

SILENT READING IN ANTIQUITY AND THE FUTURE HISTORY OF THE BOOK



R. W. McCutcheon

Did the ancient Greeks and Romans commonly read silently or aloud? Were they even capable of reading silently? Answers to such questions depend on whom one asks. It is a long-held conviction in book history scholarship that readers in antiquity almost exclusively read aloud, except in a few cases of especially gifted and learned individuals – such as Caesar, Cicero, or Saint Ambrose. The widespread practice of silent reading would have to wait until the Middle Ages, when innovations such as word division and complex punctuation revolutionized written discourse. Yet many classicists provide an entirely different answer. A substantial body of research in this field **flatly rejects the contention that ancient readers were unable or unwilling to read silently**. In fact, scholars in this field have largely turned the page on this debate, regarding it as a “moribund” controversy,¹ and instead have redirected attention toward problematizing more precisely the sociology of reading in the scroll-based textual culture of the ancient world.²

It is this division in scholarly opinions that provides the impetus for my paper: How do we reconcile these divergent views on reading in antiquity and understand what led to these conflicting histories? My primary purpose in this paper is not to adjudicate this dispute, although I will offer my own opinion. Rather, I wish to explore the scholarly investment in this debate and its implications for the larger academic project that is the history of the book. In short, what can this debate tell us about how scholars have constructed this history? In addition, I observe that this debate about the reading abilities of individuals in antiquity can actually have implications for the futurology of the book. Our understanding of how previous epochs have utilized various forms of this technology has often shaped our perception of its digital incarnation and influenced our employment of it.³ For that reason, the historiography of the book, particularly as it relates to silent reading, may affect the very future of the book.

This paper begins with a review and reexamination of the scholarly debate regarding silent reading in antiquity. By putting these two camps in dialogue, I reveal the problematic presumptions and deductions that scholars have made. Despite what many studies have maintained, there was actually no technological reason that prevented individuals in antiquity from silently perusing a text. A balanced evaluation of the literary evidence also demonstrates that silent, contemplative reading was an unremarkable activity in antiquity, albeit in a culture in which communal performative reading aloud was also common. Finally, I add my own contribution to this debate in an effort to dispel the widespread belief among book historians that readers in antiquity regarded written discourse solely as a script awaiting oral embodiment. While I touch on classical Greek culture, I primarily draw evidence from Roman antiquity for these conclusions, both because this is my area of expertise and also since Roman reading culture was the precursor to the medieval reading culture in which (according to the traditional scholarly narrative) silent reading first began to emerge. I then propose a rationale for these differing narratives concerning the history of reading. I contend that the scholarly understanding of *lectio tacita* reveals much about the epistemology of book history. The longevity and persistence of this misunderstanding regarding the nature of ancient reading can be traced to the fact that this misinterpretation fits perfectly within the larger narrative which the discipline of book history likes to offer concerning the dual evolution of the book and the human mind. As we shall see, if book historians were to acknowledge that individuals in antiquity commonly read silently, that admission would challenge the linear, supersessionist, and teleological model that underlies much of the narrative history of the book. Moreover, it would undermine the scholarly belief that the history of human cognition can be linked causally to the development of information technology. I conclude by briefly exploring how this new appreciation of both reading in antiquity and the history of the book can productively inform our understanding of digital textuality. If we recognize that antiquity possessed a more dynamic and complex reading culture than we assumed, this realization can allow us to draw some interesting parallels with and possible *exempla* for digital culture.

I. Alternate Readings

The *locus classicus* for the argument that ancient readers were incapable of reading silently comes from a passage in Augustine's *Confessions* where the future saint draws attention to the fact that his teacher Ambrose read silently. Augustine presents Ambrose's activity as unusual:

But when Ambrose used to read, his eyes were drawn through the pages, while his heart searched for its meaning; however, his voice and tongue were quiet (*oculi ducebantur per paginas et cor intellectum rimabatur, vox autem et lingua quiescebant*). Often when we were present—for anyone could approach him and it was not his habit that visitors be announced to him—we saw him reading in this fashion, silently and never otherwise (*tacite et aliter numquam*). (*Conf.* 6.3.3)

In his 1898 monograph *Die antike Kunstprosa*, philologist Eduard Norden drew attention to this passage and, as an explanation for Augustine's confusion over Ambrose's reading habits, Norden conjectured that reading aloud was the default practice in antiquity for literary texts.⁴ In subsequent editions of this monograph, he compiled a list of examples in an appendix that demonstrated this point.⁵ Nonetheless, it was a pair of articles from the late 1920s by two classicists, Josef Balogh and G. L. Hendrickson, which made popular the argument that ancient readers did not read silently.⁶ Balogh's article, the more influential of the two, similarly took much of its impetus from Augustine's observations concerning Ambrose;⁷ however, Balogh also assembled a collection of examples from classical literature which he contended demonstrated that individuals in antiquity commonly read aloud all categories of texts and only rarely read silently. For example, the second century AD rhetorician Lucian of Samosata castigated an uneducated bibliophile by observing: "Your lips [are] still busy with one sentence while your eyes are on the next" (φθάνοντος τοῦ ὀφθαλμοῦ τὸ στόμα) (*Adv. Ind.* 2).⁸ And the Augustan poet Ovid has Cydippe write in his *Heroides*: "I was afraid, but I read your letter without a sound (*sine murmure*), lest my unwitting tongue swear by any Gods" (21.3–4). In Balogh's opinion, the former passage showed that reading in antiquity was normally *viva voce*, while the latter demonstrated that there was something exceptional about *lectio tacita* in Greco-Roman times since it needed to be specified.⁹

Just as importantly, Balogh offered a technological rationale to account for the rare practice of silent reading in antiquity: *scriptio continua*. He

argued that ancient readers overcame the difficulty of reading continuous script (i.e., script which lacked spaces to separate words) only by articulating the text aloud so that they might find the boundaries of individual words.¹⁰ More recently, scholars of the medieval era have expanded on Balogh's hypothesis concerning *scriptio continua* and accorded particular importance to the discontinuation of this bibliographic practice. Malcolm Parkes has provided a convenient label, "the grammar of legibility," to describe the developments which he believes allowed for the widespread practice of silent reading in the Middle Ages.¹¹ In Parkes's view, there was a shift from oral to "visible language," which was driven by the rise of a class of readers for whom Latin was an unfamiliar foreign language. These readers treated Latin as a truly written (i.e., "visual") language as evinced by their implementation of a series of innovations—such as glosses, annotations, word breaks, and punctuation—which cannot receive oral embodiment.¹² Another medievalist, Paul Saenger, makes a similar argument in his 1997 monograph, *Space between Words: The Origin of Silent Reading*, but with additional reference to research from the fields of neurophysiology and linguistics. Saenger argues that oral recitation of texts was necessary in antiquity to help "the reader to hold in short-term memory the fraction of a word or phrase that already has been decoded phonetically."¹³ Thus Saenger contends that the insertion of spaces between words in the medieval world was revolutionary, since it allowed for the introduction of silent reading and, in so doing, freed readers to comprehend "inherently more difficult texts."¹⁴

In general, the advent of silent reading as a common social practice has been regarded an important historical moment, since it allowed for greater meditation and reflection on a text and, thus, enabled the expansion of human understanding. We find such a technological explanation for the near absence of silent reading in antiquity and an elaboration on its cognitive implications repeated in the scholarship of nearly all the founding theorists of the written word: Marshall McLuhan, Eric Havelock, Jack Goody and Ian Watt, Walter Ong, Lucien Febvre and Henri-Jean Martin, and David Olson.¹⁵ Various histories of reading also repeat this narrative. In a seminal article on this history, Robert Darnton asserts that a silent mode of reading arose sometime in the medieval era.¹⁶ It is taken for granted throughout *The Ethnography of Reading*, a collected volume of papers, that reading aloud was the dominant, if not the exclusive, practice in classical antiquity.¹⁷ Similarly, Alberto Manguel's *A History of Reading* states that *lectio tacita* was highly unusual and rare in antiquity and emphasizes the significance of its introduction during the medieval era,¹⁸ since it enabled readers to draw

“new notions from [texts], allowing comparisons from memory or from other books left open for simultaneous perusal.”¹⁹ Steven Roger Fischer reiterates such a view in his own monograph on the history of reading when he sets up an opposition between the “papyrus tongue” of antiquity and the “parchment eye” of the medieval age in order to describe the evolution of reading in the first millennium of the common era.²⁰ Finally, in *A History of Reading and Writing in the Western World*, Martyn Lyons situates the innovation of silent reading in the early Middle Ages and credits this practice for allowing “a more individualised appropriation of the text.”²¹

This viewpoint has found its way into the wider scholarly literature on the history of the book. For example, Roger Chartier observes a shift between the seventh and ninth centuries AD “from necessarily oralized reading, indispensable for the reader’s comprehension, to reading that may be silent and visual.”²² This shift in comprehension that “silent and visual” reading causes is profound in Chartier’s opinion: “It radically transformed intellectual work, which in essence became an intimate activity, a personal confrontation with an ever-growing number of texts, a question of memorization and cross-referencing.”²³ In his study of Augustine’s reading habits, Brian Stock offhandedly mentions that it was a necessity in antiquity “to sound out the words, syllable by syllable” because of a lack of visual aids.²⁴ Similarly, in her study of the history of the page, Bonnie Mak observes that “blank space is crucial to the activity of reading, and especially silent reading.”²⁵ Hypertext theorists Christian Vandendorpe and Jay David Bolter make similar observations about reading in antiquity.²⁶ Unsurprisingly, this narrative regarding the development of reading has become ensconced in the more didactic sources: David Finkelstein and Alistair McCleery’s *An Introduction to Book History*²⁷ as well as the recent Blackwell and Oxford handbooks on the history of the book.²⁸ Among scholars who study the history of the book and written discourse, then, it would appear a well-established and uncontroversial fact both that silent reading was an uncommon and infrequent practice in the ancient world and that the common practice of silent reading in the medieval world represented an important intellectual and cultural revolution.

Nevertheless, while book historians have been authoring one history, many classicists have been writing another. The first challenge to what quickly became the hegemonic narrative in the history of reading emerged soon after Balogh’s and Hendrickson’s seminal articles, and new entries in this bibliography have consistently appeared, reaching a high point around the turn of the millennium.²⁹ Nonetheless, this counternarrative has had

trouble gaining a foothold within the larger body of scholarship on the history of reading.³⁰ Indeed, it has not always enjoyed widespread awareness within the Classics community.³¹ In what follows, I outline these counterarguments thematically rather than providing a chronological history of this scholarship in the interest of streamlining the discussion.

W. P. Clark inaugurated this alternate history in 1931 with a paper published in the *Classical Journal* that explicitly responded to Hendrickson's article (although, curiously, not to Balogh's).³² While Clark acknowledged the common practice of reading aloud in antiquity, he asked with reference to the passage from Augustine's *Confessions*: "Might not the surprise on the part of Augustine be due to the fact that Ambrose was *always* found reading silently?"³³ In fact, this has been a consistent theme of the counternarrative that has developed over the last eight decades. Some scholars question why the cultural practice of reading aloud necessarily marginalizes silent reading. This is a point to which I shall return; however, it is more productive to start not with the question of the general culture of reading in Greco-Roman times but rather with the contention that the technology of this era presented an impediment to the silent perusal of a written text.

The technological rationale put forward to account for the rare practice of silent reading in antiquity often oversimplifies what is a complicated history. For instance, texts in antiquity were not devoid of punctuation, although, it must be admitted, punctuation in classical antiquity was neither particularly complex nor did it ever become standardized.³⁴ Moreover, while texts written in ancient Greek consistently used *scriptio continua* throughout antiquity, Latin texts had a different genealogy. *Scriptio continua* was used initially in Latin texts, but by the second century BC dots between words (*interpuncta*) were inserted following the Etruscan model.³⁵ Seneca the Younger viewed these *interpuncta* as a point of cultural pride: "we [sc. Romans] are accustomed to put dots between our words (*interpungere*) when we write" (*Ep.* 40.11). Curiously, *scriptio continua* again became the predominant textual layout for Latin texts by the second century AD.³⁶ This circularity of scribal practices should raise certain questions regarding the scholarly justification for the supposed ubiquity of reading aloud in the Roman world.³⁷ Should we suppose that Romans starting reading silently in this interregnum of *scriptio continua* and then ceased in its second coming? More fundamentally, why would Romans regress in their scribal practices if word breaks were so revolutionary to reading practices?

An inability to see beyond modern Western cultural norms is likely what makes this variability of scribal practices in the Roman world a paradox for

some historians. Guglielmo Cavallo echoes conventional scholarly opinion regarding the architecture of the page in antiquity when he states, “a series of continuous letters made it difficult for an unpracticed eye to discern the limits of individual words and grasp their meaning.”³⁸ Yet all eyes are “unpracticed” at discerning text until they become practiced, as the rhetorician and historian Dionysius of Halicarnassus (c. 60 BC–AD 7) notes when he discusses the process of learning to read Greek (which was always written in *scriptio continua*):

When we get an acquaintance (ἐπιστήμη) with these (sc. the basics of grammar), then we begin to write and read—syllable by syllable and slowly at first (κατὰ συλλαβὴν <μὲν> καὶ βραδέως τὸ πρῶτον). However, when a decent amount of time has gone by and has implanted the forms of words firmly in our minds, then we do these things with ease and we go through any book that someone has presented to us with skill and speed (ἔξει τε καὶ τάχει [ἀπίστω]). (*Comp.* 25)

As Dionysius notes, readers in antiquity could learn with time and effort to read quickly and proficiently texts written in *scriptio continua*.³⁹ Interestingly, the papyrological record shows that in order to help students acquire this ἐπιστήμη, aids such as “spaces, dots and oblique strokes that divided syllables and/or words” were employed. Nonetheless, as students—or rather, their eyes—became more practiced, such aids were withdrawn and *scriptio continua* became the dominant form of text encountered.⁴⁰ Moreover, the layout of the page would have actually been some aid for the ancient reader in the process of deciphering a text without word spaces, given that the standard width for a column in literary texts from antiquity contained the approximate number of letters which the brain can process at one time.⁴¹ Finally, it is important to remember that Greek and Latin primarily generate meaning through the use of grammatical cases and verbal conjugations rather than through word order as English does. Thus, Alessandro Vatri is likely correct when he observes that ancient readers would have been accustomed to seeing certain terminal letter clusters and would have intuitively used these in lieu of blank spaces to demarcate one word from another.⁴²

A brief survey of the bibliographic practices of some non-European modern languages only underscores the problematic nature of this old argument concerning *scriptio continua*. For example, Thai uses continuous script and yet we do not deny that speakers of this language are capable of silent reading (though spaces between words appear to facilitate marginally quicker

reading comprehension).⁴³ Likewise, while it differs from the Latin and Cyrillic scripts used in European languages since it is pictographic, written Chinese does not employ spaces between words and this practice in no way prevents silent reading.⁴⁴ In general, we should exercise caution in assuming that modern Western bibliographic practices provide the only acceptable standards, while other practices (such as *scriptio continua*) are inherently faulty and inferior.

Finally, I would note that there is a fundamental flaw with the underlying supposition that *lectio viva voce* and *lectio tacita* represent mutually exclusive modes of interacting with a text. A. K. Gavrilov observes that modern research in the psychology of reading has shown that reading aloud beyond an elementary level presupposes that the individual can read ahead quickly and silently.⁴⁵ Gavrilov notes that a passage from Lucian (which, as I noted, Balogh used as evidence for the commonality of reading aloud in antiquity)⁴⁶ demonstrates this very phenomenon. In this text, Lucian states: “You even read a bit here and there, in a scrambling fashion, your lips still busy with one sentence while your eyes are on the next (φθάνοντος τοῦ ὀφθαλμοῦ τὸ στόμα)” (*Adv. Ind.* 2). Here Lucian is mocking this individual for his imperfect literacy. He recites a text aloud (presumably to his friends) in a not-so-impressive manner because he cannot read silently ahead in a proficient enough manner for a smooth recitation.⁴⁷ The first-century AD Roman rhetorician Quintilian likewise insisted that silent reading was intrinsic to the very act of reading aloud:

As all teach, to look ahead and to anticipate what is to come is not only a matter of precept but also of practice. Since one must recite what preceded while looking at what follows (*sequentia in-tuenti priora dicenda sunt*), and (which is the most difficult thing) the mind’s attention must be divided so that one thing is done with the voice and another by the eyes (*ut aliud voce aliud oculis agatur*). (*Inst. Or.* 1.1.34)⁴⁸

Indeed, both Lucian and Quintilian suggest that any reader who could read aloud competently should also have been capable of doing so silently.

As in the modern world, individuals in antiquity learned to navigate an initially daunting textual environment with time and practice. (Indeed as simple experiment in reading an English sentence in *scriptio continua* should have confirmed this fact. Even our unpracticed eyes can decipher such continuous text without recourse to reading aloud. Imagine what we could do with practice!) This is not to say that continuous text with little punctuation

would not have presented certain challenges for ancient readers, particularly for those learning to read literary texts and wishing to become participants in elite literary culture.⁴⁹ Yet any increased difficulty that this textual environment posed to learners was likely part of its purpose and also its “allure,” as William Johnson observes in his study of the culture of reading at ancient Rome. “Its very difficulty,” he notes, “serves to validate the activity as one exclusive to the educated and cultured.”⁵⁰ Quite likely, then, later innovations such as word division and increased punctuation (which are characteristic of the nascent and later dominant Christian textual culture) disclose, as New Testament scholar Larry Hurtado suggests, “a concern to make the texts accessible to a wider range of reader-competence.” He proposes that such a concern “probably reflects the socially diverse and inclusive nature of typical early Christian groups.”⁵¹ Nonetheless, while the ancient “pagan” page may have presented distinct challenges to its readers and created certain barriers (as every reading culture does in its own way), the actual physical form of the *pagina antiqua* did not impede or prevent readers from silently perusing a text.

Interestingly, some historians of the book concede that silent reading did occur, on occasion, in antiquity.⁵² These scholars claim, however, that the vast majority of readers in this era still would not have engaged in this practice since they were so greatly tied by cultural convention to oral recitation and aural reception. For example, Chartier—who dates the arrival of *lectio tacita* as a common practice toward the end of the first millennium—does not actually deny that silent reading was possible in antiquity, but rules out its common practice because of “a cultural convention that powerfully associated text and voice.”⁵³ Likewise, Robert Darnton notes that while *lectio tacita* existed in the ancient world, “it probably was unusual before the first century, when the codex [...] became a vehicle for the spread of Christianity and, with it, a reflective mode of reading, silent and solitary.”⁵⁴ In addition to all his arguments concerning the medieval innovation of a “grammar of legibility,” Parkes raises the specter of the *vir eloquentissimus* as a Roman ideal, under which the purpose of literacy was “expressive declamation with well modulated pronunciation.”⁵⁵ Bolter cites the highly rhetorical nature of classical prose as proof of the oral nature of literacy in antiquity.⁵⁶ Finally, Lyons asserts that silent reading “was a marginal activity in the Greco-Roman world.” “The writer wrote to create sound,” he states, “and his task was only complete when his text was transformed into the spoken word.”⁵⁷

From this vantage point, we can begin to understand the longevity of this debate. Despite the argument offered concerning *scriptio continua*, this de-

bate is not really about whether individuals in antiquity *could* read silently but rather whether they *did*. In this argument, the architecture of the ancient page functions only as an after-the-fact rationale for a supposed cultural practice observed in the literary sources. Saenger is perhaps the most instructive on how this entire argument congeals together:

We know that the reading habits of the ancient world, which were profoundly oral and rhetorical *by physiological necessity as well as by taste*, were focused on a limited and intensely scrutinized canon of literature. Because those who read relished the mellifluous metrical and accentual patterns of pronounced text and were not interested in the swift intrusive consultation of books, the absence of interword space in Greek and Latin was not perceived to be an impediment to effective reading, as it would be to the modern reader, who strives to read swiftly.⁵⁸

In Saenger's view, *scriptio continua* is both the cause and result of the larger sociology of reading in antiquity. That is to say, Saenger believes not only that ancient individuals read aloud because of the format of text in a book-roll, but also that they formatted the page in this way because they regarded written discourse only as a "transcription of pronounced speech."⁵⁹ Saenger makes explicit here the tendency on the part of many historians of reading and the book to merge a technological rationale with a cultural one in explanations for the supposed oral nature of ancient reading culture. In such accounts there is a certain circularity of argument, with each rationale serving to strengthen and prop up the other: individuals in antiquity read aloud because they saw written text as a transcription of a *viva voce* verbal event, and thus they formatted the ancient page as a reflection of this predilection.

For this reason, the removal of the technological rationale for why ancient readers could not read silently is only of limited consequence, given that this debate about reading in antiquity is actually about the sociology of reading in that culture. While a technological explanation has been used to reinforce the argument concerning the cultural predisposition towards oral reading, it was always only a hypothesis to explain a prior observation. The real question, then, is this: Did individuals in Greco-Roman times commonly read silently or not? That is, do the testimonials from the literary record demonstrate that silent reading was a rare and unusual activity, as many scholars have maintained?

There are plenty of examples that demonstrate the common practice of *lectio viva voce* in antiquity. For example, in one of his letters, Cicero

discusses his reading habits: “When the morning salutations have ebbed, I wrap myself up in my writings; I either read or write. People even come who listen to me as if I were a learned man (*qui me audiunt quasi doctum hominem*), because I am a little more educated than them” (*Fam.* 9.20.3). Stephan Busch, one of the only remaining classicists to argue that silent reading was rare in antiquity, presents this passage as proof that to read (*legere*) for the Romans meant to read aloud a text.⁶⁰ Then there is Lucian’s already cited ridicule of the uneducated bibliophile. Lucian’s reference to this person’s “lips still busy with one sentence while [his] eyes are on the next” would also seem to suggest that reading meant reading aloud (*Adv. Ind.* 2). Additionally, in his seminal article, Balogh catalogued a number of passages that refer to the page having a “voice,” implying again that reading meant reading aloud for individuals in classical antiquity. Balogh’s first example is a well-quoted funerary inscription preserved in an ancient anthology of Latin verse, in which an unnamed poet writes: “Passerby, you wish to know that the bard survives beyond death? Behold, I speak because you read (*quod legis ecce loquor*); your voice is now mine” (*Anth. Lat.* 721).⁶¹ I could cite more examples, but the literary evidence seems clear: reading aloud was common in antiquity.

Those scholars who have maintained that silent reading was common in antiquity rarely dispute this point,⁶² but they question why the practice of *lectio viva voce* necessarily rules out *lectio tacita*.⁶³ Indeed, recent studies of reading in Roman society have theorized two mutually inclusive modes of reading.⁶⁴ William Johnson proposes a Roman culture in which “group reading and serious conversation devolving from reading are twin axes around which much of the elite man’s community turns,” though he believes that the literary evidence (which I will discuss shortly) demonstrates that silent reading was also commonly practiced.⁶⁵ Emmanuelle Valette-Cagnac has suggested a similar sociology, with a direct solitary mode of reading opposed to a more public communal form.⁶⁶ Finally, we should keep in mind that there was another possible explanation for the instances of reading aloud which we find in the sources. As one scholar punned, Rome may have had a Colosseum and a Circus Maximus, but no spectacles.⁶⁷ In this era, reading aloud by another person (slave or friend) would have been the only solution for impaired vision.

Proponents of the theory that silent reading was rare in antiquity typically also draw attention to passages from classical literature in which the act of *lectio tacita* is marked as unusual; however, the meaning of these passages has often been contested. In addition to the previous quotation from

Augustine, scholars often cite two other passages that they maintain disclose the unusual nature of silent reading in antiquity. There is the aforementioned passage from Ovid's *Heroides*, where Cydippe says "I was afraid, but I read your letter without a sound (*sine murmure*), lest I swear by any Gods with an unwitting tongue" (2.1.3–4), and Plutarch's testimony that "when a short note was delivered to Caesar from outside the senate, he read it in silence (τὸν μὲν ἀναγινώσκειν σιωπῇ)," an act which caused an uproar among the senators (*Brut.* 5.2–3). Such passages would appear to suggest that *lectio tacita* was unusual since the activity is specified and provokes special attention.⁶⁸ Nonetheless, context also may explain the emphasis on the silent nature of these acts. In the case of Ovid's *Heroides*, Cydippe had previously been tricked into reading aloud a vow to marry Acontius. Accordingly, Cydippe's later stipulation that she read the letter silently (*sine murmure*) likely reflects the old maxim "once bitten, twice shy," as Bernard Knox notes in his 1968 article that directly challenged Balogh's contention that silent reading was rare in antiquity.⁶⁹ Knox also observes that circumstances complicate Plutarch's reference to Caesar's silent perusal of a letter.⁷⁰ At the time, the senate was deliberating over its response to the actions of the revolutionary Catiline, with whom Caesar was thought by some to be allied. Caesar's political adversary, Cato, believed that this letter was from Catiline or one of his associates and thus made a spectacle of Caesar's supposed correspondence with the enemy. When Caesar handed over the letter, Cato was embarrassed to discover that there was good reason for Caesar's circumspection in reading this letter, since it was not a treasonous letter but a love letter (ἀκόλαστον ἐπιστόλιον) to Caesar from Cato's own half-sister, Servilia.

Those scholars who maintain that there was nothing unusual about silent reading in antiquity have their own collection of citations. Two passages from classical Athenian tragedies involve the silent perusal of letters by characters on stage (Eur. *Hipp.* 874–875 and Aristoph. *Kn.* 115–128).⁷¹ And there is this statement concerning the deaf by Cicero (the same man who supposedly regarded reading as an activity done aloud):

If poetry happens to delight them (sc. the deaf [*surdi*]), they first ought to reflect that before it was invented, many wise men lived happily; secondly, that much greater enjoyment can be taken by reading than by hearing (*multo maiorem percipi posse legendis iis quam audiendis voluptatem*). (*Tusc.* 5.116)

In this statement, Cicero sets up an opposition between hearing and reading poetry,⁷² and he seems to refer to the possibility of reading silently without any comment.⁷³ Similarly, Pliny the Younger appears to draw a distinction between auditory and visual appreciation of a text: “Some people listen (*audiant*) and others read (*legant*); let’s create something worthy of the ears and the papyri” (4.16). Likewise, Quintilian pairs and opposes hearing and reading as two methods of internalizing rhetorical eloquence (*Inst. Or.* 10.1.8–10 and 11.3.2–4).⁷⁴ The historian Josephus offers an account of how he surreptitiously read a letter amid a large group without alerting his companions to what he was doing (*Vita* 223), something he could only have done if he read silently.⁷⁵ Finally, there is this statement by the scholar Claudius Ptolemy:

Therefore, in peace and quiet are we more likely to find the object of our inquiry, and if we should fix our attention on something intensely, we keep quiet (ἡσυχίαν ἄγομεν) in our readings; on the other hand, oral dialogue (ἡ διάλεξις) is useful for transmitting our conclusions to those present. (*Judic.* 5.2)

Here again we find evidence of silent reading in antiquity.⁷⁶ Perhaps more importantly, this passage would appear to demonstrate meditation on and internalization of a text, which many book historians insist is a later development spurred by the creation of the codex and abandonment of *scriptio continua*.

Of course, the question remains: Do these examples of silent reading in antiquity demonstrate its commonplace practice or do they represent outliers of cultural practice? Conclusions likely depend on one’s preconceptions.⁷⁷ While more examples of both reading aloud and silent reading can be culled from the classical canon, I will not bother enumerating them.⁷⁸ In many ways, this debate over the prevalence of silent reading in antiquity simply serves to substantiate Robert Darnton’s often quoted observation that “reading remains the most difficult stage to study in the circuit that books follow.”⁷⁹ This particular debate seems intractable, since each example of one mode of reading can be matched with a counterexample of the other mode, with interpretation of the evidence likely colored by one’s prejudices. Thus we appear to have arrived at a stalemate.

Or have we? I would note that the terms by which scholars adjudicate this dispute are not exactly equitable. It has become the *communis opinio* for many that silent reading was rare in antiquity, a position which often relies on what is a faulty technological rationale (*scriptio continua*). Conse-

quently, many scholars demand a great quantity of evidence to be convinced that silent reading was actually practiced regularly in antiquity despite this supposed technological hindrance. However, the burden of proof for the opposite proposition is not nearly so heavy. Thus, the necessarily finite number of examples of silent reading in the classical canon appears unpersuasive, since they can always be rationalized away as outliers and oddities of cultural practice, or dismissed as “uncertain” and “ambiguous.”⁸⁰ In contrast, the similarly limited number of examples of reading aloud—which, as Gavrilov has documented, roughly equal examples of silent reading⁸¹—always seem capable of providing sufficient proof of its primacy. Thus Fischer can observe that “only a handful of passages in antiquity attest to silent reading” without mentioning that only a handful attest to reading aloud.⁸² Similarly, as I have discussed, scholars often assume that whenever a particular ancient source specifies that an act of reading was conducted in silence this is being done to position this act in opposition to the default mode of reading for the time—*viva voce*. Nonetheless, the fact that ancient writers often specify that an act of reading was done aloud curiously attracts little notice.⁸³

Clearly there is something of a confirmation bias at work here. Though it has been the established scholarly belief for many decades, there is actually little evidence to support the strong conviction in the book history community that there was anything unusual or strange about the act of silent reading in antiquity.

I would like to add one further piece of evidence that erodes this conventional wisdom. A number of sources suggest that reading was a more complex activity for Romans. In particular, individuals in Roman literary culture were accustomed to reading not only the words on the page; they were also sensitive to what literary and textual critic Jerome McGann terms “bibliographic code,”⁸⁴ elements of a text that could receive no oral embodiment but were relevant toward an interpretation of a text (e.g., script or page layout).

For example, a sheet of papyrus would have contained a number of hermeneutic clues, the presence or absence of which would have influenced (perhaps unconsciously) a reader’s interpretation of that text. To start with, there was a hierarchy of papyri based on the quality and orientation of the page. In his *Natural History*, Pliny the Elder outlines various types of papyri based upon the quality of the product, all of which have differing uses that correspond to their perceived social value. At the top is *hieratica/augusta*, which was originally reserved for works of religion, while at the bottom is *emporetica*, which was only used for book covers and commercial wrap-

pings (13.21–24). In addition, Romans demarcated textual transactions by the orientation of the sheet of papyrus. These sheets positioned with the longer side horizontal, and thus with the writing going with the grain of the papyrus, were used for literary texts and letters. In contrast, sheets oriented vertically, and so with the writing running against the grain (a format termed *transversa charta*), were used for more bureaucratic documents.⁸⁵ Finally, it is important to emphasize that the literary bookroll was not a haphazard affair but a highly standardized cultural artifact.⁸⁶ The ancient reader would approach it with certain aesthetic expectations in terms of both its form and script. In Roman antiquity, then, the physical text was not incidental to the act of the reading but embedded with this exegetical process.

Let us look at specific examples of how such hermeneutics would manifest and function in practice. In his correspondence, Cicero mentions that he had sent his friend and literary advisor, Atticus, a new philosophical tract. He writes: “I likewise sent to you my treatise revised and, indeed, the draft (ἀρχέτυπον) has been supplemented and emended in numerous spots. Read this to your dinner guests in private, after it has been copied onto a *macrocollum*” (*Att.* 16.3.1). To one inclined to see the primacy of reading aloud among the Romans, this passage would seem to offer further proof; I would disagree. The *macrocollum* was a type of papyrus sheet whose quality was linked to its unusually large width (*Plin. Nat.* 13.24).⁸⁷ This ἀρχέτυπον is obviously readable since it forms the basis for the *macrocollum*; moreover, simple logic would suggest that it is likely that some of the text’s contents will become corrupted in this transition of media. The rationale for copying this text onto a *macrocollum*, then, seems most likely to be aesthetic in nature. “Folio” is a not uncommon translation for *macrocollum*, but this term is not a perfect analogy since a folio is both wide *and* tall.⁸⁸ Height was not a particularly important factor for papyrus users in comparison with width, since fewer joins between papyri sheets increased the value of a bookroll. Unlike a codex, the pages in a scroll were only inscribed after production and construction of its overall form.⁸⁹ The appearance of the bookroll would obviously be more pleasing when there were fewer seams to be written over, since these could negatively affect the quality of the writing.⁹⁰ This concern should explain why Cicero preferred his new tract to be read out from a *macrocollum*. Although these guests were to experience this text aurally, Cicero was still attentive to its presentation as it related to its visual reception, presumably because he expected these guests also to be aware of the hermeneutics of the bibliographic presentation of a text.⁹¹ That is, Cicero wished the polish and the sophistication of his philosophical argu-

ments to be mirrored by the aesthetics of their physical form. This situation, then, demonstrates *not only* that aural reception of a new literary work in a communal setting was common *but also* that Cicero expected these listeners to be sensitive to the distinctions inherent in a visual reception of the text.

Other genres of writing similarly suggest that Romans saw written texts as far more than transcriptions of oral events awaiting revivification. We find many examples in Latin poetry of acrostics,⁹² an artistic form that can best be appreciated visually. Indeed, palindromes and various other types of word and textual layout games were popular in Roman society.⁹³ Further, Roman poets regularly incorporated physical aspects of the bookroll into the rhetoric of their *carmina*. Catullus (fl. ca. 55 BC) opens his poetry collection by stating: “To whom do I give this new (*novum*) and witty booklet (*libellum*), recently polished (*expolitum*) with a dry pumice stone?” (c.1.1–2). Papyrus was commonly rubbed with a pumice stone prior to inscription to trim the fibers. As a result, the strokes of the stylus were less distorted by the roughness of the papyrus and thus more pleasing to the eye.⁹⁴ By referring to the polished appearance of the papyrus and terming his poetry book a *libellus*, the diminutive of *liber* (book), Catullus insinuates the type of poetry to follow. Catullus was a neoteric poet (*novum*) who rejected the inflated style of epic in favor of a smaller, more personal (*libellus*) brand of poetry trimmed (*expolitum*) of such grandiosity.⁹⁵ Such programmatic statements through reference to the appearance of the bookroll were not uncommon;⁹⁶ in addition, the papyrological record demonstrates that there was an actual connection between the physical form of the bookroll and its genre in the Greco-Roman world.⁹⁷

To take another example of such metapoetic references to the ancient scroll: in the last sentence of the second book of the *Metamorphoses*, Ovid describes Europa, who had been kidnapped by Zeus in bovine form, as holding the horn (*cornum*) of the bull with her right hand (874). In addition to the obvious sexual imagery, Ovid is making a pun on the fact that *cornum* can refer not only to the horn of an animal but also to the knob of a scroll around which the papyrus sheets are coiled.⁹⁸ Thus, at the same time that the Europa of this poem grasps the bull’s horn, the reader reaches the end of this scroll, the right-hand horn or knob.⁹⁹ Such double meaning is another common trope in Roman poetry where the author plays games with such anatomical terms as brow (*frontes*) and horn (*cornum*), which can also refer to elements of the bookroll.¹⁰⁰ I would ask why Roman poets would use the aesthetics and the physical form of the bookroll for such metapoetic puns and programmatic statements unless they expected their readers not only to

be sensitive to the euphony of the poem but also to the subtle dialogue between the poem's language and the appearance of the bookroll. Of course, for the reader to be aware of this dialogue, it would be necessary for them to have internalized the semiotics of the scroll, something which is unlikely to occur if they perceived this object as simply a script for oral enactment.

This admittedly brief physical bibliography of the ancient "book" should demonstrate that literate Romans were responsive to small variations in the appearance of the material text and also that these semiotics could affect and condition the reception of that text. While spaces between words and punctuation were not elements of written discourse which Romans (or Greeks) instituted, institutionalized, and exploited to the same extent that medieval writers and their successors did, that did not mean that literate individuals in antiquity were not sensitive to visual elements of the text that could not receive oral embodiment. In fact, Romans appear to have treated the papyrus scroll as a site of "visible language," to use Parkes's terminology.¹⁰¹ The act of reading for them was not simply and only (as many scholars have argued) the act of revivifying speech that has been silenced through textualization but rather a "complex semiotic interaction of a variety of verbal and visual clues," to quote one description of reading in the modern world.¹⁰² This problematization of the act of reading in ancient Rome should further challenge the belief that oral performance represented the sole or primary means of reception in the Roman world and, thus, the belief that *lectio tacita* would have represented an unusual mode of interacting with a text in this era.

II. The Conquest of the Text

By this point, I hope that I have convincingly demonstrated the common and unremarkable practice of *lectio tacita* within a distinctive culture of reading in antiquity—and that I have brought into focus the inflexibility of many participants in this debate. Despite scholarly refutations of this thesis over nearly a century, the belief that ancient readers did not read silently has ossified in the research community outside of Classics, with the result that many scholars are confident about this conclusion although less sure about the arguments that will allow them to arrive at it. In fact, those arguments are quite tendentious and easily destabilized—if one critically examines them. But there has not been much serious interrogation of this traditional narrative by historians of the book and of reading. Rather, schol-

ars have worked backwards from the assumption that ancient people only rarely read silently and then endeavored to substantiate that claim. Why has this erroneous assumption about the literate abilities (or rather inabilities) of ancient peoples proven so popular among historians of the book and resistant to reevaluation? I suggest that this belief persists principally because it fits within a much larger narrative that scholars have constructed concerning the dual *evolution* of the book and human thought.

In scholarship on the history of “book” over the *longue durée*, four seminal events typically define the stages of development of this artifact. These events are (1) the invention of alphabetic writing,¹⁰³ (2) the shift from scroll to codex and the supposed rise of silent reading in Christian monastic culture,¹⁰⁴ (3) the invention of the printing press and the increased dissemination of uniform information and the enlargement of public knowledge,¹⁰⁵ and (4) the ongoing shift to digital media in our own age with the possibility of larger and more complex information storage within a hypertextual environment.¹⁰⁶ We might say that alphabetic writing was the first sea creature to crawl onto shore and breathe air, while the scroll was the hirsute knuckle-dragging prelude to the more hygienic print codex, with the digital text becoming the final culmination of these physical developments and advancements—the apotheosis of the book into a noncorporeal yet omnipresent form. While I am being deliberately glib, this sort of rhetoric is, at times, not too far removed from the scholarly discourse. Monographs have such titles as *The Birth of the Codex* or *The Evolution of the Book*.¹⁰⁷ Studies of the book map biological development onto this artifact’s history by referring to the manuscript codex as the “infancy” of the book and early modern print codex as its “adulthood,” with the scroll the “ancestor” to this new life form.¹⁰⁸ Additionally, it is not uncommon to speak of a book as having a “life cycle” from birth (publication) to life (circulation and consumption) to death (disuse or physical destruction).¹⁰⁹

Such biological imagery is not empty rhetoric. Cognitive linguists have observed that metaphors are not just a means of expressing matters colorfully; they also provide a “conceptual system” that structures and influences our thought processes and perceptions in important ways.¹¹⁰ In this case, these biological metaphors reveal that we view the book on some level as akin to a living species, evolving and developing toward a certain form. Such a view is part and parcel of the general ideology of “supersession” that informs our understanding of information technology, wherein each new form of the technology represents an important technological advance and decisive break with the past.¹¹¹ The nascent field of media archaeology

has offered a justified critique of this sort of historical perspective for its tendency to view the history of media within a technologically deterministic paradigm and to structure its narrative around perceived large historical ruptures.¹¹² As media theorist Siegfried Zielinski observes, scholars typically view media as adapting and evolving progressively and purposely toward some end goal rather than seeing it in more paleontological terms, with information technology changing and developing in a more haphazard and less deliberate fashion.¹¹³

Furthermore, this narrative of the “evolution” of the book has typically been linked in a causal relationship with a similarly teleological account of the development of human cognition.¹¹⁴ For example, the invention of the alphabet ostensibly allowed for the abstraction of discourse (i.e., textualization) and thus enabled the subjugation of the now textualized artifact to increased logical analysis.¹¹⁵ Similarly, the print revolution is thought to have fostered the conditions that made possible the Reformation, the Enlightenment, and the Scientific Revolution.¹¹⁶ (These theories have unsurprisingly faced strong critiques.)¹¹⁷ In such overarching accounts of the joint development of the book and the human mind, the supposed inability of ancient individuals to read silently has come to evince the absence of that deep contemplation and communion with the text (which silent reading is supposed to stimulate) and the positivistic advancement in comprehension that such a practice entails.¹¹⁸ In many ways, the supposed predilection in antiquity toward oral reading of texts has become conflated in such accounts with orality and laden with the negative implications that such a lack of literacy usually implies.¹¹⁹ In these narratives, the obstacles that prevented silent reading in antiquity—and thus impeded the advancement of human cognition—were only overcome by the development of the more personal (and often explicitly Christian) codex and bibliographic innovations originating in medieval Christian monasteries.¹²⁰ Commentaries, glosses, annotations, and the general deep study and internalization of the text followed and the parameters of human understanding expanded—at least in medieval Europe.

My earlier review of scholarship should make clear just how essential this belief is to the overarching narrative of the history of the book. The chapter of this history that comprises the transition from ancient scroll to medieval codex is the story of the coming of bibliographic order (i.e., punctuation). Indeed, it dramatizes the triumph of nascent modernity as embodied by silent contemplative reading over the antediluvian primitivism of unreflective reading aloud. In short, it is a narrative about the evolution of the human

mind as told through the life-story of the book.¹²¹ The implicit idea at the core of this narrative is the human mind's conquest of *the* text. While the scroll makes the reader a passive object and allows its users only to be banal mouthpieces for its content, the later codex becomes an object of study for the reader. Because of the invention of this "grammar of legibility" and the concomitant advent of silent reading, readers become empowered to subject the text to their newly enhanced powers of cognition and comprehension.¹²²

Accordingly, we can appreciate why scholarship has stubbornly kept faith concerning the nonpractice of *lectio tacita* in antiquity, even when much of the intellectual foundation for this belief had been removed. If we concede that silent reading was a common occurrence in this era, this larger narrative about the development of the book and the human mind would be imperiled. Only by removing *lectio tacita* from antiquity and locating the discovery of this practice in the Middle Ages can scholars preserve this particular narrative. The question of whether ancient peoples read silently, then, cannot easily be divorced from the larger scholarly project concerning the history of the book. To acknowledge that silent reading was a common practice in the scroll culture of antiquity would necessitate the redaction of a more nuanced history of the relationship between information technology and human comprehension, particularly as it intersects with the history of reading.¹²³ In new histories of the book, cultural explanations for this object's "evolution" in various epochs would need to receive equal attention with, if not greater attention than, technological rationales;¹²⁴ moreover, these new histories would need to exercise great caution in drawing connections between the development of the physical form of the book and supposed leaps forward in human comprehension. In short, I would recommend that scholarship on the history of the book acknowledge the fact that silent contemplative reading commonly occurred in antiquity *not only* despite of *but also* simply because of whatever problems it may cause for the traditional scholarly narrative.

III. Back to the Future

In closing, I would like to consider briefly how this more nuanced narrative concerning the histories of both the book and reading in antiquity might help to influence and affect the future of the book. Scholars have, unsurprisingly, looked to the past for the future of the book. They have examined earlier textual cultures in order to understand potential architectures for the

digital text and possible models for this reading culture;¹²⁵ however, seldom is attention given to the scroll as a means of understanding the future of the book.¹²⁶ This paper has demonstrated why scholars have rarely looked to the scroll for enlightenment on the e-book. The belief in supersession, “the idea that each new technological type vanquishes or subsumes its predecessors,” pervades the scholarly understanding of the history of the book.¹²⁷ That is, scholars think of the history of the book as a linear teleology rather than using a more holistic approach. Thus the scroll is seen as a primitive ancestor to the modern codex—to say nothing of the digital book! Yet examination of the ancient book and, in particular, how users interacted with it can help to illuminate, contextualize, and historicize the digital page.

While the technological infrastructures for these two cultures are quite different, there are interesting and relevant parallels between the ancient book and the digital text, particularly in terms of the “phenomenological manifestation of the application;”¹²⁸ that is to say, in how readers access and interact with the text in these cultures. Vandendorpe, one of the few scholars to examine digital texts through the lens of the ancient scroll, observes this similarity, but he sees it as a cautionary tale. He warns against returning to the “opacity” of the papyrus scroll in the tabular scrolling of many digital documents.¹²⁹ He regards the architecture of the scroll as restricting the autonomy of readers and compelling them to proceed linearly through a text. Such a contention, however, seems influenced by traditional biases that scholars have held against the scroll. In general, the scroll has been viewed as an impediment that prevents readers from reaching their full potential. In addition to the linear nature of the scroll that Vandendorpe cites, scholars have, of course, envisioned the architecture of the ancient page (*scriptio continua*) as a force that obliges its user to read aloud and thereby prevents her or him from subjecting the text to deep contemplative study. Yet it is important to note that while linear progression through a text did have certain consequences, it was not simply a force that assailed readers and writers in this textual culture but was also an aspect of ancient textuality that they could exploit and manipulate toward certain ends. Ancient authors incorporated this linearity of the scroll into the totality of the hermeneutics for a text. They constructed poetry books without a clear linear narrative linking the individual poems, but relied on the scroll to force readers to make interpretive sense of this *variatio* of content, since they had to proceed through the poetry book in that manner.¹³⁰ Such a strategy on the part of ancient poets evinces N. Katherine Hayles’s claim that “navigational functionalities are not merely ways to access the work but part of a work’s signifying struc-

ture.”¹³¹ In this case, classical authors took this linearity of the scroll and made it a critical part of their poetic projects.

The experience of ancient readers in navigating such linear textual environments is pertinent to the modern world given that digital texts can similarly present users with the highly linear environments of both tabular scrolling and rigid hyperlink structures.¹³² The development of “cell-phone novels” in Japan provides a particularly relevant example of a digital discourse which offers the reader a rigid linear navigational setting.¹³³ It is easy to imagine how writers of such novels could exploit these navigational functionalities in order to compel the reader to confront and resolve a certain *variatio* of content. Presumably, the need to consider how navigational functionalities affect meaning within the decidedly linear environment of digital textuality will become more pressing as more and more readers use their smart-phones and other small digital devices to access different genres of texts. As such, further examination of ancient book culture and its strategies for navigating the linear format of the scroll could be helpful as we consider possible formats for digitally born novels and poetry books and then direct scholarly attention onto these products at a later point. Of course, scholars are unlikely to do so unless we understand ancient readers as having a complex, dynamic book culture and not simply an aural reception-based culture that just happened to have books.

Nevertheless, I do not wish to give the impression that the scroll inevitably enforces particular meanings upon readers. As in any culture, ancient readers resisted encroachments on their interpretive autonomy; moreover, the infrastructure of ancient book culture abetted this resistance. While the print codex has many obvious advantages to the scroll, it should be noted that the scroll always had greater “ease of construction.”¹³⁴ The line separating professional and amateur production was never as rigid for the scroll as with the printed codex because scrolls were easily produced and there was no large-scale book market that could clearly delineate private and commercial productions.¹³⁵ Since the elite often owned scribal slaves, many readers in antiquity had the potential to be editors of the books in their possession. We find examples in the papyrological record during the Ptolemaic era of readers reordering collections of poems by new criteria.¹³⁶ In so doing, they rejected the author’s (or another editor’s) intentions and substituted their own. Interestingly, in this same period we also find distinct variants of Homer’s *Iliad* in the papyrological record.¹³⁷ These were valid alternative readings of this epic (rather than corruptions of a pure form of the text), which circulated in antiquity alongside the traditional version.

More generally, texts in the ancient world were more heterogeneous and fluid by necessity and cultural consensus. The scribal nature of bookroll production obviously prevented the dissemination of uniform texts;¹³⁸ as a result, variants were understandably common. Accordingly, ancient readers were accustomed to confronting and resolving such variability (and possible scribal errors) to their own satisfaction.¹³⁹ This instability prevailed on both a micro and a macro textual level. Authors' corpora were not well defined in antiquity, and thus they were prone to interpolations and even the incorporation of wholly spurious works.¹⁴⁰ The architecture of the ancient page also fostered ambiguity. After all, punctuation is a means of constraining the plurality of meanings within a text. The very paucity of it in ancient texts compelled readers to make interpretive judgments which otherwise would have already been made for them.¹⁴¹ In many ways, literary texts in the Greco-Roman world only truly became instantiated in the actual act of reading. In short, readers in antiquity would not have expected the texts which they encountered to be finished products or near complete embodiments of the author's or anyone else's intentions. Rather, they would have seen them as objects still in need of considerable supplementation and emendation in order to be read and understood.¹⁴²

Obviously, the reader's engagement with a text is quite different in our age. Mature print culture has created a pronounced division between commercial and private book productions, which fosters one further, more important ideological distinction: between those texts authorized and endorsed by particular cultural and technological institutions (i.e., publishing houses) and promulgated as representing the visions of their authors, and those not. The creation of such a distinction is obviously of great importance to the hermeneutic process in our culture.¹⁴³ However, the Internet and various forms of digital media are beginning to break down this old hierarchy and to threaten these established cultural and corporate regimes.¹⁴⁴ That is to say, digital textuality threatens to unmoor the print culture versions of such sociological constructs as "book" and "author" from their ideological anchorages.¹⁴⁵ Digital reading devices such as the Kindle and the iPad (and the corporate agendas behind them) are, of course, laboring to transfer and enforce the ideology of print culture (to say nothing of the business model) to and upon digital culture.¹⁴⁶ Nonetheless, we should not lose sight of the fact that there is nothing natural or universal about this "mode of culture production," which developed in European print culture under particular technological and cultural conditions.¹⁴⁷ The digital world can offer readers a different means of managing and interacting with texts. Texts can be more

fluid and user-driven in this media environment than they are in print culture.¹⁴⁸ In fact, most hypertext theorists openly campaign for such a version of digital textual culture. This possible future, however, is not as revolutionary or without precedent as it might seem.

The new textual and literary culture that the digital revolution is inaugurating may find some useful *comparanda* in ancient scroll culture, particularly with regard to how to negotiate and interact with a less stable form of textuality. As I noted, ancient readers were not accustomed to regarding texts as autonomous and uniform aesthetic products of their authors, as they are generally considered in print culture,¹⁴⁹ but rather they appear to have seen them as starting points in a larger exegetical project. Indeed, texts seem generally to have been less stable and less overdetermined in earlier manuscript-based textual cultures before Enlightenment aesthetic ideology and the technology of the printing press combined to delimit and constrain textuality.¹⁵⁰ Greco-Roman antiquity seems to have operated without the same versions of such exegetical categories as “author” and “book” that are so integral to modern print culture.¹⁵¹ In fact, the former exerted far less influence on the reader precisely because the latter was less stable and defined in this era. Given the similarly indeterminate nature of the digital text, the textual culture of new media seems likely to move in a comparable direction to that of the ancient world. As the culture of digital textuality develops and matures, then, Greco-Roman book culture may be able to offer some lessons and points of reference to scholars. It is certainly a matter worthy of further investigation. Thus, as we move further into this brave new digital world, I would recommend that we look back and give attention to the ancient scroll, particularly the sociology of this textual culture. After all, the past—the ancient past, in this case—may very well be prologue when it comes to the book.

Notes

I would like to thank Alan Galey, Michael Flood, and Tanya Christiansen, who all read versions of this paper at different stages in its development, and the two anonymous reviewers at *Book History* for their helpful notes and suggestions. Abbreviations for citations of classical texts can be found in the *Oxford Classical Dictionary*, 3rd ed., ed. Simon Hornblower and Antony Spawforth (Oxford: Oxford University Press, 2003), xxix–liv. All translations are my own unless otherwise noted.

1. Shirley Warner, “Literacy Studies in Classics: The Last Twenty Years,” in *Ancient Literacies: The Culture of Reading in Greece and Rome*, ed. William Johnson and Holt Parker (Oxford: Oxford University Press, 2009), 337.

2. In particular, see Emmanuelle Valette-Cagnac, *La lecture à Rome: Rites et pratiques* (Paris: Belin, 1997), and William Johnson, *Readers and Reading Culture in the High Roman Empire: A Study of Elite Communities* (Oxford: Oxford University Press, 2010).

3. For how we view digital texts within the horizon of the print codex, see Paul Erickson, "Help or Hindrance: The History of the Book and Electronic Media," in *Rethinking Media Change: The Aesthetics of Transition*, ed. David Thornburn and Henry Jenkins (Cambridge, MA: MIT Press, 2003), 102–3. On the importance of situating the digital revolution within the history of the book over the *longue durée*, see Roger Chartier, *Forms and Meanings: Texts, Performances, and Audiences from Codex to Computer* (Philadelphia: University of Pennsylvania Press, 1995), 20.

4. Eduard Norden, *Die antike Kunstprosa vom VI Jahrhundert V Chr. bis in die Zeit der Renaissance*, 1st ed. (Leipzig: Teubner, 1898), 5–6. Prior to Norden, some commentators had remarked on the importance of reading literary texts aloud in antiquity; see Johnson, *Readers and Reading Culture*, 4, for a discussion.

5. Cf. Eduard Norden, *Die antike Kunstprosa vom VI Jahrhundert V Chr. bis in die Zeit der Renaissance*, 4th ed. (Leipzig: Teubner, 1923), 451–53.

6. Josef Balogh, "'Voces Paginarum': Beiträge zur Geschichte des lauten Lesens und Schreibens," *Philologus* 82 (1927): 84–109 and 202–40; and G. L. Hendrickson, "Ancient Reading," *Classical Journal* 25.3 (1929): 182–96.

7. Balogh, "'Voces Paginarum,'" 86–87.

8. The translation of this passage comes from *The Works of Lucian of Samosata*, trans. H. W. Fowler and F. G. Fowler (Oxford: Clarendon Press, 1905).

9. Cf. Balogh, "'Voces Paginarum,'" 84–85 and 101, respectively.

10. Balogh, "'Voces Paginarum,'" 220f. See also Russell M. Geer, "Ancient Reading and Writing," *Classical Journal* 29.3 (1933): 219.

11. Cf. Malcolm Parkes, *Pause and Effect: An Introduction to the History of Punctuation in the West* (Berkeley and Los Angeles: University of California Press, 1993), 20–29, and Malcolm Parkes, "Reading, Copying, and Interpreting in the Early Middle Ages," in *A History of Reading in the West*, ed. Guglielmo Cavallo and Roger Chartier, trans. Lydia G. Cochrane (Amherst and Boston: University of Massachusetts Press, 1999), 90–102. For his views on silent reading in antiquity, see Parkes, *Pause and Effect*, 9–19.

12. Parkes, "Reading, Copying and Interpreting," 93–96.

13. Paul Saenger, *Space between Words: The Origins of Silent Reading* (Stanford: Stanford University Press, 1997), 8.

14. *Ibid.*, 13; for Saenger's view on ancient reading practices, see *ibid.*, 6–17. See William Johnson, "Toward a Sociology of Reading in Classical Antiquity," *American Journal of Philology* 121.4 (2000): 597–98 for a strong critique of Saenger's work.

15. Cf. respectively: Marshall McLuhan, *The Gutenberg Galaxy: The Making of Typographic Man* (Toronto: University of Toronto Press, 1962), 82–84; Eric Havelock, *The Muse Learns to Write* (New Haven: Yale University Press, 1986), 47; Jack Goody and Ian Watt, "The Consequences of Literacy," *Comparative Studies in Society and History* 5.3 (1963): 319; Walter Ong, *Orality and Literacy: The Technologizing of the Word* (London and New York: Methuen, 1982), 115; Lucien Febvre and Henri-Jean Martin, *The History and Power of Writing*, trans. Lydia G. Cochrane (Chicago: University of Chicago Press, 1994), 67–73; and David Olson, *The World on Paper: The Conceptual and Cognitive Implications of Writing and Reading* (Cambridge: Cambridge University Press, 1996), 158.

16. Robert Darnton, "Toward a History of Reading," *Wilson Quarterly* 13.4 (1989): 101.

17. E.g., Nicholas Howe, "The Cultural Construction of Reading in Anglo-Saxon England," in *The Ethnography of Reading*, ed. Jonathan Boyarin (Berkeley and Los Angeles: University of California Press, 1992), 59–60; and Brian Stock, "Afterword," in *Ethnography of Reading*, ed. Boyarin, 273.

18. Alberto Manguel, *A History of Reading* (Toronto: Knopf, 1996), 41–53.
19. *Ibid.*, 51.
20. Steven Roger Fischer, *A History of Reading* (London: Reaktion Books, 2003), 45–49 and 159–164.
21. Martyn Lyons, *A History of Reading and Writing in the Western World* (New York: Palgrave Macmillan, 2010), 17.
22. Chartier, *Forms and Meanings*, 15.
23. Roger Chartier, “The Practical Impact of Writing,” in *The Book History Reader*, 2nd ed., eds. David Finkelstein and Alistair McCleery (London and New York: Routledge, 2006), 164–65.
24. Brian Stock, *Augustine the Reader: Meditation, Self-Knowledge, and the Ethics of Interpretation* (Cambridge, MA: Belknap Press, 1996), 5.
25. Bonnie Mak, *How the Page Matters* (Toronto: University of Toronto Press, 2011), 17.
26. Christian Vandendorpe, *From Papyrus to Hypertext: Toward the Universal Digital Library*, trans. Phyllis Aronoff and Howard Scott (Urbana and Chicago: University of Illinois Press, 2009), 6–7; and Jay David Bolter, *Writing Space: Computers, Hypertext, and the Remediation of Print*, 2nd ed. (Mahwah, NJ: Lawrence Erlbaum Associates, 2001), 22–23.
27. David Finkelstein and Alistair McCleery, *An Introduction to Book History* (New York and London: Routledge, 2005), 100–107.
28. Cf. Michelle Brown, “The Triumph of the Codex: The Manuscript Book before 1100,” in *A Companion to the History of the Book*, ed. Simon Eliot and Jonathan Rose (Malden, MA: Wiley, 2007), 182 and *The Oxford Companion to the Book*, ed. Michael F. Suarez and H. R. Woudhuysen (Oxford: Oxford University Press, 2010), s.vv. “Reading and Reception” and “The Ancient Book.”
29. See the following: W. P. Clark, “Ancient Reading,” *Classical Journal* 26.9 (1931): 698–700; Bernard Knox, “Silent Reading in Antiquity,” *Greek, Roman and Byzantine Studies* 9.4 (1968): 421–35; Frank Gilliard, “More Silent Reading in Antiquity: *Non Omne Verbum Sonabat*,” *Journal of Biblical Studies* 112.4 (1993): 689–694; A. K. Gavrilov, “Techniques of Reading in Classical Antiquity,” *Classical Quarterly* 47.1 (1997): 56–73; M. F. Burnyeat, “Postscript on Silent Reading,” *Classical Quarterly* 47.1 (1997): 74–76; Johnson, “Sociology of Reading,” *passim*; Carsten Burfeind, “Wen hörte Philippus? Leises Lesen und lautes Vorlesen in der Antike,” *Zeitschrift für die Neutestamentliche Wissenschaft und die Kunde der älteren Kirche* 93 (2002): 138–45; Luigi Battezzato, “Techniques of Reading and Textual Layout in Ancient Greek,” *Cambridge Classical Journal* 55 (2009): 1–23; and Alessandro Vatri, “The Physiology of Ancient Greek Reading,” *Classical Quarterly* 62.2 (2012): 633–47. There were also a series of letters to the editor in the *TLS* February–April 1991 and an article (“Read my Lips”) by James Fenton in the *Guardian* on 6 July 2006 that sought to correct the impression that silent reading was unknown or unusual in antiquity. See also D. Thomas Benediktson, “The First Silent Reader of Latin Literature,” *Classical World* 100.1 (2006): 43–44.
30. Most often this counternarrative has been exiled from the main body of the text and given a dismissive “see also” *vel sim.* in a footnote. Cf. Manguel, *A History of Reading*, 326n5; Saenger, *Space between Words*, 299–300; and Rosalind Thomas, *Literacy and Orality in Ancient Greece* (Cambridge: Cambridge University Press, 1992), 13n24.
31. Notable examples of scholars of the Greco-Roman world who subscribe to the view that readers in antiquity did not read silently include Eugene McCartney, “Notes on Reading and Praying Audibly,” *Classical Philology* 43 (1948): 184–87; Rosalind Thomas, *Literacy and Orality in Ancient Greece*, 13, 23; Jasper Svenbro, *Phrasikleia: An Anthropology of Reading in Ancient Greece* (Ithaca: Cornell University Press, 1993), 44f; Jocelyn Penny Small, *Wax Tablets of the Mind: Cognitive Studies of Memory and Literacy in Classical Antiquity* (London and New York: Routledge, 1997), 22; and Stephan Busch, “Lautes und leises Lesen in der Antike,” *Rheinisches Museum für Philologie* 145 (2002): 1–45. Moreover, as one of the anonymous

readers pointed out, despite Clark's and Knox's separate and early studies of silent reading, even through the 1980s many Classics scholars taught that ancient readers did not read silently.

32. Clark, "Ancient Reading," 698–700.
33. *Ibid.*, 700. Emphasis original.
34. Otha Wingo, *Latin Punctuation in the Classical Age* (The Hague: Mouton, 1972) is the standard work on all forms of punctuation (including word breaks) in classical Latin. See also Rex Winsbury, *The Roman Book: Books, Publishing and Performance in Classical Rome* (London: Duckworth, 2009), 40–44.
35. Cf. Wingo, *Latin Punctuation*, 14–17 for the use of the *interpunctum*.
36. *Ibid.*, 16.
37. Cf. Fischer, *History of Reading*, 68; Guglielmo Cavallo, "Between *Volumen* and Codex: Reading in the Roman World," in *History of Reading in the West*, ed. Cavallo and Chartier, 74; and Saenger, *Space between Words*, 10–11, who acknowledge these alterations in scribal practice and unsuccessfully attempt to reconcile it with the common rationale for silent reading in antiquity. See Winsbury, *The Roman Book*, 39–40 for a discussion of the potential cultural reasons for this transition in page formatting.
38. Cavallo, "Between *Volumen* and Codex," 74.
39. See Battezzato, "Techniques of Reading," 9, who first drew attention to this passage.
40. Raffaella Criadore, "Education in Papyri," in *The Oxford Handbook of Papyrology*, ed. Roger Bagnall (Oxford: Oxford University Press, 2009), 323.
41. Johnson, "Sociology of Reading," 611.
42. Vatri, "The Physiology of Ancient Greek Reading," 633–47.
43. Heather Winkler, Ralph Radach, and Sudaporn Luksaneeyanawin, "Eye Movements when Reading Spaced and Unspaced Thai and English: A Comparison of Thai–English Bilinguals and English Monolinguals," *Journal of Memory and Language* 61 (2009): 339–51.
44. Jie-Li Tsai and George W. McConkie, "Where Do Chinese Readers Send their Eyes?," in *The Mind's Eye: Cognitive and Applied Aspects of Eye Movement Research*, Vol. 3, ed. Ralph Radach, Jukka Hyona, and Heiner Deubel (Amsterdam and Boston: North-Holland, 2003), 159–77.
45. Gavrillov, "Techniques of Reading," 59–61.
46. Balogh, "*Voces Paginarum*," 40–41 and Hendrickson, "Ancient Reading," 192–93.
47. See Knox, "Silent Reading," 424–27, and Gavrillov, "Techniques of Reading," 60 for discussions of this passage.
48. Gavrillov, "Techniques of Reading," 60–61; see also Knox, "Silent Reading," 426.
49. Ken Morrison, "Stabilizing the Text: The Institutionalization of the Knowledge in Historical and Philosophic Forms of Argument," *Canadian Journal of Sociology* 12.3 (1987): 242–54 outlines some of the limitations that this system of textual layout presents for the production and codification of knowledge; however, his critique proves wanting since he does not consider the cultural reasons for this textual regime.
50. Johnson, "Sociology of Reading," 615; see also Johnson, "Sociology of Reading," 612–615. Valette-Cagnac, *La lecture à Rome*, 66 makes a similar point.
51. Larry Hurtado, "Manuscripts and the Sociology of Early Christian Reading," in *The Early Text of the New Testament*, ed. Charles E. Hill and Michael J. Kruger (Oxford: Oxford University Press, 2012), 59. See also John Kloppenborg, "Literate Media in Early Christ Groups: The Creation of a Christian Book Culture," *Journal of Early Christian Studies* 22.1 (2014): 44f.
52. See Cavallo, "Between *Volumen* and Codex," 76; Saenger, *Space between Words*, 299–300n43; Manguel, *History of Reading*, 326n5; Fischer, *History of Reading*, 67–69; and Finkelstein and McCleery, *Introduction to Book History*, 103.
53. Chartier, *Forms and Meanings*, 16.

54. Robert Darnton, "Reading, Then and Now," *Huffingtonpost.com*, 5 October 2009, http://www.huffingtonpost.com/robert-darnton/reading-now-and-then_b_308767.html (accessed 1 June 2012).
55. Parkes, *Pause and Effect*, 9.
56. Bolter, *Writing Space*, 23.
57. Lyons, *History of Reading and Writing*, 17.
58. Saenger, *Space between Words*, 11; emphasis mine.
59. *Ibid.*, 10.
60. Busch, "Lautes und leises Lesen in der Antike," 9–11.
61. Balogh, "Voces Paginarum," 202–20 also notes, *inter alia*, Prop. 3.25.17–18, Jer. Ep. 21.13.8, and August. Co. Epist. Parmen. 1.1. See also Busch, "Lautes und leises Lesen in der Antike," 24–28, who restages Balogh's argument.
62. Gavrillov, "Techniques of Reading in Classical Antiquity," 56–73, and Burnyeat, "Postscript on Silent Reading," 74–76, verge on presenting a culture of reading in the ancient world that is virtually the same as our modern one, for which Busch ("Lautes und leises Lesen in der Antike," 20–21) rightly critiques them.
63. Clark, "Ancient Reading," 700. See also Knox, "Silent Reading," 421.
64. Interestingly, Roger Chartier, "Leisure and Sociability: Reading Aloud in Early Modern Europe," in *Urban Life in the Renaissance*, ed. Susan Zimmermann and Ronald F. E. Weissman (Toronto: University of Toronto Press, 1989), 103–20, describes a very similar sociology of reading (with both aloud and silent reading) in sixteenth- and seventeenth-century Western Europe.
65. Johnson, "Sociology of the Reading," 623.
66. Valette-Cagnac, *La lecture à Rome*, 65–67.
67. Nicholas Horsfall, "Rome without Spectacles," *Greece & Rome* 42.1 (1995): 54.
68. For the passage from Ovid, cf. Balogh, "Voces Paginarum," 100–101, while for the passage from Plutarch, cf. Balogh, "Voces Paginarum," 92–93 and Hendrickson, "Ancient Reading," 19.
69. Knox, "Silent Reading," 430–31; for a more nuanced reading, cf. Valette-Cagnac, *La lecture à Rome*, 31.
70. Knox, "Silent Reading," 431–32.
71. Knox, "Silent Reading," 433–34 treats these passages.
72. Cf. Clark, "Ancient Reading," 699–700, Knox, "Silent Reading," 427, Valette-Cagnac, *La lecture à Rome*, 64–65, and Battezzato, "Techniques of Reading," 12.
73. Manguel, *History of Reading*, 47 and Fischer, *History of Reading*, 69 disagree; they see this practice as an oddity.
74. Valette-Cagnac, *La lecture à Rome*, 63–64.
75. Frank Gilliard, "Silent Reading in Antiquity," *TLS*, 8 August 1997 first drew attention to this passage.
76. For a discussion of this passage, see Burnyeat, "Postscript on Silent Reading," *passim*. Manguel, *History of Reading*, 43 strangely sees this passage as uncertain.
77. See the above notes for objections to each of these examples.
78. See Gavrillov, "Techniques of Reading," 70–72 for a catalogue.
79. Robert Darnton, *The Kiss of Lamourette: Reflections in Cultural History* (New York and London: W. W. Norton, 1990), 122.
80. Manguel, *History of Reading*, 326n5 is explicit that all instances of silent reading in antiquity, which Knox, "Silent Reading" had compiled, were "exceptions." This opinion, however, is at odds with his earlier statement that all the supposed depictions of silent reading prior to Augustine were "uncertain" (cf. Manguel, *History of Reading*, 43). Cf. also Saenger, *Space between Words*, 299–300.
81. Gavrillov, "Techniques of Reading," 69–71.

82. Fischer, *History of Reading*, 90.
83. Valette-Cagnac, *La lecture à Rome*, 22–23 cites as examples: Quint. *Inst. Or.* 2.2.8 (*clare legere*), Sen. *Ep.* 6.5.2 (*viva voce*), and Plin. *Ep.* 9.36 (*clara*), and Pet. *Sat.* 59.3 (*canora voce legere*). See also Busch, “Lautes und leises Lesen in der Antike,” 11–12, who attempts unsuccessfully to explain such references.
84. For the concept of bibliographic code, see Jerome McGann, *The Textual Condition* (Princeton: Princeton University Press, 1991), 56.
85. Eric Turner, *The Terms Recto and Verso: The Anatomy of the Papyrus Roll* (Brussels: Fondation égyptologique Reine Élisabeth, 1978).
86. William Johnson, *Bookrolls and Scribes in Oxyrhynchus* (Toronto: University of Toronto Press, 2004), passim.
87. William Johnson, “*Macrocollum*,” *Classical Philology* 89.1 (1994): 62–64.
88. *Ibid.*, 63.
89. Johnson, *Bookrolls and Scribes*, 88; and Frederic Kenyon, *Books and Readers in Ancient Greece and Rome* (Oxford: Clarendon Press, 1932), 53.
90. William Johnson, “Pliny the Elder,” 46–50. For an alternate view, see Andrew Dimarogonas, “Pliny the Elder on the Making of Papyrus Paper,” *Classical Quarterly* 45.2 (1995): 588–90.
91. Cf. Holt Parker, “Books and Reading Latin Poetry,” in *Ancient Literacies*, ed. Johnson and Parker, 208.
92. For examples, see Lowell Edmunds, *Intertextuality and the Reading of Roman Poetry* (Baltimore: Johns Hopkins University Press, 2001), 112; and Thomas Habinek, “Situating Literacy at Rome,” in *Ancient Literacies*, ed. Johnson and Parker, 129–33.
93. Thomas Habinek, “Situating Literacy at Rome,” 124–36.
94. Theodor Birt, *Das antike Buchwesen* (Berlin: Wilhelm Hertz, 1882), 365.
95. See both Frank Copley, “Catullus, c.1,” *Transactions of the American Philological Association* 82 (1951): 200–206 and William Batstone, “Dry Pumice and the Programmatic Language of Catullus 1,” *Classical Philology* 93.2 (1998): 125–35, for an introduction to the programmatic language of Catullus’s first poem.
96. Kenyon, *Books and Readers*, 124–33 provides an appendix with these types of remarks.
97. Cf. Johnson, *Bookrolls and Scribes*, 151.
98. E. J. Kenney, “Books and Readers in the Roman World,” in *The Cambridge History of Classical Literature*, vol. 2, ed. E. J. Kenney (Cambridge: Cambridge University Press, 1982), 31.
99. See Regina Höschele, “The Traveling Reader: Journeys through Ancient Epigram Books,” *Transactions of the American Philological Association* 137 (2007): 350n48, for a discussion of this passage.
100. See Höschele, “The Traveling Reader,” passim for the extensive use of this trope in both Greek and Latin literature.
101. Parkes, “Reading, Copying and Interpreting,” 93–96.
102. Christian Vandendorpe, “Reading on Screen: The New Media Sphere,” in *A Companion to Digital Literary Studies*, ed. Ray Siemens and Susan Schreibman (Malden, MA: Wiley, 2007), 203.
103. The chief proponents of this revolution are: Goody and Watt, “The Consequences of Literacy;” Ong, *Orality and Literacy*; Havelock, *The Muse Learns to Write*; and Olson, *The World on Paper*.
104. E.g., Parkes, *Pause and Effect* and Saenger, *Space between Words*.
105. Elizabeth Eisenstein, *The Printing Press as an Agent of Change* (Cambridge: Cambridge University Press, 1979) is the *locus classicus* for this approach.

106. Two early hypertext theorists, George Landow, *Hypertext 3.0* (Baltimore: Johns Hopkins University Press, 2006), 2–6, and Bolter, *Writing Spaces*, 161–84, touted such revolutionary possibilities for this medium.

107. Colin Roberts and T. C. Skeat, *The Birth of the Codex* (Oxford: Oxford University Press, 1983) and Frederick G. Kilgour, *The Evolution of the Book* (Oxford: Oxford University Press, 1998).

108. This is how Nicole Howard, *The Book: The Life Story of a Technology* (Westport, CT: Greenwood Press, 2005) structures her history of the book.

109. See Darnton, *Kiss of Lamourette*, 108–09 and also 112, for his well-known “communication circuit.”

110. George Lakoff and Mark Johnson, *Metaphors We Live By*, rev. ed. (Chicago: University of Chicago Press, 2003), 3–7, provide the seminal study of the cognitive significance of metaphors.

111. Cf. Paul Duguid, “Material Matters: Aspects of the Past and Futurology of the Book,” in *The Future of the Book*, ed. Geoffrey Nunberg (Berkeley and Los Angeles: University of California Press, 1996), 66–73.

112. Erkki Huhtamo and Jussi Parikka, “Introduction: An Archaeology of Media Archaeology,” in *Media Archaeology: Approaches, Applications, and Implications*, eds. Erkki Huhtamo and Jussi Parikka (Berkeley and Los Angeles: University of California Press, 2012), 1–24; and Simone Natale, “Understanding Media Archaeology,” *Canadian Journal of Communication* 37.3 (2012): 523–27 provide good overviews of this developing field.

113. Siegfried Zielinski, *Deep Time of the Media: Toward an Archaeology of Hearing and Seeing by Technical Means*, trans. Gloria Custance (Cambridge, MA: MIT Press, 2008), 1–12.

114. Gilliard, “More Silent Reading in Antiquity,” 683; Johnson, “Sociology of Reading,” 597–98; and Hélène Haug, “Le passage de la lecture oralisée à la lecture silencieuse: Un mythe?,” *Le Moyen Français* 65 (2009): 3, all specifically address and criticize this overarching narrative of book and mind.

115. E.g., Goody and Watt, “The Consequences of Literacy,” Ong, *Orality and Literacy*, and Olson, *The World on Paper*.

116. E.g., Eisenstein, *Agent of Change*, *passim*.

117. Cf. John Halverson, “Goody and the Implosion of the Literacy Thesis,” *Man* 27.2 (1992): 301–17 and Adrian Johns, “How to Acknowledge a Revolution,” *American Historical Review* 107.1 (2002): 106–25 for respective critiques of these two approaches.

118. Valette-Cagnac, *La lecture à Rome*, 14 notes that efforts to situate the origin of silent reading are an attempt to consecrate the “la victoire définitive des forms modernes d’appropriation du livre.”

119. Haug, “Le passage de la lecture oralisée à la lecture silencieuse,” 3–7.

120. Cf. Saenger, “Silent Reading,” 374.

121. Leah Price, “Reading: The State of the Discipline,” *Book History* 7 (2004): 309 rather aptly—but uncritically—summarizes this narrative of reading as one detailing “the progressive disappearance of the reader’s body.”

122. This narrative has a rather old genealogy in many ways. Peter Stallybrass, “Books and Scrolls: Navigating the Bible,” in *Books and Readers in Early Modern Studies: Material Studies*, ed. Jenifer Andersen and Elizabeth Sauer (Philadelphia: University of Pennsylvania Press, 2002), 42–79, has pointed out how fifteenth-century Christians created a similar binary between their book culture and that of ancient Jewish peoples.

123. See also Eva Mroczek, “Thinking Digitally about the Dead Sea Scrolls: Book History Before and Beyond the Book,” *Book History* 14 (2011): 241–69, who calls for a similar nuancing of “the classic narrative of the history of textuality.”

124. Ciarán McMahon, “The Origins of the Psychological ‘Interior’—Evidence from Imperial Roman Literary Practices and Related Issues,” *Journal of the History of the Behavioral Sciences* 44.1 (2008): 19–38, provides an example of such an approach.

125. E.g., when Christina Haas, *Writing Technology: Studies on the Materiality of Literacy* (Mahwah: Lawrence Erlbaum, 1996), 205–23, historicizes the digital revolution, she only looks at the transition from manuscript to print culture, while Chartier, *Form and Meaning*, 20 suggests situating the digital revolution via the lens of the history of the codex.

126. In addition to Vandendorpe, *From Papyrus to Hypertext*, 123–24, I know of only three exceptions: Scott Noegel, “New Observations on Scribal Activity in the Ancient Near East,” in *Voice, Text and Hypertext at the Millennium: Emerging Practices in Textual Studies*, ed. Raimonda Modiano, Leroy F. Searle, and Peter Shillingsburg, 133–43 (Seattle: University of Washington Press, 2004); Mroczek, “Thinking Digitally about the Dead Sea Scrolls,” 235–63; and Tom Standage, *Writing on the Wall: Social Media—The First 2000 Years* (New York and London: Bloomsbury, 2013), 21–48. The goal of the former two articles, however, is to use digital culture to understand ancient scribal cultures (although they do reveal something about digital culture in the process), while the latter, despite being provocative and interesting, is unfortunately marred by the misunderstandings and errors of a nonspecialist in the ancient world.

127. Duguid, “Material Matters,” 66.

128. Matthew G. Kirschenbaum, *Mechanisms: New Media and the Forensic Imagination* (Cambridge, MA: MIT Press, 2008), 4. In general, my discussion of digital textuality is decidedly *screen essentialist*.

129. Vandendorpe, *From Papyrus to Hypertext*, 123–24; see also Fischer’s casual observance of these similarities (*History of Reading*, 47 and 67).

130. Bolter, *Writing Spaces*, 169 discusses the general signifying structure of the scroll. For authorial manipulation of the scroll’s structure, see John Van Sickle, “The Bookroll and Some Conventions of the Poetic Books,” *Arethusa* 3 (1980): 31, and Marilyn Skinner, *Catullus’ Passer: The Arrangement of the Polymetric Poems* (New York: Arno Press, 1981), xxvi, for Catullus’s use of this aspect of the scroll.

131. N. Katherine Hayles, “Translating Media: Why We Should Rethink Textuality,” *Yale Journal of Criticism* 16.2 (2003): 264.

132. Vandendorpe, *From Papyrus to Hypertext*, 27; cf. also Susan Schreibman, “Computer Mediated Texts and Textuality: Theory and Practice,” *Computers and the Humanities* 36 (2002): 285.

133. The very limited discussions of this burgeoning form of textuality nearly exclusively discuss its linguistic features rather than its structural ones; cf. Dana Goodyear, “I ♥ Novels: Young Women Develop a Genre for the Modern Age,” *New Yorker*, 22/29 December 2008, http://danagoodyear.com/dana/no_novel.html (accessed 2 June 2012), and Dhananjoy Roy, “Cell-Phone Novel as a New Genre of Literature,” *Language in India* 12.3 (2012): 81–95.

134. Johnson, *Bookrolls and Scribes*, 86–87.

135. Raymond Starr, “The Circulation of Literary Texts in the Roman World,” *Classical Quarterly* 37.1 (1987): 213–23 and Jon Iddeng, “*Publica aut Peril!*: The Releasing and Distribution of Roman Books,” *Symbolae Osloenses* 81.1 (2006): 58–84, offer essentially the same conclusion that book circulation in the ancient era was primarily private; however, Iddeng differs by seeing a somewhat larger role for commercial transactions. For the book trade’s traces in the papyrological record, see Johnson, *Bookrolls and Scribes*, 158–60.

136. William Johnson, “The Posidippus Papyrus: Bookroll and Reader,” in *The New Posidippus Reader*, ed. Kathryn Gutzwiller (Oxford: Oxford University Press, 2005), 70–80.

137. See Graeme Bird, *Multitextuality in the Homeric Iliad: The Witness of the Ptolemaic Papyri* (Cambridge, MA.: Center for Hellenic Study, 2010).

138. Johnson, *Readers and Reading Culture*, 179.

139. *Ibid.*, 185–92.

140. A glance at the confused and corrupt state of the transmitted corpus of any canonical author from antiquity would confirm this statement. Irene Peirano, *The Rhetoric of the Roman Fake: Latin Pseudepigrapha in Context* (Cambridge: Cambridge University Press, 2012), 1–35,

discusses the culture of emulation and competition that often led to a blurring of lines between authentic and spurious works.

141. Johnson, *Readers and Reading Culture*, 25.

142. *Ibid.*, 22–25 and 200–204.

143. Michel Foucault, “What Is an Author?,” in *Language, Counter-Memory, Practice*, ed. Donald F. Bouchard (Ithaca: Cornell University Press, 1977), 113–38, provides the seminal and still pertinent discussion of this issue.

144. Roger Chartier, “Languages, Books, and Reading from the Printed Word to the Digital Text,” *Critical Inquiry* 31.1 (2004): 149.

145. Cf. Mark Poster, *Print and Digital Authorship* (Aarhus, Denmark: Centre of Internet Research, 2001), 14–21.

146. Clifford Lynch, “The Battle to Define the Future of the Book in the Digital World,” *First Monday* 6.6 (2001), <http://firstmonday.org/ojs/index.php/fm/article/view/864/773> (accessed 5 July 2014), provides an excellent discussion of this issue.

147. Carla Hesse, “Books in Time,” in *Future of the Book*, ed. Nunberg, 21–27.

148. These aspects are essentially what N. Katherine Hayles, “Print is Flat, Code is Deep: The Importance of Media-Specific Analysis,” *Poetics Today* 25.1 (2004): 67–90, classifies as the defining elements of digital textuality.

149. Robert Sturges, “Textual Scholarship: Ideologies of Literary Production,” *Exemplaria* 3.1 (1991): 111–12 and 119.

150. Mroczek, “Thinking Digitally about the Dead Sea Scrolls,” *passim*, and Sturges, “Textual Scholarship: Ideologies of Literary Production,” 129–31, have observed a consanguinity between digital textual culture and the scribal cultures of ancient Judea and medieval France, respectively, particularly with regard to the fluid nature of textuality in these cultures.

151. See Pieter Botha, “Authorship in Historical Perspective and its Bearing on *New Testament* and Early Christian Texts and Contexts,” *Scriptura* 102 (2009): 495–510, for a discussion of the operation of the author function in antiquity.