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Introduction: Towards a Holistic Study of Written Artefacts in Ancient History

Division of labour during the nineteenth century has not only led to the establishment of professional academic disciplines but also to the disjunction of fields intrinsically linked to each other. Linguistic, temporal or geographical boundaries in the humanities often define a discipline, thus, creating seemingly natural divisions. The 'national' histories (e.g. of events, science, literature, philosophy) and the tripartite division between (classical) Antiquity, the (dark) Middle Ages and the (enlightened) Modern Period as well as the various attempts at remedying the problems caused by this partition, such as the Late Antiquity or Early Modern Period are probably the most conspicuous. However, cases when the same subject matter is divided according to diverging national traditions, such as definitions of 'inscription',[1] or source types, such as historians studying a topic by interpreting literary texts and archaeologists doing the same but using objects that have survived or were dug up from the ground, are even more intricate. The uneasy relationship between the study of transmitted literature, i.e. texts, and archaeological evidence, i.e. objects, in some cases, has produced rather different approaches to ancient history.[2] Ideology plays a major role in many of these approaches, particularly for national histories or other

1 The French tradition emphasises the objects and public functions of inscriptions: 'Ensemble de caractères écrits ou gravés sur un monument, une médaille, une monnaie, généralement pour commémorer le souvenir de quelqu'un ou de quelque chose, ou pour indiquer la destination d'un édifice', see <https://www.cnrtl.fr/definition/inscription> (accessed on 25 July 2023); an Italian definition is similar: 'Qualsiasi scritta, incisa nella pietra, nel marmo, nel metallo, fusa nel bronzo, ecc., o scolpita su un monumento, per memoria di persone o di avvenimenti, come dedica, intitolazione', see <https://www.treccani.it/vocabolario/iscrizione/> (accessed on 28 July 2023); the *Oxford English Dictionary* (OED) highlights the material: '*esp*. a legend, description, or record traced upon some hard substance for the sake of durability, as on a monument, building, stone, tablet, medal, coin, vase, etc.', see <https://www.oed.com/dictionary/inscription_n?tab=meaning_and_use#328883> (accessed on 25 July 2023); the German tradition additionally has a negative main criterion, excluding writing that belongs to school or chancery: 'Inschriften sind Beschriftungen verschiedener Materialien, … die von Kräften und mit Methoden hergestellt sind, die nicht dem Schreibschul- oder Kanzleibetrieb angehören', see <https://www.inschriften.net/projekt/richtlinien/edition.html> (accessed on 25 July 2023); also see Cooley 2012, 117–127; Panciera 2012; and below.

2 For Chinese cases, see Selbitschka 2011 and Selbitschka 2015.

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'narratives', respectively, critiques of these tales. All this has been well-known for at least a century and is critically re-examined at regular intervals, depending on the tide of intellectual vogues. There is, however, one field of enquiry, which has only received the full attention it deserves in recent years, namely, the study of written artefacts.

Written artefacts are 'natural or artificial objects with visual signs applied by humans',[3] including manuscripts and inscriptions from the first clay tablets to contemporary graffiti. While this definition emphasises the fact that written artefacts are *material objects containing writing* and other content, the disciplines studying them traditionally single out certain aspects. Philologists and historians, including epigraphers, have almost exclusively been interested in texts, the rare species of experts in 'auxiliary sciences', such as diplomacy, palaeography and codicology, were, by definition, relegated to the second rank, art historians were concerned with images, musicologists with musical notation, and so forth. Not only did disciplinary boundaries hamper a better understanding of written artefacts, but also a lack of knowledge about Asian, African, and American cultures and their traditions of scholarship. The last two decades have seen great advances regarding the codex cultures,[4] but moving further away from the Mediterranean and the Near East, scholarship has just begun. The following statement of the late Johan Peter Gumbert (1936–2016) concerning the need for comparison may just as well be applied to the study of written artefacts in general:

> Regional codicologies are needed for the understanding of the culture's own book; but it is comparative codicology that does not only help us to understand the books for our neighbours, but also to understand our own books better – because we see what is different; we learn that things we thought self-evident were not so; we learn to ask questions that we never asked before, and we begin to understand the larger history of our book forms.[5]

Looking back, one does not have to share the obsessions of post-structuralist authors in order to see that a lot of modern scholarship on written artefacts has been textual scholarship. On the one hand, this has produced the highly developed art of textual criticism with amazing results for the reconstruction and

3 Slightly modified after a working paper of the Theory and Terminology group (TNT) of the Centre for the Study of Manuscript Cultures (CSMC) at the University of Hamburg: 'Definition of "Written Artefact"'; written artefacts produced by mechanical means, such as moveable type printing, will be neglected in what follows, similar to the field of book history that is mainly concerned with the Western printed book; for a collection of articles on 'exploring written artefacts', see Quenzer 2021.

4 One of the major achievements is certainly Bausi et al. 2015.

5 Gumbert 2014, 23.

interpretation of texts, on the other hand, it has moved the very same texts to an ideal sphere beyond space and time. Textual transmission is seen as a process of 'corrupting' the 'original', and the critical procedure is similar to a court case with 'witnesses' and judgement.[6] This type of scholarship was developed in biblical and classical studies for 'works', as a rule composed by great authors, and for producing a printed, authoritative edition of the text allowing to interpret the 'intentions' of its author. Even in this field, however, there are texts whose transmission is not reducible to an author's *Urtext* with the help of a stemma,[7] even less so with anonymous texts from the Middle Ages, whether Chinese or Latin. The first attacks on traditional philology, however, came from experts in modern literature, who looked at manuscripts in a new way.

1 Modern European literary manuscripts: Text production

A *discours* on the concepts of work and text as well as author and critic emerged among French scholars in the 1960s, while, at about the same time, editorial enterprises led to an increased interest in text production after the devaluation of the 'author' by American New Criticism and Roland Barthes, with scholars studying the drafts and other 'pre-texts' of modern works.[8]

In 1968, Louis Hay had established a research unit for studying the manuscripts of Heinrich Heine, which had been acquired by the Bibliothèque nationale de France one year earlier; in the following years, scholars working on manuscripts of Marcel Proust, Émile Zola, Gustave Flaubert, and Paul Valéry joined the group. After various transformations, in 1982 the Institut des textes et manuscrits modernes (ITEM) was established. It is devoted to the study of mod-

6 The essay *Textkritik* by Paul Maas (1880–1964) was first published in 1927, but is, together with the classic *Storia della tradizione e critica del testo* by Giorgio Pasquali (1885–1952), first published in 1934, still a point of reference; in an addition from 1937, Maas had already stated that the stemmatological method *sensu stricto* would not work for 'contaminated' transmission ('im Bereich einer Kontamination versagt die strenge Stemmatik'), see Maas 1957, 31.

7 See e.g. the unedited texts of Aristotle, whose transmitted *Urtext* is an edition of the first century BCE, transforming them into works (personal communication Christian Brockmann, 24 July 2023), also see Canfora 2002 with the telling title *Il copista come autore*; similar observations on the editorial role of scribes ('copyists') and the consequences thereof have been made for many cultures, for ancient Egypt, see Ragazzoli 2017, 96.

8 For a lucid summary written by a participant to the debate, see Hay 1988 (French original 1985).

ern literary manuscripts, using and further developing the new approach called *critique génétique* (genetic criticism) after the *Essais de critique génétique*, a collective volume edited by Hay in 1979.[9] In 1985, Hay wrote, according to the English translation from 1988:

> manuscripts [...] make it possible to examine how the pen works in its irrefutable material presence. In this way they manifest a level of reality to which no speculative interpretation can penetrate and possess a material richness that no effort of analysis can hope to exhaust. This becomes even clearer when we realise that manuscripts by their singular properties force us to change our habits of thought. They force us to take into account the unpredictable, since our knowledge changes every time an important document is discovered or a new technology gives access to previously unknown information. Likewise we must come to grips with their heterogeneity, since they are diverse by nature: sometimes they are the testimony of the original stimulation, sometimes the record of the remote memory like notes, notebooks or diaries; sometimes they document early operations like projects, workplans or scenarios, sometimes they are the instruments of revision such as sketches, early versions and most often rough drafts. Their polymorph structure is yet another challenge, as manuscripts have no respect for the convention of linearity, overflowing the page into multiple spaces. The ways in which the text is laid out on the page, with marginal notations, additions, cross-references, deletions, alterations, in different handwriting styles, and with drawings and symbols, texture the discourse, increase the significations and multiply the possible readings.[10]

The intellectual activities resulting in a 'work' are clearly still at the centre of the enquiry, but the written artefacts are now acknowledged to manifest a superb 'level of reality' and 'to change our habits of thought'.[11] Some Anglo-American scholars, such as Jerome McGann (b. 1937) in his *A Critique of Modern Textual Criticism* of 1983, followed a similar approach.[12] Genetic criticism is also applied in the study of modern composers,[13] but rarely outside of Europe.[14]

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9 Hay 1979. See the rich website of the ITEM at <http://www.item.ens.fr/thematique>, and the series *Textes et manuscrits*, edited by Hay and published since 1982 at the CNRS, especially the volume *De la lettre au livre: Sémiotique des manuscrits littéraires* (1989); for a recent assessment of the institute, see Zanardo 2019.

10 Hay 1988, 69.

11 For a more recent description of genetic criticism and the relevance of material evidence, see Grésillon 2016, 45–128.

12 See McGann 1983; it is perhaps no accident that he published a work devoted to the role of layout and typography in modernist literature, see McGann 1993, and became one of the early proponents of 'digital humanities'.

13 For the long-term project studying the works of Beethoven, see <https://beethovens-werkstatt.de/projekt/> (accessed on 26 July 2023).

14 The late Raoul David Findeisen (1958–2017) was one of these rare exceptions, for his first article on text production, namely, of a Lu Xun manuscript, see Findeisen 2022.

Gérard Genette (1930–2018) had participated in the earlier *discours* and published a highly influential work titled *Seuils* (English 'paratexts') in 1987. Coming from the other end of the production of modern literature, namely, the printed book, he discussed elements which he termed *paratexte*. Briefly, everything which is not part of the work in the strictest sense is 'paratext', i.e. an accessory to the text, including front and back matter, illustrations, advertising materials and reviews. This term has made a career, firstly, in book history and was also adopted for the study of manuscripts and other media, although it had been developed for the printed book of the modern publishing world.[15] A recent publication states three main functions of paratexts in manuscripts:

> 1) structuring (e.g. offering navigation aids that guide the reader, such as tables of contents), 2) commenting (e.g. glosses and annotations that offer interpretations and explanations of a text), and 3) documenting.[16]

> Paratexts are 'settings' for the textualisation both of historical events and, at time, of the intimate impulses and emotions of individual people. In certain manuscripts paratexts depict a more vivid picture of the historical role of manuscripts as real objects in the hands of real people; it is there that opinions, feelings, inclinations, etc. of the individuals involved in the production and transmission of manuscripts can find their textual transposition.[17]

In this respect, colophons, ownership and reader notes are among the most informative paratexts.[18]

2 Medieval European literary manuscripts: Textual variance

The wealth of variants and the resulting problems of editing texts had always been a topic in the field of Western European medieval literature. In the tradition of earlier discussions of orality and literacy, Paul Zumthor (1915–1995) had proposed his concept of *mouvance* since 1972, insisting that 'une mobilité essen-

15 See Genette 1987; in academia outside of the Francophone world, the term has been misunderstood as some sort of text, therefore, it has been suggested to replace it by 'paracontent', see Ciotti et al. 2018.

16 Ciotti and Lin 2016, vii.

17 Ciotti and Lin 2016, viii.

18 For a brief overview on the state of the art, see Ciotti and Lin 2016, vii, and for colophons in the pothi book form, Balbir and Ciotti 2022.

tielle du texte médiéval'[19] was a product of the oral culture of the Middle Ages, caused by *intervocalité* as opposed to the *intertextualité* of written texts.[20] Bernard Cerquiglini (b. 1947) criticised the 'Lachmannian method' and the 'best-text method' of Joseph Bédier (1864–1938) in his polemical essay *Éloge de la variante. Histoire critique de la philologie* (1989), and claimed variance to be an integral part of textual transmission in manuscripts in the Middle Ages.[21]

One year later, his British colleague Stephen G. Nichols (b. 1936) proposed a 'new philology' that he later presented as 'material philology' (1997) or even 'materialist philology' (1996).[22]

> Material philology takes as its point of departure the premise that one should study or theorize medieval literature by reinserting it directly into the *vif* of its historical context by privileging the material artifact(s) that convey this literature to us: the manuscript. This view sees the manuscript not as a passive record, but as a historical document thrusting itself into history and whose very materiality makes it a medieval event, a cultural drama.[23]

Nichols and the German medievalist Siegfried Wenzel edited *The Whole Book: Cultural Perspectives on the Medieval Miscellany* in 1996, which became a milestone for the study of those multifaceted artefacts called 'miscellanies' in European medieval literary studies.[24] In their introduction, they call for 'attention to the single manuscript as a historical artifact' by taking the following into account:

> Such features as the ink and script of a given text; the quality and size of the material on which it is written; the layout in which it presents itself to the eye; the makeup of each individual volume, with its gatherings, colophons, subscriptions, and binding; further, the company of other works in which a given text was first gathered and has been preserved; and finally, its particular textual variants, especially those that resulted from factors other than scribal misreading or carelessness – all these features yield information, over and above that implied in the texts themselves, about the text's audience, its purpose and even the intention an individual scribe may have had in producing this particular copy. Beyond transmitting basic information about a given text, they speak to us about its social, commercial, and intellectual organization at the moment of its inscription.[25]

19 Zumthor 1972, 71.

20 See Zumthor 1987, 160–168.

21 See Cerquiglini 1989; for the rectification of the 'Lachmann phantasm' and its creation by Bédier in 1913, see Primavesi and Bleuler 2022, 11–13, 63–68, and for the present state of stemmatology, Roelli 2020; for Cerquiglini's impact on an Egyptologist, see Quirke 2004, 29–33.

22 Nichols 1990; Nichols 1997; Nichols and Wenzel 1996; the first article mentioned the marginalisation of medieval studies.

23 Nichols 1997, 10–11.

24 For a discussion of this ambiguous term, see Friedrich and Schwarke 2016, 1–17.

25 Nichols and Wenzel 1997, 1.

This materialist philology 'goes beyond traditional textual criticism' and

> postulates the possibility that a given manuscript, having been organized along certain principles, may well present its text(s) according to its own agenda, as worked out by the person who planned and supervised the production of the manuscript. Far from being a transparent or neutral vehicle, the codex can have a typological identity that affects the way we read and understand the texts it presents. The manuscript agency – manuscript kind or identity – can thus offer social or anthropological insights into the way its texts were or could have been read by the patron or public to which it was diffused.[26]

Paying close attention to material aspects has generally become part and parcel of medieval studies by now – for those still working with manuscripts and not completely relying on modern editions.[27] However, it is clear that codicological or other material features are still considered secondary to the text, as is illustrated by the title of a contemporary review article discussing these and other attempts at the methodological renovation of medieval literary studies: 'Towards a Universal History of the Text'.[28] This does not come as a surprise, since the 'new' philologists were literary scholars. Without provocative labels, an American medievalist such as Tim William Machan contributed reflections on the nature of medieval texts, and mentioned the new opportunities provided by digital tools and the possibility of displaying variants as hypertext in a collection of articles from 1994.[29] Digital tools are now ubiquitously used for presenting a variety of modern or any other type of manuscript.

3 Image, layout, and script: Visual organisation

The relationship between text and image had been a topic much earlier in medieval art history, presumably due to the importance of the physical artefact to this discipline and the large corpus of manuscripts extant. It appears in 1980 in the title of a *Festschrift* to the German medievalist Friedrich Ohly (1914–1996), who in 1968, together with the historian Karl Hauck (1916–2007), established the first 'inter-disciplinary' *Sonderforschungsbereich* 'Mittelalterforschung' in the humanities, funded by the Deutsche Forschungsgesellschaft (DFG, German

26 Nichols and Wenzel 1997, 2; the introduction to 'new philology' above has been taken from Friedrich and Schwarke 2016, 4.

27 See Bloch et al. 2014 and the review of this *Festschrift* to Nichols in Cohen 2017.

28 See Wandhoff 1997.

29 See Machan 1994, 190–191.

Research Foundation).[30] In 1987, the International Association of Word and Image Studies / Association Internationale pour l'Étude des Rapports entre Texte et Image was founded and has produced a wealth of studies in regular conferences and publications. Its periodical *Word & Image: A Journal of Verbal/Visual Enquiry* has appeared since 1985 and is mainly concerned with Western European medieval and Byzantine art history, once in a while also including glimpses into other traditions. A conference on 'the dynamics of text and image on objects and monuments from Mesopotamia' was held at New York University in 2018, showing the fertility of this topic in ancient non-European traditions.[31] Diagrams, being neither image nor text, are only sporadically dealt with.[32]

The Journal of Typographic Research was first published in 1967. Its title was changed to *Visible Language* four years later with the sub-title *The Journal for Research on the Visible Media of Language Expression*, nowadays presenting itself as *The Journal of Visual Communication Research*.[33] The changes reflect an expansion of this particular field from typography to other 'visible media of language expression', finally arriving at visual communication at large, including images and graphics. One of the many authors using this inclusive approach was the same McGann who had published his critique of textual criticism in 1983. His *Black Riders* from 1993 introduces typography and layout as essential to understanding modernist English literature.[34] After the turn of the millennium, types of layout in manuscripts have been addressed more than once with special emphasis on the opening. The term 'impagination' was coined very recently to describe related phenomena in a cross-cultural perspective.[35] Manuscript architecture, the three-dimensionality of manuscripts, is rarely addressed.[36]

Another approach was proposed by the philosopher Sybille Krämer in 2003.[37] In her concept of *Schriftbildlichkeit* (iconicity of script), almost all writing is inherently iconic because it inscribes surfaces materially and perceptibly,

30 See Meier and Ruberg 1980; for more recent theoretical assessments, see Vouilloux 2005; Pérez-Simon and Hériché-Pradeau 2013.

31 See <https://isaw.nyu.edu/publications/newsletters/021/conference-1> (accessed on 15 July 2023); for ancient Egypt, see, among many others, Baines 2007.

32 But see Hamburger, Roxburgh and Safran 2022.

33 See <https://journals.uc.edu/index.php/vl/about> (accessed on 15 July 2023); for applying the term to other visual media, such as film, see Mitchell 1994.

34 McGann 1993.

35 See Chang, Grafton and Most 2021.

36 See Müller and Saurma-Jeltsch 2009.

37 See Krämer 2003; indebted to the debate on orality and literacy, this term emerged from Krämer's earlier attempts to conceptualise non-phonetic writing or 'operative writing', such as mathematical notation or universal writing systems suggested by Leibniz and others, see Krämer 1996, 105–107.

thus, being similar to images, but, simultaneously, closer to language, embodying a discrete and syntactically ordered system of references.[38] Her work has inspired art historians, mainly in the German-speaking areas, and one of them has looked anew at the non-alphabetic writing systems of East Asia.[39]

4 Against interpretation: Materiality as a concept

In 1988 a collective volume appeared, that would deeply impact following discussions even beyond its German-speaking audience, also in the Anglo-American world via its 1994 partial English translation. *Materialität der Kommunikation*, in the English translation *Materialities of Communication*, set out to drive the final nail into the coffin of the interpretative business, especially in all aspects involving the German concepts of *Geist* (spirit) and *Geisteswissenschaften* (humanities): 'we are fed up with the hypotheses of understanding and their semantics'.[40] The concluding essay by one of the editors in the English volume is titled 'A Farewell to Interpretation'.[41] Mostly concerned with modern media history and the past and present of the humanities, the concept of materiality serves to discuss theoretical problems in the originally seventy-five contributions, of which only twenty made it into the English version, with three additional ones coming from other publications, and the introductory and the closing essays rewritten for the English volume.[42] The article of the Egyptologist Jan Assmann (b. 1938) is instructive for our purpose, not only because it is one of the few not dealing with modern times but also because of its theoretical implications:

> If writing is language made visible (*Visible Language* being the name of a related periodical), then hieroglyphic writing is more than a writing system. It refers not only to the Egyptian language, but also to the 'world' that is, to objects and events. Hieroglyphics can represent these independently of a specific articulation of a single language.[43]

38 Krämer and Totzke 2012, 23.

39 See e.g. Mersmann 2015.

40 Pfeiffer 1988, 24, not in the introductory essay in the English volume.

41 See Gumbrecht 1994; in the meantime, the author had received a position at Stanford University and addressed his American audience directly in this piece, just a few years later he proposed a 'return to philology', see Gumbrecht 2003; for a philological critique of this enterprise see Ziolkowski 2005.

42 See Gumbrecht and Pfeiffer 1994, vi.

43 Assmann 1994, 15.

> Wherein, then, lies the assumed 'world reference' of Egyptian hieroglyphic writing? It lies in the *materiality* of the sign and not in what we call *semanticity*. [...] It may seem surprising to interpret the iconic reference of Egyptian hieroglyphics as materiality. The concept of materiality brings to mind the purely material, such as stone or paper, engraving or coloring, rather than a characteristic such as iconicity. What I mean is this: every sign has two aspects, the aspect of its functioning within a sign system, by which it can refer to a specific meaning, and the aspect of its physical manifestation, by which it can indicate this meaning. [...] The concept of materiality includes the second aspect and everything that serves as a physical carrier of meaning. [...] In this sense, the iconicity of hieroglyphs is an aspect of their materiality that can be shed with no change to their language-referential meaning.[44]

In addition to its contribution to the conceptual framework centred around materiality, it further discussed the inscriptional modality of communication as a third type beside the oral and the written, with the inscriptional modality more closely resembling the oral than the written one:

> The aestheticized script [...] takes the place of the voice. The monument takes the place of the body, and the monumental physical situation, limited by space, takes the place of the oral physical situation, restricted by both time and space.[45]

Excluding papyri from his ruminations, Assmann has brought, in his sense, the materiality of writing and the spatiality of inscriptions to the discussion of written artefacts, which still inform today's scholarly endeavours, at the same time, similar to many other theoreticians, refraining from a discussion of the materials used.[46]

5 Codicology and archaeometry: Concrete materiality

The debates on the *materiality* of written artefacts mentioned above have mainly been conducted by members of disciplines focusing on texts with a theoretical interest, as opposed to the study of their *material composition*. Codicology did not play any role in these deliberations, although this branch of science had

44 Assmann 1994, 17–18.

45 Assmann 1994, 25–26.

46 For a historically informed reassessment of Mayan and Egyptian hieroglyphs following the argument developed by Assmann, see Houston and Stauder 2020.

advanced considerably in the second half of the twentieth century.[47] Taking its name from the *codex* book form,[48] it has developed a refined vocabulary for describing and analysing the physical structure of the Mediterranean codex. Recent developments in this field have produced major innovations and no longer consider codices as static entities, but apply stratigraphic methods to study their history, hopefully inspiring similar endeavours for Asian and American cultures and book forms such as rolls or pothi.[49] Statistical codicology allows insights into larger contexts, and even the most complex part of book technology, the binding, is now approached in a cooperation of scholars and conservators.[50] Dominique Charpin called for a 'diplomatics of Mesopotamian documents' in 2002,[51] and archaeometric methods had already been included in the study of a corpus of Neo-Sumerian clay tablets in 2004.[52] A number of palaeographic studies have demonstrated the usefulness of adapting methods developed for writing on other media to the study of clay tablets.[53]

Except for art history traditionally being involved in the *materials* of the works of art it studies, archaeology is the only other major discipline dealing with physical objects by definition; if written artefacts are found, the study of their content is usually left to historians or philologists. Thus, although written artefacts, without doubt, belong to material culture, neither archaeology nor anthropology considers them inside the frame of their enquiries as a rule. Thus, the *Journal of Material Culture* (since 1996) has not published work on written artefacts. While the lone voice of the classicist Kenneth W. Clark (1898–1979) had already claimed in 1951 that 'manuscripts belong to archaeology',[54] historians of the ancient Near East or Egypt have been much less hesitant to include material features in the study of texts.[55]

Just as codicology 'helps' philology, archaeology is supported by the 'auxiliary science' of archaeometry or archaeological science. It is a cover term for

47 See Gumbert 2004.

48 For the term *book form* see Gumbert 2013.

49 For a very brief overview, see Friedrich and Schwarke 2016, 8–15, Malachi Beit-Arié's *Hebrew Codicology* was published in 2022, <doi.org/10.25592/uhhfdm.9349> (accessed on 6 August 2023); for a first step towards a codicology of the scroll (or roll), see Andrist et al. 2022.

50 For the former, see Maniaci 2021, for the latter, Bausi and Friedrich 2023.

51 See Charpin 2002, for an English version see Charpin 2010, 25–42, Chapter 2.

52 See D'Agostino, Pomponio and Laurito 2004.

53 See Devecchi 2012; Devecchi, Müller and Mynářová 2015 and Devecchi, Müller and Mynářová 2019.

54 See Clark 1951; I am grateful to Paola Buzi for having drawn my attention to this publication.

55 See e.g. Radner 1995.

scientific methods to date, analyse and characterise artefacts.[56] The Research Laboratory for Archaeology and the History of Art was founded at Oxford University in 1955; the publication of its *Bulletin of the Research Laboratory for Archaeology and the History of Art* commenced three years later. It was subsequently titled *Archaeometry*, thus, giving birth to the now more common name of the new 'discipline', and remains, together with its competitor, the *Journal of Archaeological Science* from the British capital, founded in 1974, one of the major periodicals in the field. The first Chair of Archaeological Science in Britain was established in 1989.[57] Major museums and archaeological departments have archaeometric laboratories today, but most of them follow tradition and do not count written artefacts among their objects of study, at the same time, struggling with the ever-increasing costs of instrumentation and the need for its continuous updating.

Some spectacular cases, such as the so-called Archimedes palimpsest,[58] aroused greater interest in the opportunities which scientific methods offered for the study of manuscripts only towards the end of the twentieth century. By now, methods range from optics using a simple microscope to genomics and proteomics, requiring highly sophisticated instrumentation.[59] There are still only a few long-term research units devoted to written artefacts *and* possessing a laboratory, therefore, most of the studies are conducted with the help of project funding and concern individual artefacts or small corpora.

6 Ancient inscriptions and manuscripts: Materiality, spatiality, and practices

All ancient civilisations with writing systems have left inscriptions on durable materials, while their manuscripts, as a rule, did not survive, with the exception of clay tablets from the ancient Near East.[60] What we have to our avail has been excavated, not always by archaeologists, whether Mesopotamian clay tablets, Egyptian papyri, Indian birch-bark manuscripts or Chinese bamboo rolls. Disci-

56 See Leute 2016; Buckley 2020.

57 For the 1990 inaugural lecture of the first chair, see Tite 1991.

58 For a popular account on the recovery of the lost text, see Netz and Noel 2007.

59 For up-to-date case studies, see Brockmann et al. 2014 and Brockmann et al. 2018; for a guide to 'biocodicology', see Fiddyment et al. 2019, also see Creydt and Fischer 2021.

60 For clay tablets being manuscripts, see Michel 2021.

plinary boundaries arose according to circumstances and are fuzzy, thus, for example, papyrology

> cannot actually be defined by the material support: Potsherds can belong to epigraphy or papyrology, depending on their origin and nature, while the great parchment codices of the fourth and fifth centuries are most usually thought of as papyrological texts. [...] A public/private dichotomy is undermined by papyri put up as public notices, and many types of content are found in both epigraphical and papyrological texts – edicts of Roman governors, to give only one obvious example. Nor does geography divide the field: Both papyrological and epigraphical texts can be found from Britain to Afghanistan, although, for environmental reasons, most papyrological material comes from Egypt. Material that in Egypt would be considered papyrological finds a home in the *Corpus inscriptionum iranicarum* when written in a Persian language.[61]

This holds true, *mutatis mutandis*, for the study of other ancient written artefacts as well. Considering codices and other book forms, that is, *material* objects as texts, bespeaks a certain innocence still to be found in those disciplines concerned mainly with texts, just as the common phrase of 'editing a manuscript'. In epigraphy, 'inscription' is commonly used in an ambiguous way, referring to the material object *and* to its written content. A conceptual disambiguation similar to the one available for manuscripts would certainly be appreciated.[62]

Epigraphy is a conservative discipline. The developments sketched above for the study of manuscripts do not have a parallel in the study of inscriptions, where it was only very recently realised that the former might inspire the latter.[63] Epigraphy has emerged as an 'auxiliary science' from the study of 'classical antiquity', that is, from the Greco-Roman Mediterranean, then branching out to ancient Egypt and Mesopotamia, later periods and, finally, to all 'epigraphic cultures'. The term 'monument', still often used for the artefacts, points clearly to the presupposition that most of them have a commemorative function.[64] Publication of huge corpora has made the written content of inscriptions available, in the earlier stages just editing the 'main' texts, later on including graffiti and more precise information on the position of the inscriptions. By now, digital

61 Bagnall 2009b, xvii.

62 See Lorusso et al. 2015 for a survey of definitions of 'manuscript' and 'manuscript book' and for a new definition, completely abstracting from content and material support: 'A MS is an artefact planned and realised to provide surfaces on which visible signs are applied by hand; it is portable, self-contained, and unique' (Lorusso et al. 2015, 1).

63 See e.g. Harter-Uibopuu 2021.

64 See OED, <https://www.oed.com/dictionary/monument_n?tab=meaning_and_use#35970163> (accessed on 28 July 2023).

tools provide new opportunities for improving the accessibility of the data, and virtual reality allows us to experience reconstructions of inscribed spaces.[65]

Ramsey MacMullen (1928–2022) introduced quantitative methods to Roman epigraphy under the label 'epigraphic habit' in 1982,[66] a concept which is still productive.[67] In the same year, Giancarlo Susini (1927–2000), who had already, much earlier, considered inscriptions to be archaeological objects and not only written data, mentioned *ambiente* (environment) and *paesaggio* (landscape) as constituent elements of the epigraphic enquiry.[68] The elaborated definition of inscription by Silvio Panciera (1933–2016) as 'its more or less intentional deviation from what may be said to be "normal" writing in the context in which it was produced' (1998) takes into account material and spatial features.[69] The concept of 'epigraphic landscape' appeared in English-language academia in the late 1990s, becoming more or less a commonplace by now.[70] In 2022, Kelsey Jackson Williams proposed a 'theoretical model of the epigraphic landscape', taking 'landscape' literally and suggesting three aspects to be studied: the monument, the stone in its space and the stone in its landscape.[71] The *Sonderforschungsbereich* 'Materiale Textkulturen' at the University of Heidelberg (2011–2023, funded by DFG) and its publications have given additional momentum to a broader approach to the study of inscriptions.[72] Since 2019, the Cluster of Excellence 'Understanding Written Artefacts' at the University of Hamburg has de-

65 For the Miletus project of an archaeologist, an ancient historian and computer scientist, see <https://www.csmc.uni-hamburg.de/written-artefacts/research-fields/field-b/rfb02.html> (accessed on 1 August 2023).

66 See MacMullen 1982.

67 See e.g. Cooley 2012; Nawotka 2020.

68 '[L]'ambiente e il paesaggio cui l'iscrizione era destinata, quegli ambienti e quei paesaggi nei quali è successivamente vissuta', see Susini 1982, 17; also see Cebrián Fernández 2021, 15.

69 Panciera 2012, 8, where the author also adds a more positive element, namely, its 'unidirectional communication'.

70 For a much-quoted example, see Cooley 2000; for a study of Chinese stone inscriptions in 'landscapes of words', see Harrist 2008.

71 See Williams 2022; his case study is taken from early modern Europe, but 'both classical and post-classical students of epigraphy can benefit from a methodological conversation begun across chronological boundaries' (Williams 2022, 17). It remains to be seen whether Alfred Gell's concept of *agency* will grow roots in epigraphy; for its use in manuscript studies, see Kohs and Kienitz 2022.

72 See the respective volumes of its series *Materiale Textkulturen*, often dealing with the *Sonderforschungsbereich*'s topic 'materiality and presence', e.g. Balke and Tsouparopoulou 2016; Bolle 2019; in spite of the philosophical inclination of the introduction, Petrovic, Petrovic and Thomas 2019 also include studies which are much more down to earth.

veloped a cross-cultural approach in one of its research fields.[73] A *Handbook of Epigraphic Cultures* is scheduled to appear in 2024.[74]

Albeit heuristically, the general state of affairs in the fields related to the study of ancient written artefacts may be illustrated by five volumes of the *Oxford Handbook* series, dealing with *Hellenic Studies* (2009), *Roman Epigraphy* (2018), *Egyptian Epigraphy and Palaeography* (2020), *Papyrology* (2009) and *Cuneiform Culture* (2011), although the scope and purpose of these collective volumes differ to a considerable degree. The first contains a brief chapter on Greek epigraphy, but it deals only with texts and ways to retrieve texts that have become illegible.[75] The volume on Roman epigraphy has two chapters on inscriptions as 'monuments': 'Inscribing Roman Texts: *Officinae*, Layout, and Carving Techniques' and, on a more abstract level, 'The "Epigraphic Habit" in the Roman World' – they follow the one on 'The Main Types of Inscriptions' that classifies them according to textual criteria.[76] Most of the thirty-five chapters use the inscriptions' content for studying topics of ancient history. Turning to the volume on ancient Egypt, it faithfully reflects the perpetual fascination with hieroglyphs and the palaeographic problems they pose. With the exception of an article on the tools and materials of carving and painting,[77] however, it continues to distinguish 'genres' of inscriptions, that is, texts,[78] and, only in passing, has something to offer on the material features of written artefacts.

The last two volumes differ from the other ones, as they deal mainly with manuscripts. The introduction to *The Oxford Handbook of Papyrology*, which was quoted above in length, states the problems explicitly when it comes to defining the discipline and its subject matter, and acknowledges that 'Graeco-Roman papyri still dominate the book, just as they do the subject'. In spite of these limitations, there are substantial chapters on materiality, book forms and palaeography.[79] One contribution discusses papyrological 'archives' and 'dossiers', highlighting another problem often encountered in the study of written artefacts, namely the diverging use of terminology in related disciplines.[80] The title of *The Oxford Handbook of Cuneiform Culture* already signifies that it is not

73 See <https://www.csmc.uni-hamburg.de/written-artefacts/research-fields/field-b.html> (accessed on 28 July 2023).

74 Edited by Kaja Harter-Uibopuu, Ondřej Škrabal and Jochen Vennebusch.

75 See Rhodes 2009.

76 Beltrán Lloris 2015a; Beltrán Lloris 2015b; Edmondson 2015.

77 See Stocks 2020.

78 See Stauder-Porchet and Stauder 2020.

79 See Bülow-Jacobsen 2009; Cavallo 2009; Frösén 2009; Johnson 2009; Taylor 2011.

80 See Vandorpe 2009.

concerned primarily with disciplines and methods, but with the culture studied by them. The first of seven parts on different aspects of the cuneiform world is devoted to 'Materiality and Literacies', and opens with a chapter on 'Tablets as Artefacts, Scribes as Artisans', thus, taking the artefact as the starting point, not the text.[81]

In stark contrast to the handbooks of epigraphy discussed above, Alison E. Cooley's single-author work *The Cambridge Manual of Latin Epigraphy* from 2012 contains, in addition to a case study, more fundamental reflections on the nature of inscriptions ('Monuments not Documents')[82] and general observations on 'epigraphic culture in the Roman world',[83] including the interplay with other media, such as papyri, and writing-boards:

> Conventionally, epigraphers do not study coins or papyri, but this traditional division of labour between epigraphists, numismatists, and papyrologists is rather arbitrary, and runs the risk of ignoring similarities between these different uses of writing, as already explored to some extent earlier. [...] In order to understand epigraphic culture, it is essential to recognize the permeability of the boundaries between writing that has been preserved on all kinds of media. The medium used for a particular type of text can depend purely upon regional natural resources rather than upon the intention of the writer. Understanding inscriptions involves analysis not just of their texts, but also of their lettering and archaeological context, and it requires us to be ready to look for comparisons not just between inscriptions that are obviously related to each other, but to cast our gaze onto other forms of writing too.[84]

After introducing possible ways of classifying inscriptions by function, type of text, fabric or writing method, and quoting an example of the traditional categorisation according to content, Cooley concludes:

> What [such categorization] does not do is to reflect accurately the motivations that prompted people to create inscriptions. [...] After all, although an inscription on a statue base may be categorized as basically 'honorific' in purpose, it made a big difference who funded it, whether that statue was set up in a public place, or in a house, or at a tomb, and whether the statue was decreed by a town council or province, or set up by someone's freedman.[85]

81 See Taylor 2011; in addition, see Cartwright and Taylor 2011.

82 See Cooley 2012, 220–228; the same author had already stated the 'methodological principle of interpreting inscriptions in terms of their overall appearance, not just their texts' much earlier, see Cooley 2000, 1.

83 Cooley 2012, 117–325.

84 Cooley 2012, 125–126.

85 Cooley 2012, 128.

After touching on the 'epigraphic habit', Cooley suggested studying the 'graffiti habit'.[86] Completely disregarded or only taken note of in passing by traditional epigraphy, graffiti across times and spaces have become a popular topic for many disciplines, offering the opportunity to study humankind's urge to leave traces of writing.[87]

A few recent publications stand out in terms of their approaches. The collective volume *Writing as Material Practice: Substance, Surface and Medium* edited by Kathryn E. Piquette and Ruth D. Whitehouse (2013) offers nothing much new in principle, but has to be mentioned because it aimed decidedly at an *archaeological* approach to writing and included contributions dealing mainly with the ancient Near East and the Mediterranean, but also with ancient America.[88] Michele Cammarosano has presented holistic studies of the ancient Near Eastern wax boards (2014) and 'The Cuneiform Stylus' (2019),[89] integrating visual and textual evidence as well as materials analyses and experimental archaeology. In *Materiality of writing in early Mesopotamia*, Thomas E. Balke and Christina Tsouparopoulou have collected contributions dealing with material aspects of ancient Near Eastern written artefacts in 2016.[90] In 2018, Hella Eckardt presented a study on the inkwell and other writing implements in the Roman world, demonstrating how material evidence may lead to an understanding of social and cultural practices.[91] Also in 2018, Francisca A. J. Hoogendijk and Steffie M. T. van Gompel edited a volume on the concrete 'materiality of texts' from ancient Egypt. It included studies on material aspects of writing and written artefacts by papyrologists, Egyptologists, archaeologists and technical specialists, providing models for future cooperation.

Approaches first stimulated by the study of modern and medieval European manuscripts together with advances in materials sciences and imaging techniques have arrived in the field of ancient history. The reader will have noticed that, with the exception of ancient Egypt and the ancient Near East, the cultures of Asia, Africa and America play hardly any role. These limitations to a comparative study of written artefacts are caused by different reasons, on the one hand, by the small number of experts in these fields, on the other hand, by the fact that research on East Asian cultures is flourishing – but conducted mainly in

86 Cooley 2012, 111–116.
87 For a cross-cultural approach see Škrabal et al. 2023.
88 See Piquette and Whitehouse 2013.
89 Cammarosano 2014 and Cammarosano 2019.
90 See Balke and Tsouparopoulou 2016.
91 See Eckardt 2018.

East Asian languages. It is still a long way to a truly holistic approach, but the journey has begun.

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Against this backdrop, the present volume offers eleven case studies exploring various aspects of written artefacts from the ancient world. The studies are arranged in five sections.

The first section 'Methodological Considerations' reminds us of various kinds of limitations caused by our sources, present knowledge and received traditions. Jesper Eidem and Cécile Michel draw attention to the challenges posed by the huge number of Mesopotamian clay tablets known and their uneven distribution in space and time. The authors discuss two examples from the early second millennium BCE, that are unusually rich and seemingly complete. Since it is unknown, however, how these 'archives' came about, they only provide illuminating 'flashes', but should not be used to draw far-reaching conclusions. This situation will not even be remedied by new discoveries, thus, the authors call for great caution in writing history. The random survival of written artefacts is also discussed in Jorrit Kelder's contribution. He re-examines the comparatively small corpus of Mycenaean Linear B tablets and shows that their materiality and functions have to be taken into account when attempting to understand the society that produced them. Against the paradigm that they represent palace administration, evidence from many other sources allow the author to build a strong hypothesis for an extended bureaucracy, at the same time, contradicting the image conveyed by Homer and his exegetes: absence of evidence is not evidence of absence.

The Egyptian, Chinese and Indian evidence is discussed in 'Early Uses of Writing'. John Baines and Cao Dazhi juxtapose Egyptian and Chinese epigraphical evidence for the emergence of writing and suggest that both in addition to everyday writing on perishable materials had a pictorial realisation of the script. While the pictorial style was soon dismissed in China, hieroglyphical writing continued to be used in Egypt for millennia. The iconic quality of the script and the importance of some key concepts such as 'life' (*ankh*) led to some signs' complete detachment from the words they represented and their inclusion in pictorial contexts, just as hieroglyphical inscriptions in general were only used in such contexts. In addition, the authors discuss how and in which contexts kings and elites used writing to control and display status, and for what audiences. To a certain extent, India presents a completely different case. There is

no hard evidence for writing before Emperor Aśoka, and it was probably created from pre-existing scripts, such as Aramaic. After discussing the two scripts apparent in his inscriptions, Ingo Strauch introduces the stone inscriptions on rocks and pillars promulgating the ruler's and the Buddha's *dharma* found all over Aśoka's empire and analyses their production, content and function in relation to the place where they were set up. The existence of 'cover letters' with instructions for the local officials can be inferred from some inscriptions which erroneously copied part of them. These letters allow one to reconstruct the purpose of these inscriptions and some practices connected with them. Numerous mistakes, particularly those made in areas where Dravidian languages were spoken, may have led to the centralisation of the production of the stone pillars. Furthermore, dated inscriptions clearly show a development: small inscriptions which were difficult to access were first engraved in rocks at sites of religious festivals; larger ones followed, but, similar to the former, they were not expected to be seen every day; finally, pillars erected in public spaces close to Buddhist monasteries demonstrated the emperor's power and support.

Section 3 addresses the 'Co-presence of Written Artefacts' and, thus, aspects which will go unnoticed by purely textual studies. Andréas Stauder looks at a Theban necropolis from the Early New Kingdom and the spatial setting of text–image relations in the funeral chapels of three selected tombs. The funerary chapels were open to visitors and used wall decoration for displaying the status and wealth of the deceased and their family. Taking the inscribed texts as a starting point, the author analyses and contextualises their content in relation to the imagery and the tomb owner, revealing the highly complex and tailor-made decoration programmes. They were created by master artists who included references to earlier tombs in them. The unusually long and difficult-to-read inscriptions appear as speech emanating from the dominant figures, thus, not primarily conveying linguistic meaning but make the presence of these figures felt. The author does not stop short here, but continues to describe the experience a visitor may have had when walking through the spaces and discovering the references to earlier tombs. Moving from inscriptions to manuscripts, Philippe Clancier takes the reader to the houses of two exorcist families from Late Babylonian Uruk and the clay tablets found there. A close reading of the archaeological assemblage and the content of the tablets, mainly exorcism, medicine and divination, discloses studying and teaching activities in these houses. Further evidence from other sites supports hypotheses concerning the movement of tablets and the events which led to the destruction of one of the houses, demonstrating the *Sitz im Leben* of the materials unearthed.

The fourth section on 'Material Features' contains three contributions. Michele Cammarosano presents a comprehensive study of wooden boards in Hittite Anatolia. By collecting data from various domains, such as iconography and linguistics, besides the content of clay tablets, it becomes possible to place Hittite wooden boards into the context of other writing supports, such as clay or wax tablets, and outline their production and usage, including sealing practices. Although no specimen has survived, abundant evidence that they played an important role in cult and ritual, note-taking and administration is available, calling for a comparison beyond the Hittite world. Stefano de Martino introduces the small corpus of clay tablets from the kingdom of Mittani, once a powerful state before it was conquered by the Hittites. Pursuing a holistic approach, he, firstly, discusses the content and language of the Mittanian documents, then considers their chemical composition. It could be shown for the tablets from Tell el-Amarna that the two types of clay both came from the vicinity of the Mittanian capital. Two formats are used, the 'landscape' format for administrative texts and the 'portrait' format for longer texts and letters, such as the ones found in Tell el-Amarna. None of the administrative tablets originated from the capital, but their uniform appearance points to the existence of central standards. In her study of six hieratic papyri from the collection that arrived at Turin in 1824, Susanne Töpfer examines not only the 'famous' side of these papyri but also the other one, whether recto or verso, and thereby provides glimpses into the 'biography' of these objects and scribal practices. Most of the manuscripts in the collection come from the administration of the royal necropolis of Deir el-Medina, many of them having been reused after having served their purpose. Asking what was important to the ancient Egyptians themselves, she shows that one of the 'famous' texts was actually written on the verso of an administrative document that had become useless. This text may have served as a model or template for inscriptions. Another 'famous' papyrus was probably some kind of notebook for preparing official documents, while yet another one must have been an archival document. The author successfully contextualises the artefacts in contemporary practices paying close attention to details of the material constitution and preservation of the papyri. In addition, she uncovers the restauration work of nineteenth-century conservators and proposes to preserve the present state of the 'patchwork papyri' because the patches have become integral parts of them and their history.

The final section moves to 'Cultural Encounters' between social strata or ethnic groups. Drawing on theories of hegemony and folk culture, Gianluca Miniaci inspects a phenomenon in Egyptian hieroglyphic writing that existed for less than a millennium. Manipulation, especially mutilation of signs in rela-

tion to the deceased, first appeared in the twenty-fourth century BCE in the royal sphere, then, continuously changing, moved into the private domain, and, finally, became inconsistent before being abandoned in about 1500 BCE. The author argues that this usage originating from funerary inscriptions of kings and queens in the Memphite necropolis proliferated to the tombs of high-ranking officials in the same place, then spread to other sites and lower social strata. After two centuries without evidence of the mutilating practice, it started anew in about 1800 BCE, again in the royal sphere and again spread to officials and lower social groups. Towards the end of the period under scrutiny, the practice was first abandoned by the royal family before it also vanished from the private sphere, exemplifying that fragments of 'high' or 'official' culture may leak into what has been called 'folk culture'. The second contribution by Ludwig Morenz addresses a similar encounter, this time between Egyptians and Canaanites. Based on Egyptian signs, the latter invented alphabetic writing around 1900 BCE at the temple of the Egyptian goddess Hathor in the Serabit area of northwestern Sinai, as witnessed by numerous rock stelae erected in front of the architectural complex. Egyptian mining expeditions had established this largest sanctuary outside the Nile Valley and worshipped the goddess as the 'mistress of turquoise', the material they had come for. At the margins of the kingdom, Egyptians engaged with Canaanites on an equal footing, leading, among others, to equations of gods. The iconic quality of some of the Canaanite letters was used for expressing cultural identity, for example, the letter *aleph* for representing the deity Hathor-Baʿalat. Drawing on Egyptian and Canaanite sources, the author succeeds in recovering the name of the local He tribe. The use of the letter *he* testifies to a much more self-confident and active local group than previously ascribed to the 'subalterns' who created a writing system we still benefit from today.

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