The Punctator's World: A Discursion

Gwen G. Robinson

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By Gwen G. Robinson, Editor, Syracuse University Library Associates Courier

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"The Punctator’s World: A Discursion" is a study, in several parts, of the origins of punctuation and its development to the present day. Part One, herewith, follows the subject from its murky beginnings into the broad daylight of classical usage.

The modern reader is more apt than not to yawn at the mention of punctuation. But the subject has had its admirers. Robert Monteith compared it to the “pulleys of a Ship”, without which there would be confusion and disorder. Ben Jonson praised it for being as unifying to the sentence “as the blood is through the body”. Samuel Rousseau recommended it to “lamentably ignorant and careless” youths as “so absolutely necessary to the right understanding of any literary composition, that it is a matter of astonishment so little attention has been paid to it in our seminaries of learning”. In the judgment of Joseph Robertson punctuation has contributed “to the perspicuity, and consequently to the beauty, of every composition”. It is a “system of adminicula”, wrote John Earle, that is useful to guard unwary readers “against confusion and collapse”, its province of activity being “the higher region of Grammar” and hence the very “structure and articulation of thought”.¹

“Dear James”, wrote William Cobbett (in 1819) to acquaint his son with the serious nature of “the point and marks” in writing. “The sense, or meaning, of the words is very much dependent upon

the points which are used along with them.” To illustrate this proposition, he added the following tale:

A Committee of the House of Lords made a report to the House, respecting certain political clubs. A secretary of one of those clubs presented a petition to the House, in which he declared positively, and offered to prove at the bar, that a part of the report was totally false. At first their Lordships blustered: their high blood seemed to boil: but at last, the Chairman of the Committee apologized for the report by saying, that there ought to have been a full point where there was only a comma! and that it was this, which made that false, which would otherwise have been, and which was intended to be, true!²

These testimonies give voice to the distinguished service of punctuation, which, as we see, has been well valued in the past. Though it is no longer so popularly discussed a topic, editorial reverence for the precision that it purports to bring to the text has by no means evaporated in these ending years of the twentieth century.

“There is a theory”, say the Fowlers (1906) with an air of disapproval, “that scientific or philosophic matter should be punctuated very fully and exactly”.³ Such a concern for the reader’s safety in intellectual terrain marks an attitude that lingers today. One notes with a degree of amusement, however—so moot are the lineaments of the common point—that British courts of law are even today en-

². William Cobbett, A Grammar of the English Language (Oxford: Oxford Univ. Press, 1984), 58–59. A few decades later G. P. Marsh, in his Lectures on the English Language, 4th ed. (New York: Scribner, 1863), 415, took up this issue of punctuation in legal instruments. “The principles of punctuation are subtle”, he warned, “and an exact logical training is requisite” for the precise application of the points. “Naturally, then, mistakes . . . are frequent, so much so, in fact, that in the construction of private contracts, and even of statutes, judicial tribunals do not much regard punctuation; and some eminent jurists have thought that legislative enactments and public documents should be without it.”
couraged to disregard legisational punctuation in their interpretation of the law.

So then, what is punctuation that it should draw forth this barrage of opinion? What history underlies its presence on the page? To initiate our inquiry, let us say that punctuation is a group of devices used primarily to shape written language into comprehensible units. That done, it seeks to refine: to clarify meaning and add vitality. Our discussion of the punctator's art, described thus broadly, will include matters of word separation, headings, and chapter divisions, as well as the placement of pausal points (or puncts: periods, commas, colons, semicolons), the dash (also a pausal sign), quotation marks, italics, and parentheses. Samples of discordant views will be examined and their perpetrators accounted for. Within the extensive bibliographies that relate to this subject, one finds the names of eminent philosophers, logicians, psychologists, theologians, printers, writers, teachers, grammarians. How can one best guide the receiving mind through text? This question has inspired argument for many centuries and, delightfully (since no one needs to die for it), continues to do so.

There are today two attitudes towards the governing of words on the page, and both have their origins in the deep structure of the human mind. The euphuistic (or elocutionary) approach addresses the problem of rendering speech into text in a way that most enhances its aural retrieval. It reached its maturity in monastic times and survived in moderate vigor through Shakespeare's era. It is today still effective for dramatic emphasis. Though its presence in serious explication is less frequent in modern writing, one discerns it at play in speeches, sermons, lectures, poetry, or conversation—wherever meaning is shaped for the ear.

The counterpart to the euphuistic method of punctuating is the logical (or syntactical) one. In its purview lies the elucidation of sentence structure. Being the more intellectual, or inward, of the two styles, it focuses on the subtle distinctions of hierarchical importance, on grammatical groupings, and appeals to the brain more through the eye than through the ear. In English literature the logical style flourished energetically in the eighteenth, nineteenth, and early twentieth centuries.

Thus the two systems, though growing side by side, have flowered
in different seasons. Writing today favors the logical style, which predominates in books, newspapers, and magazines. But now that the common statement has become less windy, and centuries of literary tradition have fortified the reader's syntactical expectations, pausal marks internal to the sentence have become less necessary.

FROM ORALITY TO LITERACY: THE FIRST TEXTUAL DIVISIONS

The Word of John the Evangelist was an oral word, for the early communicating mind had only the medium of speech at its disposal. "Language is primarily speech. Its grammatical code was formed in the course of centuries by innumerable generations of illiterate speakers, and even in the most elevated literary style we are obliged to conform to what has become, in this way, the general practice."4 Oral systems go back to prehistory. The age of script, measurable as a single small unit in the lifetime of the human species, evolved from and remains symbiotically dependent upon that still-not-understood capability of man to communicate with his breath and his mouth an infinite variety of ideas. Until the invention of writing, the communication of thought was almost entirely through speech. A normal, unimpaired man dealt with it through his ears. That immutable physiological fact set the mold of his social life. "The common conventions of language as encoded in [the] brain are acoustic, not visual"5 says Professor Eric A. Havelock; this would seem to be generally the case, with the relatively rare exception of the congenitally deaf.

Alphabets, which are themselves inert to meaning, transmit speech into visibility phoneme by phoneme.6 A letter symbolizes for the eye the sound we hear in our heads, as our brains formulate words and set them onto their syntactical track. When in the eighth century B.C. the Greeks devised a pure, acoustically transparent, complete-

with-vowels alphabet to replace the less flexible ideograms and syllabaries of neighboring civilizations,\(^7\) an enormous new tool came into being. Suddenly, every meaningful particle of sound could be represented without ambiguity; whatever could be said was imitable in writing.\(^8\) The body of human knowledge, hitherto embedded in song and poetry, broke loose from its acoustical matrix and moved towards visual space, where it would increasingly find itself analyzed, questioned, re assorted, abstracted.

But initially, the release was magic; for the common man it was as ego-inspiriting as a bright morning. Evidence of his expanding self-assertiveness has come down to us (not very modestly), scratched onto potsherds—baked clay being nearly unpulverizable: I myself made this! I, X of Y, wrote this!

With practice came volubility. Statements of more ambitious hexameter lengths found their way into paeans and prayers, onto pots and tombs, and aroused, in theory at least, intimations of punctuation. Two millennia would be needed to teach it the behavior of a proper concept. But grow it would. As time passed, intonation, emphasis, tempo, volume, facial expressions, and gestures—all so vital to the success of the spoken word—came to be more and more precisely conjured up by the punctating instruments that lay beyond the proper dominion of alphabet letters.

To see the problem as it might have appeared at the inception of writing, imagine the following statement in its spoken form.

7. In *Origins of Western Literacy* (pp. 22–38), Havelock gives a convincing analysis of the difference between the Greek alphabet and earlier Linear B, Semitic/Aramaic, and Phoenician syllabaries. He discusses as well his theory that oral poetry, by virtue of its needing to be remembered, is rigidified by clichés and metrical necessities to a degree that cannot reflect the variety and novelty of human experience.

In his *Preface to Plato* (Cambridge: Belknap Press of Harvard Univ. Press, 1963), Havelock carried this notion to its fuller extent. It was, he thought, this unthinking, repetitive, hypnotic feature of oral literature for which Plato had expunged poetry from his Republic. In the fourth century B.C. Plato stood at the line of clash between the hand-me-down body of knowledge embellished by the oral arts and the catapulting release of the intellect provided by literacy.

8. Today, thanks to the efforts of linguistic scholars, the international phonetic alphabet can indicate vowel and consonant differentiations, pitch, stresses, and intonation with very nearly exact precision.
My mother said your father stole my pig and ran away.

With no experience in linear progression or orientation of letters, the early scribe, would have dealt with it like an autistic kindergartener.

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MY NOT ER S AI D O U T H E R etc.
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But suppose the message was intended to convey:—

"'My mother', said your father, 'stole my pig and ran away'."

Or:—

"My mother said, 'Your father stole my pig and ran away'."

Despite the exact repetition of the words, we still do not know what might, under conceivable circumstances, have been crucial to our subsequent behavior: Who stole whose pig?

The deficiencies of the written message must have been apparent from the start. But, as letter-making grew easier, evidenced by the uniformity of letter formation and the straightening line, scribal attention quite rightly turned to syllables, the true coin of speech; for speech-sounds have minimal respect for the individual word. They incline, instead, to song, where syllables flow seamlessly—a marriage of rhythm with meaning. For example:

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Fairlove youfaintwithwanderinginthewood.
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As scribes grew more facile with their craft, so full-blown statements poured into lettering. These more complex lines continued to be squeezed together in the inherited manner without word differentiation, and a habit set in that not even the availability of tractable writing surfaces could lay to rest. Although raised dots or even

9. J. Rendel Harris, "Stichometry I", *American Journal of Philology* 4 (1883): 150. Also interesting is the fact that elementary-school dictations tend to bring to the surface basic confusions between syllables (the units most meaningful to the ear) and words (the units most meaningful to the eye).
spaces between words can be seen on extant Greek and Roman inscriptions and papyri as early as the seventh century B.C., they were not consistently or even commonly used until the sixth and seventh centuries A.D.\textsuperscript{10}—so adaptable is the human mind to hardship and so slow to accept improvement. By the tenth century A.D., division of words—first big from big, then big from little, finally little from little—was a fairly regularized feature of all Latin texts. In the Greek, vacillation continued, even as late as the fifteenth century.\textsuperscript{11} Writing, as we know it now, developed out of the apparently reluctant recognition that words, however tightly knit in the flow of communication, represent separate concepts and retain them in recombination.\textsuperscript{12}


11. Writers today use simple space between words. But an equally interesting alternative is the trick used by several word processing programs to save space in document storage. The last letter in each word is identified by the addition of 128 to its ASCII code number, which is effectively like: jimwantsthreebeers.

12. In Japanese text there is still no word separation and the reader is expected to scan the line, differentiating as he goes along. He is helped by particles (indicating the subject, the object, the indirect object, or that a question is being asked), and by the convention that the subject-predicate-verb order will obtain. The \( = \text{comma} \) is used to demark a word group (and also used after the introduction of the subject), and the \( = \text{period} \) for signal of conclusion. Clues to word integrity lie in the visual unity of each of the kanji (which represent whole words) but not in the string of katakana and hiragana syllables. The eye, as it passes along through the continuous sequence of characters, can indeed become confused as to where the word boundaries lie. In grammar lessons, Japanese school children are occasionally drilled in the practice of word division.


T. J. Brown in his article “Punctuation” in the 15th edition of the \textit{New Encyclopaedia Britannica} notes that early Arabic manuscripts had no punctuation, since the structure of the language “ensured that the main and subordinate clauses were readily distinguishable without it”. Early written Chinese also was structurally clear without punctuation; but in the nineteenth century hollow circles came to be used to mark off the ends of phrases, and in 1912 the European comma, full point, question- and exclamation-marks also became common. The Japanese apparently did not find the construction of texts in Chinese so simple from the eighth century on and attempted to clarify for themselves the meaning and grammatical constructions by use of a complicated punctuational system of kueriten and kunten. In their own language the Japanese adopted the Western notion of comma and full stop during the Edo period and later added the dash and quotation marks.
This fragment of an official order, 250 B.C., illustrates a lack of word separation (from the Encyclopaedia Britannica, 11th ed., s.v. "palaeography").

(
—εἰς τοπουχοῦ καὶ τῆς—
—τετρά καὶ εἰκοστῆς—
—θεῖς τοῖς θησαυροῖς ἐπ—
—τετρά καὶ εἰκοστῆς—
—οὐκοῦν καὶ τοὺς ἐρημο—
—σφραγισμένος ἀποσ—)

In view of this long-term disregard for the reader's comfort, it is surprising to discover that topic divisions were being regularly marked

13. That writing, for a millennium, should continue to demand so much of the reader is astonishing. In the fourth century B.C. Aristotle was already discussing the brain's penchant for the assimilatable minutiae over vast reality. Why then was writing so slow to incorporate into its mimicry of speech the system of pauses? Undoubtedly, the source of trouble lay in the professional camaraderie of scriveners and in a natural human resistance to change. Perhaps also there was an element of the empathetic You-know-what-I-mean syndrome, a prevalent feature of talk amongst the inarticulate. In any case undifferentiated words, undifferentiated phrases, clauses, sentences survived by habit and were fostered both by medieval orality and by the authoritative example of the medieval Christian Church.
off by Greek scribes as early as the fourth century B.C. A short horizontal stroke, called the *paragraphos*, was inserted between written lines to indicate a change of subject. Although Aristotle (384–322 B.C.) discussed phrasing and the *periodos* (in the sense of cognitive closure), the *paragraphos* was the only actual punctuation mark in use during his time.\textsuperscript{14} Thus, the reader was essentially flying blind—with no perspective on his future, no semaphoric headings, folios, indices, or contents page to guide his expectations. Though rhetorical pauses in the flow of language were deemed by Aristotle to be important to the sense, no way of indicating them textually was yet in operation.

Gradually, as writing gained the confidence of versatile intellects, it probed into unorthodox areas and forced the content of the human mind and the psychology of thought to change.\textsuperscript{15} Though not as immediate or sensitive a medium as speech, writing had the special gift of surmounting both time and distance. Through its offices, complex statements and transitory, unique flights of the imagination could be set down with a prospect of permanence and ready retrieval, should the memory falter. What was written could be consulted, checked at different locations on future days, and thought about in abstract and in historical, comparative ways. “Abstractly sequential, classificatory, explanatory examination of phenomena or of stated truths is impossible without writing and reading. Human beings in primary oral cultures, those untouched by writing in any form, learn a great deal and possess and practice great wisdom, but they do not 'study'.”\textsuperscript{16} What the memory could not retain would now endure in writing, embedded in a vocabulary that was hundreds of times larger as well as retentive of historical nuance.\textsuperscript{17} The laboring mind, freed from the bondage of the mnemonic expression previously relied upon to hold together cultural memory—its clichés, formulaic repetitions,
metrical phrasing, and epic delineations of character—was enabled to communicate out-of-the-way ideas. Before the Greek alphabet there was no real science, or philosophy, or variegated, responsive, fully vocabularized literature; nor did there exist so completely a literate civilization. The changes wrought by the alphabet went deep, for it turned the human mind to ambitions of immortality, to the logical outcome of action and thought, and most vitally, to individual initiative, to the ego. In favoring young discoverers and activating written record keeping, the literate culture downgraded the position of the wise old folk upon whose memories tribal lore had heretofore relied.

Learning to alphabetize language was so simple that children could do it, and did. Even Athenian girls were taught their letters to the degree that they might better run the household. In the late fifth and fourth centuries B.C., literacy, as measured in terms of numbers of readers and the availability of books, was apparently widespread among Greeks. There is copious evidence of this in extant graffiti, in contemporaneous mention of bookshops, libraries, schools, the reading of ledgers, and the sending of letters as if they were in no way unusual items. Strabo reports that Aristotle himself had built up a large and diverse collection of books at the Lyceum, similar to that at Plato's Academy. Euripides was reputed to have acquired for

18. In addition should be mentioned the tremendous impact of this new mental stimulus on art and architecture, where space and balance came into prominent new treatment. With the dilation of the visual sense, natural appearances were perceived afresh and delineated, as, for example, in the broken stance and realistic facial expressions of fifth-century statuary. Time, too, was viewed differently. The worldview of simultaneity, fostered by oral-aural attitudes and by the che-sarà-sarà mythology, concatenated into a chronological progression that could be used to explain the present in terms of the past or to manipulate the future by actions in the present. The alphabet, by developing the eye at the expense of the ear, is in these respects fundamental to present-day perspective in art, in history, and in narrative. For more on these subjects, see John Boardman's chapter "Greek Art and Architecture" in The Oxford History of the Classical World (Oxford: Oxford Univ. Press, 1986), 288–89; and Marshall McLuhan's The Gutenberg Galaxy (Toronto: University of Toronto Press), 22, 30, 54, 56–57.
his own pleasure and personal use a library of considerable size. The novelty of a literate public was so astonishing that before long it was providing meat for jokes. Not surprisingly, the works of Aristophanes (ca. 448–ca. 388 B.C.) contain numerous references to books and reading. For an example, here is a chorus from *The Frogs*. It is singing exuberantly about the audience it faces (and David Barrett assures us that we may reasonably imagine an audience of 40,000):

They've all got textbooks now—
However high your brow,
They won't be shaken.

No talking down to these:
That's all outdated!
For native wit alone
They're highly rated;
But now they've learnt to read
It's real tough stuff they need;
They don't want chicken-feed—
They're educated!

(from David Barrett's 1964 translation of Aristophanes' *The Frogs* for Penguin Books)

During all this busy excitement, punctuation lay dormant. Nothing was done to cut the extrusion of visual wordage into manageable pieces. Those under Grecian influence who had been schooled in reading and writing during the literary freedom of the Classical and Hellenic periods were lucky indeed. Those who lived during the political disruptions that followed were not, culturally, so fortunate; for books and learning thrive best in an established, well-assured society. As public literacy declined, so reading and writing took on an aura of privilege. The average reader was left behind, to hack his own unsignposted way through swales of idiosyncratic, glutinous alphabet letters. It is certainly conceivable that unbroken, undifferentiated text contributed to the medieval subsidence into archaism, when literature became again the specialist craft of scribes and scholars, and no longer the pleasure of ordinary people.

EARLY EUPHUISTIC POINTING

As papyrus superseded clay, linen, bark, and tanned hide, it became time for the now swiftly generated written line to be pared into more digestible morsels than the paragraph. The literary muse was beginning to produce prolifically—to an extent that the conservative Socrates found regrettable. As he explained to Phaedrus, the written word was nothing but a lifeless image of the spoken word. It had no vitality, demanded no reply, and if used extensively, would come to supplant memory,22 as indeed it has.

In oral societies communication draws its lifeblood from participation—from the action of debate, riposte, affirmation, and rebuttal. Around the living sound of voice, rhetoric had set up rules of play that would in time shape text as well, so that the human intellect, which can be compared to a purblind worm burrowing through compost, might continue through the new medium to find the most rewarding route to comprehension. Socrates was unaware of, or at least expressed no concern about, the walled-in effect of memorized knowledge. A thinker like Socrates—or rather, Plato—living in the boundary centuries between orality and literacy, had much to consider in suiting his ideas to the written word. With the likelihood that his audience would equally enjoy and be benefitted by either the traditional oral style or the interiorized style that book reading encouraged, his quandary was perhaps not a devastating one. But in time it would grow very real. For often enough the constringencies required for the ear's delight—a graceful antithesis, a sound metre, parallel phrasing—will conflict with the optimal elucidation of logical structural relationships. How can one best implant a thought in someone else's head?23 Through the sensuous, sociable, extrovert ear?


23. It is amazing to read of the African talking drums, which successfully reproduce the sounds of speech to convey them over long distances. Drumbeats imitate the rhythms of commonplace word clusters and fixed expressions of standard themes; for nothing novel or elaborate can be communicated in this way. Two pitches render the intonation of this surrogate language, and simultaneous strikes of each mark the punctuational pause in the otherwise unabsorbable flow of sound. For a detailed description see Walter J. Ong, Interfaces of the Word (Ithaca: Cornell Univ. Press, 1977), 92–120.
or the implacable eye? Indeed, it can be war. This basic line-up—so remindful of Manichean dark and light, of body against soul, intuition against intellect, id against ego—has generated what might be called a punctatorial dilemma.

Our first real glimpse at the 'shadier' type of communication, that is, the rhythmic, audible type that offers delights of an unintellectual nature, comes from what is known of the writing and rhetorical teachings of the sophist Gorgias of Leontini (ca. 485–ca. 380 B.C.), who sought as far as possible to strike the grand note. One is reminded in reading about him of an ambitious tenor, straining his audience's patience with an elegant but tedious opera seria. Regarded as the creator of ‘artifical Greek prose’ (a kind of extravagant prose-poetry that tended to obscure meaning), Gorgias urged lavish ornamentation, a florid diction, and phrase pairings that, in effect, jingled like verse. Luscious words and rhythms, he claimed, gave energy to success in persuasion. That was his goal; not a perspicuous communication. In thanks for all these gifts, the Greek language adopted a new word, “gorgiaze”, and used it derogatorily. But in broad terms, it was against his immunity to serious knowledge, against his manipulating of sense for the gratification of the senses that Plato and, more vehemently, Aristotle railed. The Gorgianic drive for rhythm and symmetry was relentless and without regard for the needs of lucidity. In contemplating it one is reminded of things as basic as heart beats or the dimidiation of limbs, eyes, nostrils, brains. More sophisticated components of this same family of perspectives are present in the performing arts, the arts that deal with the fluency of time and with the ear: prosody, rhetoric, music, dance. In these lie the inchoate origins of euphuistic pointing.

It is prose that bears the brunt of punctuational scrutiny, for it is there that the conveying of explicit information calls for action. In imitation of poetic ‘perfection’, classical rhetoric had imposed a formality of division and apportionment upon the structure of oratory,

with the fortunate result that the audience was led willingly over familiar contours of expectation. A listener, joining late, would know where the speaker was in his formulation of ideas—the *exordium*, the *narratio*, the *conclusio*—just as the reader today can find his way through title pages, tables of contents, prefaces, and chapter headings of books that he has never before seen. Within the arrangement of its basic patterns, rhetoric centered essentially on the artistic strategies of the communicator as he strove to put across his point with maximum impact. Firmly in place as an oral discipline, rhetoric moved with authority into the domain of writing, where its goal was to give prose the dignity and affecting power of poetry, as well as an elegance of its own. 25 It dealt with word usage, ornaments, bearing, delivery, but for our purposes, most importantly, with rhythms and internal division of materials to better press home a message. The practice of rhetoric flourished, almost as a popular entertainment, in the disputatious Athenian democracy, where its most revered champions were Isocrates 26 (the pupil of Gorgias) and Demosthenes, and saw light again as an elite art form in the senatorial oratory of the Roman Republic. Any Roman aspiring to social, literary, or political success needed to study rhetoric seriously. Cicero (106–43 B.C.), very much a master (though he did not himself rigorously practise the dictates of his craft), wrote about it extensively in his *De Oratore*, *Brutus*, and *Orator*. His published theories, fortified by accounts of his illustrious career, survived both contemporary and subsequent competition to cast their influence over literary expression for centuries, indeed even up to the decline of classical study in modern times. For


26. In the heyday of rhetoric, Isocrates was looked upon as an oratorical paragon and the father of Greek oratory. Isocrates promulgated the theory that oratory should be as artistic as poetry and provide the same degree of pleasure. In seeking that end, he nevertheless kept in mind the total effect, and though his huge, rhythmic periodic sentences frequently consumed a whole page, he stayed in control. In Isocrates’ terms rhetoric was not simply a utilitarian technique for charming or persuading, but a practical extension of wisdom. He associated it with philosophy, thereby possibly softening Plato’s attitude towards it, as expressed in the “Phaedrus”. The example of Isocrates decided the form of rhetorical prose for the Greek world, for Cicero, and for the modern world as well. For more on Isocrates, see the introduction to the Loeb Classical Library edition of *Isocrates*, trans. George Norlin and LaRue Van Hook; also see Clarke, *Rhetoric at Rome*, 2–3.
that reason he seems an appropriate candidate (to follow Gorgias) for illustrating a second euphuistic florescence.

By Cicero's era, alphabetic literature had been in existence for some six hundred years. Although there was not the democratized literacy that had prevailed particularly in Athens and generally in the Hellenistic Greek world, by the middle of the first century B.C. Roman booksellers and copyists were carrying on an active trade, and books were circulating freely within a limited class of Roman society. There were literary societies and extensive, well-stocked private collections. Caesar talked of setting up a public library. A documented academic interest in literature and language, as well as evidence of Alexandrian-derived textual criticism, attest to an established atmosphere of intellectual aspiration. With the help of his publisher friend Atticus, Cicero worked hard to develop a personal library of meticulously produced books and to improve as well the quality of his own publications. 27

As we see, the traditions of reading and writing were well in place. The paragraph was old hat. The clause, or what the Greeks called colon (L. membrum), was recognized generally as being a segment of a larger entity and was defined in terms of syllables or metres. The colon itself divided into phrases called by the Greeks commata (L. incisa). The full “periodic” sentence was conceived as being an elaborately organized concatenation of related ideas made up of cola, themselves in turn made up of commata, and ending with a sense of completeness: a grouping and rounding out of words. And this in Greek was called the periodos (L. circuitus).

To give the merest flavor of Cicero's extensive views on rhetoric as they relate to punctuation, the following review is presented with quotations taken from the Loeb Classical Library editions of De Oratore (translated by H. Rackham), Brutus (translated by G. L. Hendrickson), and Orator (translated by H. M. Hubbell). In this last treatise, written in 46 B.C., Cicero is defending his own exuberant verbosity against the so-called 'modern' Atticists (who derived their aspirations from the Hellenistic stoics, and advocated a plain, logical style without ornament). Following Aristotle and Isocrates, Cicero recommended rhythmical cadences to bring out the structure of sen-

27. Reynolds and Wilson, Scribes and Scholars, 18–22.
tence parts. The syntactician will note the concern for clarity and sense; but, as Cicero lays such heavy emphasis on the ear (to prolong the attention span of an apparently very restless audience), it seems appropriate that his ideas be included in this section on the origins of euphuistic punctuation.

\[\text{\textbf{CICERO ON RHYTHM IN PROSE STRUCTURES}}\]

Eloquence is a potent force which embraces all things in a graceful and flowing style. With its mastery one can both instruct and give pleasure. The old Greek masters, Isocrates most particularly, held the view that prose should contain rhythms just as does poetry. They thought that in speeches

the close of the period ought to come not when we are tired out but where we may take breath, and to be marked not by the punctuation of copying clerks but by the arrangement of the words and of the thought . . . designed to give pleasure to the ear. (De Oratore, p. 137)

To engage an attentive ear, the poets, who were in those days also musicians, thought it proper to transfer from poetry to rhetoric, insofar as was compatible with the severe character of oratory, the modulation of the voice and the arrangement of words in periods. For it is the mark of an ignorant speaker to pour out

disorderly stuff as fast as he can with no arrangement, and end a sentence not from artistic considerations but when his breath gives out, whereas the orator links words and meaning together in such a manner as to unfold his thought in a rhythm that is at once bound and free. (De Oratore, p. 139)

Speech must be ordered, just as the sun and the moon and the seasons are ordered, to perform their actions in a rhythmic way.

The periodic structure has its origins in the physical limitation of breathing, so that our ears are gratified only by what can be easily endured by the human lungs. [In other words, interestingly—indeed, very interestingly—human speech and comprehension are the products of a unified organism, and not of minds, or bodies, or wills acting in part.]
It is true that by some natural instinct the expression of a thought may fall into a periodic form and conclusion, and when it is thus gathered up in fitting words it ends often with a rhythmical cadence. The reason is that the ear itself judges what is complete, what is deficient, and the breath by natural compulsion fixes a limit to the length of the phrase. If the breath labour, not to say fails utterly, the effect is painful. (Brutus, p. 41)

Art in prose writing demands subtlety and variation in the use of rhythms. Aristotle recommends to orators that they speak in heroic metres—a legitimate thing to do provided one does not fall into downright verse or something resembling verse. Further, Aristotle approves of either of the paean metres:—\(\overline{\text{\text{-\text{stop doing it}--}}}\) (stôp doing it) for the beginning of a period, or \(\overline{\text{\text{-clatter of hoôves}}--}\) for the end. Prose, being less fettered than poetry, must apply its own self-control so that it neither falls into poetry nor gushes without pause. All utterance contains an element of rhythm, which can quite properly be reckoned as a merit in prose. A continuing series of words will be much more pleasing if it is divided up into cola and commata, the commata becoming shorter near the end, in indication of the coming final break. [This recommendation of short phrasal breaks towards the end of the periodos reappears in the writings of later grammarians (cf. the subdistinctio of Donatus in the fourth century A.D., which will be discussed in Part Two).]

Only let your habitual practice in writing and speaking be to make the thoughts end up with the words, and the combination of the words themselves spring from good long free metres, specially the dactylic or the first paean or the cretic (\(\overline{-\text{-\text{-}}}\)), though with a close of various forms and clearly marked, for similarity is particularly noticed at the close; and if the first and last feet of the sentences are regulated on this principle, the metrical shapes of the parts in between can pass unnoticed, only provided that the actual period is not shorter than the ear expected or longer than the strength and the breath can last out.

However, the close of the sentences in my opinion requires even more careful attention than the earlier parts, because it is here that perfection of finish is chiefly tested. For with verse equal attention is given to the beginning and middle and end of a line, and a slip at any point weakens its force, but in a speech few people notice the first part of the sentences and nearly everybody the last part;
so as the ends of the sentences show up and are noticed, they must be varied, in order not to be turned down by the critical faculty or by a feeling of surfeit in the ear. *(De Oratore*, p. 153)

Words when connected together embellish a style if they produce a certain symmetry. *(Orator*, p. 365)

[The] shrewd orator must avoid . . . clauses of equal length, with similar endings, or identical cadences. *(Orator*, p. 369)

The arrangement of words in the sentence has three ends in view: (1) that final syllables may fit the following initial syllables as neatly as possible, and that the words may have the most agreeable sounds; (2) that the very form and symmetry of the words may produce their own rounded period; (3) that the period may have an appropriate rhythmical cadence. *(Orator*, p. 423)

Just as in the realm of poetry verse was discovered by the test of the ear and the observation of thoughtful men, so in prose it was observed, much later to be sure, but by the same promptings of nature, that there are definite periods and rhythmical cadences. *(Orator*, p. 457)

The *circuitus* ["periodic" sentence] is carried along by the rhythm in a vigorous movement until it comes to the end and stops. *(Orator*, p. 463)

Prose should be tempered by an admixture of rhythm, . . . of which the paean should be the principle measure. *(Orator*, p. 471)

But there should also be iambs in passages of a plain, simple conversational type, and dactyls (along with paeans) for the more elevated style. In short, there should be a judicious mingling and blending. Without these rhythms to provide an emotional element, the words and ideas lose their strength. The beginning of the period should reach towards the end in a natural and smooth way, without sudden movement, so that the ear may await the end with pleasure, as the orderly line of "words is brought to a close now with one, now with another rhythmical figure". *(Orator*, p. 475)

Symmetry is another consideration that comes to us through the poets. But the prose writer is not held and should not be held to the rigidity of equally balanced *cola* and *commata*, as Gorgias believed. Variation of the period and the rhythmical *clausulae* (a much-used word referring to the ultimate and penultimate feet) should be sought with an air of naturalness, and Cicero suggests a number of candidates beyond the paean preferred by Aristotle. [So serious a matter was the *clausula* considered to be, that Carbo Gracchus enjoyed much
admiration in orating circles for his mastery of this tricky conceit. Indeed, on one occasion he is said to have brought down the house with a final, apparently ravishing double trochee.\textsuperscript{28}

It is the \textit{commata} and \textit{cola} that make up the long periods. But these are often used alone for a punchy effect ("like little daggers") in passages of demonstration or refutation. Interestingly, the four examples of \textit{commata} given by Cicero are all conceptually complete modern sentences—\textit{Domus tibi deerat? at habeas. Pecunia superabat? at egebas.} (Did you lack a house? Yet you had one. Was there money left? Yet you were in want.)—and do not deal with the problems caused by an opening ‘when’, ‘because’, or ‘so that’. In rhetorical practice, a full comprehensive period of good length comprises approximately four cola, each of which consists of approximately 12 to 17 syllables, that is, a full hexameter line. But the ear wants variety, and that is why rhythms and symmetry should be used to bind together in unobtrusive ways, to give form to what might otherwise be shapeless.

\begin{center}
\begin{tikzpicture}
\shade[ball color=red!50,opacity=0.2] (0,0) circle (1.8cm);
\end{tikzpicture}
\end{center}

The usefulness of rhetoric in holding attention, persuading, or inciting to action, the beauty and excitement that it imparted to speech and hence to long-lived prose, made it a much desired attainment. Cicero’s concern with it was very much in keeping with the times.

Fourth- and fifth-century sophistic doctrine had placed rhetoric at the center of the educational scheme,\textsuperscript{29} for its practical application to the winning of argument was not to be driven offstage by Platonic blatherings about truth, virtue, and knowledge. In the ensuing periods of political oppression, when governments did not encourage or even allow public deliberation on issues, rhetoric and oratory changed their character—came off the street, so to speak—and the

\begin{itemize}
\item \textsuperscript{28} Clarke, \textit{Rhetoric at Rome}, 49. Perhaps an even more spectacular example of the \textit{clausula’s} grip on the literary mind is to be seen in St. Augustine’s disappointment 500 years later, when he discovered that an example of the \textit{clausula} was not to be found in the Scriptures. Ibid., 153.
\item \textsuperscript{29} \textit{New Encyclopaedia Britannica}, 15th ed., s.v. “rhetoric”. Looking forward, one might note at this point that the great classical rhetoricians were still holding their own in the published output of early European printers. Later, the eighteenth century would witness an ‘elocutionary movement’. Even today, British schoolchildren compete for prizes in elocution.
\end{itemize}
audience was no longer a full partner in the highly charged, give-and-take simultaneity of a rhetorical event. Taken up by the schools as a discipline, rhetoric was analyzed minutely and rules set up for the governance of every shade and aspect of it—as if bright young minds had nothing else in the world to think of.

This tendency towards rigidification deepened with time. Declamation, which Cicero had practised (both in Greek and in Latin) well into old age, became the highlight of a social occasion—like charades, one imagines, or a gathering around the piano—a good chance to show off. As a result the topics to be declaimed upon became increasingly theatrical. Realistic subjects that had earlier been presented for serious practice in the legal arts gave way to whatever would amaze, however unlikely: lurid murders, disinheritance problems involving wicked stepmothers and dramatic cases of mistaken identity, maiden heiresses captured by pirates, and so on and so on. The rhetorician was by now a performer. His extravaganzas had very little relevance to the forum or the senate house. In the first two centuries A.D.—the so-called “Second Sophistic Age”, when philosophers were urging a return to more simple, classical rhetorical principles—a number of books and essays about rhetoric and famous rhetoricians (for they were admired like pop-stars)30 were put forth; and among these, two very worthy ones must be mentioned here, for they both have a bearing on our topic and were diligently studied throughout the Middle Ages. 'Longinus' (probably of the first century A.D.) wrote On Sublimity, a treatise considered to be the most sensitive piece of literary criticism surviving from antiquity. Using favorite passages from Homer, Plato, and Demosthenes, he analyzed the sources of ecstatic effects in search of the creative essence of great thoughts and overpowering emotion. One can imagine the impact of such a book on an aspiring young author. To be noted especially at this point is the section on composition, wherein, following Cicero in Orator, he remodelled famous lines to illustrate how unattractive a misjudged rhythm can be.31

Equally important was Quintilian’s Institutio Oratoria (in twelve books), written ca. A.D. 93-94, after the author’s long career of

practising law and teaching rhetoric in Rome. Its announced intent, like that of Cicero’s Orator upon which it draws admiringly, is to define the qualities of a good orator. To do that it both surveys critically the education of all the well-known orators in terms of their success and offers paradigms for the ideal rhetorical education. This work, which was genial, wise, expansive in coverage, and moral in tone, remained the quintessential authority on prose expression for many centuries.\textsuperscript{32}

In the ninth book of the Institutio, Quintilian impinges upon our topic of division of text, stalking it occasionally from a logical crouch, but most of the time in terms of beguiling harmonies and rhythms so that we are obliged, by the terms of our contract, to deposit him on the euphuistic heap along with Gorgias and Cicero. Quintilian described the comma as the expression of a thought lacking rhythmical completeness, though most writers regarded it merely as a portion of the colon. A colon, however, becomes “the expression of a thought which is rhythmically complete, but . . . meaningless if detached from the whole body of the sentence”.\textsuperscript{33} The periodos could be simple, i.e., a single thought, or a composite of thoughts conveyed in commata and cola, its length to be fueled by a single breath. Putting on his logical cap, Quintilian adds: “It is further essential that it should complete the thought which it expresses . . . be clear and intelligible and . . . not too long to be carried in the memory”.\textsuperscript{34} As for how to signal the completion of the sense, Quintilian recommended a verb wherever possible, as it is in the verbs that the real strength of language resides. But this goal must give way (here, the euphuistic cap) to the demands of rhythm. Hyperbaton is a useful device where the selected word is recalcitrant to metre;\textsuperscript{35} however, (again, the logical cap) we should never abandon what is apt to our theme for the sake of smoothness.\textsuperscript{36} Once the verb has been successfully chosen, the periodos may round off to a close with an artistic arrangement of thumps, indicating that the group of thoughts

\textsuperscript{32} Kennedy, Rhetoric, 487–514.
\textsuperscript{34} Ibid., 577–78.
\textsuperscript{35} Ibid., 521.
\textsuperscript{36} Ibid., 589.
has reached its natural limit and that a breather is being provided before recommencement of play.\textsuperscript{37} Additionally,

\ldots not only must \textit{commata} and \textit{cola} begin and end becomingly, but even in parts which are absolutely continuous without a breathing space, there must be such almost imperceptible pauses. Who, for example, can doubt that there is but one thought in the following passage and that it should be pronounced without a halt for breath? \textit{Animadverti, iudices, omnem accusatoris orationem in duas divisam esse partes} [I have noted, judges, that the entire speech for the prosecution is divided into two parts]. Still the groups formed by the first two words, the next three, and then again by the next two and three, have each their own special rhythms and cause a slight check in our breathing: at least such is the opinion of specialists in rhythm.\textsuperscript{38}

Today one is astonished by the intellectual agility and presence of mind demanded of ancient orators. Still, training should always aim high. What a man cannot manage on the podium, he presumably can mend on the page.

Quintilian in Book X takes up Cicero’s advocacy of the pen being the best modeler and teacher of eloquence. He sees writing as related to profound thought, the meditation and calm required for its success as a coolant to the ardor of extempore speech. He disparages empty loquacity and words “born on the lips”. The practice of writing regularly in silence and seclusion, he says, will develop a resource of wisdom and well-informed expression on which to draw in the stress of speaking. “And I know not whether both exercises, when we perform them with care and assiduity, are not reciprocally beneficial, as it appears that by writing we speak with greater accuracy, and by speaking we write with greater ease.”\textsuperscript{39}

The point to be noted here is that rhetorically organized speech

\begin{itemize}
\item \textsuperscript{37} Quintilian, \textit{Institutio}, 541.
\item \textsuperscript{38} Ibid., 545.
\item \textsuperscript{39} Quintilian, \textit{Institutes of Oratory; or, Education of an Orator}, 2 vols., trans. J. S. Watson (London: George Bell, 1876), 2:284–307. The symbiosis of writing and speech will be taken up in detail in later parts of “The Punctator’s World”.
\end{itemize}
was compelling text to conform with the principles of spoken art. As we see, rhetoric, which originally oriented itself to the ear, had slipped into the visual domain. Cato had been the first Roman to publish his speeches. The example of those who followed firmed up the tradition of rhetoric on the page. By Hadrian's time (A.D. 76–138) rhetoricians were being honored in the highest quarters and Pliny was advising the rewriting of one's speeches so that style and appropriate arrangement of materials might be assured for the pleasure of future generations.\(^{40}\) The *Apologia* of Apuleius, his defense against having used magic to secure a widow's affections, shows "forensic oratory turning into pure literature".\(^{41}\) In Apuleius's *Metamorphoses*, in popular essays, informal dialogues, diatribes, or essays, in written orations, or letters—in any voice-produced prose where the author was present as a guide and friend—the imprint of rhetoric was apparent and was arousing the euphuistic punctatorial conscience.

By the fourth century A.D., Greek and Roman scribes had long been computing their output by numbers of verses (for poetry) and numbers of lines, or *stichoi* (for prose). Indeed, stichometry, a Greek phenomenon, appears to have been developed before Callimachus in the third century B.C. and was probably indeed coeval with literature itself.\(^{42}\) A *stichos* was essentially equivalent to the average hexameter line (that is, about sixteen syllables long, like the first line of the *Iliad*). But it varied in count, descending as low as twelve for iambic lines.\(^{43}\) A syllabic measurement of this sort was very useful, for with it the words themselves could be laid on the page, so many per line, as best fitted requirements of purse or aesthetics; and neither the scribe, who received his pay by the *stichos*, nor the purchaser, who bought by quantity of written matter, would feel cheated.\(^{44}\)

By analogy with the length of the lines for which it was most commonly used, the *stichos* took on the attributes of the hexameter, whose boundaries offered space for statement not very different from

\(^{40}\) Clarke, *Rhetoric at Rome*, 41, 107.

\(^{41}\) *Oxford History of the Classical World*, 658.

\(^{42}\) Harris, "Stichometry I", 135.

\(^{43}\) Ibid., 139.

\(^{44}\) J. Rendel Harris tells us (op. cit., pp. 156–57) that well into the Middle Ages, especially at Bologna and in other university towns in Northern Italy, scribes were paid by the *pecia*, which measured off sixteen columns, each of sixty-two lines with thirty-two letters to the line.
the modern sentence. 45 The stichos thereby fell into a rather wobbly relationship with meaning, since decisions were required as to where the line should be lopped and another begun. Such decisions could be based on an exact syllable count or on an instinctual feel for a completed thought somewhere in the area of the eleventh or sixteenth syllable. Confusingly related to this need to break up continuing text was the development of a punctuational technique called ‘colometry’, devised by Aristophanes of Byzantium to lay out the lyrical passages of Greek tragedies according to the required and known metres, so that they were no longer packed together as if they were prose. 46 This technique was thereafter adopted in a general way to aid anyone reading aloud in public. ‘Colometry’ means the measuring out of cola, a word (in the singular) by this time grown to mean a mix of syllable count and a completed (but not necessarily autonomous) thought—a clause, if you will, a limb, member, or part. Thus, in very general terms, colometry broke up cola into short, eye-catching lines, so that recitations of poetry, oratory, or church lessons might follow speech rhythms and so make easy sense to the listeners. 47 Colometric layout on the page leavened the word mass, and in its most lavish examples produced an extravagant ratio of space to letter-cluster.

Colometry thrived throughout the first millennium. Initially devised for poetry, it moved into the prose camp to become for a time strictly adherent to syllable counting: for the clauses (cola)—8 to 18 syllables, and for the phrases (commata)—8 syllables or less. 48 But as spoken meanings are conveyed more easily from conceptually complete clauses and phrases, thoughtful scribes took care over where their divisions were placed. Thus, in their renderings, it came to be that the succession of full space-stichoi (for payment) would be numbered in the margins and the broken colometric lines divided where cohesive word groups (sense-stichoi) seemed to dictate. Jerome’s Vulgate Bible gave a great boost to the colometric sense line. In his Preface to “Isaiah” he enjoined others to use it as well: sed quod in

46. Reynolds and Wilson, Scribes and Scholars, 14.
47. Ibid.
Demosthene et Tullio solet fieri, ut per cola scribantur et commata—in advocacy that general prose, too, be presented in the manner that the rhetorical works of Demosthenes and Cicero were by then accustomed to being written, that is, in imitation of the poets: ‘by clauses and phrases’ (per cola et commata). T. J. Brown, in his article “Punctuation” in the 15th edition of the New Encyclopaedia Britannica, describes the colometric divisions marked off by letters projecting

into the margins as phrases to be treated in fact as minute paragraphs, before which the reader might take a new breath. As for run-of-the-mill scribes, they perhaps found syllable counting too tedious an activity or the concept of sense clause, or even phrase, too vague. “As might be expected, one arrangement of the text of the Bible in rhythmical sentences or lines of sense would not be consistently followed by all editors and scribes.”49 The diversity in length of colometric ‘sentences’ drawn up from the same textual material gives evidence both of scribal apathy and of the infirm nature of a perceived word group.

The following *per cola et commata* lines, which open the Gospel according to St. John, come from a sixth-century Book of Gospels written in Italian uncial and perhaps sent by Pope Gregory the Great to St. Augustine at Canterbury.50

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INPRINCIPIOERA T
UERBUM
ETUERBUMERAT
APUDDEUMETDEUS
ERATUERBUM
HOCERATINPRIN
CIPIOAPUDEUM
OMNIAPERIPSUM
FACTASUNT
ETSINEIPSOFACTUM
ESTNIIHIL
QUODFACTUMEST
INIPSOUITAEERAT
ETUITAERAATLUXHO
MINUM
ETLUXINTENEBRIS
LUCET
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ETTENEBRAAM
NONCOMPREHEN
DERUNT.

FUITHOMOMISSUS
ADEOCUINOMEN
ERATIOHANNES
HICUENITINTESTI
MONIUMUTTES
TIMONIUMPERHI
BERETDELUMINE
UTOMNESCRED
RENTPERILLUM
NONERATILELUX
SEDUTTESTIMO
NIUMPERHIBE
RETDELUMINE
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49. Thompson, *Greek and Latin Paleography*, 70.
50. Peter Clemoes, “Liturgical Influence on Punctuation in Late Old English and Early Middle English Manuscripts”, Occasional Papers No. 1, Cambridge University Department of Anglo-Saxon (Cambridge: Cambridge University, 1952); reprinted in the *Old English Newsletter* series Subsidia 4 (1980): 10. The manuscript (C.C.C.C. 286) is in the Corpus Christi College Library.
The same passage taken from the facsimile edition of the Lindisfarne Gospels (ca. A.D. 700) shows tentative word separation and reads as follows (author’s underlines):51

INPRIN
CIPIO
ERATUERBUM
ETUERBUMERAT
APUDEUMETDEUS
ERATUERBUM HOCERAT
INPRINCIPIO APUDEUM
OMNIA PERIPSUM FACTA
SUNT ETSINEIPSO
FACTUM EST NIHIL
QUOD FACTUM ESTINIPSO
UITAERAT ETUITAERAT
LUX HOMINUM ETLUX
INTENEBRIS LUCET
ETTENBRAE EAM NON
COM PRAEHENDERUNT
FUIT HOMO MISSUS ADEO
CUINOMENERAT
IOHANNES
HIC UENIT INTESTAMONIUM
UTTESTAMONIUM PERHI
BERET DELUMINE
UTOMNES CREDERENT
PER ILLUM
NONERAT ILLLE LUX
SED UTTESTAMONIUM PER
HIBERET DELUMINE

And again, comparing only the underlined words, from the Echternach Gospels (early eighth century):\textsuperscript{52}

\begin{center}
\textbf{Hoc erat inprinci} \\
\textbf{pio apuddeum} \\
\textbf{omnia peripsum} \\
\textbf{facta sunt} \\
\textbf{etsine ipso factum} \\
\textbf{est nihil} \\
\textbf{quod factum est} \\
\textbf{inipso vita erat}
\end{center}

\textsuperscript{52} Codex Lindisfarncnsis, 2: pl. 7. Also, Walter W. Skeat provides some interesting samples of how unemphatic the concept of a phrase-break used to be. Two reproduced congenerous manuscripts (undated) have varying numbers of pausal line dots, though they compare exactly in verse layout and in the notable capitalizing of the \textit{Fuit homo missus a deo} phrase. See Walter W. Skeat, \textit{The Gospel According to St. John, in Anglo-Saxon and Northumbrian Versions} (Cambridge: Cambridge Univ. Press, 1878), 12.
Bibles rendered in this way invited the reader into an easy stride. Knowing his text well, he could slide his finger down the columns and feel that he was progressing nobly. The modern eye, on the other hand, is daunted by the steep chute of words and the strange word splits (prin/cipio; ho/minum; comprehen/derunt, etc.). Perplexingly, even in cases where the paragraphos was inserted to mark off subject divisions (for example, in portions of the Codex Amiatinus, which was transcribed in Northumbria, A.D. 716), words often remained unseparated, and what is considered standard phrasing today was violated with impunity. From the sheer grandeur of a so-called per cola et commata manuscript, however, one might deduce that the material was sufficiently familiar to have been easily rattled off.

Meanwhile, during the seventh century, as costly parchment began to supplant papyrus—which political strife had made more difficult to obtain—modest copies of the Bible were appearing. In the eighth century and increasingly thereafter, the dense, space-economizing minuscule lettering, used heretofore for official communication and document writing, came to be used for church materials. It was more suited to the smaller page than was the majestic uncial. Thus, in the more homely volumes lines lengthened from margin to margin, and the suppleness of natural speech came to be reflected by insertions of pausal marks. From the placement of these evolved the modern euphuistic, or elocutionary, style of pointing.

**EARLY LOGICAL POINTING**

The origins of logical pointing lie with Aristotle. Being further along the road to the modern conception of literacy and less sceptical of the written word than was Plato, he dealt comfortably with functions of recording and categorizing, and applied the patterns of thought that reading encourages to philosophizing and psychologizing about rhetoric. He was critical of the Isocratic tilt, which in his opinion, gave too much leeway to the play of emotions, for only

when supported by logic and proof, did rhetoric make an honorable tool in the quest for truth.\textsuperscript{57} In this, Aristotle is exaltedly Greek. The great Hellenic speeches of Pericles and Demosthenes addressed man's reasoning powers by the strength of their arguments, not by the charm of their appeal. It was a Roman feature of oratory (most notably, Cicero's) to whip the passions over the threshold of reason in order to seize the jury's heart; the justness of the cause was a secondary matter.\textsuperscript{58}

To Aristotle, as might be expected, meaning was paramount. In his "Art" of Rhetoric (written ca.330 B.C.) he urged a meticulous and sparing use of connecting particles, specificity of word meaning, correspondence of genders and of numbers, and a care that what is written as well as what is spoken be well bonded and flow easily.\textsuperscript{59} He was against the ancient "continuous style" of putting words together. That method, he claimed, was unpleasant because it was endless. Instead, he advocated the "periodic style", in which the topic was fed out in readily grasped quantities. Material handled in this way can be "easy to learn, because it can be easily retained in the memory".\textsuperscript{60} The \textit{periodos}, a word reasonably translated by 'rest, having completed a full lap', should respond to a finality of sense, rather than to a deflated lung or the metrical conceits of Gorgias. Here, it should be understood that an ancient or medieval \textit{periodos} did not necessarily coincide with syntactic completeness. In addition, Aristotle discussed the \textit{colon}, describing it as having a unity of sense as well as being easy to repeat in a breath. By addressing structural matters Aristotle was not recommending a disregard for the beauty or rhythm of phrasing, but rather an aesthetic preference for a lucid communication . . . what Jespersen would call a successful \textit{impression}.\textsuperscript{61}

Although in Aristotle's time sentences and clauses were recognized elements of speech and writing, they were not dealt with textually, until Aristophanes of Byzantium (ca.200 B.C.) specified the values of stops and used them in the scholarly editing of manuscripts. There is no existing evidence from manuscripts before Aristophanes of By-

\textsuperscript{57} Freese, Aristotle's Rhetoric, xxii.
\textsuperscript{58} Clarke, Rhetoric at Rome, 47.
\textsuperscript{59} Freese, Aristotle's Rhetoric, 373-75.
\textsuperscript{60} Ibid., 387-89.
\textsuperscript{61} Jespersen, Essentials, 19.
zantium’s time that there was any consistent punctuation symbol in use by everyday working scribes. Indeed, for centuries yet to come, this far-flung and disorderly profession seemed not to notice Aristophanes’ inventory of puncts. There are examples from the first century B.C. of scribes employing the full stop, but as a group they used it like babies—randomly, with unpredictable values, and with a startling lack of empathy with the reader.

Aristophanes of Byzantium was a scholar of apparently outstanding scope. He surpassed in quality of output his famous teachers, Callimachus (poet, and author of the Pinakes, a sort of universal bibliography with biographies of authors) and Zenodotus (the first head of the Alexandrian Library and early emendator of Homeric texts), to become himself in ca. 194 B.C. the head of the Alexandrian Library. Beyond his invention of a rational colometry (mentioned above), which he used textually to authenticate lines by metrical comparison, Aristophanes enhanced the contemporary recension techniques by developing new and systematizing the old critical and lectional signs. In addition, he put out the best-to-that-date editions of Homer, Hesiod, Anacreon, and most lastingly, Pindar. To his credit lie the improved assorting of grammatical elements and a workable array of accent marks to preserve pronunciation.62 But his most interesting achievement, for our purposes, was a system for distinguishing the various sections of discourse described in rhetorical theory.63 It was as follows:

1) A point after the middle of the last letter (thus: E) indicated the end of a short section (or a comma)
2) A point after the bottom of the last letter (thus: E) indicated the end of a longer section (or a colon)
3) A point after the top of the last letter (thus: E') indicated the end of the longest section (or a periodos)

Amongst majuscules Aristophanes’ three-point breakthrough offered a supple discrimination, which was lost in lines of minuscule script

63. That we owe this invention to Aristophanes is not firmly accepted by all scholars. For example, Rudolf Pfeiffer, in his History of Classical Scholarship (Oxford: Clarendon Press, 1968), 179, conjectures that this pointing system might well belong to the time of Hadrian, three centuries later, and that Aristophanes himself might have used only two points.
where the vertical positions of the dots could not be readily discerned. As it turned out, the system was seldom actually used, though it survived in degenerated versions,\textsuperscript{64} which will be discussed later.

Aristophanes wrote on grammatical and lexicographical topics in addition to a great many other subjects. He was a scholar-editor, a grammarian \textit{par métier}. He attained a new level of critical specialization, and thereby marked the decisive emergence of a professional approach to learning. In a very real sense he was the father of generations of editors to come.

His own pupil Aristarchus, when, in turn, he succeeded to the post of Librarian, carried on the legacy of textual scholarship. His major grammatical victories lay in the area of syntax and analogy, as well as further refinement of the pointing art.\textsuperscript{65} Thus, the Alexandrian Library, for more than half a century—from Aristophanes’ tenure as head to the expulsion of Aristarchus with others of the intelligentsia in 145 B.C.—fostered standards of scholarship heretofore unknown. The impetus from this scholarly example continued for centuries both in Alexandria and in other parts of the world, though in weakened form—for the human element in the transmission of knowledge was, as always, both unstable and unreliable. Even in Ptolemaic Alexandria the copywork had been faulty. Because of the laboriousness of the scribal task, original editions tended to be unique, with the result that knowledge survived through synopses, commentaries, and spoken tradition. According to P. M. Fraser: “There can be no doubt that texts such as the ‘city-texts’ and the early recension of Zenodotus were already [less than a century later] inaccessible to Aristarchus”.\textsuperscript{66}

Nevertheless, while this succession of scholars labored over the disposition of words and over the clarity and accuracy of texts, the logical divisions of the textual line became more and more a noticeable consideration. During the subsequent basically oral-aural millennium, individual grammarians responded to the lure of logic. With visual sensibilities expanded through a growing dependence on alphabetic writing, they touched again and again upon the structural breaks in the written line.

\textsuperscript{64} \textit{New Encyclopædia Britannica}, 15th ed., s.v. “punctuation”.
\textsuperscript{65} Fraser, \textit{Ptolemaic Alexandria}, 462–63.
\textsuperscript{66} Ibid., 476.