‘digital’ entails. I state this with some trepidation. Drawing attention to this issue risks incurring a mandate to do so here and now. The simple answer would be: It depends. This is reminiscent of the debate about defining the digital humanities as such, where one can encounter claims that “[t]he meaning(s) and parameters of digital humanities remain contested, to the extent that defining DH is a known rabbit-hole problem from which one may never return.”<sup>23</sup> I have excised a relatively long primer about the digital humanities from this publication (which was originally included in the submitted thesis) because it was simply too topical; something I wanted to avoid. The important part is this: Whether one understands the digital humanities to be the successor of humanities computing, to sit at an intersection with new media studies or public humanities, or to be the present or future of the humanities in general will colour associations. For now, it should be enough to say that digital scholarly editions are commonly understood to be editions that are encoded in a markup language and accessed through an electronic visual display. They are typically web-based editions (rather than disk-based). This may sound very basic but I will leave it at that for the moment.

One thing to note is that discourses surrounding digital scholarly editions are markedly different from their print-oriented predecessors.<sup>24</sup>

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**23** STEVEN E. JONES, *The Emergence of the Digital Humanities*, London / New York: Routledge, 2014, 7. A slightly contrarian view can be found in the deliberations of James Smithies who agrees with the need for soul-searching in the digital humanities but does not seem to be under the impression that much of it has occurred: “The digital humanities ran before they walked. Decades of effort during the humanities computing era have, in important ways, been undermined by too-rapid expansion of the field over the last decade. This has led to a situation where centres are flourishing, researchers have plenty of tools to choose from, and funding opportunities are relatively plentiful, but there have been few attempts to step back and question what it all means in relation to the *raison d’être* of the humanities.” (JAMES SMITHIES, *The Digital Humanities and the Digital Modern*, London: Palgrave Macmillan, 2017, 12.)

**24** In addition to SAHLE 2023 and PIERAZZO 2016, see, for a start, PETER L. SHILLINGSBURG, *Scholarly Editing in the Computer Age: Theory and Practice*, Ann Arbor: University of Michigan Press, 1996; LOU BURNARD, KATHERINE O’BRIEN O’KEEFFE and

A major divergence can be observed in the way that the term ‘archive’ is now being applied and invoked which corresponds with – but must not be confused with – the crucial role that cultural heritage institutions play in the digitization (preservation, cultivation) of resources. Shillingsburg noted as far back as 1996 that “the electronic archive may itself represent the editorial goal”<sup>25</sup> and Paul Eggert has discussed the archive/edition dualism further.<sup>26</sup> There are numerous examples for digital scholarly editions or projects adjacent to this field where the curation of an archival component is understood to be part of the scholarly editing process and the archive itself seen as a supplement to the resulting edition or even as the final result in itself.<sup>27</sup> The reference to ‘archives’ by scholars in the humanities in these contexts does not seem to be based in an engagement with the field of archival studies.<sup>28</sup>

When we look at digital scholarly editions or adjacent projects that have tentatively expanded on editorial objects by including visual material, we find ‘archives’ as well. The most well-known of these would

JOHN UNSWORTH (Eds.), *Electronic Textual Editing*, New York: Modern Language Association of America, 2006; DANIEL APOLLON, CLAIRE BÉLISLE and PHILIPPE RÉGNIER (Eds.), *Digital Critical Editions*, Urbana [et al.]: University of Illinois Press, 2014; and MATTHEW JAMES DRISCOLL and ELENA PIERAZZO (Eds.), *Digital Scholarly Editing: Theories and Practices* (Digital Humanities Series; vol. 4), Cambridge: Open Book Publishers, 2016.

**25** SHILLINGSBURG 1996, 165.

**26** See PAUL EGGERT, “The Archival Impulse and the Editorial Impulse,” in: *Variants* 14 (2019), 3–22, online: <<https://journals.openedition.org/variants/570>> (accessed 6 January 2023) [reprinted in revised form in PAUL EGGERT, *The Work and the Reader in Literary Studies: Scholarly Editing and Book History*, Cambridge: Cambridge University Press, 2019, as Chapter V ‘Digital Editions: The Archival Impulse and the Editorial Impulse,’ 80–92, online: <<https://doi.org/10.1017/9781108641012.006>>].

**27** To name just two examples: *The Shelley-Goodwin Archive* (that is primarily an archive) and the digital *Faust* edition (which comes with an extensive archive, <<https://www.faustedition.net/archive/>>). See *The Shelley-Goodwin Archive*, ed. by Neil Fraistat, Elizabeth Denlinger and Raffaele Vigiante, New York Public Library [et al.], 2013–present, <<http://shelleygodwinarchive.org/>> and *Johann Wolfgang Goethe: Faust. Historisch-kritische Edition*, ed. by Anne Bohnenkamp, Silke Henke, Fotis Jannidis [et al.], Frankfurt am Main [et al.], 2018–present, <<http://www.faustedition.net/>> (both accessed 6 January 2023; in the case of the *Faust* edition, version 1.2 RC).

**28** On the general issue of the invisibility of archival studies, see MICHELLE CASWELL, “‘The Archive’ Is Not an Archives: On Acknowledging the Intellectual Contributions of Archival Studies,” in: *Reconstruction: Studies in Contemporary Culture* 16/1 (2016), online: <<https://escholarship.org/uc/item/7bn4v1fk>> (accessed 6 January 2023).

be the *William Blake Archive* which first went online in 1996 and is one of the earliest digital – or, in the terminology of the day, ‘electronic’<sup>29</sup> – resources presenting an artist’s *œuvre* that spans both textual and pictorial elements, the latter of which were marked up and described with reference to the classification system Iconclass.<sup>30</sup> Since Iconclass will not feature much in the thoughts developed in this book despite what one might expect (the same goes for FRBRoo and CIDOC CRM, to name more examples), I wish to briefly explain this with regard to Iconclass specifically: Iconclass is not immediately suited for the description of transmission variance – the assumption underlying it being that a work consists of a singular visual presentation, meaning that the structural interrelation of variance between different versions or witnesses of a work cannot be explicitly expressed. Applying iconographic classifications according to the Iconclass system and vocabulary can be helpful for finding similarities in pictures across collections, which is to say that it is helpful for finding similarities in how content has been identified and tagged. Delineating components and modelling them in relation to

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**29** The term was still in use as recently as 2007; cf. KENNETH M. PRICE, “Electronic Scholarly Editions,” in: *A Companion to Digital Literary Studies*, ed. by Ray Siemens and Susan Schreiban, Malden [et al.]: Blackwell, 2007, 434–450.

**30** For the project which is still online, albeit redesigned since its first launch, see *The William Blake Archive*, ed. by Morris Eaves, Robert Essick and Joseph Viscomi, Institute for Advanced Technology in the Humanities, University of Virginia, 1996–present, <<http://www.blakearchive.org/>> (accessed 6 January 2023). For background on the *William Blake Archive* and its methodology with regard to the picture component, including the decision by the editors to use Iconclass, see MORRIS EAVES, “Picture Problems: X-Editing Images 1992–2010,” in: *Digital Humanities Quarterly* 3/3 (2009), online: <<http://www.digitalhumanities.org/dhq/vol/3/3/000052/000052.html>> (accessed 6 January 2023). See also EARHART 2015, 25–27. For information on Iconclass, see <<http://www.iconclass.org/>> (accessed 6 January 2023) as well as the literature evidencing how it was being applied in the late 1990s, cf. CAROL TOGNERI, “Iconclass and its Application to Primary Documents,” in: *Image and Belief: Studies in Celebration of the Eightieth Anniversary of the Index of Christian Art*, ed. by Colum Hourihane, Princeton: Princeton University Press, 1999, 259–270, and JÖRGEN VAN DEN BERG and GERDA G. J. DUIJFJES-VELLEKOOP, “Translating Iconclass and the Connectivity Concept of the Iconclass 2000 Browser,” in: *Image and Belief: Studies in Celebration of the Eightieth Anniversary of the Index of Christian Art*, ed. by Colum Hourihane, Princeton: Princeton University Press, 1999, 291–306. For a more recent evaluation of Iconclass, see HANS BRANDHORST and ETIENNE POSTHUMUS, “Iconclass: A Key to Collaboration in the Digital Humanities,” in: *The Routledge Companion to Medieval Iconography*, ed. by Colum Hourihane, London / New York: Routledge, 2017, 201–218.



each other but also in relation to their computational representation requires the modelling of similarity as well as dissimilarity. Effectively, the question of variance that we encounter in scholarly editing requires us to think about frames of repetition and divergence more so than frames of identification (although the latter is a prerequisite for the former in practice; one does not need to adhere to any particular classification system to think this through in the conceptual context that we are talking about, however, as that would already impose limits on what can be described and the historical, cultural, and disciplinary perspective in which those descriptions are rooted). To reiterate: This book is not intended to provide a guide of best practices for implementing editorial ideas within the landscape of current conventions; such a book would be very useful, indeed, although I suspect that it would be more useful to curate living documents for this purpose in order to assist editorial projects in surveying options and solutions available at the given time.

More projects that should be mentioned when we consider prototypes for the (digital) edition of visual material include the digital edition of emblem books in several projects in the early 2000s, such as the *Emblem Project Utrecht* about Dutch love emblems of the 17<sup>th</sup> century which made extensive use of marking up the material with TEI/XML, albeit with a focus on the textual elements within the pictures, where the pictures are concerned;<sup>31</sup> and most recently and perhaps most promis-

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**31** For the project, see <<https://emblems.hum.uu.nl/>> (accessed 6 January 2023). For the documentation of the project's encoding guidelines with regard to the images, see <<https://emblems.hum.uu.nl/static/html/techcoding.html#div668>> (accessed 6 January 2023). For more information on the background and development of the project, see, by one of its editors, PETER BOOT, *Mesotext: Digitised Emblems, Modelled Annotations and Humanities Scholarship*, Amsterdam: Amsterdam University Press, 2009, esp. 51–72. See in connection with the *Emblem Project Utrecht* also the project *EMIT-X: Early-Modern Image and Text eXchange* which harvested the data from it to make it available in data collections to researchers, <<https://portal.clarin.nl/node/4196>> (accessed 6 January 2023). Other projects that involve digitized emblem books are the *Emblematica Online* by the Herzog August library (HAB) in Wolfenbüttel in cooperation with the University of Illinois at Urbana-Champaign (UIUC), see <<http://emblematica.grainger.illinois.edu/>> (accessed 6 January 2023); the French, Italian and Alciato emblem books presented by the University of Glasgow, see <<https://www.emblems.arts.gla.ac.uk/>> (accessed 13 September 2020; not accessible anymore 6 January 2023; see the archived version in the Internet Archive); and the Spanish *Biblioteca Digital Siglo de Oro* (BIDISO) by the Universidade da Coruña which hosts a number of resources, see <<https://www.bidiso>

ingly, the *Welscher Gast Digital* which explicitly refers to itself as a *Text-Bild-Edition* ('text-image-edition') and includes an option to compare corresponding pictorial elements from the picture programme as transmitted in different manuscripts, according to a division into depicted motifs and actors.<sup>32</sup>

When it comes to digital scholarly editions of films, the situation presents itself differently since most projects of that type have been disk-based releases in the past. One should mention the 2006 study edition of *Metropolis* (1927) here which will be discussed in more detail in **CHAPTER V**.<sup>33</sup> At a conference in 2019 in Berlin, the developments in the field of digital editions were acknowledged and their effect on film editions discussed – see also point **4**.<sup>34</sup> Most importantly, the fluid transition between edition and archive can be found with digital film editions as well. An example for this would be the web-based edition *F. W. Murnaus ›Tabu‹ – Die Edition der Outtakes* by the Deutsche

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es/Emblematica/> (accessed 6 January 2023). Many of these efforts were realized in collaboration with each other as part of the *OpenEmblem* initiative.

**32** For the project, see *Welscher Gast Digital*, ed. by Jakub Šimek, University of Heidelberg, 2015–present <<http://digi.ub.uni-heidelberg.de/wgd/>> (accessed 6 January 2023). For information on the conception of the project, see JAKUB ŠIMEK, "Archiv, Prisma und Touchscreen: Zur Methode und Dienlichkeit einer neuen Text-Bild-Edition des Welschen Gastes," in: *Vom Nutzen der Editionen: Zur Bedeutung moderner Editorik für die Erforschung von Literatur- und Kulturgeschichte* (editio / Beihefte; vol. 39), ed. by Thomas Bein, Berlin: De Gruyter, 2015, 335–366. For more information on the tradition of manuscript digitization at the library of the University of Heidelberg and how it has grown since 2001 to foster an infrastructure for the annotation of images, including the use of *Iconclass*, see MARIA EFFINGER, LEONHARD MAYLEIN and JAKUB ŠIMEK, "Von der elektronischen Bibliothek zur innovativen Forschungsinfrastruktur: Digitale Angebote für die Geisteswissenschaften an der Universitätsbibliothek Heidelberg," in: *Bibliothek – Forschung und Praxis* 43/2 (2019), 311–323, online: <<https://doi.org/10.1515/bfp-2019-2067>>.

**33** See, to start with, ANNA BOHN, "Aesthetic Experience in Upheaval: Perspectives on Critical Film Editions Based on the Example of *Metropolis* and *Battleship Potemkin*," in: *Critical Editions of Film: Film Tradition, Film Transcription in the Digital Era*, ed. by Giulio Bursi and Simone Venturini, Pasian di Prato: Campanotto Editore, 2008, 24–39.

**34** Cf. URSULA VON KEITZ [et al.], "Kritische Film- und Literaturedition: Perspektiven einer transdisziplinären Editionswissenschaft. Internationale Tagung an der Akademie der Künste, Berlin, 17.–19. Januar 2019," in: *editio* 33/1 (2019), 173–177, online: <<https://doi.org/10.1515/editio-2019-0013>>; esp. 176: "Vor dem Hintergrund der jüngeren Entwicklungen im Bereich der digitalen Edition stellt sich für die Filmedition im Speziellen die Frage, in welcher Art und Weise sie diesen medientechnologischen Rahmen aufgreift."

Kinemathek, Berlin, which consists of a database connecting materials such as outtakes, shooting script, daily reports, and more to document Murnau's work as a director on his last film *Tabu: A Story of the South Seas* (1931).<sup>35</sup>

Very generally speaking, editions or adjacent projects curating and presenting multimedia material do exist and their existence is confirmation that the environment within which these editions exist must factor into any conversation about them – but there is a difference between discussing environment and discussing implementation as I have stressed now several times and that is the point where this book (perhaps naïvely, depending on your disciplinary perspective) chooses to leave the path sketched by the majority of research literature and project presentations in the digital humanities. When I state that I wonder about the future – and the past – but never about the present, it is not because I am ignorant of it (or at least not entirely ignorant of it, hopefully). The present that we see before us in the digital humanities can never be captured, least of all in long-form writing. What we can do is take a step back and consider and reflect. Currently, there are editions of visual work; some of them are scholarly, some of them not, some of them somewhere in between; but there are few – and fewer theories about them still. Whether they be digital or not is important, but it is not the only thing that is important about them. I believe that this is the source of much frustration among scholars: The term 'digital' may enlighten the substructure of an edition but it may also obfuscate it. We need to find ways to talk about the digital (and what that means, exactly, is still open for debate) without talking about the digital or that which we perceive to be 'the digital' – otherwise, it threatens to suffocate everything besides.

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**35** See *F. W. Murnaus 'Tabu' – Die Edition der Outtakes*, ed. by Bernd Eichhorn, Karin Herbst-Meißlinger, Martin Koerber, Deutsche Kinemathek – Museum für Film und Fernsehen, Österreichisches Filmmuseum, Friedrich-Wilhelm-Murnau-Stiftung, <<https://www.deutsche-kinemathek.de/de/sammlungen-archiv/sammlung-digital/murnaus-tabu>> (accessed 6 January 2023). For the database, see <<https://tabu.deutsche-kinemathek.de/>> (accessed 6 January 2023).

#### 4. AN UPDATE ON THE LITERATURE

Inevitably, any book that is years in the making will be overtaken by events eventually. I already mentioned the workshop in Berlin in 2019 (that I have no participant knowledge of) – since then, an entire collected volume on the theory of critical film and literature editions has been published that I could not take into consideration but wanted to highlight here as an obviously highly relevant recent publication: *Kritische Film- und Literaturedition: Perspektiven einer transdisziplinären Editions-wissenschaft* (2022), edited by Ursula von Keitz, Wolfgang Lukas, and Rüdiger Nutt-Kofoth.<sup>36</sup> You will find that I have cited previous publications by many of the involved authors, but I could only perform a cursory reading of this volume. Strictly speaking, my incorporation of literature and references ended in October 2020 when I submitted the thesis. As you read the chapters, you will find that that is not entirely true – despite being full-time employed in a capacity that does not allow for research, I have tried to keep up with new publications and relevant materials. There is a document that contains a list of references, quotes, and names that I continuously updated when I could. To the best of my abilities, I have worked these into the book as I revised it, but I know for a fact that I have a folder with many articles that will never find mention, even though they probably should. There is simply no scenario in which I could accommodate the ongoing influx of literature produced in the digital humanities, philosophy, textual scholarship, art history, film studies, and semiotics, to name only the major disciplines at play here. What follows is an extremely abbreviated section in which I will spotlight some authors and literature that I would have liked to have read in full (in time). Perhaps it is indication enough of all that cannot be named and embedded, for the reasons stated.

One article that would have received more attention in **CHAPTER I**, had it been published one or two years earlier, is the article on “Facsimile

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<sup>36</sup> See URSULA VON KEITZ, WOLFGANG LUKAS and RÜDIGER NUTT-KOFOTH (Eds.), *Kritische Film- und Literaturedition: Perspektiven einer transdisziplinären Editions-wissenschaft* (editio / Beihefte; vol. 51), Berlin / Boston: De Gruyter, 2022, online: <<https://doi.org/10.1515/9783110684605>>.

Narratives” (2022) by Mateusz Fafinski.<sup>37</sup> I recommend reading it. Same goes for the concept of “Dynamic Facsimiles” (2021) that Dirk van Hulle has proposed in the context of genetic criticism.<sup>38</sup> Equally of interest to me, albeit in a different vein, is everything that Bernard Dionysius Geoghegan writes and has written. I am particularly looking forward to reading his monograph *Code: From Information Theory to French Theory* (2023).<sup>39</sup> While this publication might not seem like an obvious choice for a book about scholarly editions, during the course of writing my thesis I became greatly interested in the history of humanities computing, cybernetics, and the way they intersected with structuralism. I believe this to be relevant for anyone attempting to understand the current state of the digital humanities; in fact, I believe that anyone working on matters of principle will be confronted with these histories before long; and it would appear that this publication closes a crucial gap that has been left unattended by digital humanists for far too long. Other publications with a universal relevance would be Lorella Viola’s *The Humanities in the Digital* (2023),<sup>40</sup> Max Kemman’s *Trading Zones of Digital History* (2021)<sup>41</sup> and the publications from the *Studies in Digital History and Hermeneutics* series in general, as well as Joris van Zundert’s doctoral thesis *Scholarship in Interaction* (2022),<sup>42</sup> to name a few that come to mind.

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**37** See MATEUSZ FAFINSKI, “Facsimile Narratives: Researching the Past in the Age of Digital Reproduction,” in: *Digital Scholarship in the Humanities* 37/1 (2022), 94–108, online: <<https://doi.org/10.1093/llc/fqab017>>.

**38** See DIRK VAN HULLE, “Dynamic Facsimiles: Note on the Transcription of Born-Digital Works for Genetic Criticism,” in: *Variants* 15-16 (2021), 231–241, online: <<https://doi.org/10.4000/variants.1450>>. See also DIRK VAN HULLE, *Genetic Criticism: Tracing Creativity in Literature*, Oxford: Oxford University Press, 2022, 200–202.

**39** See BERNARD DIONYSIUS GEOGHEGAN, *Code: From Information Theory to French Theory*, Durham: Duke University Press, 2023.

**40** See LORELLA VIOLA, *The Humanities in the Digital: Beyond Critical Digital Humanities*, Cham: Palgrave Macmillan, 2023, online: <<https://doi.org/10.1007/978-3-031-16950-2>>.

**41** See MAX KEMMAN, *Trading Zones of Digital History* (Studies in Digital History and Hermeneutics; vol. 1), Berlin / Boston: De Gruyter, 2021, online: <<https://doi.org/10.1515/9783110682106>>.

**42** See JORIS VAN ZUNDELT, *Scholarship in Interaction: Case Studies at the Intersection of Codework and Textual Scholarship*, doctoral dissertation, Leiden University, 2022, online: <<https://hdl.handle.net/1887/3464403>>.

On the topic of modelling, the collected volume *Modelwork: The Material Culture of Making and Knowing* (2021), edited by Martin Brückner, Sandy Isenstadt, and Sarah Wasserman, has to be noted; in particular, the article on “Modeling Interpretation” by Johanna Drucker.<sup>43</sup> Johanna Drucker’s *Visualization and Interpretation: Humanistic Approaches to Display* (2020) needs to be mentioned as well, of course.<sup>44</sup>

Regarding digital scholarly editions, there is the *C21 Editions: Scholarly Editing and Publishing in the Digital Age* project in the UK (2021–2024) and the publications in connection to that.<sup>45</sup> There are also publications like *Digitale Editionen im Spannungsfeld des Medienwechsels: Analysen und Lösungsstrategien aus Sicht der Informatik* (2021) by Andreas Oberhoff which is the polar opposite of this book, approaching the topic of digital scholarly editions from the technical perspective of computer science,<sup>46</sup> *Che cos’è un’edizione scientifica digitale* (2020) by Tiziana Mancinelli and Elena Pierazzo,<sup>47</sup> or an article about the reproduction of medieval manuscripts in the context of digital scholarly editions by Anna Cappelotto.<sup>48</sup>

There is more, so much more, especially when we look more generally at publications in digital history or the digital humanities, obviously, and more yet that I am unaware of. This extends to older publications as well. Publications in languages other than German and English. Where possible, as noted, I added recent literature directly to existing references and footnotes, provided I had occasion to peruse it. I also deleted

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**43** See JOHANNA DRUCKER, “Modeling Interpretation,” in: *Modelwork: The Material Culture of Making and Knowing*, ed. by Martin Brückner, Sandy Isenstadt, and Sarah Wasserman, Minneapolis: University of Minnesota Press, 2021, 227–254.

**44** See JOHANNA DRUCKER, *Visualization and Interpretation: Humanistic Approaches to Display*, Cambridge, Massachusetts: MIT Press, 2020.

**45** See *C21 Editions*, James O’Sullivan [et al.], University College Cork, University of Sheffield, University of Glasgow, 2021–2024, <<https://www.c21editions.org/>> (accessed 7 January 2023).

**46** See ANDREAS OBERHOFF, *Digitale Editionen im Spannungsfeld des Medienwechsels: Analysen und Lösungsstrategien aus Sicht der Informatik*, Bielefeld: transcript, 2021.

**47** See TIZIANA MANCINELLI and ELENA PIERAZZO, *Che cos’è un’edizione scientifica digitale*, Rome: Carocci, 2020.

**48** See ANNA CAPPELOTTO, “From Codex to Apps: The Medieval Manuscript in the Age of its Digital Reproduction,” in: *Umanistica digitale* 4/9 (2020), 1–18, online: <<https://doi.org/10.6092/issn.2532-8816/11459>>.

references to literature when I excised the digital humanities primer and hope that all that should remain remains.

## 5. ON THE MATTER OF LANGUAGE

As a last point, I want to close this preface with some remarks on the matter of language. This matter must not be underestimated. Not only does it play a pivotal – selective – role in research, it also plays a pivotal role in communicating the findings of that research. Sometimes, the matter of language can be ignored because a translation poses little challenge where the substance of a paper or book is concerned. This book is not one of those cases. Perhaps to its detriment, it is not a translation at all but a hybrid, stuck halfway between thought and articulation, German and English.

English is often said to be the *lingua franca* of the digital humanities.<sup>49</sup> While the same is true for other sciences, it is not necessarily true or at least did not necessarily use to be true for disciplines in the humanities that tend towards national traditions, discourses, and methodological trends.<sup>50</sup> The complication that the digital humanities introduce is not

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**49** Cf. PAUL JOSEPH SPENCE and RENATA BRANDAO, “Towards Language Sensitivity and Diversity in the Digital Humanities,” in: *Digital Studies/Le champ numérique* 11/1 (2021), online: <<https://doi.org/10.16995/dscn.8098>>. See also QUINN DOMBROWSKI and PATRICK J. BURNS, “Language is not a Default Setting: Countering Digital Humanities’ English Problem,” in: *Debates in Digital Humanities 2023*, ed. by Matthew K. Gold and Lauren F. Klein, Minneapolis: University of Minnesota Press, 2023, 295–304.

**50** One might be tempted to link the establishment and consolidation of the ‘modern’ humanities in the 18<sup>th</sup> and 19<sup>th</sup> century to the concurrent rise of nationalism. Interestingly, in his 1909 biography of chemist Justus von Liebig, Jakob Volhard writes: “In the period after the wars of liberation, intellectual life in Germany was extraordinarily active in general; in philosophy, linguistic research, history, jurisprudence, in short, in all the so-called humanities, there was the liveliest movement at work. Let me just name Savigny, the Grimm brothers, Boeckh, Lachmann, Bopp, Diez, Ritter, Niebuhr, the Humboldts, Eichhorn, Kreuzer, Gottfr. Hermann. Treitschke’s description of the intellectual movement in the first quarter of the nineteenth century reads: ‘The decade after Napoleon’s fall was a time of prosperity for the sciences and the arts in the whole world. The peoples, who had just fought each other with arms, exchanged the fruits of their intellectual labour in a beautiful competition; ... and in this peaceful contest Germany stood head and shoulders above all.’ Only the exact sciences had remained unmoved by this stirring of the minds.” (JAKOB VOLHARD, *Justus von Liebig* (vol. 1), Leipzig: Johann Ambrosius Barth, 1909, 1; original: “In der Zeit nach den Befreiungskriegen war das geistige Leben

only the question of how interdisciplinary divides can be bridged; arguably, international and interlingual divides disturb conversation just as much, if not more. To prioritize accessibility, this book was written in English which, in my case, means that it was written in a non-native language. This presents certain difficulties that cannot be offset by paying closer attention to issues of terminology, especially when it comes to epistemology and philosophy of science.<sup>51</sup> Some of these differences go to the heart of what we understand science to be and encompass. On a

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in Deutschland im allgemeinen ein außerordentlich reges; in Philosophie, Sprachforschung, Geschichte, Jurisprudenz, kurz in allen sogenannten Geisteswissenschaften betätigte sich die lebhafteste Bewegung. Ich erinnere nur an Savigny, die Gebrüder Grimm, Boeckh, Lachmann, Bopp, Diez, Ritter, Niebuhr, die Humboldt, Eichhorn, Kreuzer, Gottfr. Hermann. In Treitschkes Schilderung der geistigen Bewegung im ersten Viertel des neunzehnten Jahrhunderts heißt es: 'Das Jahrzehnt nach Napoleons Sturz wurde für den ganzen Weltteil eine Blütezeit der Wissenschaften und der Künste. Die Völker, die soeben noch mit den Waffen aufeinander geschlagen, tauschten in schönem Wettstreit die Früchte ihres geistigen Schaffens aus; ... und in diesem friedlichen Wettkampfe stand Deutschland allen voran.' Nur die exakten Wissenschaften waren von dieser Bewegung der Geister unberührt geblieben."). That Treitschke should have written such a characterization can hardly surprise, given his nationalistic (and famously antisemitic) outlook which was at the root of the *Berliner Antisemitismusstreit* where Theodor Mommsen strongly opposed such sentiments. On the topic of the humanities and nationalism, see more generally DAVID R. SHUMWAY, "Nationalist Knowledges: The Humanities and Nationality," in: *Poetics Today* 19/3 (1998), 357–373. Michiel Leezenberg has proposed that the "early modern humanities may have shaped modern nationalism" (MICHIEL LEEZENBERG, "How Comparative Should a Comparative History of the Humanities Be? The Case of the Dutch Spinoza Circle," in: *The Making of the Humanities: Early Modern Europe* (The Making of the Humanities; vol. 1), ed. by Rens Bod, Jaap Maat and Thijs Weststeijn, Amsterdam: Amsterdam University Press, 2010, 17–38, here 26). Natural sciences, as much as scientists like Fritz Haber weaponized their knowledge and research for nationalist purposes, arguably promoted a more global approach to 'problem-solving' and the debate of research questions in the 20<sup>th</sup> century, as evidenced by the Solvay conferences organized by the International Institutes for Physics and Chemistry, even if disrupted by wars; see <<http://www.solvayinstitutes.be/html/solvayconference.html>> (accessed 7 January 2023) and Niels Bohr's recollection of the impact these conferences had on the history of science, NIELS BOHR, "The Solvay Meetings and the Development of Quantum Mechanics," in: *La théorie quantique des champs: Douzième Conseil de physique, tenu à l'Université libre de Bruxelles du 9 au 14 octobre 1961*, New York: Interscience Publishers, 1962, 13–36, online: <<http://ladigitheque.ulb.ac.be/items/show/1078>> (accessed 7 January 2023). See more proceedings and information at *The Solvay Science Project*, <<http://ladigitheque.ulb.ac.be/>> (accessed 7 January 2023).

**51** In the case of philosophy, Barry Smith has noted some of the difficulties of translation although he argues against a widespread 'thesis of untranslatability' with regard to German philosophers, cf. BARRY SMITH, "German Philosophy: Language and Style," in: *Topoi* 10 (1991), 155–161. He also speaks of the "dadaistic posturings of Derrida *et al.*"



very basic level, the humanities are not regarded as sciences in English,<sup>52</sup> as was also pointed out in the first issue of the journal *History of Humanities*:

Choosing English as the lingua franca entails many risks [...]. In modern English, for one, the division between the humanities and the sciences is emphasized by the terminology itself. Yet in many other languages there is a single term, such as *Wissenschaft* in German, *scienza* in Italian, or *nauka* in Russian, that denotes the study of both the natural and the human world.<sup>53</sup>

Neither are the terms ‘humanities’ and *Geisteswissenschaften* equivalent.<sup>54</sup> This topic is awaiting discussion in the context of the digital humanities. What I can do within the confines of this book is clarify the following: To the best of my abilities, I avoid speaking of ‘science’ in the sense of *Wissenschaft* or ‘scientific’ in the sense of *wissenschaftlich* and instead opt for ‘scholarly’ for the latter whenever suitable, e.g. in discussions of the humanities. I take no stance whatsoever on the use of

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(*ibid.*, 161) which could very well be its own topic of interdisciplinary discussion about academic writing.

**52** What this means in practice is that when there are arguments about whether the *Geisteswissenschaften* (‘humanities’) are *Wissenschaften* (‘sciences’) or not, in a German context the starting assumption is that they are and someone will make an argument *that they are not* (see HANS ULRICH GUMBRECHT, “Die ewige Krise der Geisteswissenschaften – und wo ist ein Ende in Sicht?” in: *Beiträge zur Hochschulpolitik* 4 (2015), 3–28), whereas in an Anglophone context, the situation is reversed, with the starting assumption being that they are not and someone making an argument *that they are* (generally speaking, it appears as though this argument is not made very often; and if it is made, it would seem that it tends to be made by non-native speakers who would like to popularize a continental European understanding of *Wissenschaft* or *scientia*; see, for example, JENS HØYRUP, *Human Sciences: Reappraising the Humanities Through History and Philosophy*, Albany: State University of New York Press, 2000).

**53** RENS BOD [et al.], “A New Field: History of Humanities,” in: *History of Humanities* 1/1 (2016), 1–8, here 4, online: <<https://doi.org/10.1086/685056>>.

**54** The translators of Hans-Georg Gadamer’s *Wahrheit und Methode* (1960) also noted the difficulties in translating *Wissenschaft* and *Geisteswissenschaften*, cf. HANS-GEORG GADAMER, *Truth and Method*, transl. rev. by Joel Weinsheimer and Donald G. Marshall, London [et al.]: Bloomsbury Academic, 2013 – for the remarks on the translation, see *ibid.*, ‘Translator’s Preface,’ xvii–xviii.

phrases like ‘the scientific method’<sup>55</sup> in English and avoid them. I also take no stance on the *Wissenschaftlichkeit* (‘scientificity’) of this book, beyond its embeddedness in the conversation carried out in the research literature it cites. Whenever I feel it necessary, I use German terms with English explanations or approximations; sometimes, the meaning of a term must be inferred from its contextual use. I had never written a single academic text in English before writing this thesis/book and I should add, for the sake of transparency, that it was never proofread by a native English speaker either. So it goes. We could discuss style, German, English, different academic traditions, precision, readability, ‘insofar’, passive constructions, sentences that run for half a page – you get the idea. That would be a paper of its own. (One that I may or may not be inclined to write.)

Some remarks on American English versus British English: I use the Oxford comma except in cases where I feel like it would confuse readers and the same goes for a comma between clauses (e.g. before a conjunction – many Germans tend to think that you would never use a comma in those cases and they are obviously wrong, but I took the liberty of deciding this situationally, dependent on the intelligibility of a given sentence). Abbreviations such as ‘e.g.’ or ‘i.e.’ are not followed by a comma, as per British custom. Spelling adheres to British English in most cases, including the Oxford spelling of -ize instead of -ise (but -lyse instead of -lyze) which most readers erroneously take to be American. I have generally followed the American English custom of putting periods and commas inside quotation marks when the quotation mark is followed by a footnote number immediately after (in order to resolve the awkwardness of punctuation), but I have not done the same with quotation marks that are not followed by a footnote number, e.g. single quotation marks. These are merely some examples that come to my mind as I contemplate whether I am writing the textual equivalent of a Mid-Atlantic accent. Please forgive any and all idiosyncrasies; most of them were conscious decisions that would be rather dull to detail any further.

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**55** That this is a phrase with a specific use can be seen in publications like HENRY H. BAUER, *Scientific Literacy and the Myth of the Scientific Method*, Champaign, Illinois: University of Illinois Press, 1992.

Last, a note on citation practices: In cases where I have translated German quotes into English, the German original will be provided in the footnote. Sources are cited in full when first cited and with a short title thereafter unless clarification is needed. Online resources that come with a DOI or another type of persistent identifier are stated as is. If they do not provide a stable reference, I state the URL together with an access date. In addition, I have archived those resources on the given access date in the Internet Archive, where possible. I have not cited the archived versions directly in order to maintain intelligibility, but they can be found using the Wayback Machine <<https://archive.org/>> in combination with the access date. Page numbers of articles that are sourced online but only made accessible in individually generated PDFs (e.g. in an issue where every article starts with page 1) are stated in square brackets.

That is all. I hope you enjoy this book. If you have any questions, please do not contact me for a year or so. I'm gone fishin'.



*September 2023*