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7 THE GREEK LEGACY

Eric Havelock

Eric Havelock (1903–1989) was professor of classics at Yale University. A one-time colleague of Harold Innis, Havelock wrote extensively on the impact of literacy on the history of the West, especially with reference to the legacy of Greek alphabetization.

The introduction of the Greek letters into inscription somewhere about 700 B.C. was to alter the character of human culture, placing a gulf between all alphabetic societies and their precursors. The Greeks did not just invent an alphabet, they invented literacy and the literate basis of modern thought. Under modern conditions there seems to be only a short time lag between the invention of a device and its full social or industrial application, and we have got used to this idea as a fact of technology. This was not true of the alphabet. The letter shapes and values had to pass through a period of localization before being standardized throughout Greece. Even after the technology was standardized or relatively so—there were always two competing versions, the Eastern and the Western—its effects were registered slowly in Greece, were then partly cancelled during the European Middle Ages, and have been fully realized only since the further invention of the printing press. But it is useful here and now to set forth the full theoretic possibilities that would accrue from the use of the Greek alphabet, supposing that all human impediments to their realization could be removed, in order to place the invention in its proper historical perspective.

It democratized literacy, or rather made democratization possible. This point is often made, but in simplistic terms, as though it were merely a matter of learning a limited number of letters, that is, learning to write them. Hence even the Semitic system has often been erroneously credited with this advantage. If Semitic societies in antiquity showed democratic tendencies, this was not because they were literate. On the contrary, to the extent that their democracy was modified by theocracy, with considerable prestige and power vested in priesthoods, they exhibited all the symptoms of craft literacy. The Greek system by its superior analysis of sound placed the skill of reading theoretically within the reach of children at the stage where they are still learning the sounds of their oral vocabulary. If acquired in childhood, the skill was convertible into an automatic reflex and thus distributable over a majority of a given population provided it was applied to the spoken vernacular.

But this meant that democratization would depend not only upon the invention but also upon the organization and maintenance of school instruction in reading at the elementary level. This second requirement is social rather than technological. It was not met in Greece for perhaps three hundred years after the technological problem was solved, and was abandoned again in Europe for a long period after the fall of Rome. When operative, it rendered the role of the scribe or the clerk obsolete, and removed the elitist status of literacy characteristic of craft-literate epochs.

Have the outward social and political effects of full literacy really been as important and profound as is sometimes claimed? Our later examination of oral cultures and the way they function may throw some doubt on this. What the new script may have done in the long run was to change somewhat the content of the human mind. This is a conclusion which will not be argued fully here. But this much should be said at once. The acoustic efficiency of the script had a result which was psychological: once it was learned you did not have to think about it. Though a visible thing, a series of marks, it created to interpose itself as an object of thought between the reader and his recollection of the spoken tongue. The script therefore came to resemble an electric current communicating a recollection of the sounds of the spoken word directly to the brain so that the meaning resounded as it were in the consciousness without reference to the properties of the letters used. The script was reduced to a gimmick; it had no intrinsic value in itself as a script and this marked it off from all previous systems. It was characteristic of the alphabet that the names of the Greek letters, borrowed from the Phoenician, for the first time became meaningless: *alpha, beta, gamma,* etc. constitutes simply a nursery chant designed to imprint the mechanical sounds of the letters, by using what is called the acrophonic principle, in a fixed series on the child's brain, while simultaneously tightly correlating them with his vision of a fixed series of shapes which he looks at as he pronounces the acoustic values. These names in the original Semitic were names of common objects like "house" and "camel" and so on. Uncritical students of the history of writing will even make it a reproach against the Greek system that the names became "meaningless" in Greek. The reproach is very foolish. A true alphabet, the sole basis of future literacy, could only become operative when its components were robbed of any independent meaning whatever, in order to become convertible into a mechanical mnemonic device.

The fluency of reading that could result depended upon fluency of recognition and this in turn as we have seen upon the removal so far as possible of all choices upon the part of the reader, all ambiguities. Such an automatic system brought within reach the capacity to transcribe the complete vernacular of any given language, anything whatever that could be said in the language, with a guarantee that the reader would recognize the unique acoustic values of the signs, and so the unique statements conveyed thereby, whatever they happened to be. The need for authorized versions restricted to statements of a familiar and accepted nature was removed. Moreover the new system could identify the phonemes of any language with accuracy. Thus the possibility arose of placing two or several languages within the same type of script and so greatly accelerating the process of cross-translation between them. This is the technological secret which made possible the construction of a Roman literature upon Greek models—the first such enterprise in the history of mankind. For the most part, however, this advantage of interchange between written communications has accrued to the later alphabetic cultures of Europe. By way of contrast, the historian Thucydides in the Greek period records an episode where the documents of a captured Persian emissary had to be "translated" into Greek. That is how the word is interpreted by the commentators who explain this passage. But Thucydides does not say "translated." What the would-be translators had first to do was to "change the letters" of the original syllabic script into the Greek alphabet. How could they have done this? I suggest that it was

done only with the previous assistance of the spoken tongue, not the written. That is, an orally bilingual Persian who was also craft-literate in the Persian sense, that is, knew his cuneiform, would read aloud what the document said, translating as he went into spoken Greek. His opposite number would then transcribe from his dictation into the Greek alphabet, unless there was a Persian available who could use both cuneiform and alphabet. Then the Persian dispatch, now in Greek alphabetic form, could be carried to Athens and read there. In the United Nations today some such procedure is still required for cross-communication between the alphabetic cultures and the non-alphabetic ones like the Arabic, Chinese, and Japanese, leading as it often does to ambiguities and even misunderstandings of a special sort that do not arise between the alphabetic cultures, misunderstandings which can even have political consequences.

These effects, to repeat, were theoretically attainable. For reasons to be explained later, the full vernacular was not in fact the first thing to be transcribed. The alphabet was not originally put at the service of ordinary human conversation. Rather it was first used to record a progressively complete version of the "oral literature" of Greece, if the paradox may be permitted, which had been nourished in the non-literate period and which indeed had sustained the identity of the previous oral culture of Greece. Although today we "read" our Homer, our Pindar, or our Euripides, a great deal of what we are "listening to" is a fairly accurate acoustic transcription of all the contrived forms in which oral speech had hitherto been preserved. This phenomenon as it occurs in the formation of what we call Greek literature has been imperfectly understood and will be explored in depth when the Greeks are at last allowed, as they will be, to take over the course and direction of this history.

And yet, though fluent transcription of the oral record became the primary use to which the alphabet was put, the secondary purpose which it came to serve was historically more important. I could say that it made possible the invention of fluent prose, but this would be misleading, since obviously the larger component of oral discourse even in an oral culture is prosaic. What is effectively brought into being was prose recorded and preserved in quantity. To interpret this innovation as merely stylistic would be to miss the point of a profound change occurring in the character of the content of what could be preserved. A revolution was underway both psychological and epistemological. The important and influential statement in any culture is the one that is preserved. Under conditions of non-literacy in Greece, and of craft literacy in pre-Greek cultures, the conditions for preservation were mnemonic, and this involved the use of verbal and musical rhythm, for any statement that was to be remembered and repeated. The alphabet, making available a visualized record which was complete, in place of an acoustic one, abolished the need for memorization and hence for rhythm. Rhythm had hitherto placed severe limitations upon the verbal arrangement of what might be said, or thought. More than that, the need to remember had used up a degree of brain-power—of psychic energy—which now was no longer needed. The statement need not be memorized. It could lie around as an artifact, to be read when needed; no penalty for forgetting—that is, so far as preservation was concerned. The mental energies thus released, by this economy of memory, have probably been extensive, contributing to an immense expansion of knowledge available to the human mind.

These theoretic possibilities were exploited only cautiously in Graeco-Roman antiquity, and are being fully realized only today. If I stress them here in their twofold significance, namely, that all possible discourse became translatable into script, and that simultaneously the burden of memorization was lifted from the mind, it is to bring out the further fact that the alphabet therewith made possible the production of novel or unexpected statement, previously unfamiliar and even "unthought." The advance of knowledge, both humane and scientific, depends upon the human ability to think about something unexpected—a "new idea,"

as we loosely but conveniently say. Such novel thought only achieves completed existence when it becomes novel statement, and a novel statement cannot realize its potential until it can be preserved for further use. Previous transcription, because of the ambiguities of the script, discouraged attempts to record novel statements. This indirectly discouraged the attempt to frame them even orally, for what use were they likely to be, or what influence were they likely to have, if confined within the ephemeral range of casual vernacular conversation? The alphabet, by encouraging the production of unfamiliar statement, stimulated the thinking of novel thought, which could lie around in inscribed form, be recognized, be read and reread, and so spread its influence among readers. It is no accident that the pre-alphabetic cultures of the world were also in a large sense the pre-scientific cultures, pre-philosophical and pre-literary. The power of novel statement is not restricted to the arrangement of scientific observation. It covers the gamut of the human experience. There were new inventible ways of speaking about human life, and therefore of thinking about it, which became slowly possible for man only when they became inscribed and preservable and extendable in the alphabetic literatures of Europe. . . .

Readership before the Printing Press

There were limits set to classical literacy by the character of the materials and the methods employed to manufacture the written word. The alphabet did not fully come into its own until Western Europe had learned to copy the letter shapes in movable type and until progress in industrial technique made possible the manufacture of cheap paper. So-called book production in antiquity and the various styles of writing employed have received substantial scholarly attention, the results of which need not be recapitulated here except as they throw light on the material difficulties which any extension of popular literacy was bound to encounter. For literacy is not built upon a fund of inscriptions. In Greece, where stone and baked clay initially provide our earliest testimony to the use of the alphabet, what we would like to know more about is the availability of those perishable surfaces which could perform the casual and copious services now supplied by the paper which we moderns so thoughtlessly consume and throw away. Herodotus reports that the earliest material of this nature in use was parchment, that is, animal skins, obviously a very limited resource, quantitatively speaking, though qualitatively superior as later antiquity was to realize. The other basic surface was that of the papyrus sheet available in Egypt. How soon did Greece import papyrus in quantity? The texts of Homer, so we were told by late tradition, received a recension of some sort in the period when Pisistratus ruled Athens about the middle of the sixth century. In what form were these texts available? Were they inscribed on papyrus? Certainly the first half of the fifth century saw the increasing use of papyrus in Athens, and also of the waxed tablet for making notes on. References in the plays of Aeschylus make this certain. But it is possible to deduce that the references are there because the use of such items was novel rather than familiar. The words "biblos" or "byblos" are translatable as either "papyrus" the material, or as the object consisting of papyrus on which writing is placed. The common translation "book" is misleading. Individual sheets of papyrus, as is well known, could be gummed together at the edges in series, thus forming a continuously extended surface which could be rolled up. To find the place you had to unroll until you came to it. "Biblion," the diminutive, meant neither book nor roll but a simple folded sheet or conceivably two or three such, folded once over together. Such details as these, coupled with the certain scarcity of material when judged by modern standards, serve to remind us that the would-be reader in ancient Athens encountered certain obstacles to his reading which we would regard as constricting. In estimating the degree of literacy and the rate of its spread, how far should such material limitations

be taken into account? Should they not make us more cautious in this matter than Hellenists usually are? To give just one example: Plato in his *Apology* makes Socrates refer to the *biblia* of Anaxagoras the philosopher, "purchasable for a drachma at most," which he says "are chockfull" (*gemei*) of such statements (*logoi*) as the prosecution has referred to. Are these books? Of course not. The reference is to those summary pronouncements of the philosopher's doctrine which still survive in quotation from later antiquity and which we now call the "fragments" of the philosopher. They are compressed in style and even oracular and, we suggest, were published as a guide to the philosopher's system to be used as a supplement to oral teaching. Such summaries could be inscribed in installments upon separate sheets of papyrus purchasable for a drachma per sheet. But a good deal has been made of his reference in describing the supposed Athenian book trade of the period and also in affirming a sophisticated literacy which is presupposed by the misleading translation "book."

This is not to discount the degree of literacy achieved in Athens in the last third of the fifth century before Christ but to emphasize that however general the management of the alphabet became, the habit of rapid reading which we are accustomed to identify as the hallmark of a verbally competent person would be very difficult to implement. There was no large volume of documentation to practice on. If Plato's Academy in the fourth century B.C. had a library, how many shelves were filled? The very term "library" is almost a mistranslation, considering the modern connotation, as when we are told that Euripides possessed the first library. This tradition appears to base itself upon an inference drawn from a piece of burlesque concocted by Aristophanes in his play *The Frogs* at the poet's expense. Euripides and his poetry, in a contest with Aeschylus in Hades, have to be "weighed," so he is told to get into the scale pan, after "picking up his papyri," indicating that the poet could be expected to carry a parcel with him. He is satirized as a composer who had turned himself into a reader and who made poetry out of what he had read, in supposed contrast to his antagonist who is orally oriented.

On what materials did Athenian children in elementary school learn their letters? Probably sand and slate, rather than papyrus, both being media quantitatively copious, since they admit of continual reuse through erasure. A "school scene" which predates the age of social literacy in Athens portrays an older man using a waxed tablet. Such waxed tablets but not paper are actually featured in the plots of a few plays of Euripides produced in the last third of the century when the delivery of a message or letter is called for. Aeschylus is aware only of their use for memoranda. In either case the material used would favor brevity of composition. It also could of course be reused, which again implies continual erasure of the written word. Documents can be flourished in a comedy of Aristophanes to back up an oral statement with the implication that only shysters would use this resource; the written word is still under some suspicion or is a little ridiculous. All in all, one concludes that the reading of the literate Athenian was confined within limits that we would think narrow, but what he did read he read deliberately and carefully. Speed of recognition, the secret of the alphabetic invention, was still likely to be slow relative to modern practice, and thus likelihood bears on the acknowledged attention which writers and readers of the high classical period gave to words and their weighing. Inscribed language was not being manufactured at a rate great enough to dull the attention or impair verbal taste. The written word carried the value of a commodity in limited supply. The literature of the period bears the hallmark of a verbal nicety never excelled and rarely equalled in European practice.

As a corollary to this verbal sophistication (which was reinforced by residual habits of oral composition), the writers of the classical period consulted each other's works and wrote what they had to say out of what others had written before them to a degree difficult for a modern author to appreciate. The world of literature, because

quantitatively so restricted, could constitute itself a sort of large club, the members of which were familiar with each other's words even though separated by spans of historic time. A good deal of what was written therefore called upon the reader to recognize echoes from other works in circulation. If the modern scholar thinks he is able to trace influences and interconnections which seem excessive by modern standards of free composition, he is not necessarily deluding himself. The world of the alphabet in antiquity was like that.

Books and documentation multiplied in the Hellenistic and Roman periods. Papyrological discoveries indicate that papyrus was in ready supply in Hellenistic Egypt, where indeed one would expect to find it. But up to the end of antiquity and beyond that through the medieval centuries, extending through the invention of the codex or book proper, so much easier to handle and consult, the distinction between our modern paper literacy, if I may call it, and the literacy of our ancestors still holds. It is a distinction determined in part by the sheer quantitative limitations placed in antiquity upon the materials available for inscription. The use of the palimpsest—the document hoarded and then erased and reused, sometimes twice over—is eloquent testimony to the scarcity and the preciousness of the material surfaces upon which alphabetic script could be written.

But scarcity of materials aside, the production of script and hence the resources available for readership were bound to remain restricted beyond the imagination of any modern reader as long as such production remained a handicraft. This set a second quantitative limitation upon the creation of all documentation, whether for literary or business purposes, as is obvious. A decree or law could not be promulgated in a newspaper; copies of accounts could not be distributed to shareholders; an author could not commit his manuscript to a publisher for mass manufacture and sale.

But the qualitative restrictions thus imposed were if anything more drastic. Strict uniformity of letter shapes was rendered impossible by the vagaries of personal handwriting. A degree of standardization was theoretically possible and certainly aimed at in the Graeco-Roman period. It quickly broke up thereafter. A handicraft may and does produce a custom-made product of fine quality, and in the case of those artifacts that we use and consume in daily living such competitive excellence becomes esteemed and valuable. But the production of custom-built products on the same lines when the goal is the manufacture of communication becomes self-defeating. To the extent that the scribes formed schools or guilds, formal or otherwise, to foster the elaboration of local hands and embellish competing styles of writing, readership of that sort which alone furnishes the basis of a literate culture was bound to be impaired. Calligraphy, as already noted above, becomes the enemy of literacy and hence also of literature and of science.

Alphabetic literacy, in order to overcome these limitations of method and so achieve its full potential, had to await the invention of the printing press. The original achievement, the Greek one, had solved an empirical problem by applying abstract analysis. But the material means for maximizing the result required the assistance of further inventions and had to await a long time for it. Such necessary combination of technologies is characteristic of scientific advance. To realize that there is energy available when water is converted into steam was one thing. To harness the energy successfully was another, requiring the parallel construction of machine tools capable of producing fine tolerances to fit piston to cylinder, the manufacture of lubricants capable of sealing the fit, the parallel invention of slide-rod mechanisms to control the periods of steam pressure, and of crank and connecting rod to convert the thrust into rotation. The energy of the alphabet likewise had to await the assistance provided by the dawning age of scientific advance in Europe in order to be fully released.