The Preliteracy of the Greeks

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It sometimes happens in the course of scholarly investigation carried out over a long period of time that one is gradually pushed into accepting a view of the facts—an interpretation of them—which is not only contrary to received opinion but which is accepted slowly and reluctantly by the investigator himself. This has been the case with my own inquiries into the subject of Greek literacy. As some who have read my published work will know, I have concluded that the population of Athens did not become literate in our sense until the last third of the fifth century before Christ.¹ That is to say, while the historian of the time would fasten his eyes on the progress and consequences of a war—the Peloponnesian war—waged during those same years, which occupied the forefront of the historical stage, an event of greater social and cultural importance was quietly taking place behind the scenes.

Starting with an examination of the Greek alphabet and the precise way in which it functions as a symbolic system, and then proceeding to the first works inscribed in this medium, namely, the Homeric poems,² and then pushing on down through the course of what is called Greek “literature” (itself a misnomer), that is, rereading Hesiod, the lyric poets, Pindar, and finally Athenian drama, and asking myself fresh questions about the way these works were composed, their style and substance, and the kind of public to which it seems they were addressed, and the conditions of their performance—I have gradually approached a series of conclusions of which I have only recently appreciated the full consequences, and how drastic they may appear from the standpoint of traditional classical scholarship. At risk of appearing dogmatic, I think it will be best to expose them comprehensively, in something like their logical order, simply because the structure of the argument taken as a whole may carry greater conviction than would be true of the sum of its individual parts.

First: the invention of the Greek alphabet, as opposed to all previous systems, including the Phoenician, constituted an event in the history of human culture, the importance of which has not as yet been fully grasped. Its appearance divides all pre-Greek civilizations from those that are post-Greek. When all allowance is made for the relative success of previous systems of writing, and for the degree to which the Greek invention developed out of them, the fact remains that in the Greek system it became possible for the first time to document all possible forms of linguistic statement with fluency and to achieve fluent recognition, that is, fluent reading, of what had been written, on the part of a majority of any population. On this facility were built the foundations of those twin forms of knowledge: literature in the post-Greek sense, and science, also in the post-Greek sense.
Second: the classical culture of the Greeks was, however, already in existence before the invention took effect. That culture began its career as a nonliterate one and continued in this condition for a considerable period after the invention, for civilizations can be nonliterate and yet possess their own specific forms of institution, art, and contrived language. In the case of the Greeks, these forms made their appearance in the institution of the *polis*, in geometric art, in early temple architecture, and in the poetry preserved in the Homeric hexameter. These were all functioning when Greece was nonliterate.

Third: to understand what we mean by a “culture,” the Greek included, we have to ask what gives it a structure, what is continuous and so identifiable. This question can be answered by borrowing from the cultural anthropologists the concept of the storage of information for reuse. The information concerned is not merely technological in the narrow sense, but also covers that body of directives which regulates the behavior patterns of individuals who are members of the culture. In a literate culture, it is easy to perceive this kind of knowledge taking shape as a body of law and belief, covering religion and morals, political authority (“the constitution,” as we say), legal procedures of all kinds, especially those governing property, and also rights and responsibilities within the family. The civilization of the ancient Greeks is admittedly a rather startling phenomenon, but it may become less miraculous and more understandable if we are prepared to regard it as an ongoing experiment in the storage of cultural information for reuse.³

Fourth: a nonliterate culture is not necessarily a primitive one, and the Greek was not primitive. Once this proposition is taken seriously, one has to ask: in the absence of documentation in a preliterate society, what was the mechanism available for the storage of such information—that is, for the continuous transmission of that body of religious, political, legal, and familial regulation which already constituted, before literacy, the Greek way of life? This information could be carried only in the form of statements imprinted upon the memories of individual brains of living Greeks. How, then, could these statements preserve themselves without alteration, and so retain authenticity? The solution to this problem is supplied if they are cast in metrical form, for only as language is controlled by rhythm can it be repeated with anything like the uniformity that is available in documentation. The shape of the words and their place in the syntax are fixed by rhythmic order. The vernacular is therefore not used for any statements that require preservation.

Fifth: what we call “poetry” is therefore an invention of immemorial antiquity designed for the functional purpose of a continuing record in oral cultures. Such cultures normally follow the practice of reinforcing the rhythms of verbal meter by wedding them to the rhythms of dance, of musical instruments, and of melody. A poem is more memorizable than a paragraph of prose; a song is more memorizable than a poem. The Greeks identified this complex of oral practices by the craft term *mousikê*, and cor-
rectly identified the Muse who gave her name to the craft as the "daughter of Remembrance." She personified the mnemonic necessity and the mnemonic techniques characteristic of an oral culture.

Sixth: while the act of imprinting, considered psychologically, operates upon individual memories, its social function cannot become effective unless these memories are shared. Oral poetry therefore required for its existence an occasion which could supply a listening audience, large or small, ranging from an entire city to the company at a dinner table. Knowledge hoarded for reuse required not only rhythm, but constant performance before audiences who were invited to participate in its memorization. Truly private communication of preservable information becomes possible only under conditions of developed literacy. Only the documented word can be perused by individuals in isolation.

Seventh: the Greek alphabet, both at the time of its invention and for many generations after, was not applied in the first instance to transcribing vernacular statements but rather to those previously composed according to oral rules of memorization. That is why Greek literature is predominantly poetic, to the death of Euripides. This literature therefore will evade our understanding as long as we conduct its critique exclusively according to the rules of literate composition. These rules, whatever they are, can be said to intrude themselves by degrees, and slowly. High classical Greek literature is to be viewed as composed in a condition of increasing tension between the modes of oral and documented speech.

Eighth: the education of the Greek leisured classes throughout this period was oral. It consisted in the memorization of poetry, the improvisation of verse, the oral delivery of verse, the oral delivery of a prose rhetoric based on verse principles, the performance on instruments, string or wood, and singing and dancing. For a long time after the invention of the alphabet, letters were not included, and when they were first introduced, they were treated as ancillary to memorization and recitation. There is ample evidence that in the sixth and fifth centuries B.C. this curriculum was identified in Athens by the term mousikê, as previously defined, and no hard evidence that in this period it covered reading. Organized instruction in reading at the primary level, that is, before the age of ten, cannot have been introduced into the Athenian schools much earlier than about 430 B.C. It is described in Plato's Protagoras, written in the early part of the next century, as by then standard practice, as it indeed had become when Plato grew up.⁴

Ninth: the inventors, and for a long time the only habitual users of the alphabet, were craftsmen and traders.⁵ No doubt, as time went on, the leisured classes picked up some acquaintance with letters, but the extent to which they did so must remain problematic, for they had minimal motives for employing the skill until the middle decades of the fifth century. The craftsman's children went to work in the shop before puberty, and if they learned letters, that is where they learned them.⁶ The upper-class boy, prolonging education into adolescence, had time to master the polite arts, which did not include reading. There are indications that a crude literacy among
craftsmen was becoming common in the age of Pisistratus and after. This is consistent with the tradition that under Solon’s policies craftsmen from overseas were encouraged to settle in Athens.

Such are the general conclusions here presented as an interconnected whole. They run against the grain of several common presuppositions from which classical historians find it difficult to escape, deriving as they do from our inherited experience of two thousand years of literacy.

The dominant one, from which all others flow, is the view that a nonliterate culture must be a nonculture, or at least marks a stage in human development which is better forgotten once literacy sets in. The two belong in different worlds. The prejudice is reinforced by the modern results of contact between literate and nonliterate cultures; the latter seem to collapse before the approach, the onslaught, of what is taken to be a superior and civilized mode of life.

Hence, in estimating the character and history of Greek literacy, which began from scratch, one is tempted to ignore the possibility that there may have existed prior methods of preserving information which were oral and antique, and in the Greek instance may have reached a high level of proficiency. One is forced to ask the unbelieving question: how could a culture as high-powered as the Greek have got its start in nonliteracy? To which one is forced to reply that it could not have. It must have had a proto-literate ancestry, thus kindling a continuing dispute about the date of the introduction of writing in Greece: either the alphabet must have been in use as early as the tenth century at the latest; or the Greeks never ceased to use the Linear B system of the Mycenaeans; or if a date of around 700 B.C. be admitted for the introduction of writing, then the Dark Age, so-called, was truly a dark age. Greek civilization can only be said to begin after 700. None of these three propositions is tenable.

Today persons and peoples are either literate or not: if semiliterate, this condition is viewed as a failure to become literate. This is because the alphabet is available, its full use is understood, a regimen for teaching reading to children is available, as also is an adequate supply of documented speech to afford practice in reading as well as a motive for reading. These resources are either used or not used, and the result is either literacy or nonliteracy. In dealing with ancient Greece, which started from scratch and had to learn the full use of the alphabet after inventing it, this simplistic view should be abandoned. Tentatively, let me suggest in its place a progressive classification, which would identify the condition of Athenian society during the seventh and as far as the last decades of the sixth centuries B.C. as craft-literate: the alphabet written or read represents an expertise managed by a restricted group of the population. During the latter part of the sixth and the first half of the fifth, the skill begins to spread, though I would suspect that the governing classes were the last to acquire it, but the skill is one of decipherment rather than fluent reading. The use of the written word is very restricted, and any reading of it is regarded as ancillary to the central function of culture, which still is, as it had always been, to memorize and recite the poets. I would classify this period as one of “recitation literacy.” Only in
the last third of the century is the average Athenian taught letters in such a way as to begin to pick up a script and read it through. It follows that testimonies drawn from fourth-century authors will take literacy for granted, for it has now been achieved. These chronological distinctions may seem fine-drawn, but they call attention to the basic fact that what we call the "literature" both of the sixth and fifth centuries is addressed to listeners rather than readers and is composed to conform with this situation.

Long experience of our own literate condition in the West has done more than merely convince us that all cultures depend upon achieving literacy as quickly as possible. It has had the indirect result of fostering two preconceptions about how any culture actually functions, both of which get in the way of a proper understanding of the original Greek experience. For the first of these let me quote, by way of illustration, what an eminent archaeologist has to say about one of the earliest alphabetic inscriptions we have, a craftsman's signature the lettering of which is well executed: "The fact of the signature at this very early date should imply that the artist was no humble cheironax but a person of social standing. On this evidence he would seem to have been a highly cultured person." At first sight this statement seems perfectly natural and reasonable. Yet the way it is worded reveals a judgment unconsciously guided by the norms of our own society, in which the maximum of education is identified with the maximum of literacy. The cultivation centered today in the more privileged classes, to use a term which is snobbish but seems inevitable, is identified with a superior capacity to read and write, which diminishes as one goes down in the social scale. Therefore, if it be discovered that a Greek potter or carpenter or stonemason could use the alphabet, it is assumed a fortiori that the upper classes must have previously mastered this skill which had now filtered down to the artisan, or conversely, that the artisan was not really an artisan but a very educated type. The great bulk of the inscriptive material on which we rely for any material evidence of the alphabet's use in the early centuries is contributed by craftsmen. It may seem therefore inevitable to the historian of the period, and particularly the epigraphist, to conclude that if craftsmen wrote, then everyone did. But suppose, as I have earlier suggested, that the truth was rather the reverse of this, that the alphabet's use did not achieve what I may call cultural prestige for a very long time?

It is also a fact of life in literate societies that prose is the primary form in which experience is documented, while poetry is more esoteric and sophisticated, a medium to be reserved for special experiences outside the day's work. The notion runs deep in our consciousness, and continually colors the attitude we take up towards Greek literature in the first three centuries of its existence. Its poetic form prevents us from evaluating its functional role as preserved communication in the society of its day. More particularly, if we encounter in inscriptions a plethora of metrical statements, memorials, dedications, and the like, we are ready to read these in the light of what is believed to be an unusual degree of Greek cultivation. This conception has to be reversed if we are to understand early Greek poetry. In an oral culture, metrical language is part of the day's work.
Evidence for the date of the invention of the alphabet and its earliest use is supplied by epigraphy. But material evidence for literacy is something else. Reading is a habit which does not leave its impress upon a material object. Nor can you build it up upon the basis of a fund of inscriptions. What is needed is a body of documentation in quantity available in private houses, easily transmissible between persons, fluently and easily written. In short, a ready supply of material surfaces receptive to ink and light in texture. To be sure, schools in many parts of the world, Scotland for example, still use slates. The Greeks used slates, wax tablets, and sand. But one learns to read not from a slate but from a body of documentation, and it is the existence of this body that supplies motivation.

Greek epigraphy cannot supply the material evidence, namely, the papyrus roll or book, which would have had to have existed in quantity and in ready circulation before 450 B.C. if Greece were literate before that date. Some rolls existed, of course, or our poets would not have survived at all. But how many copies of these works were there? Were they plentiful? Were they commonly read? Do the poets themselves speak as though this were so? No, they do not.

In deciding upon the existence or the degree of Greek literacy at any given time, the inscribed surface of clay and stone is in the nature of things neutral. It can be used on either side of the question. To give an example which is not epigraphic but drawn from epigraphic tradition, the laws of Solon were probably inscribed on the surfaces of some kind of revolving machine made of wood. This was in the early part of the sixth century. Was this for the benefit of the common reader, or was it a court of last appeal to be consulted in need and read by those who had the required expertise? The answer seems to lie in the practice of Solon himself. He propagated his policies in poems and even assumed the role of a herald to recite them at public gatherings. Is this not an eloquent testimony to the existence in his day of a nonliterate public who were expected to listen, to remember, and to repeat—thus giving him incidentally political support—but not to read?

Even the inscriptions themselves, some of them, betray a few characteristics which are a little surprising if they were written for a literate society. If one takes the small group that are the earliest—datable, that is, to the period 700 B.C. plus or minus when the alphabetic invention first appeared in the Greek world—what one at once notices in this group, or at least in those that are decipherable as coherent statements, is that they are metrical. We then observe how meter continues to be used all through the next two centuries, not only for dedications and memorials but for less formal utterances. Is it fair to conclude that the first use to which the alphabet was put was indeed to transcribe, for whatever reason, sentiments which had been previously composed orally for memorization and recitation and that this use of the alphabet persisted for a long time?

The second characteristic observable in these early specimens and recurrent in later ones concerns the content of what is written. It is something that is being said aloud rather than silently stated or recorded. It has the quality of an oral announcement addressed to a particular occasion or a particular per-
son. Third, in several early examples the statement is framed as the utterance of the object which speaks to the observer: "I am Nestor's cup" or "Mantik-los dedicated me." This habit of conferring a "voice" upon the object again recurs frequently in later inscriptions. What are we to make of it? Is it a mannerism? Or does it reflect the wish, in a society of oral communication where the spoken word is as light as the wind, that the statement to be remembered and repeated be the voice of the object because the object alone remains visible and permanent? In a few cases, the statement is even placed inside a balloon issuing from the figure's mouth, as in modern comic-strip illustration.

One more thing noticeable in the earliest examples is the epigrapher's desire to name a name as indicating owner, artificer, or dedicator. This was, of course, unavoidable in epitaphs. In the case of pottery, inscription is relatively rare and, when it occurs, most often carries a signature. Occasionally it takes the form of writing names attached to figures drawn in illustrated scenes, characters familiar from Greek myth and saga. One begins to wonder about this habit which fades out as the fifth century draws to its close. May it represent an age-old custom in oral societies of naming the name, your own or your interlocutor's?

In such societies the custom was a required formality in salutation and confrontation, greeting or challenge, and in particular in the taking and receiving of oaths. Your name pronounced was your identity, and without it you were a "nobody" like an Odysseus encountering strangers. It is noticeable how often, in pottery illustrations, the name of the character is attached to his figure and almost fastened to it. This would mean, would it not, that in a society that had not yet achieved literacy you might still be expected to write names and recognize them, your own and others, when you could write and read little else?

There are some other indications observable in inscriptions which are more obviously negative in their import. The most revealing is the habit of manipulating the arrangement of letters for decorative purposes, to fit the surface chosen or achieve symmetry regardless of sense, and even of scattering isolated letters like trinkets to fill up empty spaces. The inscriber, when he does this sort of thing, is not thinking primarily of their phonetic but their visual values; he is not concentrated on reading them. A Picasso who plays games of this sort in a painting is imitating the antique. To be sure, a literate society will accept inscriptions arranged to fit an architectural shape, round an archway, for instance, but this is not quite the same thing. Architectural settings for letters do not conflict with word and sentence structure as these present themselves to a reader. The early Greek examples are much more extreme, for the confines within which the letters are manipulated are the small spaces, curved or flat, afforded by individual objects; they are not architectural. This same tendency to place visual above acoustic values can be seen in the retention of the so-called boustrphedon style of writing. Greek letters could be written right to left, in the Phoenician order, or left to right, which became the later standard. But both orders might be combined in a single inscription, a habit of arrangement which lingers into the fifth
century. Or else, the letters would be written vertically, up or down, or allowed to meander in accordance with the contours of a particular surface. Continual demands thus made on would-be readers to reverse images of words and sentences did not ask the impossible, but on the other hand they scarcely bespeak habits of fluency.

To bring these observations to life, a few epigraphic illustrations can be offered, a mere sampling from the vast reservoir available but one which hopefully will be typical enough not to be misleading.

The famous Dipylon Vase (Fig. 1) was recovered from a cemetery of geometric period outside the Dipylon Gate in Athens. It was dug up illicitly in 1871 before archaeology had become a controlled science, and the contents of the tomb in which it was buried, if any, were scattered and are unknown. The manufacture of the pot itself has been dated variously between 750 and 690;12 it is "Late Geometric." It is famous not as a pot but as a surface on which someone scratched after manufacture, how soon after we cannot be sure, the earliest alphabetic writing extant, the letters being written in retrograde, i.e., Phoenician order. Reading them, one is entitled to reflect that here in this casual act by an unknown hand there is announced a revolution which was destined to change the nature of human culture, throwing the elaborate calligraphy of Egypt and the cuneiform records of Mesopotamia into the dustbin of history. The legible part of the inscription is metrical,
consisting of a complete hexameter line in the Homeric manner, reading backwards: "who now of all dancers sports most playfully." This is followed by "an attempt at a second verse, which struggles up to stop near the handle."13 The only certain thing revealed is a failure of composition. The site of discovery is Attic, but the lettering is not, which has prompted the question: "one may ask whether it is not Attic but was inscribed, perhaps to show his powers, by an outsider. . . ."14

The complete hexameter yields the reasonable inference that the pot was offered as a prize in a dancing contest, which one scholar, noting the word atalotata, has suggested was a contest in free style, as opposed to the formal styles required for choric performances.15 This suggestion might give point to the adverb now. The formal part of the contest being concluded, the time has come to relax in a free-for-all performance. Being metrical, the statement inscribed is the kind that could have been composed orally for memorization, in which case its inscription is a historical accident. This is not of itself provable, but the style of the statement supports the inference, for it is phrased as an announcement. The generic wording "who now, etc." followed by an apodosis "let him, etc.," or words to similar effect, is in the style of an oral proclamation which enunciates a general ruling and its application, by a magistrate, herald, or other authority, to a populace or an audience.16 And if this represents an announcement made at the contest and passed from mouth to mouth, we can understand why the inscription tails off. The original announcement geared to the occasion would have continued with something like "let him display his prowess" or "shall be honoured first among us" or "shall be awarded the prize of victory." But the contest is over, and the inscriber, or more probably his patron, was faced with the necessity of applying the statement to himself by way of a permanent memorial. His alphabetic ability held up as long as he could follow in his head its remembered rhythm, but it failed him when it came to continue a suitable apodosis, for the kind he needed was not supplied to him in the oral original. The alternative explanation, that a second and less skillful writer tried his hand at completing the statement,17 would still be consistent with the view that once a remembered verbal rhythm failed, alphabetic fluency failed also.

For what reader or readers, if any, was this inscription made? Observing that this is a graffito, not an inscription formally designed and incised or painted, and remembering the decorations on the walls of the New York subway, as well as on those of less dignified structures, we might be tempted to infer that here was a device already within the casual competence of the common people, that is, of everybody. We remind ourselves, however, that when it comes to deciding who was to read a given inscription, the inscription itself is silent: qua inscription, it can offer no testimony. In the present case we note the oral idiom and the probable oral setting of the statement. Is it likely that the pot so inscribed was put on exhibition before the contest for an audience to read? I do not think so.

Let us imagine the audience at the dancing contest, a familiar feature of the oral culture. The donor or judge has issued the versified proclamation to be
transmitted by word of mouth; that is his business. "There is a prize for free style. Here it is." Maybe the announcement is entrusted to a herald. In the twenty-third book of the Iliad, as prizes are competed for in the funeral games for Patroclus, the donor (Achilles) is the main announcer, but a herald has a part to play also.\textsuperscript{18} The inscription, however, was solicited by the winner. Either he happened to be alphabetically skilled himself or he commissioned somebody who was—the more likely alternative, for I do not think that accomplished dancers in this era, when mousikē was supreme and when its mastery was the mark of cultivation, were likely to bother with the alphabet. That would be left to artisans. But he knows that his victory can be memorialized in inscribed signs which still carry a flavor of the miraculous in this unlettered culture. The only way to report and record the victory formally is to echo the proclamation setting forth its terms. Perhaps he has the announcement scratched on before the audience has dispersed. Repeating it aloud, he points to the scratches: "Look, that is what the pot is saying." The curious gather round to inspect: "How does it say that? Show us. How can a pot speak?" "Oh, yes," he says, "it can speak," and he points his finger and spells out the letters one by one. The crowd is impressed. The value of the pot has risen. It is not just like any other pot. This one can speak. Or else he takes it home and proudly exhibits it to his family and friends. "What does it say?" He repeats the remembered hexameter to assure them that these letters are indeed speaking, though he cannot read them himself, and they in turn repeat the line to themselves. Such a scene may seem only a flight of fancy. Yet, to indulge the imagination in this way is not, I think, irresponsible, given the epoch and the material. I offer it as a warning: evidence for writing is one thing, evidence for literacy is something else.

A cup, badly smashed, close in date to the vase, has been found at the other end of the Greek world on the island (Ischia) near Naples which the Greeks called Monkey Island (Pithecoussa).\textsuperscript{19} Like the vase, it carries an alphabetic graffito (transcribed in Fig. 2). Its appearance in Italy so early supports the view, advanced by Rhys Carpenter forty years ago,\textsuperscript{20} that the invention was of a kind which, once achieved, was likely to travel easily, most probably in the course of trading. Need it surprise us that the lines are

![Image of inscribed graffito](image_url)

Fig. 2. After L. H. Jeffery, Local Scripts of Archaic Greece (1961), Plate 47, no. 1.
metrical? The first is a halting iambus: Nestoros e[im]i eupot[on] potēriq[n] ("Of Nestor am I the well-drunk drinking cup"). The next two revert to the familiar hexameter: hos d[a]n] tōde p[ē]si poteri[ō] autika kēnon ("Whoso drinks this drinking cup straightway him")/himer(os hair)ēsei kalliste[phainō] Aphroditēs ("Desire shall seize of fair-crowned Aphrodite"). The first asserts ownership; it is like the stamp of a signature: "property of Nestor," to discourage theft. The statement serves a prosaic purpose, to which the iambic measure, like our blank verse, is appropriate, having closest resemblance to the style of the vernacular. But why use meter at all? The answer may be that it is the object which is speaking to us: it has a voice which has to perpetuate itself, and for such perpetuation, meter is the required medium in a non-literate culture. After this statement, what does one expect? The signature on another object found at Cyme on the coast nearby, and perhaps made fifty years later, supplies the answer, for it is followed by the warning: "Whoso steals me will go blind." But on this cup, the writing breaks into grandiloquent hexameters with a Homeric ring to them, and though they open with the same generic phrasing, "whoso shall etc.," appropriate to an oral announcement, we have to ask to whom may they be addressed. A dedication can hardly be the explanation, for the verse seems to celebrate the delectation of the drinker rather than the deity. The speaker is no longer the object, now mentioned in the third person; he is therefore most probably the owner. The generic "Whoso drinks" cannot be himself, but must refer to others to whom he is addressing an oral invitation: "Drink of this cup (which is my cup) and you will have a certain experience."

Rather than suggest a religious motif, a less elevated explanation is more plausible. Drinking cups were manufactured for drinking out of, if I may be permitted the obvious. You drank not in seclusion but at the symposium, that regular social feature of Greek life. You drank not to some abstract god of love, as in Plato, but to the friend or favorite, the kalos sitting or reclining opposite you at the table. But you also did not just drink. The symposium was the occasion utilized by an oral culture for the performance and recitation of private poetry, encomia, love songs, invective, self-revelation, personal stuff, most of it sung to the lyre. Can we imagine the elderly owner of this cup, after taking a swig, passing it to the boy across the table? He says to him, "A great cup, isn't it? Here, please drink out of it. My man, Exestides made it. He's a good worker. But do you know what I did? After he made it, I got him to write down what the cup does to you. Can't read it myself but you can see it there. Shall I tell you what it says?" Leaning over, with a slight leer, "Whoso drinks of this cup shall be seized of desire. Here, boy, drink up, and I'll sing you more of it." It is to be accepted, I think, as a fact that Aphrodite's activities were not confined to the heterosexual.

Whether this interpretation be viewed as probable, possible, or not worthy of its subject—and in its defense I would note that the author dwells upon the act of drinking with alliterative and possibly bibulous frequency—the inscription bespeaks the idiom of a communication orally conceived and expressed before it is inscribed.

Another inscribed cup of the same period, and also badly smashed, was
found on Ithaca\textsuperscript{24} (the island of Odysseus). This time the words are not scratched, but painted on, and after firing. Putting them together, it is possible to decipher two thirds of a hexameter line: \textit{[x]enfōs te philos kai p[istos (h)etairos } ("guest-friend dear and loyal comrade"). There are perhaps two other verses undecipherable. Is this not a fragment of another symposiastic utterance, not an invitation this time but a compliment, perhaps a toast? One recalls Homer's description of how Telemachus and Pisistratos were welcomed at the court of Menelaus in Sparta.\textsuperscript{25} The host salutes the guest: "My guest-friend dear, and comrade faithful," pronouncing this and other sentiments, perhaps at the table, and in any case presenting the cup as he speaks. The one act ceremonially accompanies the other. The verses of presentation are framed to be remembered orally. Hitherto, such verse has been the only way to keep the identification in memory. But either the owner or else the recipient can now use a second recourse. The services of a craftsman, perhaps the maker of the cup, perhaps another, are enlisted. The verses are recited to him, for him to paint them on the pot as a reminiscent memorial now permanently attached to the object.

Along with the vase and the cups, it is possible to include a piece of bronze sculpture (Fig. 3), about eight inches high, found in Boeotia and of about the same period. Stylistically it is "Early Daedalic"; its archaic character is obvious; presumably it represents a warrior who once wore armor, now lost. The lettering incised on it begins on the outer side of the right thigh at the bottom, proceeds upwards, reading left to right, turns across the crotch and

\begin{figure}
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\caption{After L. H. Jeffery, \textit{Local Scripts of Archaic Greece} (1961), Plate 7, nos. 1 and 2.}
\end{figure}
then down along the outer side of the left thigh, still reading left to right; then twists backwards and works upwards on the inner side of the left thigh, reading now right to left, crosses the crotch again, and descends on the inner side of the right thigh, still reading right to left. As has been pointed out, this order of the letters, first regular and then retrograde, is a response to the surface space available and visible on the statue; they have to be fitted onto it. It is not therefore addressed primarily to the convenience of the reader: it is being thought of as part of the statue or, rather, as part of its decoration. The lettering is imprinted on the object, as it were, intimately, and it conforms with this convention that what the inscription records is once more an utterance voiced by the object. It speaks in hexameters: "Mantiklos dedicated me to the far shooter, the silver bowed one.//For the gift do thou Phoebus grant gracious return." It was impossible to place these words near the mouth, as might be done on a vase painting. However, when the statue addresses Phoebus, we feel that it is the donor himself who is speaking. In effect, the inscription carries his signature, his claim to credit, his expectation of reward. Why then do it by indirection?

We are used enough to dedicatory inscriptions in verse to suppose that meter was used for hieratic or pious purposes, verse in our eyes being suitable for elevated sentiment. But in its period, this example is preferably viewed as once more cast in the idiom of orally preservable speech, even though when inscribed there would no longer be any theoretical need for using the meter, provided, that is, that most people could read it. I infer that most people could not. This inscription was memorizable and so repeatable.

In the nonliterate epoch which immediately preceded the manufacture of this statuette, how could the donor obtain credit for his gift in the eyes of god or man? This is a question we should ask ourselves, and we must reply that he could get it only by a ceremony before an audience in which the local poet memorialized in a few repeatable verses the act of the giver. This was the act of attestation: the statement made was designed not only to be heard by the audience but remembered by them. But a person is needed to supply the voice for the utterance, and if the utterance is to be recorded, to survive with a life of its own, then a person is required who is also preservable beyond the occasion and even the lifetime of those present. The person (or the voice) is supplied by the object which will continue to be around. Can we guess that under oral conditions the poet held the object in his hands or stood beside it as he pronounced the dedication? So when inscription becomes possible, it is written on the object to represent not the donor's voice but the object's. It will live on, still speaking.

During the period when these inscriptions were made, the Greek alphabet was in its infancy. It was a trick that had to be learned and taught, and it would take time to settle on the proper procedure. Let us recall the procedure that gave it birth. Greeks in contact with Phoenicians noticed the ability of the latter to write down a Semitic tongue, and desired to acquire the same facility for their own Indo-European speech. The signs used by the Phoenicians symbolized linguistic noises made in their own tongue. The linguistic components of Greek were not identical: in some cases there was phonetic
similitude, in others approximation, and in still others no phonetic relationship. If the Greeks had been linguistic scientists, they would have analyzed the components of their own tongue and invented a new set of signs to symbolize them. Instead, they borrowed the Semitic shapes and sought to fit their sound-values to the sound-values of Greek, incidentally making a drastic improvement by setting aside five signs to symbolize vocalizations.

In this act of transfer, the psychological factor common to both Semitic and Greek practice was the visual appreciation of the shapes of the letters. For the Semitic system already in long use, a successful teaching method had been devised. You arranged the letters in a fixed visual order in a row and required the learner to learn this order visually, while at the same time learning acoustically the recitation of their names and sound values. Performing the two acts together, the one by eye, the other by tongue and ear, you matched and mated the two in your mind, to the point where you could read a piece of script, where the letters occurred out of series, by recognizing their values, and recombining them in the word order of what was being said: a Semitic ABC in fact, which the Greeks borrowed intact, as we from the Greeks. It was a visual object, the characters being inscribed in series on strips of ivory and the like. An example survives from the very earliest period. It was found in Etruria in Italy.

This means that the Greeks mastered the system visually; their visual memory of it was complete. But because the acoustic values of the two languages could not be uniformly equated, when it came to memorizing the sounds, confusion and uncertainty set in. A literate mastery of any alphabet requires that visual shape and acoustic value or set of values be matched with lightning speed and certitude. But it is possible to tell from the epigraphical evidence that in some cases the Greeks were at first unable to make up their minds what precise value to assign to a given letter. They were memorizing the ABCs not with phonetic but only with visual efficiency.

The early existence of graffiti either scratched or painted, as opposed to inscriptions formally executed on stone, clay, or bronze, has been taken as evidence that writing was from the beginning a casual act and so within the competence of everybody. The island of Thera, and Mount Hymettus overlooking Athens, have both yielded inscriptions of this character dating from perhaps the late seventh or early sixth centuries. According to the hypothesis put forward here, they would most probably be the handiwork of craftsmen trading insults or trying out their ABCs. The largest single group of such definitely attributable to the citizens at large appears in Athens in the first half of the fifth century. These were the ballots cast in an ostracism. According to this curious procedure, the people in assembly from time to time could pass a vote of exile upon a citizen considered dangerous. The names of several candidates for this penalty might be proposed, and a citizen cast his ballot by writing the name of his choice upon a piece of pottery and depositing it to be counted. It is commonly inferred by scholars that the practice implies general literacy in Athens in the first half of the fifth century B.C. Let us take a second look at it, first as it possibly relates to previous traditional habits characteristic of nonliterate societies. Here surely is a conspicuous
example of the requirement that a name should be named, but now besides being uttered or shouted aloud in the oral preliminaries in the assembly, where vote counting could become confused, it can be inscribed and so counted up as a body of visible objects, a procedure more deliberate and accurate. Moreover, this naming the name for such a purpose is like putting a curse on it, and this was one of the oldest oral procedures, followed in oaths and imprecations and maledictions before witnesses. Was ostracism an institution conceived midway between nonliteracy and literacy, expressing some of the habits characteristic of both, but doomed to obsolescence once full literacy set in in the last third of the fifth century, as actually happened? Its psychology, so to speak, was oral. A fully literate people would stop thinking in this particular way about their political opponents.

This suggestion is not fanciful. On some of the ballots—admittedly few out of the hundreds surviving—the voter has actually inscribed his curse, and for good measure made it metrical. “May requital be upon Hippocrates”: these are the words, forming half a pentameter, which one voter has taken the trouble to scratch on his sherd, and another, going even farther, has composed a complete distich, a hexameter followed by a pentameter: “Xanthippus son of Ariphon of the accused ptytaneis/Does this sherd declare to be most guilty.”

The institution called for the ability to write a proper name—just that. As earlier suggested, even a proto-literate society might require of its citizens that they be expected to write or to recognize a signature when they could do little else. When a voter wants to say more, he breaks into verse composed orally in his head. Ostracism considered as an act performed does not prove literacy.

In any case, with what efficiency was even this limited achievement managed? Misspellings are frequent, but this of itself proves nothing. Shakespeare varied the spelling of his own name. More to the point is the way the lettering is managed. Names can be written retrograde, or houstophedon, that is, left to right and then right to left. Had the men who used these survivals of antique practice enjoyed the benefits of an elementary curriculum in reading and writing? I do not think so. In other examples, letters of names occur in rows written from bottom to top, or worse still, written higgledy-piggledy, at random. Their authors can never have had the benefit of that standardized school drill which alone makes literate practice possible.

If finally, in defense of full literacy at this flourishing epoch of Athenian history, it be objected that such badly managed specimens are in the minority, what of the fact that many voters appear to have got other people to write the name for them? Large numbers of ballots inscribed with Themistocles’ name provide a notorious but not unique example. Out of a total of 190, fourteen hands have been identified as authors. It is possible to conclude that in the end Themistocles’ luck ran out and he became the victim of ballot stuffing, a rigged election. Certainly a politician so famous for sharp practices himself could have less cause to complain about similar treatment from his opponents. But politics aside, is it not fair to conclude that such opera-
tions could not easily be carried out in the open circumstances of the balloting unless large numbers of voters could not trust themselves to write a name, or could not read a name when it was written for them? Was the institution discarded when it was because it had become less useful to politicians, because in turn more people were learning not just to write but to read the names which others might wish to write for them?

There remains one type of testimony so far not considered. The existence of an inscription of itself testifies only to an act of writing. The manner and degree of its reading remain matters of speculation. How many such, we may wonder, scattered by early man upon the earth's surface, remained for one reason or another unread except by the writer? Reading and writing are not subjects which normally get into sculpture and painting, but in the few instances where this occurs in early Greek antiquity, we may find that art can tell us a few things about literacy or its absence which epigraphy cannot say.

The Acropolis Museum at Athens contains three statues partially preserved, representing seated figures dressed alike. They are dedicatory, measuring close to three feet high. It was only when I personally noticed two of them that my attention was called to their existence. They have evoked little comment, perhaps because the unconscious prejudice in favor of Greek literacy has made their presence seem irrelevant (Fig. 4). What are they? They have been correctly identified as "scribes," and their date somewhere in the last third of the sixth century B.C. Humfrey Payne, in his classic work on the archaic sculpture recovered from the Acropolis, spoke of them as "a

Fig. 4. After Humfrey Payne, Archaic Marble Sculpture from the Acropolis, 2nd ed. (1950), Plate 118.
curious isolated group, unlike anything else in Greek sculpture; they have been thought to be based on an Egyptian model, but I cannot see anything really Egyptian about them, save the subject. And that after all might have occurred outside Egypt.” They are holding in their laps not papyrus but wax tablets, diptychs, and the existence of the statues might suggest some honorific status for the persons represented.

There exists a graffito found in Athens, of the same period, scratched in a fragment of a pot by a workman who, however, was not an Athenian, telling his mate where to leave the saw. If we adopt the theory that literacy began at the top and penetrated to the bottom, we naturally infer that his betters who employed him were fully lettered and literate. But in that case, why did Athens at this time require the services of scribes? Surely their representation, in the form of dedicatory offerings, distinguished by special chair, clothing, and posture, argues for the fact that they commanded a craft which conferred social status on its possessors. This would be natural if it represented a prized monopoly available and valuable to the upper classes but one which they did not personally practice. We know from references in Pindar and Aeschylus, the earliest we have on this subject, that in their time the written record was still regarded as supplying a reminder which preserved for the memory what had been orally pronounced. You went to a scribe and dictated a memorandum. Could you read it, or only he? The metaphors used by the poets imply that he had to read it back to you. To be sure, the scribe or secretary is in common employment in later antiquity—Cicero dictated to one—but in those literate centuries he had become what he still is today, a “secretary,” a factotum whose function was auxiliary to other literates. Such people were no longer important enough to merit honorific representation in dedicatory statues.

A functioning literacy depends upon an elementary school curriculum designed to drill the small child in reading. We know nothing from literary sources about schools in sixth and fifth century Athens, and what little we do know does not point to the presence of reading drill in schools: rather, the reverse. There exists, however, a famous Athenian vase painted in red figure about 480 B.C., at the time when ostracism was coming into fashion, portraying a scene which is usually described as a “boys’ school.” It was illustrated in a handbook on Greek education seventy years ago, has been reproduced frequently since, and, it is fair to say, has been made to do yeoman service in the cause of Greek literacy. The two sides of the cup (Fig. 5) have been interpreted as “one showing a reading lesson, the other a writing lesson.” Let us take a second look at them.

The action portrays a total of ten figures, of which four seem to be proportionately shorter and therefore younger than the six. Of the six, two seated, holding sticks, are probably spectators or listeners. They have been interpreted to represent parents or paidagōgoi. If it is agreed that the younger group are pupils under instruction, how old are they? Surely not small children being drilled in primary school but youths of fifteen and up, epheboi. The actors in this scene are from the governing class; they are not working
men's sons (who could not afford paidagōgoi); they enjoy leisure enough to afford advanced education. What precisely are they doing?

It is scarcely plausible that any of them are either reading or writing. One of them certainly is not; he is seated playing a lyre. The other three are standing. Their pose is that not of readers or writers but of reciters, even though artistic convention keeps their mouths closed; they are intended to be either speaking or singing. Each of the four, respectively, faces another man who is seated. These four older men therefore are plausibly taken to be instructors. What instruction are they giving? One listens to the pupil lyre-player. One is playing the flute in front of a standing pupil; one looks at the standing pupil in front of him while holding up a scroll which faces neither of them but the viewer of the vase. And one is holding tablets and stylus and is looking at the tablet while the pupil stands before him. Ignoring for a
moment what may be going on between this last pair, what are the activities to be inferred as taking place between the other three? One is a music lesson in instrumental music, one is a singing lesson in which the pupil recites to the accompaniment played by his teacher—he would not be learning the flute standing up; one is reciting poetry to his teacher. The scroll held by the teacher contains an epigraph combining two fragments of different Homeric hexameters. The spelling is faulty and the combination incoherent, but each fragment is a hexameter opener, proclaiming the beginning of an epic theme. In one the poet invokes his muse, in the other he announces himself that he is starting. In placing the scroll in the picture, two alternative artistic intentions are possible. According to the more likely one, the artist tells the viewer of the vase by a rather cute device the passages which the pupil is supposed to be reciting. Or else, there is indicated a procedure whereby the pupil is given a cue in the opening line and is expected to go on from there.

What is going on between the fourth pair? The common interpretation is that the teacher is correcting with his stylus a writing exercise presented by his pupil. This would be more plausible if he were using the flat end of the stylus for elision rather than the point. Alternatively, using the point, he is supposed to be pricking out the shapes of letters for the pupil to fill in; this notion, based upon an interpretation of a passage in Plato which has been demonstrated to be erroneous, must be rejected. If the action here bears any relation to what is otherwise transacted in these scenes, a different explanation is possible. The teacher is writing something himself. This is the most obvious interpretation. The pupil waits, standing. What is the instructor writing if not a theme, perhaps a free composition, which he is going to hand to the pupil to memorize? The latter will have to read it, that is admitted, but he will read in order to memorize and recite, and that is why he is portrayed standing. Aristotle tells us, in a later and more literate period, that the sophists did this for their pupils.

Whether or not this last explanation is correct, it is to be concluded that if this is a picture of instruction in a school, the overwhelming emphasis falls upon music, poetry, and recitation, to which writing is ancillary while reading is not portrayed at all. Mousikē, in short, was still central to the education of the Athenian upper classes in the first half of the fifth century. Reading was not. It is consistent with this view that the artist does not think it important to get his Homeric quotations alphabetically correct or coherent. They serve their purpose. Had his customers themselves been fully literate, he would have felt an obligation to meet their standards.

The existence of true literacy is a social condition. Yet curiously enough it is testable by a private activity. When a citizen reads something "to himself," as we say, and by himself, and does so habitually, he has become a member of a society which has divorced itself, or begun to divorce itself, from the audience situation. The content of preserved speech no longer depends for its publication and preservation upon oral communication and repetition by groups of persons. The silent solitary reader has accepted the full implications of documentation. His existence has a literary reference, which turns up in a comedy, the Frogs of Aristophanes, produced in 405 B.C. It takes the
form of a remark placed in the mouth of one of the characters, the god Dionysus: "As I sat on deck reading the Andromeda to myself." He goes on to say that this act of reading brought to mind the author of what he was reading, namely, Euripides. This is the first explicit allusion to reading as a private act. We can assume, if such a habit was taking hold and receiving such casual notice in the course of this play, that Athens had become literate in our sense, that is, was becoming a society of readers. In fact, the Frogs is unique in containing several other allusions which point in the same direction.

This first mention of the solitary reader in Athenian literature occurs at about the same time as a sculptor made the first physical representation of him (Fig. 6). The subject is portrayed in relief on a grave stele in the developed High Classic style. It is as a reader reading to himself that this dead person is now to be remembered and memorialized by the living who survive him. This is the earliest such representation in Greek art.
So, as Athens enters upon the fourth century, her literate revolution, so much more significant for future history than all her political comings and goings, was being accomplished, with certain fateful consequences for Europe and the world.48

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NOTES

4 Protagoras 325e, cf. 326c-e and Charmides 159c. Immerwahr (below n. 39) says: "The book roll is thus a mnemonic device facilitating recitation, not a real 'book' for reading alone" (p. 37). The "nuts and bolts" of Greek education have received scant attention from scholars, mainly because they were ignored by ancient historians. The handbooks cling tenaciously to the view that at the elementary level education began where we begin it. Thus Kenneth J. Freeman in his Schools of Hellas (London, 1907), noting the Platonic order "grammatistes" "kitharistes" "paidotribes" (Protag. 312b), argues that this system of primary education at Athens may reasonably be traced back to the beginning of the sixth century" (p. 52), placing reliance on the legend that Solon made the teaching of letters compulsory. This opinion has been recently repeated in Frederick A. Beck, Greek Education (New York, 1964), p. 77. Henri I. Marrou, in his Histoire de l'Education dans l'Antiquité, 6th ed. (1948; rpt. Paris, 1965), is more cautious. He notes evidence of illiteracy in the period of ostracism: "Néanmoins, dès l'époque des guerres médiques, on peut tenir pour certaine l'existence d'un enseignement des lettres" (p. 77)—an opinion supported by a mistranslation of a sentence in Plutarch, Themistocles 10, where it is said that the Troizenians supplied the children of the refugee Athenians with "teachers," not "reading-teachers."
5 I now withdraw previous support (Preface to Plato, p. 51) for the hypothesis that the invention was the work of minstrels. Those supporting it (H. T. Wade-Gery, The Poet of the Iliad [Cambridge, 1952], pp. 13-14; Kevin Robb, The Progress of Literacy in Ancient Greece [Los Angeles, 1970], p. 13) rely on the assumption that composers of the first metrical inscriptions were necessarily minstrels and at the same time writers.
8 Solon 2 (Diehl): he refers to his inscription of thesmoi at 24.18-20. Epigraphical evidence so far uncovered exists for the practice of inscribing "legal texts" (it is misleading to call them "codes") on the walls of public buildings in Crete, one (from Dreros) datable 650 B.C. or later, the others inscribed in the sixth and fifth centuries, supporting the literary tradition that "the Cretans were pioneers among Greeks in establishing legal systems"; the island was "if not the birthplace at least one of the earliest receivers of the Greek alphabet" (Jeffery, p. 310). The best-known text, the so-called "Gortyn Code," was inscribed not earlier than 450. The "Constitution" of
Chios was inscribed on a stele c. 575-50. A codification of Athenian laws was inscribed in the last decade of the fifth century. This included a republication of some laws attributed to Draco, inscribed on a stele of which a mutilated portion survives. Some of the wording, so far as decipherable, is demonstrably archaic and the content very plausibly Draconian (Ronald S. Stroud, Drakon's Law on Homicide [Berkeley, 1968]). The title of E. Ruschenbusch's monograph Solonos Nomoi: die Fragmente (Weisbaden, 1966) is misleading. Of a total of 155 so-called "fragments," organized under no less than forty-two legal headings, three are taken from the epigraphical remains of the Athenian code, three from notices in fifth-century authors (Herodotus and Aristophanes), twenty-seven from quotations in fourth-century orators (Lysias, Demosthenes, Aeschines), ten from notices in Aristotle, four from notices in Cicero, thirty-nine from notices in Plutarch (Life of Solon and Moralia), the rest being a miscellany of late notices in scholiasts, grammarians, and the like. Skepticism (cf., e.g., C. Hignett, History of the Athenian Constitution [Oxford, 1952]) has always surrounded these attributions to "Solon" (a number of which are anonymous). In Herodotus (I, 30-33, 86) he has already become the subject of moralizing legend. His name, like that of Moses, was liable to be invoked as authority for contemporary regulation, a comparison which is all the more to the point if Athenian society in the sixth and early fifth centuries, like the Hebraic in an earlier period, still relied heavily on oral record. Solon's surviving poetry is another matter, but it is noteworthy that it cannot be levied upon for any "fragments" of legislation. Noteworthy too is "the absence in archaic Greece of such records of public events as were erected in Egypt or Assyria or Persia" (Jeffery, p. 21).

9 R. M. Cook, p. 255, where it is also noted that "often the scene is self-explanatory," i.e., the label qua label is not needed. Likewise, Attic signatures after peaking about 500 B.C. became rare by 400 (p. 256). I would infer that in a documented era the habit became obsolete. The object was no longer felt to require a "voice" imprinted on it.


11 Jeffery, p. 47: "The name will naturally be written as close as possible to its owner, as it were issuing out from him" (my italics).

12 For the latest date once proposed, see Rodney S. Young, Hesperia, Supp. 2 (1939), 225-29; but now perhaps hedged? Cf. Jeffery, p. 16, n. 1.

13 Jeffery, p. 68.

14 Ibid., pp. 16, 68. The treatment, unique in Greece, of alpha iota and lambda supports the suggestion that the inscriber was a visitor to an Athens still illiterate at that time (late eighth century?), perhaps from Al Mina in Phoenicia, plausibly the original home of the Greek invention.


16 The conditional relative clause followed by apodosis (cf. also below fig. 4) recalls the conditional and participial constructions characteristic of early case law from Hammurabi onward (cf. R. H. Pfeiffer, Introduction to Old Testament [New York, 1948], pp. 211-18) which, though surviving in written form, demonstrably reflect the style of oral promulgation.

17 So Jeffery, p. 68.

18 Iliad 23.567-68. Actually, all the herald does in this context is to call for silence while placing the "sceptre" in Menelaus' hands, a ritual required to allow him to voice his protest. Cf. II. 18.503 and 505.

19 Jeffery, p. 235.


21 Jeffery, p. 238 and pl. 47.
22 Cf. Pindar, frag. 108. On Attic kalos inscriptions see R. M. Cook, p. 258, where it is noted that the fashion (like the names and signatures, above n. 9) fades out in the last quarter of the fifth century.

23 Cf. eupoton potērion . . . piēši potēriō

24 Jeffery, pl. 45.

25 Odyssey 4.613-19; 15.53-55, 69-74, 113-21, 147-51. Telemachus was truly a xeinos philos. The sentiment is a Homeric formula. Is it possible that the “trusty comrade” in the inscription refers to a second party accompanying the first—the “Pisistratus” of Homer’s story?

26 Jeffery, pp. 46-47.

27 Ibid.: “Much of the earliest Greek writing consisted of explanatory inscriptions on existing objects.” Yet were these inscriptions “explanations,” that is, information separately coded in writing, a procedure understandable in a literate culture? Or are they not rather to be understood as “signals” uttered by the object?

28 Cf. ibid., pp. 25-27.

29 Ibid., pl. 48.

30 Ibid., pp. 25-27.

31 E. Vanderpool, “Ostracism at Athens,” in Univ. Cincinnati Classical Studies, II (Norman, Okla., 1973), p. 229: “Obviously the very existence of a law . . . presupposed that the electorate was largely literate.”

32 The institution was last used c. 417 B.C.

33 Vanderpool, figs. 21 and 20. I borrow the reading of the distich from Vanderpool, p. 223; but see his footnote on the same page. The voter might even draw a profile of person named; cf. Vanderpool, p. 232 and figs. 46 and 47. Did this provide an “object” to which the “curse” (implicit in the vote) would be “fastened,” and so made effective, as in later magical use of wax images and the like? No other motive for taking such trouble is discernible.

34 Ibid., figs. 28, 24, 25, furnish typical examples.

35 Ibid., pp. 225-26. The total represents a group found together in a well.


37 Jeffery, p. 135 and pl. 22; also Mabel Lang, Graffiti in the Athenian Agora (Princeton, 1974), fig. 18. I have assumed the writer to be a demιourgos.

38 Pindar, Olympian 10.1 ff.; Aeschylus, Prometheus Bound 460, 789-90; Supplicants 179; Libation Bears 450; Eumenides 275.

39 This unique scene appeared in Freeman’s Schools of Hellas in 1907 (above, n. 4) (Fürtwangler-Reichold, Griechischer Vasenmalerei, Series 3, pl. 136). It is examined in H. B. Immerwahr “Book Rolls on Attic Vases,” in Classical Mediaeval and Renaissance Studies in Honor of B. L. Ullman, ed. C. Henderson, Jr., I (1954), 19.


41 This point is made by Harvey in an as yet unpublished article, “Greeks and Romans Learn To Write.”

42 Frogs 52-67. Euripides, frag. 36(N) (datable between 424 and 421) is not so explicit.

43 Frogs 943, 1084, 1109-14, 1409-10.

44 Immerwahr, p. 37 with n. 2.