Handbook of Medieval Studies
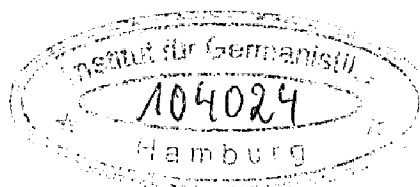
Terms – Methods – Trends

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Schoolbooks

A. Definition

The term *schoolbook* is taken from everyday speech and has to be specified in scholarly use. This specification is a desideratum: not least because schoolbooks only can be studied extravagating the limitations of all disciplines dealing with medieval knowledge in regard to its transmission, and because a systematic interdisciplinary approach is missing. In addition, medieval Latin (Mariken TEEUWEN, *The Vocabulary of Intellectual Life in the Middle Ages*, 2003) and vernacular (cf., e. g., *Mittelhochdeutsches Handwörterbuch*, vol. II, col. 822, s. v. *schuolbuoch*) terms have not yet been studied systematically; so it is a moot question whether they could give further orientation. The definitions of recent pedagogy by all means lack a historical basis (Helmut PUFF, 'Von dem schlüssel aller Künsten / nemblich der Grammatica,' 1995, 23–28). Thus current studies in general refer to a common modern prior understanding (cf., e. g., *Deutsches Wörterbuch* XV, col. 1869, s. v. *Schulbuch*: "buch zum gebrauch in der schule"), and the current concept of *schoolbook* is often based just on the lowest common ground of a relational term: "a schoolbook is a book related to school in some way". But the elements constituting this relation then differ from case to case: sometimes the author of the text is meant (if well-known as composer of didactic texts), sometimes the usage by a teacher or a pupil, sometimes the teacher or the pupil or a library as possessors, sometimes the way of distributing the book, the content of single texts, or the preparation of the text (by glosses and commentaries), or the form offering the content to the reader (layout).

B. Relevant Studies

The amount of relevant studies contributed from several disciplines – e. g., the history of linguistics, of rhetoric and philosophy, of mathematics, theology, medicine and law – can hardly be reviewed by a single person. At present it becomes apparent that a comprehensive approach might best be obtained with a pragmatical view on communication in school and the evolution of its media. From this perspective both a systematic conceptualization seems obtainable and core characteristics of medieval schoolbooks become apparent:

Manuscript vs. Print: The main morphem *-book* covers both hand-written and printed media. Drawing a distinction between manuscript and print reveals limitations and potentials of providing lessons with texts by using different types of media (Michael GIESECKE, *Der Buchdruck in der frühen Neuzeit*, ²1998, 217–26). The impacts of printing are far reaching – amongst other things the term 'schoolbooks' turns out to be a reflexive. The printed schoolbook aims at a market of anonymous purchasers, and its relation to the teaching-lesson no longer is based already on the context of its production. This significant difference to handwritten stuff in the long term forces to expose the intended use: woodcuts on title-pages in incunables often imagine a didactic situation (cf. Wilhelm LUDWIG and Paul HEITZ, *Die deutschen 'Accipies' und Magister cum discipulis-Holzschnitte als Hilfsmittel zur Inkunabel-Bestimmung*, 1908; Sabine KIRK, *Unterrichtstheorie in Bilddokumenten des 15. bis 17. Jahrhunderts*, 1988), and subtitles like "ad usum scholarum" come up in the 16th century. On the other hand research has always noticed the difference between the (printed or handwritten) book and preceding "minor" forms. Already medieval terms distinguish media serving ephemeral recordings in preparatory lessons for beginners – although these terms are not limited to educational contexts (e. g. *tabula/tabella [cerata/cerea]* or *c[h]arta* in Latin: cf. engl. *wax-tablet/hornbook*, or German *Wachstafel*: Élisabeth LALOU, "Inventaire des tablettes médiévales et présentation générale," *Les tablettes à écrire de l'antiquité à l'époque moderne*, ed. EAD., 1992, 233–85; Caroline BOURLET, "Les tabletiers parisiens à la fin du moyen âge," ibid., 323–42; Richard H. and Mary A. ROUSE, "The Vocabulary of Wax Tablets," *Vocabulaire du livre et de l'écriture au moyen âge*, ed. Olga WEIJERS, 1989, 220–30; Wilhelm WATTENBACH, *Das Schriftwesen im Mittelalter*, 1st ed. 1871, ³1896, 51–89). Medieval terms for written media serving advanced studies of grammar often name just the works read (*Donatus, Psalter*) – a fact concealed by modern equivalents, such as English *primer* or German *Fibel* or *Erstlesebuch* (Paul F. GRENDLER, *Schooling in Renaissance Italy*, 1989, 142–61 ["Learning the ABCs with Hornbook and Primer"]).

School vs. Lesson: The determining morphem *school-* presupposes an already stable institutional context of using manuscripts and books. Taking into account the historical development of the institution "school" we see the rise of the cathedral school complementing the older monastic school of the cloister, the formation of the university and – in the late Middle Ages – the new non-monastic convent school, the parochial school and the urban grammar school. But new institutions do not only build up a broader spectrum of types of schooling with different functions. Functional differentiation also consolidates the core event of teaching, the didactic interaction in

the lesson itself, by transferring proven practice in a stabilized framework. Therefore the endeavor to conceptualize the subject *schoolbook* should, instead of looking at the relation of the written source to the institution *school*, primarily be based on the relation consisting between the written medium and the face-to-face interaction in the teaching lesson itself (Michael BALD-ZUHN, "Avian im Gebrauch," *Der Codex im Gebrauch*, ed. Christel MEIER, Dagmar HÜPPER, and Hagen KELLER, 1996, 183–96). Consequences of such an approach are on the one hand a certain awareness of the methodological problems analyzing and interpreting the sources: auxiliary means in written form have for the most part been used up throughout the Middle Ages; the sources preserved are representative only to a very limited extent (Arnold ESCH, "Überlieferungschance und Überlieferungszufall als methodisches Problem des Historikers," *Historische Zeitschrift* 240 [1985]: 529–70). On the other hand it becomes apparent that the process of institutionalization leads to rising standardization of teaching media: since the high Middle Ages the structure and content of the manuscripts to a greater extent reflect standards of schooling going beyond sporadic and occasional practice. This process is the precondition to refer to the medieval schoolbook in a strict sense, whereas – in addition – the single exemplar preserved may now be analyzed without the need for having been used in a concrete lesson. In addition, drawing a distinction between lesson and school also contours the particular profile of written media that had to serve forms of teaching with a lower degree of literacy than lessons visited by clerical, Latin-speaking, male and literate attendants: e. g. manuscripts used for teaching noblemen (cf. the survey of Nicholas ORME, *From Childhood to Chivalry*, 1984; facsimiles of prominent manuscripts: *Libri per una educazione rinascimentale*, ed. Giulia BOLOGNA, 1979; *Ein Lehrbuch für Maximilian I.*, ed. Otto MAZAL, 1981; *Die 'Seligenstädter Lateinpädagogik,'* ed. Monika ASZTALOS et al., 1989) or for teaching only vernacular languages (cf. for the German area Hartmut BLEUMER, "'Deutsche Schulmeister' und 'Deutsche Schule'," *Schulliteratur im späten Mittelalter*, ed. Klaus GRUBMÜLLER, 2000, 77–98), or in nunneries (Eva SCHLOTHEUBER, *Klostereintritt und Bildung*, 2004), or for the instruction of craftsmen (*Elementarbildung und Berufsausbildung 1450–1750*, ed. Alwin HANSCHMIDT and Hans-Ulrich MUSOLFF, 2005).

    Orality vs. Literacy: The every-day use of the term presupposes a close functional linkage of the manuscript/book and school as place of their use. Thus, one may expect, that the pragmatic purpose of a manuscript can be read off from its design without doubt. But assuming that the use is determined by the written conception implies an already extensive use of writing in a twofold sense. Firstly, one has to presume a highly differentiated reser-

voir of written forms and procedures to present and adapt a text, and these forms are thought to be typical for schooling and thought to differ from other forms of text-presentation. But although glosses and commentaries as instruments opening up texts are already known in antiquity, their application must not be taken for granted on all levels of teaching and forms of medieval learning (Michael BALDZUHN, "Schriftliche Textauslegung und mündlicher Unterricht. Handschriften- und Textbefunde zur Pragmatik der älteren lateinisch und volkssprachlich glossierten Aviane [9.–11. Jh.]," *Mittelalterliche volkssprachige Glossen*, ed. Rolf BERGMANN, Elvira GLASER and Claudine MOULIN-FANKHÄNEL, 2001, 485–512 – referring to the question brought up by English scholars whether glossed manuscripts always have been designed for teaching purposes: Michael LAPIDGE, "The Study of Latin Texts in Late Anglo-Saxon England [1]. The Evidence of Latin Glosses," *Latin and the Vernacular Languages in Early Medieval Britain*, ed. Nicholas BROOKS, 1982, 99–140). Moreover, gloss and commentary are widespread forms and have throughout the Middle Ages been used beyond learned schooling. Secondly teaching in all types of school always remains bound to oral face to face communication: medieval teaching is strongly linked to orality (Jürgen MIETHKE, "Die Universitäten und das gesprochene Wort," *Historische Zeitschrift* 251 [1990]: 1–44; Bernd MICHAEL, "'Textus' und das gesprochene Wort," *'Textus' im Mittelalter*, ed. Ludolf KUCHENBUCH and Uta KLEINE, 2006, 179–206). Therefore, the medieval schoolbook only can be identified as a schoolbook and be described in its functions with respect to the recent degree of literacy in a wider social context.

Schoolbook vs. Schooltext: Little research has been done on the relation between schoolbook and schooltext. Written teaching instruments are usually referred to as books without explicit reason – although they contain texts. The relation book/text is complex and deserves further study. The *tabula* used for reading instruction amongst others contains sets of letters and syllables not yet establishing a written text in a strict sense. On the subsequent level of instruction, common books contain single texts (*Donatus*) or just pairs of texts (widespread in Europe up to the 12th century: *Disticha Catonis / Fabulae Aviani*). Considerable sets come up in the 13th century, but they remain an overall rare phenomenon (prominent: the French *Liber Catonianus* and the prints of the *Auctores octo*). Sets which also include vernacular texts seem to be missing up to the 14th century (Michael BALDZUHN, "Textreihen in der Mitüberlieferung von Schultexten als Verschriftlichungsphänomen," *Erziehung, Bildung, Bildungsinstitutionen*, ed. Rudolf SUNTRUP, Jan VEENSTRA, and Anne BOLLMANN, 2006, 19–54 [but with respect only to the situation in Germany]). In general, alliances of texts in manuscripts much less frequently

reflect a steady curriculum going beyond the individual than individual bio-graphies of education (*Vademecum*) – or the set of texts establishes an individ-ual "reference library" in a single book (*Manuale*) or it has to represent, par-ticularly with regard to the needs of a library, entire fields of learned knowledge (e. g., grammar, rhetoric, logic). Texts read in school often derive from antiquity and never have been designed for learned teaching, so they had to be adapted to the needs of medieval schooling by oral or written means. The basic text and its equipment then represent a new functional unity. In the 12th century, the production of commentaries considerably in-creases (Nikolaus M. HÄRING, "Commentary and Hermeneutics," *Renais-sance and Renewal in the Twelfth Century*, ed. Robert L. BENSON, Giles CON-STABLE, and Carol D. LANHAM, 1982, 173–200; *Catalogus translationum et commentariorum*, ed. Paul Oskar KRISTELLER et al., 1960sqq.), and the corpus of antique texts increasingly gets enriched by new schooltexts from medieval authors. The latter are neither collected nor has their structure overall been studied in detail. New types of texts like the *Libri/Summae pauperum* abbrevi-ating whole sectors of learned knowledge come into being (Franz Josef WORSTBROCK, "Libri pauperum," *Der Codex im Gebrauch* [see above], 41–60), but the verse supporting the learning by heart (Paul ZUMTHOR, "Le rôle de la mémoire dans l'enseignement médiéval," *Jeux de mémoire*, ed. Bruno ROY and P. Z., 1985, 133–48) maintains its overall importance. However, the abridg-ing versifications may reach a level of compression making it impossible to comprehend the basic text without gloss and/or commentary accompanying them, so that the versificator already must have taken these additions into ac-count (Bernhard PAPST, "Text und Paratext als Sinneinheit?" *Text und Text in lateinischer und volkssprachiger Überlieferung des Mittelalters*, ed. Eckart Conrad LUTZ, 2006, 117–45; cf. also the articles on the 'Speculum grammatice' of Hugo and Konrad Spechtshart of Reutlingen in *Schulliteratur im späten Mittel-alter* [see above]). Individual memory (verse) and written media (prose com-mentary and gloss) are entangled in a new way here.

Distribution: The recent concept of *schoolbook* often loses sight of a prac-tical problem in the background of the medieval schoolbook that must have highly been visible in a manuscript culture: to produce a great number of identical copies. The formation of well-regulated lessons forces to organize the production and distribution of schoolbooks. To this end lending systems (Malcom B. PARKES, "Buchversorgung und Buchgebrauch in den Ordens-häusern der Oxforder Universität," *Der Codex im Gebrauch* [see above], 109–26) and the petia system are established (Karl CHRIST, "Petia. Ein Kapitel mittel-alterlicher Buchgeschichte," *Zentralblatt für Bibliothekswesen* 55 [1938]: 1–44), or the pupils and students had to manufacture their own copies via dictation

in particular lessons (Gerhard POWITZ, "'Modus scolipetarum et reportista-rum,'" *Scrittura e civiltà* 12 [1988], 201–11; Jaqueline HAMESSE, "Le vocabu-laire de la transmission orale des textes," *Vocabulaire du livre et de l'écriture au moyen âge,* ed. Olga WEIJERS, 1989, 168–94). But oral distribution via dic-tation demands revision of the text with respect to a structure and layout of the text suitable for accurate re-oralization; the fragmented glossing above all posed particular problems and required new solutions (Michael BALD-ZUHN, "'dem selbigen glosiert er allwegen in die feder,'" *Texttyp und Text-produktion in der deutschen Literatur des deutschen Mittelalters,* ed. Elizabeth ANDERSEN, Manfred EIKELMANN, and Anne SIMON, 2005, 415–35). The impacts of a well-regulated distribution of schooltexts on the structure and layout of main text and gloss/commentary merely have been studied rudi-mentary.

C. Recent Studies
Studies dedicated to the schoolbook as a type of manuscript/book *sui generis* and as well based on representative corpora systematically acquired still are rare (Michael BALDZUHN, *Schulbücher im Trivium des Mittelalters und der Frühen Neuzeit,* 2009), related studies mainly focus on heuristics (Paul F. GEHL, "Latin Readers in Fourteenth-Century Florence," *Scrittura e Civiltà* 13 [1989], 387–440). However, in recent years several branches of research have con-tributed remarkable studies, especially if the approach stays close to manu-script tradition and if larger amounts of sources are consulted. In the first instance, the history of schooling and education deserves mention (e. g., Ro-bert BLACK, *Humanism and Education in Medieval and Renaissance Italy,* 2001; GRENDLER, *Schooling* [see above]). Relevant contributions also are supported by historians working on the history of institutions; commonly, the history of universities has been studied superior to pre-university schooling (*La pro-duction du livre universitaire au moyen âge,* ed. Louis J. BATAILLON, Bertrand G. GUYOT, and Richard H. ROUSE, 1988; Giovanna MURANO, *Opere diffuse per exemplar e pecia,* 2005; Olga WEIJERS, *Le maniement du savoir,* 1996). Research on the increase of literacy in medieval society also has to be considered, in particular if the foundation of this wide ranging process in school is taken into account (*Schulliteratur im späten Mittelalter* [see above]; Martin IRVINE, *The Making of Textual Culture,* 1994). Amongst the textual genres included in schoolbooks classical works from Antiquity, their tradition and reception, frequently have been studied in detail (Birger MUNK OLSEN, *I classici nel canone scolastico altomedioevale,* 1991; Birger MUNK OLSEN, *L'étude des auteurs classiques latins au XIᵉ et XIIᵉ siècles,* 1982–89; Ralph J. HEXTER, *Ovid and the Medieval Schooling,* 1986). Numerous contributions derive from the history of

linguistics; they deserve mention in particular because they often focus on sources used for teaching languages, especially latin (Marina PASSALAQUA, *I codici di Prisciano*, 1978; Geoffrey L. BURSILL-HALL, *A Census of Medieval Latin Grammatical Manuscripts*, 1981; *Manuscripts and Tradition of Grammatical Texts from Antiquity to the Renaissance*, ed. Mario DE NONNO, Paolo DE PAOLIS, and Louis HOLTZ, 2000). Furthermore several interdisciplinary studies aim at literary forms widespread in schooling – for example Latin and vernacular glosses (*Katalog der althochdeutschen und altsächsischen Glossenhandschriften*, ed. Rolf BERGMANN and Stefanie STRICKER, 2005; Neil R. KER, *Catalogue of Manuscripts Containing Anglo-Saxon*, 1957), commentaries (*Catalogus translationum et commentariorum* [see above]) or literal genres like Artes dictandi (Franz Josef WORSTBROCK, Monika KLAES, and JUTTA LÜTTEN, *Repertorium der Artes dictandi des Mittelalters*, 1992), vocabularies (Klaus GRUBMÜLLER, *Vocabularius Ex quo*, 1967; *'Vocabularius Ex quo'. Überlieferungsgeschichtliche Ausgabe*, ed. Bernhard SCHNELL et al., 1988–2001) or works on vernacular grammar (Claudine MOULIN-FANKÄNEL, *Bibliographie der deutschen Grammatiken und Orthographielehren*, 1994–97). The increasing interest in the contact of learned – and that always means: Latin – forms of teaching to the vernacular has also been very fruitful (Tony HUNT, *Teaching and Learning Latin in Thirteenth-Century England*, 1991; Nikolaus HENKEL, *Deutsche Übersetzungen lateinischer Schultexte*, 1988; David THOMSON, *A Descriptive Catalogue of Middle English Grammatical Texts*, 1979). Realizing that layouts always manage the practical use of a text several essays deal with the *mise en page* of, amongst others, schooltexts (Richard H. and Mary A. ROUSE, "Statim invenire. Schools, Preachers, and New Attitudes to the Page," *Renaissance and Renewal in the Twelfth Century*, ed. Robert L. BENSON, Giles CONSTABLE, and Carol D. LANHAM, 1982, 201–25; Louis HOLTZ, "La typologie des manuscrits grammaticaux latins," *Revue d'histoire des textes* 7 [1977], 247–69; Nikolaus HENKEL, "Printed School Texts," *Renaissance Studies* 9 [1995]: 212–27). Approaches focusing in particular on the question of a canon of texts read and its transformation (Günter GLAUCHE, *Schullektüre im Mittelalter*, 1970; Josef DOLCH, *Lehrplan des Abendlandes*, [3]1971) lose importance. Monographic studies on single major schooltexts which do not only deal with the original itself, but also consider the instruments opening up the text and its ongoing transmission and use still are rare (Anne GRONDEUX, *Le 'Graecismus' d'Évrard de Béthune à travers ses gloses*, 2000). The poetics and structure of texts designed for teaching from the outset overall deserve further studies (PUFF [see above]; Thomas HAYE, *Das lateinische Lehrgedicht im Mittelalter*, 1997). Two of the most important publication series with a great amount of relevant studies and meeting papers are connected with the names of Louis HOLTZ and Olga

WEJERS: *Studia Artistarum*, ed. Institut de Recherche et d'Histoire des Textes (Paris) and Constantijn Huygens Instituut (The Hague); *Civicima. Études sur le vocabulaire intellectuel du moyen âge*, ed. Comité international du vocabulaire des institutions et de la communication intellectuelles au moyen âge.

D. Perspectives of Research

Research on medieval schoolbooks benefits from the interest in the reception of literature (*Rezeptionsästhetik*): it draws attention to every single exemplar of a text and its specific preparation for a suitable use. Research on the subject furthermore is encouraged by the attention to the so called *Gebrauchsschrifttum* (i. e., especially late-medieval texts demanding less originality; cf. *Überlieferungsgeschichtliche Prosaforschung*, ed. Kurt RUH, 1985). Studies on the history of mentalities (e. g., on childhood or on the intellectuals in the Middle Ages) have not yet been very conducive. The cultural science up to date hitherto has not yet established new approaches. A main task remains to provide further investigation with a basic fundament of sources both representative and obtained methodically.

Current insights often depend on prominent but exceptional manuscripts and texts of arguable representativeness. GIESECKE's remarks on the effects of the printing press on teaching, for example, strongly need revision; the studies of Jürgen LEONHARDT ("Gedruckte humanistische Kolleghefte als Quelle für Buch- und Bildungsgeschichte," *Wolfenbütteler Notizen zur Buchgeschichte* 29 [2004], 21–34; cf. also the case study of Regina TOEPFER, "Von der öffentlichen Vorlesung zur Privatlektüre," *Offen und Verborgen*, ed. Caroline EMMELIUS et al., 2004, 269–85) on printed books lead to much more differentiated results. Promising approaches could be developed on the basis of a census and analysis of manuscripts and books produced and used at a particular place or school for a certain time (Ulrike BODEMANN and Christoph DABROWSKI, "Handschriften der Ulmer Lateinschule," *Schulliteratur im späten Mittelalter* [see above], 11–47), on the analysis of appropriate oeuvres of single authors (Udo KÜHNE, *Engelhus-Studien*, 1999), on corpora of manuscripts definitely written by pupils (colophons), corpora of manuscripts produced in a typical way (dictation), of manuscripts containing special genres of texts or of widespread teaching-texts well established. As a precondition, future studies will have to keep in mind the different forms of presenting and opening up the basic texts, the evolution of these forms in the course of several centuries, and, because they are not bound to school-use alone, not least a certain variety of their functioning.

Select Bibliography
Michael BALDZUHN, *Schulbücher im Trivium des Mittelalters und der Frühen Neuzeit: Die Verschriftlichung von Unterricht in der Text- und Überlieferungsgeschichte der 'Fabulae' Avians und der deutschen 'Disticha Catonis'* (Berlin and New York: de Gruyter, 2009); *Schulliteratur im späten Mittelalter*, ed. Klaus GRUBMÜLLLER (Munich: Fink, 2000); Helmut PUFF, *'Von dem schlüssel aller Künsten / nemblich der Grammatica'. Deutsch im lateinischen Grammatikunterricht 1480–1560* (Tübingen and Basel: Francke, 1995).

Michael Baldzuhn

Scientific Texts: *Artes Liberales* and *Artes Mechanicae* (with Emphasis on Anglophone Research)

A. General Definition

The terms *artes liberales* and *artes mechanicae* require some definition first. In linguistic terms, they can be loosely and fairly easily translated as the 'liberal arts' and the 'mechanical arts'; contemporaneously, however, both the individual definitions and the distinction between the two would have been much more complex and subtle. Traditionally, and prior to the 12th century, the *artes liberales* are strictly categorized, consisting of the *trivium*, the linguistic component (grammar, rhetoric, dialectic) and the *quadrivium*, the scientific component (arithmetic, geometry, astronomy and music). The fundamentals of classical and Christian education, students were expected to master the *trivium* prior to concentrating on the *quadrivium*. In the 12th and 13th centuries, sustained translation activity, particularly from Arabic and Greek into Latin, allowed new texts to circulate and led to the development of new knowledge and authority, as well a broadening of the concept of philosophy (in the sense of 'knowledge').

The *artes mechanicae* were much less rigidly realized; the first recorded usage is generally taken to be John the Scot's 9th-century *Annotationes* in which, referring to Capella's *Marriage of Philology and Mercury*, he mentions (but fails to enumerate) seven mechanical arts which, as distinct from the *liberales* (originating in the soul), arise from "some imitation or human devising" (Elspeth WHITNEY, *Paradise Restored: The Mechanical Arts from Antiquity Through the Thirteenth Century*, 1990, 70). Rather then a strict distinction, *artes mechanicae* as a concept included, by the later medieval period, practices as diverse as shoemaking, armaments, commerce, tailoring, navigation, music, alchemy, astrology and astronomy, medicine, and so on (Steven WALTON,