The metaphorical bookworm, like its literal cousin the earthworm, loves to burrow. Imagine several bookworms patiently tunneling down through the roots of each modern Western humanistic discipline until finally coming to the last, most deeply buried tendril. When bookworms reached bottom, they would find themselves together in the ancient Mediterranean world, listening to Greek.

To retrace this journey—to follow upward in time the roots from which the modern Western humanities sprouted millennia later—requires starting where these bookworms ended. Ancient Greeks did not devise ‘the humanities’ as Europeans and Americans know them; today’s notions of humanistic learning in the West lie light-years from Greek thinking. But Greeks did beget the primeval ancestors of today’s humanistic scholarship. Greeks began systematic speculation about language; they invented rhetoric; they commenced methodical scrutiny of texts; and out of all these materials they then fabricated grammar. Ancient Greeks gave birth to the European tradition of philology, in the very broad sense used in this book. And philology eventually gave us our humanities.

‘Philology’ is the only label large enough to cover all such studies of language, languages, and texts. The noun itself (φιλολογία, philologia) and the parallel adjective first appear in Plato, with meanings as mixed as those of their root λόγος (lógos): love of talking, love of argument, love of reason. But the word philology soon became associated specifically with the study of language—with reading, rhetoric, literature, textual scholarship. Eratosthenes of Cyrene in the third century BCE may have been first to tag himself φιλόλογος—philólogos, ‘philologist.’ By φιλόλογος he most likely meant, broadly, a learned
lover of the written word. Later, Romans would call such an all-round scholar of language and literature *grammaticus* or *criticus*, limiting *philologia* more or less to imaginative literature and its study. Despite such unstable connotations and sometimes awkward fit, *philology* provides the only adequate portmanteau word. Even the rhetorician came close enough in spirit and in matter to fit inside.1

To understand more easily the growth of ancient philology requires subdividing it topically, but division risks distortion. Greek philology became possible after Greek speakers engineered their own alphabet from the Phoenicians', perhaps in the ninth century BCE. Most people continued to live lives untouched by the new letters.2 But, however limited the audience, inquiries into language and texts multiplied during the first several centuries of Greek literacy. Thus came to life an enduring and evolving scholarly curiosity about language and its products. Ensuing studies overlapped or fed into each other so much as to frustrate any attempt to herd them into clearly defined fields. But for clarity one can split ancient philology into four areas: linguistic speculation, rhetoric, textual philology, and grammar—appearing more or less in that order. Such partition does not do violence to the facts, but it serves present convenience more than it reflects ancient practice. That point understood, philology’s career can be tracked by starting with Greek creativity, then exploring what Romans and their successors did with Hellenic inventions.

To begin, recall the layout of languages around the ancient Mediterranean. Today Greece comprises the southern Balkan peninsula and nearby islands. But ancient Greek speakers (Hellenes,* they called themselves)—seaborne people and avid colonizers—ranged much farther. In the seventh century BCE, Greek cities already stretched from Sicily and southern Italy, across the Balkan peninsula and the islands of the eastern Mediterranean, along the western coast of Anatolia (modern Turkey), to the shores of the Black Sea. The conquests of Alexander the Great between 336 and 323 made Greek also the lingua franca of an arc of land running from Anatolia through Syria to Egypt. Non-Greek peoples in this ‘Hellenistic’ world spoke various vernaculars—Armenian, Syriac, Aramaic, Egyptian, and so forth. But Greek supplied the jargon of commerce and government. This dialect was not the Attic Greek of Demosthenes and Plato but a simplified form, suited to practical use as a second language, called *koiné* (*koiné*, ‘common, shared’). Christians know it as the idiom of the New Testament. ‘Classical’ Greek—Attic, in particular—persisted in education and high culture, like Latin in medieval and early modern Europe.

Meanwhile a new people, coming out of central Italy, spread a rival language. In a series of wars, Latin-speaking Romans first gained hegemony over most of Italy and then, in the third century BCE, sent armies beyond it. Con-

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1 ‘Greeks’ comes from the Latin *Graeci*, the Romans’ name for the inhabitants of the territory roughly corresponding to modern Greece.
From Greek Antiquity to Circa 1400

quest proved as bloody and difficult as it was protracted. But by 100 BCE Rome controlled the Iberian Peninsula, much of north Africa, mainland Greece, and chunks of Asia Minor. A hundred years later, Romans not only held sway over lands washed by the Mediterranean. They had also expanded their empire northward to absorb what are now France and the Low Countries (adding England later). Roughly speaking, where the Greek language had already taken hold—in the eastern half of the Mediterranean—it remained the common tongue. Around the western half of the Mediterranean and (to the north) in the continent west of the Rhine, Latin played the role of Greek in the east: the language of business, of administration, of schooling, of the elite. In the agora of Alexandria or Ephesus, a traveler heard Greek; in the forum of Hippo or Barcelona, Latin.

Greek Origins

It may be no accident that Hellenes started philology on its long European career. The ancient Greek language consisted of a cluster of regional dialects: a situation not unusual as such. In Greek, however, unusually clear boundaries divided the dialects. Yet Greek speakers—who could and regularly did talk across dialects—drew a bright line between Greek and other ('barbarian') tongues. Perhaps this diversity-within-unity was what pushed some Greek speakers to ponder language. In any event they did, and their reflection on language and on its written products gave the West philology.

Greek philosophers wondered about the source and nature of language. Pythagoras, in the second half of the sixth century, apparently gave thought to where the names of things came from. Heraclitus of Ephesus, around the century’s end, believed that words somehow reflect the inner essence of the things they name. His approximate contemporary Hecataeus of Miletus argued that historical events lurked behind personal names and place-names. Mere scraps survive of such early conjectures. But in the first half of the fourth century Plato’s dialogue Cratylus staked out three positions distinctly: (1) language is conventional: words mean what they do only because people agree to use them in that way; (2) language is natural: words express the nature of the things they name (or they are meaningless); (3) language is both: words are based on nature but altered by convention. This last position—spoken by Socrates in Cratylus—was Plato’s own. Words, he believed, arose from efforts to mimic natural objects vocally; but usage changed their forms, and custom fixed their meanings. Cratylus features fantastic etymologies, possibly meant as parody. But it also made the first serious stab at analyzing language to sur-

* The extent of Greek colonization complicated this picture. Merchants around Roman Massilia (modern Marseilles), originally a Greek foundation, continued to use Greek; and it was spoken in parts of southern Italy into the twentieth century.
vive from the ancient Greek world. Plato and his pupil Aristotle sorted out
some basic linguistic concepts that later scholars would develop; for instance,
word and sentence, verb and noun phrases, inflection.5

Another stream feeding into philology also arose in early Greece—and
drenched classical antiquity far more thoroughly than these guesses about the
nature and history of language. Hellenes doted on public debate: think of the 
quarrelsome assemblies in the Iliad or of the βουλευτήριον (bouleuterion,‘council hall’) that today’s tourist finds in every ruined Greek city. Small won-
der that rhetoric grew into a formal study. Around 500 BCE, Athens put in
place political and judicial regimes based on citizen participation. In the wake
of these democratic reforms, certain ‘sophists’ began instructing students how
to argue capably in public. (Sophist derives from σοφος—sophos, ‘wise’—but
in early Greek σοφος also meant ‘skillful.’) To hostile eyes, such newfangled
teaching scorned appeal to truth or tradition in favor of the sinister power of
manipulating opinion. This alleged amorality brought down on the sophists’
heads the wrath of Plato. Paradoxically, Plato’s own Socratic dialectic gave a
terrifically effective example of rhetoric, though one supposed to reach cer-
tainty rather than preference or likelihood. Plato connected dialectic (philos-
ophic argument) to assured knowledge of truth and tied rhetoric to opinion
or ‘mere’ probability. The linkages proved enduring. So did the orientation of
rhetoric to civic life. Plato’s pupil Aristotle—engrossed by actual politics, un-
like Plato—respected rhetoric more than his master had. Where Plato ac-
cepted as knowledge only a grasp of universal, timeless essences, Aristotle
believed that awareness of particulars and of rough generalizations also quali-
fied as knowledge. Where dialectic proceeded from universally accepted opin-
ions, he said, rhetoric started from individual ones. He thus stressed the im-
portance of knowing the facts of a case and reasoning logically from them.6

Through the centuries to come, this dichotomy appears again and again, in
one form or another: philosophy arrives at universally valid generalizations,
whereas philology interprets individual cases. Here lies in embryo the modern
distinction between law-seeking (‘nomothetic’) natural sciences like physics
and chemistry and interpretive (‘hermeneutic’) disciplines like literature and
history.

But return now to antiquity, when Aristotle’s Rhetoric paled in impact be-
side the writings of Isocrates (436–338). Isocrates did much to rescue the
教学 of public discourse from the calumny of his contemporary Plato.
Isocrates insisted that speakers must never make “the worse case appear the
better”; that oratory should be used only for public good; even that a lofty style
would elevate a speaker’s morals. The style he taught highlighted composition
in balanced periods, equal in length, achieving equilibrium through (in
Thomas Conley’s words) “parallelism and antithesis at every level from that of
diction to that of larger units of composition.” If Isocratean style sounds insuf-
ferably baroque, think of Edmund Burke or Daniel Webster; and the popular-
ity of Isocrates’s instruction may become clearer.7
But Isocrates did not really innovate in rhetorical theory; rather, he became vastly influential because he made rhetoric the heart of advanced education. Before him, Greek education—beyond teaching some boys how to read and write—was scattershot. No detailed information survives about Isocrates’s own school: just its fame and a few of its elite pupils. Even his extant statements on teaching tell us little except that he stressed deliberative discourse, written as well as spoken. Yet classical Greco-Roman education at its higher level was rhetorical schooling descended from his practices. These spread through the Mediterranean in the wake of Alexander’s conquests. Rome, in turn, adopted Hellenistic rhetorical education, implanted it everywhere, and passed it on, much modified, to the Middle Ages. This enduring Isocratean heritage kept rhetoric prominent in the family of philologia. Rhetoric’s relation to philological scholarship always proved shakier. A few learned men did explore rhetoric. Many more humdrum schoolmasters only drilled pupils in it.8

The first scholars actually to call themselves philologists stood at a distance from rhetoric. They worked in a library rather than in the public square. They devoted their labors to texts rather than to the spoken word. And the texts that most absorbed them were those of Homer.

To understand why requires a digression, backtracking in time from the era of Plato and Isocrates. Ancient Greeks long looked on the Iliad and Odyssey with unique reverence, much as Jews and Christians view the Bible.* The Homeric epics even seemed storehouses of divine wisdom, masked in allegory. No wonder that, as John Sandys said, from “the days of Solon” onward, “Homer was constantly studied and quoted, and was a favorite theme for allegorizing interpretation and for rationalistic or rhetorical treatment.” Yet what did the name Homer mean in the days of the Athenian lawgiver Solon (ca. 638–558 BCE)—and thereafter? Unlettered singers had long entertained Greeks by stitching together tales of the Trojan War and the wanderings of Odysseus. Solon’s contemporaries ascribed such epic yarns generically to Homer, a great songster of uncertain date and reality. Some time after the Greeks learned the alphabet (again, soon after 800 BCE), someone committed some of these stories to writing, perhaps first as an aid to oral performance. No one today knows who, where, when, or in what form. One dubious tradition says it happened by order of the Athenian ruler Pisistratus around 550 BCE. Some modern classicists have plumped for a century or two earlier. If Pisistratus did so act, he may have wanted a transcript for use by the rhapsodes who intoned the Iliad and Odyssey at the Greater Panathenaea, a quadrennial festival. But not until the second century BCE did Homer’s poems settle down into the shape known today. The relentless quotation, the varying interpretations, the wish for an authoritative version, all help to explain why textual philology eventually developed.9

* One biblical critic has argued that New Testament authors consciously imitated Homer; see MacDonald 2000 and 2003.
But philology happened only after books become common enough to pose complex problems. During the fifth century BCE, written works snowballed in prose as well as verse. At the same time, run-of-the-mill terms used to pass moral judgment on oral recitations acquired new, technical meanings; for example, μετρον (metron), meaning ‘measure’ (as in ‘due measure’), came to mean poetic ‘meter.’ These idioms better fitted discussion of written work and eventually provided jargon for critical scholarship. Near the century’s end, bookselling appeared as a recognized if rare business. Booksellers imply book manufacturers, turning out multiple copies. Copyists wrote, as had the authors they duplicated, on rectangular papyrus pages pasted together to form long sheets, one page wide; these sheets were rolled up for ease in handling and storage.* A reader would hold one end of the roll in one hand, the other end in the other hand, unscrolling from one side and rolling up from the other as he read. (Or as she read, far less often. Patriarchal though it was, classical antiquity did not utterly deny schooling to girls, especially girls of high caste.) Throughout antiquity, indeed until modern times, books remained the indulgence of an elite; but the tiny elite was growing slightly larger. Once booksellers existed, book collectors appeared. After 400 BCE, more and more references pop up to private libraries. Most at first must have been small, holding more like a dozen than hundreds of scrolls.10

Handwritten scrolls, copied by hand, offered boundless chances for error to creep in. Even the most meticulous scribe could slip when lamps guttered or ink smudged. Cicero’s gripe to his brother described the stock of many an ancient bookseller: “both written and sold so carelessly.” The complaint echoed down through the ages, from Galen in second-century CE Pergamum to Maimonides in twelfth-century Egypt and Chaucer in fourteenth-century London. The more copies of a work, the more mistakes. In works as long and as commonplace as Homer’s epics, whole lines vanished or materialized out of thin air. Rhapsodes reciting Homer altered words and even added their own riffs, multiplying the variants circulating in writing. Where religious propriety demanded consistency—recall the declaiming of the Iliad at the Greater Panathenaea—unreliable texts shamed a city. During the later fourth century certain plays of Aeschylus, Sophocles, and Euripides were repeatedly performed in Athens during state religious celebrations. The politician Lycurgus mandated, around 330, that official versions of these plays be kept with the public records. One might joke that Lycurgus legislated textual philology and made the Athens record office into the first public library.11

The real first public library (so far as anyone knows), and the nursery of textual philology, lay across the Mediterranean. After Alexander the Great’s death in 323 BCE, one of his generals made himself king of Egypt as Ptolemy I. * Papyrus—whence ‘paper’—is a Nile reed (Cyperus papyrus) from which Egyptians formed durable, flexible sheets for writing, exported all over the ancient Mediterranean world. βιβλος, the Greek word for the papyrus plant, got transferred to the scroll made from it. Bibliography, bibliophiles, and the Bible.
Cultivated and ambitious, Ptolemy carried a Greek tradition of monarchical literary patronage to spectacular new lengths. Many Greek cities had a Μουσεῖον (Mouseion), a shrine to the Muses, sometimes a center for literary activity. Around 300 Ptolemy set up in Alexandria his own Μουσεῖον (whence our word museum). But he really created a new species: a college of scholars and scientists on royal salary engaged in both teaching and research. Ptolemy aimed to challenge Athens as cultural center of the Greek world. For at least the next three reigns (to 205), his successors—confusingly also called Ptolemy—must have shared this ambition. Dogged royal persuasion lured to Alexandria’s Museum intellectual stars like Euclid and Eratosthenes (he who computed the earth’s circumference). Ptolemy I or more likely his son Ptolemy II added the great Library.* The Ptolemies seemingly planned to amass all Greek texts, from tragedies to cookbooks. By the time the dynasty’s final heir, Cleopatra VII, began dispensing her books, along with other favors, to Julius Caesar in 48 BCE, the Library of Alexandria held thousands and thousands of scrolls. The Ptolemies got their manuscripts by sending out agents to buy, by hijacking books from ships docked at Alexandria, and by bald-faced deceit. Ptolemy III supposedly borrowed Athens’s official manuscript of plays by Aeschylus, Sophocles, and Euripides—after posting an enormous bond—and then pirated it, sending Athens a copy and forfeiting the bond. (The first library fine?) Such free-spending bibliomania affected the quality of the collection for bad as well as good. Some dealers turned out as dodgy as the third Ptolemy, passing off sloppy copies, even outright forgeries of ‘old’ manuscripts. (Booksellers in Rome were pulling the same scam three or four centuries later, when the rhetorical teacher Quintilian also groused that they swiped his lectures.) The mushrooming Alexandrian trove contained, too, lots of duplicates, rarely identical in wording.12

These quality-control issues posed problems for which the invention of textual philology gave the solution. The Alexandrians around the library were not first to see such predicaments or to handle texts with a scholarly cast of mind. The earliest scroll to survive from ancient Greece was dug up in 1962 in the residue of a funeral pyre, badly singed. This Derveni Papyrus contains a strange, line-by-line, allegorical commentary on passages ascribed to Heraclitus, Homer, and the mythical Orpheus. In form, the exegesis prefigures later literary commentaries. The scroll dates from about 330, but its contents maybe from seventy years earlier. Clearly, the tide of written books swelling from the later fifth century onward had begun to turn attention to problems of texts and their meanings. The poet Antimachus of Colophon (fl. 400) studied Homer’s language and prepared the first known ‘edition’ of Homer; on what basis no one knows. Aristotle’s lost work Homeric Problems used historical context to clear up puzzles in the text. Aristotle had earlier emended the Iliad for his

* Our knowledge of the Library of Alexandria and of Hellenistic scholarship in general depends on assertions by later writers: thus there is much uncertainty in what follows.
pupil Alexander (the future Great), though in what way he did so is unknown. Aristotle also compiled a historical catalog of dramatic performances in Athens. Some of his disciples carried on his philological and historical studies. One follower, Demetrius of Phaleron, seems to have advised Ptolemy I in founding the Museum. If so, Demetrius’s role may clarify why Alexandrian scholars took up where Aristotle’s pupils left off.13

In any case, the library’s resources let the Alexandrians attack such problems with new methodological sophistication. These Egyptian scholars mixed their own inventions with the haphazard innovations of earlier writers; this menu of techniques created systematic textual philology. The ingenuity of Alexandrian erudition in the third and second centuries still amazes.

The most urgent need was to locate a given needle in the immense haystack. Zenodotus of Ephesus probably served as the first librarian, until about 270. So far as known, he invented the idea of ordering items alphabetically. He likely applied his brainstorm to arranging the scrolls, sorted by author. Based on the collection, the poet and heroic grind Callimachus of Cyrene (ca. 310–240) compiled a survey of all Greek writers, arranged in eight categories, from drama through legislators to miscellaneous. Besides listing authors and titles, Callimachus composed short lives of the writers, analyzed disputed authorship, and supplied the opening words and number of lines in each work (vital for identification, titles being unstable). His toils began to provide systematic data needed to study texts and their transmission, enabling later research.14

In Alexandria, such research tackled the second great mess the library faced: the errors infesting its manuscripts. Its agents went after older copies of books, knowing that the more times a book had been copied, the more mistakes it contained. Eventually, this partiality for older manuscripts would become an inbred philological leaning. Immediately, it inspired shady booksellers to the textual equivalent of the modern fraud of ‘antiquing’ furniture.15 But even wary buying could not exclude texts where original meanings had grown blurred, where sentences had evaporated, where phrases unknown to the author had crept in. Bringing the books into order meant not just arranging scrolls on shelves but also mending their contents. And emendation, in turn, could trip up on linguistic evolution. The Greek familiar to third-century Alexandrians differed from the Greek written in fifth-century Athens. The language of Homer lay still further off. Imagine a twenty-first-century Texan reading Chaucer.

Homer was most often replicated, ipso facto most corrupt of texts; so Homeric scholarship became the template. Zenodotus, around 275, took on the challenge. With multiple manuscripts of Homer at hand in the library, Zenodotus put together the earliest ‘standard editions’ of the Iliad and Odyssey—or of any book. He seemingly based his versions on the crucial principle of comparing manuscripts. (Collation is the technical term.) Two of his successors as librarian, Aristophanes of Byzantium (ca. 257–180) and Aristarchus of Samothrace (ca. 216–144), much refined his editing. To decide which words in
competing manuscripts were really Homer’s required aesthetic as well as linguistic and historical judgments; so assessing the literary qualities of a passage formed as much a part of the philologist’s task as deciphering its meaning. What ‘edition’ meant in Alexandria is unclear. Scholars today lean toward the theory that Zenodotus or Aristarchus chose what he thought the best manuscript and annotated it, rather than writing the text anew as a modern editor would. Many Alexandrian emendations seemed risible to later critics, but the principle of a standardized text based on collation of manuscripts endured. Verses in the oldest surviving Homeric papyri vary widely; soon after the editions of Aristophanes and Aristarchus, extensive variations disappeared.16

Zenodotus and his successors forged other durable tools of textual scholarship. One was the line-by-line commentary on a text: a genre already exemplified in the Derveni Papyrus and probably practiced by Aristotle’s disciples in Athens. Aristarchus expertly honed it. In his hands the commentary became a book in which a passage from a work under study was followed by careful explication—of its meaning, of rare words in it, of any doubts of its genuineness, and so forth. Aristarchus, too, coined an enduring axiom of such text criticism: that a writer’s own words provide the best guide to his meaning. Scholars should resolve linguistic puzzles in a text by checking the same author’s usage elsewhere. Aristarchus also embedded in the philological tradition an axiom voiced by Aristotle: the critic must understand a text in relation to the customs of the period that produced it. Philologists should thus gauge passages against social and cultural context as one means of deciding their meaning or even their spuriousness. Eratosthenes of Cyrene (ca. 285–194) pioneered in using historical chronology to resolve textual puzzles. The Alexandrians upgraded yet another inherited implement, the glossary, a book defining uncommon or archaic words in a text. By arranging such words in Zenodotus’s newfangled alphabetical order, they created the ancestor of the modern dictionary.17

All later textual philologists would face the same challenge as the Alexandrians: how to resolve obscurities and to correct dubious passages in a text—or, put more abstractly, how to move from words on paper to meanings in them. And all later textual philologists would deploy the two fundamental tactics of the Alexandrians in attacking a passage under scrutiny. Look at the rest of the text. What interpretation, what wording fits most closely the author’s meaning and language elsewhere? Look at the historical context. What interpretation, what wording makes most sense in terms of social customs, religious usages, legal norms, military practices, family relations, and other habits prevailing when the author wrote?18 And for a long time to come philologists would assert their conclusions in the Alexandrian form of the commentary, while making tools like glossaries to aid their research.

In his Homer edition, Zenodotus set in motion another innovation. He flagged lines he judged doubtful with a horizontal pen stroke in the left margin. This came to be called an ὀβελὸς (obelos, ‘spit’ or ‘skewer’; Latinized as
The ball Zenodotus started rolling never stopped. We still put tiny marks on pages to guide readers through the maze of words. Succeeding Alexandrian critics dreamed up other marginal signs. These included the *diplē* (> to signal something worthy of note in Homer (replaced in non-Homeric texts, puzzlingly, by the letter chi [χ]) and the *asteriskos* (*) to mark a wrongly repeated passage in a manuscript. Aristarchus even concocted a sign to object to Zenodotus’s deletions. Too arcane for ordinary readers, the system proved a huge boon to scholars. They could now show emendations without altering the words of a manuscript. Absent these editorial symbols and the commentary, we might be stuck today with an *Iliad* warped by even the wackiest of Zenodotus’s inspirations. Instead, the slash-and-burn approach that some Alexandrians took to Homer vented harmlessly in editions with *obeloi*-littered margins. The most prolific inventor of signs for guiding readers through a scroll was Aristophanes of Byzantium. He not only came up with several new critical symbols but also devised accent marks in use today (acute, grave, and circumflex); these aided nonnative speakers of Greek (the majority in the Hellenistic world) to pronounce correctly words that they read. And he invented other new marks to help such readers know when and how long to pause in a text when reading—the comma, the colon, and the period (or full stop). The first textual philologists gave us punctuation. Any casual museumgoer trying to decode a Roman inscription knows the value of that gift.19

Besides their editions, commentaries, and grammars, the philologists of Alexandria—and of other Hellenistic centers of erudition—did much that looks to modern eyes more like history than philology. They wrote scholarly biographies; collected old lore about shrines, gods, heroes, cities, and so forth; copied inscriptions; described monuments; and tried to sort out the chronology of past events and writings. Much that historians now do, these learned men did—though ‘history’ did not yet mean only past happenings. But (comparing them to earlier Greek historians) Hellenistic philologists did not share the sensibility of a Thucydides, who fixed his eye on war and politics. They look more like Herodotus, with his omnivorous appetite for curious details about this people or that. And yet they did not try to compose organized narratives such as Herodotus had written—and such as a Hellenistic contemporary like Polybius (ca. 200–118) created in his history of Rome. If anything, they preferred to arrange the scattered fragments they excavated from the past into revealing mosaics. We would perhaps label these ancient scholars antiquarians; and their interests do resemble those of the antiquarians who would play a huge role in early modern scholarship. Learned research into such matters as natural wonders or chronology does not, by modern lights, fit well with textual criticism and rhetoric. But to divide such inquiries from philology would warp Hellenistic conceptions of learning. And antiquarian erudition stayed tightly bound to philology as it developed in Rome and then in Europe in later centuries.20
The scholars around the library and Museum probably had nothing to do with the best known monument of Alexandrian philology. Under the Ptolemies the city housed a large Jewish community. By and large these Jews, Hellenized in culture, spoke Greek as their mother tongue. Like all Jews, they revered as the scriptural center of their faith the ancient Hebrew writings called Torah—‘teaching’ or ‘law.’ (Jews also called the Torah the Five Books of Moses: thus to Greek speakers the ‘five scroll-cases,’ πεντάτευχος, whence Pentateuch, a term still standard.*) But few Hellenized Jews understood the Hebrew of the Torah—a pickle like that of English-speaking Catholics before the 1960s hearing the Latin Mass. Around the early third century BCE, Jewish scholars in Alexandria translated the Torah into Greek: compare the English missals that those Catholics used to carry to Mass. The work possibly went on under the patronage of Ptolemy II, who would have had his own royal reasons for wanting the law of a subject people in his library. There followed—and maybe preceded—other Greek translations of Hebrew scriptures. Collectively, these came to be called the Septuagint, abbreviated with the Roman numeral LXX (seventy), although the writings under this label varied. (The name and abbreviation come from a tale that seventy-two translators miraculously finished their work in seventy-two days.) These translations found wide use in the Jewish diaspora, until eventually versions reckoned more authentic expelled them. But they survived long enough for early Christians to adopt the Septuagint as their divinely inspired Old Testament. It will reappear soon, along with knotty relations between Jewish and Christian philologists.21

But first another new path blazed in Hellenistic philology needs explanation. Of the four main strands of ancient philology—language theory, rhetoric, textual criticism, and grammar—the last emerged latest as an independent study. Grammatical issues did crop up in early rhetorical teaching, and stabs at figuring out how pieces of language work go back to at least the fifth century BCE. The sophist Protagoras then stumbled toward the ideas of noun gender and verb mood. Aristotle recognized a notion of verb tense, a few parts of speech, and difference between active and passive verbs. Alexandria’s great rival as a hub of scholarship was Pergamum, in present-day western Turkey, site of the second-largest library in the Hellenistic world. As with Alexandrian erudition, mere echoes of fragments of Pergamene learning survive. But scholars in and around Pergamum apparently spent more time analyzing language than wrestling with textual problems. Later sources suggest that, as early as the third century BCE, Pergamenes were at work on etymology and phonetics (sidelines in Alexandria) and on grammatical problems. Yet Pergamum was in the lead, not alone. In second-century Alexandria, grammar formed part of Aristarchus’s discussions. His methodical dissection of language yielded propositions that might be called grammatical laws, although

* The Pentateuch comprises the books known in English as Genesis, Exodus, Leviticus, Numbers, and Deuteronomy.
perhaps not yet grammar as an autonomous branch of learning separate from textual philology.22

Aristarchus’s student Dionysius Thrax (ca. 170–90 BCE) may have been the first person to devote a book to grammar. At any rate the Τέχνη γραμματική (Téchnē grammatikē; Art of Grammar) was long ascribed to Dionysius. Recent scholars doubt the attribution, while thinking the opening section of the Téchnē and its basic system to be Dionysius’s. Whoever the author, he (like Aristarchus) melded Alexandrian and Pergamene traditions. The mixing probably mattered. Bypassing an apparent Alexandrian quest for general prescriptive rules, the more empirically minded grammarians of Pergamene seem to have gotten much further than their rivals in breaking down Greek into parts of speech and identifying their inflections. Recognizing how little we really know, one might hazard a guess that Alexandria supplied the broad framework of the Téchnē and Pergamum most of its detailed contents. A reconstructed version, some fifty pages in print, covers everything from accents and punctuation, through declensions and conjugations, to relative, personal, and possessive pronouns. The little book remained a standard handbook through the Middle Ages. School grammars today are its great-great-grandchildren.23

But in antiquity grammar meant much more than parsing sentences. Dionysius divided grammar into six parts. His pupil Tyrannion separated it, more influentially, into four modes of treating a text: recitation, explanation, emendation, and evaluation. This program boiled down to teaching people how to read, with sophisticated grasp, in a culture of oral reading where voice mattered as well as comprehension. Yet here grammar gains almost the breadth of philologia itself. And why should it not? What did a refined ancient reader need, besides well-modulated vocal cords? He (again, far less often she) required a scroll purged of errors, mastery of the language written on it, and knowledge of the historical and mythological lore to which the writer referred. Add some arguments about etymology and you have a summary of Hellenistic philology and its associated antiquarian research. Such range suggests how grammar could become the core of secondary schooling, as it did in the Roman world. Rome, not coincidentally, is where Tyrannion settled around 67 BCE. There he made a bundle as a chic teacher. There his four-part division of grammar, adopted by the Roman scholar Varro, became normative—in theory if not in the ordinary schoolmaster’s drill.24

**Roman Annexation**

By the time Rome’s imperial paw finished pinning down the Greek-speaking world, Hellenes like Tyrannion had completed the foundations of ‘philology’—in a meaning as broad as its nineteenth-century usage, though far from identical to it. The Romans absorbed Hellenistic philologia as they soaked up so much else from the Greeks. Centuries before, they had borrowed even their
alphabet directly or indirectly from Greek. The first known poet to write in Latin was a Hellene, while the first Roman historian wrote in Greek. By the time of Augustus, the well-educated Roman was bilingual; the rhetorician Quintilian even wanted boys to learn Greek grammar before Latin.25

Pergamum first taught Greek philology to Rome. One story credits Crates of Mallus, a Pergamene scholar, with awakening Romans to philology. Visiting Rome around 168 BCE, Crates broke his leg in a sewer. Naturally, he whiled away his convalescence giving philological lectures. Whatever the truth of this adorably academic anecdote, Rome did have close ties to Pergamum—which became even closer when Pergamum's last king, Attalus III, bequeathed it to Rome in 133 BCE. The Pergamenes massively swayed Romans trying to catch up intellectually with the Greek-speaking world. Not until three quarters of a century after Crates's leg healed did a scholarly Roman, Lucius Aelius Stilo (ca. 154–74), import Alexandria's critical symbols and methods: or so it was later said. Stilo went briefly into exile in Rhodes in 100 BCE, and he may have picked up Alexandrian tools from Dionysius Thrax, then teaching on the island. Stilo loyally clung to Pergamene grammar when adopting Alexandrian critical ways. He applied his newfangled criticism to the earliest Latin comedies, those of Plautus (fl. 200 BCE).26

Whatever Stilo did in naturalizing Hellenistic philology in Rome paled beside the efforts of his pupil Marcus Terentius Varro (116–27). More than a century after Varro's death, Quintilian called him vir Romanorum eruditissimus, the most learned Roman; and Augustine said that Varro read so much that it was hard to believe he had time to write, and wrote so much that it was hard to believe anyone could read all his books. Varro wrote about art, antiquities, agriculture, libraries, as well as literary and linguistic topics. His antiquarianism looked back nostalgically to the supposedly incorrupt life of republican Rome before the civil wars, and a lot of what we know of that earlier Rome comes through him. His philological repute rests chiefly on De lingua Latina (On the Latin Language)—itself antiquarian in flavor—a mutilated six of whose twenty-five books survive. With his Rome lolling in the intellectual shade of Pergamum, Varro naturally shared its enthrallment with etymologies. A later Roman work also tags him as first to divide rhetoric into its enduring three styles: simple, intermediate, and copious (also termed plain, middle, and grand—a partition, one quickly adds, that scarcely mattered to the greatest Roman master of rhetoric, Quintilian).27

Varro's attention to rhetoric hardly surprises given the Roman fixation on oratory. Public speaking played, if anything, an even larger part in Roman than in Greek life; and in Rome all sorts of literature, even poetry, got grouped under rhetoric. Roman writers not only systematized Hellenistic rhetoric but amplified its critical vocabulary. Nothing in Greek came close to the massive, methodical Institutio oratoria (ca. 95 CE) of Marcus Fabius Quintilianus (ca. 35–late 90s), famous in later ages simply as Quintilian. The manuals of rhetoric passed down through the Middle Ages to the Renaissance and beyond
were Roman: Cicero’s early, uncompleted *De inventione* (ca. 90 BCE); the similar but full-blown *Rhetorica ad Herennium* (ca. 85 BCE), studied throughout the Middle Ages under the mistaken belief that Cicero wrote it; and Quintilian’s great *Institutio*. (Ironically, medieval teachers preferred the *Inventione* and *Ad Herennium* to Quintilian, which then circulated in truncated form.) Even the fourth-century *Ars grammatica* of Aelius Donatus discusses style and figures of speech.28

Yet, as Varro’s range suggests, Romans also plundered Greek learning far removed from rhetoric. And such thieves abounded, capturing Hellenistic methods for Roman and Latin topics. Like the Alexandrians, Cornelius Nepos (ca. 110–24 BCE), labored to build up accurate chronologies—but, in his case, of Roman history. Marcus Verrius Flaccus (ca. 55 BCE–20 CE) compiled an Alexandrian-style glossary of unusual or obsolete Latin words, a landmark of ancient lexicography that outdid anything we hear of from Alexandria. Quintus Remmius Palaemon (fl. 35–70 CE) adapted Hellenistic grammar to Latin language and literature. Marcus Valerius Probus (ca. 20–105) used Alexandrian tools in correcting and commenting on Roman authors, including Vergil and Terence. The *Noctes Atticae* (*Attic Nights*) of Aulus Gellius (ca. 125–180) shows us an ancient ‘grammatical’ work in its widest sense: 398 chapters of textual, linguistic, rhetorical and literary criticism—not to mention history, philosophy, law, and medicine—drawn from Gellius’s lifetime of poring over Roman and Greek writers. Gellius went beyond the Alexandrians in inventing, according to Gian Biagio Conte, “the method of comparing point by point the style of a Latin poet with that of his source,” a new tool of research in textual philology. Around 400 CE, a grammar teacher in Rome called Servius (full name unknown) turned out a commentary on Vergil larded with irreplaceable antiquarian detail, especially about religion. Servius’s work typified a new sort of commentary, first appearing around two hundred years before him: scholia. These provided unbroken observations on a text, verse by verse. They had the colossal advantage of collecting in one place insights of different earlier critics of a text. Scholia in the long run became a normative critical form.29

Such learned Romans proved crucial. True, Roman philologists followed paths blazed in that outburst of Alexandrian creativity rather than turning in entirely new directions. But Roman grammarians greatly refined and expanded analysis of language. Roman rhetoricians did the same in their field. Roman textual philologists made Alexandrian methods more sophisticated. Moreover, Alexandrian scholarship barely survives in bits and pieces refracted through later sources (notably quotations in the scholia just mentioned). The Romans were the ones who transmitted philological method, the philological focus on text and context, and the fruits of philological erudition to later ages. Like *De inventione* and *Rhetorica ad Herennium*, the grammars of Donatus (fourth century) and Priscian (fifth or sixth century) became workhorses of medieval schooling.30
In one key institution, Roman development and diffusion of Greek invention decided the future of philology. In the last century BCE, the Isocratean ideal of higher education as rhetorical training became pervasive among the Roman elite, with grammar the universal stepping-stone to it. Quintilian’s *Institution*, a manual for teachers and parents that covered education from early childhood to maturity, outdid any Greek educational treatise. (After recovery in its entirety in 1416, it served Renaissance scholars as the warehouse of ancient educational wisdom.) Having learned to read and write, a Roman boy with prosperous parents—in Gaul, Spain, Asia, Africa, or Rome itself—moved to the school of a *grammaticus* and then graduated to teaching by a *rhetor.* The boy’s instruction was solely literary or, better, philological. (His sister’s, if she got any, most likely took place informally at home.) From the early empire through the breakdown of Roman power in the west, as Robert Kaster observed, the “grammarian’s school was the single most important institution, outside the family, through which the governing classes of the empire perpetuated and extended themselves.” This makes sense only when one recalls that *grammar* had a much wider reach than the word now does.31

Roman grammar mirrored the rapacious curiosity of the Hellenistic philologists who hatched its progenitor. The teaching of grammar fused into a unified pedagogy textual criticism, analysis of language, and use of antiquarian data and historical writings to illumine works under study. And all the while the *grammatici* sustained the seamless passage onward to rhetoric for the boys they taught. Without question a gap yawned between so hopelessly totalizing an ideal and the sometimes stultifying reality of schooling. The devotion even of erudite graybeards to this all-embracing dream of knowledge ebbed and flowed over the centuries to come.

But again and again the integrative impulse reemerged in philology. In the Renaissance and after, philologists going about their business of emending texts and dissecting language could not keep their hands off antiquarian research and rhetoric. Not only Varro subsumed under grammar the study of history, chronology, antiquities, oratory, and poetry; and not only he insisted that grammar should instill in students the abilities to emend, interpret, and explain texts, as well as skill in reading them out loud.32

Varro also wrote a kind of encyclopedia, one of the earliest in Latin, of the *artes liberales*. He divided it into nine books, each devoted to an individual area of study: grammar, dialectic (or logic), rhetoric, geometry, arithmetic, astronomy, music, medicine, and architecture. This list (its membership a little unstable) reappeared in north Africa well over four centuries later—in Augustine and again in an allegory of the marriage of Mercury and Philology by Martianus Capella, both widely read in the Middle Ages. From late antiquity, the liberal arts migrated, via the schools of grammar and rhetoric, into medi-

*Recall that ‘school’ did not imply a dedicated building. In Greek and Roman antiquity, schooling took place in whatever space was available.*
eval schooling. There, stripped of medicine and architecture, the now seven liberal arts became the curriculum: the mostly philological *trivium* (grammar, rhetoric, dialectic) and the mathematical *quadrivium* (geometry, arithmetic, astronomy, music). (In antiquity and the Middle Ages, astronomy and music were mathematical sciences, studied theoretically rather than practically.) Fittingly, Martianus Capella made Rhetoric salute Philology with a noisy kiss.\(^{33}\)

**Christian Adaptations**

Martianus was a pagan, writing in troubled times to defend and pass on the pagan cultural heritage; his readers mostly were not. In 313 the coemperors Constantine and Licinius had granted Christians freedom of worship; in 380 Theodosius proclaimed Christianity the state cult. Once marginal, still a minority (especially in the countryside), Christians now moved to the center of Roman life.

Imperial sanction mattered a lot to the Christians—and to Roman culture and politics—but not to philological method. Just as Christian bishops pilfered pagan shrines to build churches, even remodeled old temples for new rites, so Christian scholars adopted and adapted pagan literature and erudition. Christians could learn from a commentary on Vergil how to write one on Genesis; and the biblical commentary quickly became as paradigmatic a form for scholarly Christians as the Homeric commentary for the philologists of old Alexandria. Christians embraced Roman schooling, too, if they belonged to the elite that got schooled.\(^{34}\)

Famously, frictions did arise. Everyone knows of Tertullian’s snappish query, “What has Athens to do with Jerusalem?”—and of Jerome’s supposed wrestling two centuries later with the luscious siren of Ciceronian eloquence. But Tertullian did as much as any early Christian to fit literary Latin to Christian purposes; and, whatever his vows, Jerome notoriously could not keep his hands off Latin literature.\(^{35}\)

Early Christians fretted over the dangers of pagan, secular literature; but few wanted to toss out baby and bathwater. Basil of Caesarea opined that pagan literature actually prepared students for Christianity. Augustine wished to pillage the classics of anything useful to Christian teaching and throw away the rest. (So he turned Roman rhetoric to the task of improving Christian preaching.) And yet all through his life Augustine grappled with Vergil, as Sabine MacCormack has shown, “whether by way of imitation, of adaptation, or of contradiction.” One fifth-century Roman aristocrat in Gaul kept his Christian books at one end of the library, where ladies sat, his pagan classics at the other, ‘male’ end. Cassiodorus, who in the sixth century adopted Augustine’s more severe precept, found room in it for Martianus Capella, whose pagan allegory he baptized for centuries of medieval readers. Cautiously, Christianity made itself more or less at home with pagan philology.\(^{36}\)
Yet it also added fresh ingredients. Take for an example the Christian scholar Origen (185–254). He worked first in Alexandria (still a capital of philology) and then in Caesarea in Palestine. Origen started from a background of Neoplatonic and Stoic speculation on language. Wrestling with the Gospel of John, in which λόγος (lógos, 'word') figures decisively at the start, he came up with the novel notion that language exists apart from the human voice.37 His theory matters here not for its substance, but for showing an early Christian engaged creatively with the ruminations of pagan philosophers on language. Curiosity like Origen's linked his pagan predecessors with his Christian successors in the Middle Ages and ultimately his post-Christian heirs beyond: all speculators on the origin and nature of language. This ever-moving tradition of inquiry, from which today's linguistics emerged, drew on past philology at every step—although the starting place (whether Platonic speculation or Priscian's grammar or somewhere else) changed at every stage of the journey as concerns of inquirers shifted and as the past available for mining grew in bulk. The more immediate point is that early Christians did not passively absorb previous study of language and texts in all its varieties; they reshaped it in accord with their distinct needs and problems. Jerusalem had more to do with Athens than Tertullian alleged—and a lot more to do with Alexandria.

Most fatefully for philology, the new religion added a momentous new set of texts to the writings philologists scrutinized. The earliest followers of Jesus were one of several squabbling Jewish sects, and they naturally used Jewish scriptures in their worship. But these 'Christians' (a label quickly slapped on them) soon produced other, Jesus-oriented writings for instruction or use in worship. Their inherited Jewish scriptures came to be known as the Old Testament. In late antiquity, after much dispute over the status of various Christian writings, some of them settled into a second canonical collection called the New Testament. Old and New together comprised not just any book but, for Christians, the book.* Homer did not vanish from the face of the earth—for one thing, too many of him were lying around—but he slouched into disgruntled semiretirement. The Bible, its stories telling of the providential action in history of the one God, its teachings key to salvation, was holier than Homer could ever hope to be. And as the handbook of a vigorously missionary faith, the Bible needed translation for the many Christians or potential Christians who did not understand Greek. It equally demanded exegesis: not every passage had a crystal-clear meaning, and those that did might bear more meanings than the obvious one. Christian philologists had a lot of work on their hands.38

All true, but far too simple, for the new Christian Bible did not evolve in isolation. Jews—like Greeks, Romans, and other ancient Mediterranean peo-

* Or, more accurately, books (plural). Singular 'Bible' only emerged later from Latin biblia, itself from Greek βιβλία, both plurals. In medieval Latin the neuter plural biblia came to be taken as a feminine singular, the two forms being identical in spelling.
ples—had a temple for their rites, where priests sacrificed animals to a god. Jews stood out for having only one god and one temple, in Jerusalem. Even a reader of the Christian Gospels learns how deeply pilgrimage to the temple in Jerusalem mattered to a pious Jew like Jesus. Yet a Jew living in Alexandria or Babylon had a tough haul getting to Jerusalem. Possibly for this reason (no one really knows), buildings for communal prayer and scripture reading as well as secular community activities began to appear among Jewish populations: synagogues. The first clear evidence for them (not yet called synagogues) comes from Egypt in the third century BCE. In these last centuries before the Common Era, teachers learned in interpreting Torah also appeared who became known as rabbis. (The Gospels call Jesus “rabbi.”) The synagogue complemented the sacrificial worship in the temple in Jerusalem; indeed, the temple itself may have contained one. But the synagogue could not displace the temple rites: Torah itself so dictated. Then, in 70 CE, crushing a Jewish revolt, Roman legions sacked Jerusalem and destroyed the temple. Jewish sacrificial worship ended, from that moment to the present day.

The destruction of the temple left a vacuum in Jewish life; and the synagogues, as well as the scriptures and the traditions of interpreting them, flowed into it. This process created the rabbinic Judaism that persists to the present day. Rabbinic Judaism did not appear overnight, but neither did Judaism as a ‘religion of the book’ come from nowhere. In the last centuries before the temple fell, sects proliferated within Judaism. As a result, so did scriptural interpretations and even new scriptures. All Jews accepted as authoritative the five books of the Torah and probably as well (though less weighty) the works now known collectively as the Prophets. (The New Testament thus in a few places refers to ‘the law [Torah] and the prophets,’ a phrase that occurred earlier in the Dead Sea Scrolls.) But around Pentateuch and Prophets swirled a sea of other texts, their scriptural status disputed. At least one group of Jews revered the book of Jubilees, which appears in no standard Bible today. In the centuries after the temple fell, rabbis strove to bring order to this textual confusion, to define a canon of holy scripture for all Jews. The final component of the Jewish Bible (‘the writings’) had been agreed no later than about 100 CE, at least among the rabbis. Before 1000 CE the precise words of the Hebrew scriptures had been fixed in the Masoretic Text, still used in Jewish worship—and used today also by Christians in translations of their Old Testament.

In the same few centuries after the sack of Jerusalem, Christian leaders engaged in a parallel task—in an eerie, mostly silent pas de deux with the rabbis amid growing Christian hostility to Jews. The Jesus movement attracted a lot of Greek speakers, soon a majority of its members. Thus early Christians adopted as their Bible (eventually to become the Old Testament) the Greek translations of Hebrew scriptures known as the Septuagint, in use among diaspora Jews. Possibly partly for this reason many rabbis distanced themselves from the Septuagint. (Scholars do not agree on how to interpret sketchy and
obscure evidence.) Around 130 CE a Jewish convert named Aquila produced a new Greek translation of Hebrew scriptures to replace the Septuagint in Hellenistic synagogues. Aquila came from a Greek-speaking region of Anatolia where Christianity evidently made some of its earliest inroads, so he may have been alert to Christian kidnapping of the Septuagint. Though mostly now lost, his translation seems to have been very literal, very close to the Hebrew original; and apparently many rabbis embraced it with joy. As the rabbis converged on an agreed canon of Hebrew scriptures at the beginning of the Common Era, they excluded some material in the Septuagint—and hence in the Christian Old Testament. Meanwhile, despite Christian venom against Jews, the Christians’ own sacred books required them to stay connected philologically to learned rabbis. “The Jews,” Augustine said, “are our librarians,” the “guardians of our books.”

Christian scholars remained tied to pagan predecessors, too. By the time Christianity emerged, Alexandria had become not only a center of Homeric scholarship but also of Neoplatonist philosophizing. The Jewish philosopher Philo of Alexandria (fl. early first century CE) borrowed the allegorical mode of interpretation worked out by Neoplatonic students of Homer; but Philo applied it in commentaries on the Septuagint. A Christian, Clement of Alexandria (ca. 150–215), in turn pirated the method from Philo to vindicate his own religion. From a Christian point of view, the Old Testament—about three quarters of the pages in the Christian Bible—direly needed a rereading. In the Old Testament the Jews played the role of the Chosen People, but Christians believed that God had now pushed the Jews from the stage and made them the stars. Within a couple of decades of Jesus’s execution, Christian preachers were using a typological interpretation familiar to Jews to show how Jesus fulfilled the Jewish scriptures. The Old Testament thus began to be read as foreshadowing the mission of Jesus and even prophesying Christianity’s supersession of Judaism. The symbolic style of reading worked out by students of Homer allowed Clement to fortify and expand this new construal of the Bible. Clement’s student Origen—with his own copies of Philo’s works—followed his master’s example. Clement and Origen’s strategy came under fire from other Christians at first, particularly in cities like Antioch, where Jewish traditions remained powerful within the new faith. But Origen’s threefold exegesis, moving from the literal meaning of a text to a spiritual meaning cloaked in allegory, would powerfully sway medieval exegetists. Origen also applied more down-to-earth philological tools to understanding the scriptures: history, grammar, and so forth.

Yet the Christian Bible posed problems beyond baptizing its Jewish majority. Stitched together from books written originally in three languages, it also got rendered into yet other languages (unlike, say, the Iliad, which usually remained Greek, or the Aeneid, a stay-at-home in Latin). This jumble of translations created vexing philological woes. Discrepancies between the Septuagint and the Hebrew text of the rabbis in the early Common Era posed perhaps the
most worrisome problem: which was God’s word? After moving to Caesarea in Palestine in 231, Origen focused on the question. He brought textual philology to bear on clashes between Hebrew and Greek renderings of the Old Testament (using Alexandrian critical signs in the margins). Origen got along with Jews better than most Christians did. Drawing on rabbinic expertise, he set up an apparatus that exhibited six different versions in parallel columns, his famous Hexapla. (He thus prefigured the Polyglot Bibles of early modern Europe, though all but shreds of his work is lost.) Origen never doubted the salience of the Hebrew text for his labors. But he gave it only chronological, not theological, priority. Like many Christians in his day, he believed the translation in the Septuagint inspired, a gift of God to upgrade the Jewish scriptures. He perused Hebrew scriptures only to emend manuscripts of the Septuagint.43

This seemed massively wrongheaded, a century later, to his philological successor Jerome (347?–419). This scholarly monk also relocated to Palestine, though from the Latin-speaking western Roman Empire. Jerome knew Hebrew better than Origen; and—at risk of getting labeled heretic—he draped himself in Jewish learning. Jerome spurned the Septuagint as derivative. He took the original Hebrew scriptures as the inspired word of God and, therefore, the proper basis for the Christian Bible. (He wasted no time worrying that the original Hebrew scrolls were long gone: a kind of problem that did not yet bother scholars, Christian or rabbinic.) In translating Old Testament texts into Latin, Jerome applied philological expertise equal to Origen’s. His version won slow acceptance as the common Bible of the Latin church (the ‘Vulgate’ Old Testament; much of the Vulgate New Testament is his as well).* Clement, Origen, and Jerome were soldiers in a growing corps of Christian scholars putting pagan textual philology to new uses.44

Another such scholar overhauled one of the antiquarian pursuits long linked to philology. As mentioned in passing earlier, Hellenistic and Roman philologists struggled to sort out the chronology of long-ago events. They devised techniques to put in order the pasts of their own peoples, such as the Greek dating by Olympiads invented in the third century BCE. But they also tried to integrate the records of different peoples into a universal history. Here ‘synchronisms’ proved essential: years when the same happening showed up in more than one system of reckoning. Let us say that Babylonian and Egyptian chroniclers both give a date to the same solar eclipse. This known common event links the two different calendars in a relation with each other. You can now figure out which other Babylonian and Egyptian events occurred at the same time—although you still have to deduce the corresponding years in your own calendar. In principle, enough synchronisms allowed a scholar to meld disparate relative chronologies into one absolute chronology. In practice, ancient evidence was and is very messy—not to mention that Babylonians

* Vulgate comes from the Latin verb volgare, meaning ‘to make generally known.’
used two different calendars, Egyptians three, and both tended anyway to date events by regnal years, not calendar years.45

Eusebius of Caesarea (ca. 260–339) put the old study of chronology on a new footing: “I have perused diverse histories of the past which the Chaldeans and Assyrians have recorded, which the Egyptians have written in detail, and which the Greeks have narrated as accurately as possible.” In the first of the two books of his *Chronicon* (*Chronicle*, ca. 310), he recorded in traditional narrative the results of his labors. But in the second book he did something dramatically new. Eusebius used synchronisms to, well, synchronize his data in tables easy to compare, one each for roughly twenty peoples. The columnar *Hexapla* of his Caesarea forerunner Origen perhaps inspired Eusebius’s brain-child.4 From the patriarch Abraham up to Eusebius’s own times, the *Chronicon* collated year by year all the reigns, battles, biblical events, foundings of cities, floods, legendary exploits, inventions, Jupiter’s adulteries (several entries), notable buildings—you name it—that Eusebius could recover. As Anthony Grafton and Megan Williams observed, the work “served until the sixteenth century as the richest single source of information for anyone interested in the history of human culture.” And its structure became the model for later chronology. The highly specific, year-by-year format itself forced scholars from Eusebius on to face squarely the knottiest problems of dating. But the *Chronicon* was not Eusebius’s only innovation in writing about the past.46

In composing historical narratives, he quoted extensively from documents, the first known historian to do so. Eusebius larded both his history of the Christian church (ca. 325) and his unfinished life of the emperor Constantine with excerpts from written records. Perhaps he did so because he saw actual documents as rhetorically more effective in proving the truth of Christianity—the purpose of his history. Later church historians, with similar apologetic agenda, would emulate him in hauling the archives into their narratives. Historians of secular affairs generally did not. Eventually, many centuries later, the creation of the modern discipline of history would pivot on linking archive and narrative: on merging the philologist’s zest for texts with the tale-teller’s love of a good yarn, on yoking the ecclesiastical historian to the civil historian.47

Many of the books that Eusebius toiled over looked, in physical form, very unlike the scrolls that Aristarchus and Varro marked up. For centuries, besides using papyrus, writers had scribbled more casually with a stylus on thin rectangles of wood coated with wax. The writer could tie two or more such tablets together with string running through holes drilled along one side. The Romans called this multilayered memo pad a *codex*. They also figured out that using sheets of parchment or papyrus instead of wood made a codex less un-
wieldy: you stacked a few sheets in a neat pile, folded them down the middle, and sewed them together at the crease. The idea caught on, evolved. Take several such codices; bind them together; and you have space for more than a grocery list. You can write down the *Aeneid*. The name codex got transferred from the multitiered notepad to the many-paged tome. The new codex had an edge over scrolls: it was easier to read (turning pages instead of unrolling and rerolling); higher in capacity and thus lower in cost; less of a nuisance to carry around. And (if you had a table to set it on) it left one hand free to scratch flea bites—or to take notes (a boon to philologists). Still, few species show more inertia than the bookworm. The newfangled codex existed in Rome by the late first century CE; but not until around 300 did it equal the scroll in popularity, and only at around 500 did it take over. Just as slowly, papyrus gave way to parchment: more durable, easier to write on both sides of, and manufacturable outside the Nile valley. (Paper displaced parchment for most purposes in the late Middle Ages, ultimately making the printing press practical.) Curiously, from the outset Christians much preferred their writings in codices. Several plausible tales explain why, but scholars only guess.48

Just as the novel codex was winning a majority, philology split into two Christian streams. In 330 the emperor Constantine betook himself to an ancient Greek town on the Bosphorus called Byzantium, rebuilt it grandly, made it capital of the Roman Empire, and renamed it New Rome. Other people called it Constantinopolis (Constantinople to us): Constantine’s city. The center of gravity of Roman culture shifted from the Latin west to the Greek east. The Roman Empire erratically flourished in the east for several centuries, then hung on for a few more before finally succumbing to the Ottoman Turks in 1453. Modern historians label it the Byzantine Empire after about 600.

In the east, Roman schooling and Roman scholarship persisted, in Greek rather than Latin. The schooling shifted in the Byzantine period to the same sequence of trivium and quadrivium that prevailed in the medieval west—probably not rigidly followed in either region. (West may have got it from east.) Quantity and quality of scholarship ebbed and flowed with the political and economic fortunes of the empire. But, save at the worst of times, scholarly activity never ceased in Constantinople. From the ninth century onward, scholars did their work in a new ‘minuscule’ script, leaner and easier to write. Even as the empire wheezed toward its demise, Byzantine philologists produced writings that mattered. Demetrius Triclinius (ca. 1300–?) reworked scholia on a number of authors into helpful new commentaries and snatched from oblivion nine plays of Euripides. Manuel Moschopoulos (ca. 1265–1316) produced an expert edition of Sophocles and a lexicon of the defunct Attic dialect of classical Athens. The latter work descended from another lexicon prepared four centuries earlier by the learned Patriarch Photios (ca. 820–92). On the whole, eastern empire scholarship seems unadventurous, in keeping with a tradition-minded culture.49
Byzantine philology mattered to later humanistic scholarship not for dramatic breakthroughs but for saving a lot of texts and scholarly practices otherwise lost. For instance, the stylistic ideas of the second-century rhetorician Hermogenes of Tarsus stayed alive only in Byzantium. In 1426 George of Trebizond brought them to western Europe and sent a fresh breeze through Renaissance literature. And do not forget those nine plays of Euripides that we still have, thanks to Demetrius.50

Medieval Survival

If the Greek east tended to timidity, the Latin-speaking western half of the empire never rose to that level after the fifth century. It is telling that John Edwin Sandys’s venerable History of Classical Scholarship, when it reaches the western Middle Ages, becomes no longer a history of scholarship (of critical editions, commentaries, and scholia) but of survival—of where knowledge of ancient texts persisted, of where grammar and rhetoric were still taught.51 Nonetheless, as begetter of later European philology, the Latin west must command more attention in this book than the sturdier Byzantine Empire.

In the west, ‘barbarian’ armies ravaged the empire from Italy to Africa, from Gaul to Hispania. So-called barbarians were not necessarily more barbaric than Romans they defeated. Barbarian leaders could be thoroughly Romanized, even well disposed toward erudition. Roman aristocrats, and the grammarians and rhetoricians who schooled their children, could flourish under barbarian rule. The problem was episodic disorder, often extreme. The Roman Empire fell apart in the Latin-speaking world in the late fifth century. In the seventh century the new power of Islam seized the eastern and southern Mediterranean portion of the old empire, from Syria to the Atlantic; early in the next century Muslim armies captured the bulk of the Iberian peninsula as well. In most of the rest of the former western empire, administration decayed; networks of communication frayed; cities shriveled; schools withered; literacy declined.52

Scholars strained to keep alight the guttering flame of ancient learning, now mostly in order to illuminate Christian texts. Magnus Aurelius Cassiodorus Senator (ca. 490–585) was one such salvager. A high official when Ostrogoth kings ruled Italy, Cassiodorus finally fled the maelstrom of politics. He founded a monastery on his estate in southern Italy, provided a library, then set his monks to copying books. He himself proved philologist enough to use critical marks to manage manuscripts (not the signs inherited from Alexandria). Around 537, he wrote for his monks—and kept revising for decades—a handbook known in its final form as Institutiones divinarum et humanarum lectionum (Introduction to Divine and Human Reading). Cassiodorus’s Institutiones became a stock item in medieval libraries. In it he conserved the erudi-
tion of “the secular teachers” to ensure that the scriptures were rightly interpreted and accurately copied: “both in the Bible and in the most learned commentaries [on it] we understand a great deal through figures of speech, through definitions, through grammar, rhetoric, dialectic, arithmetic, music, geometry, and astronomy.” Here are Martianus Capella’s liberal arts, put to Christian purposes. Cassiodorus listed in what became the traditional order the *trivium* and then *quadrivium* of medieval education. A forerunner of this new way of schooling, his monastery went under in chaos brought by Lombard invaders soon after his death. Its library, scattered, left traces in medieval manuscripts made as far away as northern England.53

In the next century, in the temporarily more peaceful setting of Visigothic Spain, Bishop Isidore of Seville (ca. 570–636) more extensively reworked ancient knowledge for the new world. Isidore arranged his *Origines sive Etymologiae* (*Origins or Etymologies*) by the curious device of tracing meanings of terms to their supposed roots (in a sense a faint echo of Pergamene etymology). This encyclopedia amassed in twenty books a hoard of information about education, medicine, law, languages, monsters, metallurgy, ships, building, farm implements: you name it. Isidore’s work spread rapidly—remarkable in the seventh century. It became possibly the most vital single adapter of ancient knowledge (educational ideas and philological learning included) to the European world taking shape.54

Other signs of a new order appeared. Some monasteries carried on Cassiodorus’s program of copying secular as well as religious texts—although others scraped the ink off their classical parchments to write instead the words of the Bible or Church Fathers. (‘Palimpsests,’ through which a skilled reader can discern an original script under new writing, helped later in recovering ancient texts.) Scholarly churchmen such as Gregory of Tours (ca. 538–94) and Paul the Deacon (ca. 720–99) set histories of new ‘barbarian’ nations within Romano-Christian frameworks like Eusebius’s. In England the historian Bede (ca. 673–735) found access to parts of Vergil, Pliny, Macrobius, and other Roman authors. His critical attitude toward sources, his care for documentation, and his antiquarian interests imply that he also shared ideals of ancient erudition. Besides his famed history of the English church and people, Bede drew up a world chronology like Eusebius’s, more tightly bound to biblical and Christian history. He died working on a translation of the Gospel of John into Old English. This last philological project put him very broadly in the lineage of Origen and Jerome. But, unlike them, Bede probably never wondered whether the Latin text he translated needed emendation. Medieval scholars did not usually fret about textual philology when studying the Bible—or secular works. Yet grammar did intrigue Bede and his Anglo-Saxon contemporaries; and in this, too, they foreshadowed later medieval erudition.55

A younger, learned Anglo-Saxon, Alcuin of York (ca. 735–804), helped to launch the ‘Carolingian Renaissance.’ Alcuin became in effect minister of edu-
cation under the Frankish king Charlemagne (in Latin, Carolus Magnus; hence Carolingian). Charlemagne fostered learning, even sponsored (exceptionally) emendation of the Bible. He and his immediate successors supported scholars in monasteries but also drew learned men to court. The Carolingian Renaissance renewed interest in ancient grammar and in classical writings, although sacred literature almost always took precedence. Almost: the Benedictine abbot Lupus of Ferrières (ca. 805–862), at least, preferred Cicero to theology. Lupus also emended the classical texts he collected by collating manuscripts: a philological routine largely abandoned in the Latin-speaking world. Carolingian chronographers compiled mosaics of historical data as Eusebius had done, but now built to show the new Frankish empire as continuing the Roman one. Much Carolingian energy went into transcribing. Our oldest copies of many classical works date from this period. They were written in Carolingian minuscule, a new hand parallel to the Byzantine minuscule developed about the same time. Easily legible to modern readers, Carolingian minuscule is ancestor of the typefaces printers use today. Older scripts may sometimes have tripped up Carolingian copyists. This would explain why they left so many errors for early modern scholars to emend. Charlemagne’s courtier Einhard memorialized his monarch in a sometimes elegant Latin biography modeled on Suetonius’s life of Augustus. Then a new period of turmoil made this ‘renaissance’ a false dawn.56

Around 1100, calmer social conditions and the spread of cathedral schools nurtured a ‘twelfth-century renaissance’. This revival of letters and learning had a poetic and rhetorical flavor, although some of the erudite also pursued literary and textual research as under the Carolingians. Grammarians improved on Priscian’s late-antique discussion of language by developing the concepts of subject and predicate. Biblical texts occasionally came under philological scrutiny. Andrew of St. Victor (ca. 1110–75) even consulted rabbis in the neighborhood of his monastery in northern France. Another scholar devised a method to pick out nova falsitas (newly introduced error) in liturgical texts. He scoured records of past synods and the like to find precedent; failing to find it, he tossed out the suspect words. Given the state of records, a lot of innocent verbiage must have died on the trash heap. But textual philology did not occupy many people. More typically, the Didascalicon of Andrew’s teacher Hugh of St. Victor (1096–1141) reworked the seven liberal arts. Hugh abandoned the snippets and summaries used by earlier medieval teachers and required students to read entire speeches or poems in order to grasp them as works of literary art.57

Hugh’s contemporary Bernard of Chartres (?–ca. 1130) also stressed literary study of major Latin writers, teaching in a pretty standard rhetorical-grammatical mode. John of Salisbury, who studied under Bernard’s disciples in the cathedral school at Chartres, told what he had heard of him. The report gives a flavor of the tradition. Bernard
would point out, in reading the authors, what was simple and according to rule. On the other hand he would explain grammatical figures, rhetorical embellishment, and sophistical quibbling, as well as the relation of given passages to other studies. The evening exercise, known as the “declination,” was so replete with grammatical instruction that if anyone were to take part in it for an entire year, provided he were not a dullard, he would become thoroughly familiar with the [correct] method of speaking and writing. He would also explain the poets and orators who were to serve as models for the boys in their introductory exercises in imitating prose and poetry.

Bernard’s fondness for pagan writers upset some people, but prayer pervaded his teaching at Chartres—a Christian edition of the philological, rhetorical education inherited from antiquity. And thus the philological legacy of antiquity survived, thin and pale. Long after the twelfth-century renaissance went the way of its Carolingian predecessor, throughout the later Middle Ages educated men still read Ovid and Statius, Horace and Vergil, Seneca and Cicero. Some of these authors appeared in school texts alongside grammars adapted from ancient authors. Tales derived from Livy or Vergil circulated in medieval dress. The tradition of chronology also endured, though now localized in monastic or court chronicles (some of which showed skill in sorting out absolute dates). So did ‘paradoxography’: like the scholars of Alexandria, some medieval writers—frowned on by university philosophers—cataloged startling or bizarre natural phenomena or human artifacts. Above all, the trivium, the base of more advanced education, included grammar and rhetoric as well as dialectic. As Marcia Colish stressed, the education of medieval men “saw to it that the trivium was as much a part of their mental equipment as their Christian faith.” Whatever the fate of grammatical and rhetorical scholarship, not even to speak of textual philology, every educated man had learned grammar and rhetoric as a schoolboy. So philology persisted, even if as a passive, ghostly presence. Yet for two centuries after 1200, Hugh’s Didascalicon or teaching like Bernard’s did look more like relics of a dead past than jewels of a living tradition.

The creation of universities during that period furnished new frameworks for a type of intellectual life averse to philology: the Scholastic program of education and research. A late fruit of the monastic and cathedral schools that preceded universities, Scholasticism made itself at home in the new institutions. Scholasticism privileged dialectic, with its stress on logical abstraction and its filiation with philosophy and theology, over grammar and rhetoric, with their emphasis on textual and literary studies. Thirteenth- and fourteenth-century scholars north of the Alps by and large turned away from the philological and even rhetorical heritage of antiquity to pursue instead its philosophical legacy. “By the mid-thirteenth century,” as Daniel Hobbins observed, “the notion of the ‘liberal arts’ was more symbol than substance, and studying
at a university meant studying Aristotle.” (Rhetoric remained central in Italian universities.*) True, later medieval scholars did avidly pursue certain kinds of old texts. Around 1150 Adelard of Bath translated into Latin the astronomical tables of the ninth-century Persian mathematician al-Khwarizmi, themselves based on Sanskrit work; Adelard thus brought to Europe previously unknown techniques of Indian astronomy. More famously, the rediscovery during the later twelfth century—again via the Islamic world—of key works by Aristotle made a great stir in Scholastic circles. In fact, the translation of these ‘lost’ books virtually created mature Scholasticism in the thirteenth century.60

But Scholastics pretty well limited their interest in ancient writings to philosophical, scientific, and ethical works—and largely forgot that even such manuscripts raised philological problems. That ancient invention, the learned commentary on an individual text, survived as a standard tool of Scholastic erudition. (Scholars even still read Servius on Vergil.) But Scholastic commentaries neglected the historical and antiquarian material key for Hellenistic and Roman scholars. Not until the Renaissance did philological modes of commentary reemerge.61 Meanwhile, much of Quintilian’s rhetoric lay hidden in forgotten manuscripts. Other classical texts of a literary, historical, or antiquarian nature, scrupulously copied by Carolingian scribes in their lucid minuscule script, likewise gathered dust in monastic libraries. Serious engagement with the philological heritage of antiquity held no appeal for Scholastics. The erudition born in Alexandria went into near hibernation in most of Europe after 1200.

Ancient rhetoric and grammar did carry on a shadow life within Scholasticism. The Scholastic zeal for dialectic sharpened a dichotomy perhaps first clearly asserted by Plato. On one hand, philosophy gave access to assured knowledge, certainty, truth (scientia, ‘science,’ in a medieval meaning very different from our own). On the other hand, rhetoric (and the philology allied with it) offered probability at best and a suspicious-looking resort to mere persuasion. Medieval Scholastics voted for truth and ‘science.’ But they kept rhetoric and grammar on life support: they absorbed rhetoric into logic; and they approached grammar—the one part of ancient philology many of them admired—as if it were dialectic. Early medieval Latin grammars had imitated classical ones, devoted to practical analysis of a single actual language. Starting in the twelfth century, grammars became more philosophical and logical in character, more remote from any actual language. At the same time, old-style rhetoric and grammar remained school subjects, and pedagogical texts used in earlier eras survived—indeed, a brief burst of new grammar books appeared in France and northern Italy in the late twelfth century, incorporating the more logical Scholastic version of the subject.62

* Education in northern Italian cities had never lost its civic complexion, inherited from Roman schooling. Instruction in rhetoric still prepared students for public life, and this agenda carried over to universities when they developed. This ‘Italian difference’—to use Ronald Witt’s phrase—mattered a great deal to the rest of Europe at the end of the Middle Ages.
But schooling is one thing; erudition another. The antiquarian and historical curiosity of Hellenistic and Roman scholars, still lush in Bede, largely withered. Hugh of St. Victor was no slave to dialectic: he wanted his students to study scripture in light of history and geography—that is, philologically. But, to find such contexts, he could direct students to little more than the Latin Fathers and the Bible itself. A century later, Hugh's successors, by squeezing biblical truths through the grid of philosophical analysis, created a totally ahistorical theology that could be studied independent of the sacred text from which it ultimately derived. Scholasticism, its interests directed elsewhere, made an arid landscape for philological learning.63

Not an unwatered desert. Medieval dialecticians strove to use words precisely. They even created a ‘science of language.’ This, at least, is one way to see the well-known debate between realists and nominalists at the heart of medieval philosophy. Did general terms point to something real, like a Platonic form? Or were they purely nominal conventions, convenient for referring to all the individual entities sharing certain traits? Did the species ‘horse’ denote an actual universal horsiness, or only the myriad of particular horses? This realist-nominalist debate carried forward, in much altered terms, ancient arguments between naturalists and conventionalists about the origin and character of language, echoing the dispute laid out in Plato's Cratylus. Moreover, the Scholastics' intensely logical approach to grammar eventually produced, starting from Priscian's late-antique grammar, a grammatica speculativa (speculative grammar). This science sought rules common to all languages, assuming that each reflected the real makeup of things. Grammatica speculativa faintly echoed some ancient conjectures and built a base for later linguistic theorizing. On the margins of the academic world, too, speculation on language continued. Jewish kabbalist mystics in Spain and Provence believed that language mirrored reality and that manipulating letters therefore yielded esoteric knowledge. Dante studied the splintering of the Romance languages; he sought to shape an Italian vernacular that would restore the primal linkage between words and the objects they name—a return, he believed, to the linguistic bliss of the Garden of Eden.64

Even scriptural study—which before and after the Middle Ages seemed a predestined site for textual philology—drifted away from it during the medieval period. In this case, Scholasticism was not the agent. The ancient Christian writers who allegorized the Bible, mimicking the interpreters of Homer, were ultimately responsible. From Augustine up to Aquinas, most Christian readers found several layers of meaning in scriptural passages, with spiritual senses often overwhelming the literal one. For a scholar mining the Bible for theological insight, a preacher using scripture to give moral direction, or a nun reading to deepen her spiritual life, having several strata in the text enriched the Book. Exegetes disagreed about how many distinct types of meaning a passage should bear. The down-to-earth Hugh of St. Victor favored three: literal (historical); allegorical (doctrinal); and tropological (moral)—and, un-
usual in his day, insisted on the literal as the basis of all readings. More fanciful commentators found as many as seven kinds of meanings. A fourfold exegesis was commonest: literal, allegorical, tropological, and analogical (mystical). Such construals put a premium on theology, preaching, contemplation. They turned attention away from philological problems.65

A rationalizing Scholasticism pulled the reins on fancy. Hugh of St. Victor began the restraint. Thomas Aquinas provided a stronger theoretical basis, as Beryl Smalley noted, by importing into Scholasticism the Aristotelian principle “that substance could only be known through its sensible manifestations.” It followed that “the ‘spirit’ of Scripture” was “not hidden behind or added on to, but expressed by the text.” Scholastic pedagogical method pushed in the same direction. In the new universities, lecturers addressed not just a biblical text directly but also collected glosses on that text. To avoid hopeless confusion, teachers had to assume in the text itself, first of all, a straightforward, foundational, literal meaning—though they did allow spiritual modes of reading on top of the primary literal meaning.66

Literal exegesis thus came into a certain vogue after perhaps 1300, though still buried under mounds of textual glosses: the inheritance of a long tradition of learned but nonphilological commentary. The Franciscan exegete Nicholas of Lyra (1270–1349) insisted on the primacy of the literal sense when many of his contemporaries still vigorously allegorized. But he included in ‘literal’ both the original writer’s intent and “the prophetic meaning that was to come.” For late medieval interpreters like Nicholas, ‘literal’ did not mean historical in the sense of illuminating the text with ancient context. But sooner or later, under the new regime, biblical scholars would need Hebrew and Greek and historical research to do their job well. This literalist turning within Scholastic exegesis gave new energy to textual philology, but very slowly. The handful of philologically-minded students of the Old Testament text in the 1200s—who struggled with Hebrew, consulted erudite rabbis, and scoured manuscripts for variant readings—worked outside the universities. In contrast, just a little later, Nicholas of Lyra’s command of Hebrew learning may help to explain his rapid rise at the University of Paris. (He used the same learning to attack Judaism.) In the early 1300s, two church councils and a pope ordered major universities to set up professorships of Greek and oriental languages (Hebrew, Aramaic, and Arabic), probably to support evangelizing. A couple of universities made feeble stabs at obeying, but nothing much happened for another century. Competent candidates were not pouring out of the academic establishment. Biblical philology required the literary and historical learning that Scholasticism had devalued in favor of philosophy and its irrefutable scientia.67

Philological expertise would take time to recover. Around 1400, hints of movement rustled even through the heartland of Scholastic Europe, north of the Alps. Some French writers tried to compose more elegant Latin, holding up Cicero as their silver-tongued ideal. Those who spent time at the papal
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court in Avignon developed an ardor for classical texts that reminds one of Lupus of Ferrières. Jean Gerson, chancellor at the University of Paris, proudest citadel of Scholasticism, decried the “great famine of worthy and eloquent historians and poets” afflicting France. He worried that dense, technical theological jargon made no impression on the reading public, even as that public grew in number. He criticized the literary clunkiness of Scholastic writings and called for deeper study of rhetoric—though dialectic held him enough in thrall that he called rhetoric a second kind of logic! In Scholasticism’s other premier university, Oxford, around the same time, theologians were growing disenchanted with an excess of logic and showing a new fondness for the ancient Church Fathers. None of this amounted to full-throated philology—Jean Gerson never collated a manuscript—but straws floated in the breeze.68

And even the high medieval heritage included tidbits that philology later devoured. After around 1100, government, legal proceedings, trade, and religion all made more and more use of writing, and texts multiplied. In particular, Scholastic method demanded that university teachers and students master authoritative books in detail; and the number of works requiring control ballooned during the thirteenth century, especially as ancient Greek learning preserved by Islamic scholars leached into Latin. The growing ‘information overload’ needed management: search engines, one might say. So learned men either refined tools inherited from antiquity (such as the encyclopedia), or they invented new ones (such as the alphabetical index to a book). The most widely used index—employed by preachers as well as teachers—was the biblical concordance.* This implement indexed at first the words in the Bible but soon topics, too. When philology eventually revived, its adepts adapted such reference works to their own uses. More substantively, grammatica speculativa had offspring in what would later be called linguistics. In the very long run, too, spiritual exegesis of the Bible left its mark on erudition. The grafting of ancient modes of reading Homer onto the Christian scriptures, after a thousand years, had embedded itself deeply in reading practices. Digging beneath the surface of a text to excavate hidden meanings could offer a way of understanding secular books as well.69

All this lay dormant. With few notable exceptions, later medieval scholars neglected philology for other interests. Ancient learning eked out a bare existence as the least respected parts of the trivium. Yet rhetorical and grammatical erudition, literary and textual criticism, even chronology and antiquarianism, had not vanished. They lay on countless library shelves, in monasteries across Europe, waiting to be discovered anew.

* The concordance in turn led to dividing the books of the Bible into our present standardized chapters, to help users find a given word or topic regardless of how a particular manuscript of the Bible was laid out. This Christian invention eventually became standard in Jewish Bibles, too.