2
STRUCTURES OF *ENKYKLIOS PAIDEIA*

Cultivate the powerful ...[1]

In the last chapter I identified, on the basis of the literary sources, the most common elements of *enkyklios paideia* and I noted that a palaeographical analysis of schooltext papyri identifies much the same collection of exercises in the same order. The fit is not exact: the papyri yield little or no evidence, for example, of advanced rhetorical exercises, astronomical, musical or philosophical schooltexts. Despite their differences, however, the overlap between the two groups of sources is large enough to allow us to characterize this as the same system in practice. The papyri include all the components of *enkyklios paideia* on which elite sources agree, and the elements which do not appear in papyri are typically characterized in literary sources as extras, alternatives or aims rather than the means of education.

We need not approach the papyri as some kind of crude or defective version of elite practice. In fact, there would be a case for restricting our definition of *enkyklios paideia* to the contents of the papyri, and regarding the diverse elite versions of it as more or less utopian or additions and improvements on the system. We could suggest, for example, that since literature, grammar and rhetoric are basic to education, the literary texts which urge the pupil to take up music or philosophy are rather adding the genteel pastimes of high society, than including essential skills which pupils lower down the scale lack to their detriment. It will be better still, however, not to try to pin down any one version of the system as the normative one, and start instead from the assumption that pupils from different social groups learnt what was appropriate, or deemed appropriate, to their backgrounds and expectations, bearing in mind that the expectations and the education of some would develop further than those of others.

The literary sources occasionally acknowledge that literate education was not monolithic. Quintilian, for example, claims to have begun his work, not with the aim of being original, but intending to choose between the different and sometimes contradictory ideas of his predecessors, and he acknowledges that his curriculum is more than usually thorough.[2] In the light of these comments we should be wary of regarding the *Institutio,* as it is all too tempting to do, as education in its 'proper' or most complete form. By the same token we should assume that what other authors include or exclude from their accounts depends on their interests and aims. All the surviving versions of *enkyklios paideia* can be regarded as variations on a theme whose dominant and most remarkable characteristic is still its high degree of uniformity across the Hellenistic and Roman worlds.

Within this principle of diversity, the papyri can show us a dimension of educational practice that literary sources, for all their number and variety, cannot. Whatever they have or do not have in common, the authors whose writings we have on education all write, to some extent, on the level of theory. What they describe is what education ought to be like. Some of them base their comments more closely on contemporary practice than others – Quintilian is demonstrably closer to contemporary practice than Plato or Aristotle – but in one respect or another they are all painting an ideal portrait. Failures are not discussed; nor are stupid pupils nor lazy teachers. Reading lists and lists of exercises are exhaustive and no author suggests that pupils might not read or perform all of them.

The papyri give us a different picture. Fragmentary as they are, non-self-identifying, scattered in place and time and frus-

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[1] *P. Oxy.* XLII 3004 (below, pp. 125ff.).

[2] I pr. 2, 4–5.

tratingly decontextualized, they are a record of actual practices of teachers and pupils: exercises written and works read. Looking closely at their contents – what exercises survive in what numbers, which literary texts can be shown to have been copied, which grammatical exercises learned, which rhetorical exercises practised – we can build up a picture of learning which not only confirms much of what the literary sources say, but adds nuance and depth to it. The distribution of texts shows up local variations, making it possible to identify the exercises taught in towns, for instance, compared with villages. From local variations we can tentatively deduce social ones, given that the wealthy tended to be concentrated in certain Egyptian towns. The contents of papyri alert us to places where literary accounts may be more theoretical than they admit, and encourage us to look for evidence in those authors themselves that, for instance, people may not have read everything the theorists might like them to have read with the thoroughness they recommend.[3]

This chapter, therefore, begins with a statistical analysis of the papyri, to show what survives from where and when and in what numbers. *Enkyklios paideia* in the provinces both was and was not standardized. Many of the same exercises were performed, many of the same texts read as literary sources suggest, but not necessarily by everyone nor in the same proportions. On that basis, I shall try to show how the distribution of surviving papyri makes it impossible for us to regard *enkyklios paideia*, as it has sometimes been regarded, as a 'curriculum', in the sense of a system in which everyone learned the same things at the same age in the same order. The contents of the papyri suggest a much more flexible system adaptable to a wide range of social contexts. The implications of this for the structure of ancient education are large, and I shall propose a new model which accounts better for the diversity of the evidence and which offers an explanation of why what pupils in Egypt, for example, studied made sense in their social context.

[3] Below, ch. 3.

Figures and facts

The catalogue of literate schooltext papyri in Greek is composed of just over 400 papyrus fragments, many of which include more than one exercise or extract from literature. They comprise reading and writing exercises, literature and other writings, grammar and rhetorical exercises, as well as a few Christian texts about which I shall have little to say.[4] (This total does not include some of the rhetorical texts which I discuss in Chapter Six, whose content matches the descriptions of writers on rhetorical exercises but whose handwriting is not clearly definable as 'school', and may therefore come from other contexts.[5])

Texts can be typified, following (for the time being) distinctions made in literary sources, as follows: single letters, alphabets, syllabaries, wordlists, gnomic literature, non-gnomic literature, other writings, scholia, grammar, and rhetorical exercises.[6] It may be noted that the tables which analyse the papyri do not count them all in the same way. Tables assessing the chronological and geographical distribution of exercises by subject and the overall figures for texts including particular subjects, count one for every papyrus which contains an exercise of a particular kind. Since some papyri contain more than one exercise, sometimes of different kinds, the totals in these tables come to well over 400 papyri. Where a text contains more than one exercise of the same kind, however, I have counted it as one in these tables. But when I come to analyse the numbers of different kinds of literary texts surviving in schooltexts, I count each literary fragment as one, so individual papyri may count as anything up to forty or

[4] Appendix 2.
[5] See above, ch. 1 n.13. D. H. Fowler (1988) and Zalateo (1961) are incomplete, but an impressionistic count yields at least as many mathematical as literary-type texts.
[6] Cribiore classifies her catalogue as follows: letters, alphabets, syllabaries, lists of words, writing and copying exercises, maxims, sayings and limited amounts of verses, longer passages: copies or dictations, scholia minora, compositions, paraphrases, summaries, grammar, notebooks.

so texts, often of the same kind, usually gnomic sayings or excerpts of the *Iliad*.[7]

The reason is that when literary, rhetorical or grammatical texts are examined in detail for their content, each separate excerpt or exercise is regarded as a separate decision to reproduce or a separate project, and it is the number of such decisions or projects that give us the best idea of the relative importance of each component of that part of education. When the chronological or geographical distribution of schooltexts are under consideration, we do not want, say, the vigorous activity of one teacher to skew the picture too far in favour of one town or village: the broad distribution of activity is more important here than the detail of its intensity. Of course, papyri are often found in groups, in archives, on rubbish heaps, and are sometimes known to come from particular buildings as well as from particular towns or villages. The Mons Epiphanius texts, for example, were all found in one monastery, and the fact that there are several of them does not necessarily mean that there was significantly more education there than in some Fayum villages. But a degree of misrepresentation is inevitable in all statistical analyses; by counting types of exercise in the tables in this chapter, rather than individual exercises, I have tried to keep it to a minimum.

Schooltexts are found, then, in a wide variety of Egyptian towns and villages, from Naukratis and Athribis in the Delta to Elephantine in the extreme south and Mons Claudianus in the eastern desert (Table 1). We have just over 700 examples of 10 types of exercise in Greek, contained in 419 papyri. Of these only a few are large papyri containing several exercises of different kinds (such as a syllabary, wordlists and several types of literature), examples of which are the best known of all schooltexts.[8] Most texts which include more than one fragment or exercise consist of several incomplete attempts at

writing the alphabet, or a number of lines of literature or gnomic sayings.[9]

The provenance of just over half the exercises is unknown; a further 13 come from 'upper Egypt', which is too vague to be very helpful.[10] Of the rest, nearly half come from cities and nome capitals, and the rest from smaller towns and villages. Though widely, they are very unevenly distributed. No fewer than 59 texts come from the Arsinoite nome and another 8 from the Arsinoite or Herakleopolite, despite the fact that neither nome capital is represented. 28 texts were found in Oxyrhynchus or the Oxyrhynchite nome and 27 in Thebes. These were areas of particularly heavy Greek settlement, but accidents of excavation also play a part: large numbers of papyri of all kinds have been found there.[11] Other centres of Greek culture do less well. 12 exercises come from Antinoopolis, 9 from Memphis, 6 from Hermopolis, 3 from Apollonopolis Magna and 2 from Athribis, despite the fact that these were also important Greek cities, most, if not all of them considerably larger than Oxyrhynchus.[12]

The proportions of schooltexts surviving from different places are sufficiently close to the proportions of papyri of all types surviving from those places to make detailed conclusions difficult.[13] We can note that schooltexts survive from rather fewer places than documentary and literary texts overall, which may suggest that education did not go on in every village or perhaps even every town, but schooltexts form such

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[7] Below, pp. 67ff. and ch. 3.

[8] E.g. Guéraud and Jouguet (1938), cf. Parsons (1970) (6 exercises), *P. Bour.* 1 (4 exercises).

[9] Table 14.

[10] As usual with papyri, almost nothing survives from the Delta: just one text from Athribis and one from Naukratis.

[11] This in itself is partly a reflection of their size and political and cultural status, but climate and the accident of successful excavation also play a part.

[12] Hermopolis at *c.* 37,000 (Bagnall and Frier (1994) 55) was much bigger than Oxyrhynchus at 20–25,000 (Rowlandson (1996) 17) and Athribis, Memphis and Herakleopolis were probably bigger than Hermopolis (figures for the Roman period, on which see Bagnall and Frier (1994) 56–7). Thompson and Clarysse estimate Ptolemaic Arsinoe at 2322 adults (I am grateful to Dorothy Thompson for these figures).

[13] Figures for all papyri published up to November 1995 are now on the internet (gopher://gopher.urz.uni-heidelberg.de:70/11/institute/fak8/papy/hagedm).

a small fraction of all papyri surviving that we cannot be sure.[14] We can observe that outside the Fayum, very few villages are represented, which is, admittedly, true of papyri in general but also fits what we know of patterns of Greek culture and the distribution of wealth, so probably reflects something of the distribution of Greek literate education. On the other hand, numbers of surviving schooltexts are occasionally out of line with numbers of surviving texts overall for a particular town. A disproportionately high number of exercises survives from Thebes and a disproportionately small number from Apollonopolis, suggesting that a town's size and importance may not always have been reflected in its levels of cultural activity.[15] We should note that schooltexts do turn up in one or two far-flung places, like Elephantine (though there was a well-documented Greek community there) and the army camp at Mons Claudianus – so we should beware of assuming that education was confined to large and wealthy centres of Greek culture.[16]

Perhaps more suggestive is the geographical distribution of different exercises whose provenance is known. Letters and alphabets are widely scattered, being found, between them, in almost all the towns and villages where schooltexts are found at all. Syllabaries are rather less widely distributed (only in large towns, cities or the Arsinoite nome, and nowhere south of Hermopolis), but wordlists come from all over the country. So does literature of all kinds, which is more widely distributed than anything else, as well as occurring in the largest numbers. Scholia come only from the Arsinoite nome, Oxyrhynchus and Panopolis, and rhetorical exercises come only from the Arsinoite, Oxyrhynchus, Hermopolis and Thebes. The distribution of grammatical schooltexts is similar to that of rhetorical exercises, coming from the Arsinoite, Oxyrhynchus, Hermopolis and Antinoopolis.

From this it is possible to build up a picture of widespread

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14 E.g. 25 texts from Oxyrhynchus out of 4400 of all types in the first 63 volumes.
15 Turner (1979) 44–5.
16 On culture in army camps see Bowman (1994) 82ff.

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teaching of the elements of literacy and reading of literature.[17] The next stages of education – grammar and rhetoric – went on in far fewer places. We cannot assume that people who learned to read and write in small towns regularly moved on to larger ones at a later stage of education, though some undoubtedly did so.[18] Not enough grammatical or rhetorical texts survive, even from large centres with papyrus finds of all kinds, for that. It looks rather as though the number of people in Upper Egypt whose education progressed as far as learning grammar and rhetoric was a very small proportion of those who acquired some basic literacy and read some literature.

In the last chapter I suggested that the form of *enkyklios paideia* described by our sources from the end of Hellenistic period onwards was the creation of that period, perhaps soon after the death of Alexander, though we lack literary sources for it until later. The chronological distribution of the papyri (Table 2) suggests that we should modify that picture slightly, at least for Egypt outside Alexandria. Reading and writing and the reading of literature are attested much as I have described, from the third century – which is not surprising, since they are attested, and in much the same form, right from the fifth century.[19] We have two elementary rhetorical exercises from the second and second–first centuries BCE, indicating that some people also learned rhetoric, though, then as later, the numbers were low compared with those learning to read and write, and the number of places where rhetoric was taught, was restricted.[20]

If literature and rhetoric are found from the early Hellenistic period onwards, however, other elements of the system do not appear until later. The most striking feature of Table 2

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17 Literary papyri presumably survive in larger numbers across a wider area than alphabets and wordlists because the reading of literature went on for longer than the time it took a pupil to learn to recognize and form his letters.
18 As, for instance, Augustine (*Conf.* 2.3 (5)–3.3 (6)) went first to Madauros to study grammar and rhetoric, then to Carthage to study rhetoric.
19 Pl. *Plt.* 277e–278c, *Prtg.* 325eff, 326d, Xen. *Symp.* 4.27, Vanderpool (1959); cf. Polyb. 10.45ff.
20 NB the low survival rate of Ptolemaic papyri does not accurately reflect literacy levels, since the earlier the texts we are studying, the larger the number that will have sunk as far as the water table and rotted.

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is that grammatical texts (along with scholia) are not attested until the Roman period, though they are already incorporated in literary accounts of education towards the end of the Hellenistic period.[21] There are several possible explanations of this. Over the first three centuries of Roman rule, the Egyptian bureaucracy increased in size, and it is likely that there was an increase in literate education to furnish it.[22] It is certainly the case that we find more schooltexts of other types surviving from the period when grammar and scholia come into use, though that is partly the effect of overall survival patterns. An increase in education in general, however, does not account for the appearance of new types of texts.

Grammatical schooltexts have often been taken as aids to language learning and it has been suggested that as Greek developed further away from classical forms, formal grammar was needed to teach people to speak 'properly' and scholia were needed to help people to read classical literature. I shall discuss in Chapter Four why I think neither of these arguments meets the case. For the time being, both can be put on one side as explanations of the distribution of texts.

More plausible is the possibility that the country was rather behind the major cities and cultural centres like Alexandria, Pergamum, Athens and Rome, and that new developments took time to reach them. The science of grammar was still in its early stages at the end of the classical period and went on developing throughout antiquity. The earliest surviving systematic grammar is the *Techne Grammatike* ('Art of Grammar') of Dionysius Thrax, which dates from around 100 BCE and of which most of our schooltexts are recognizable relatives or descendants; it is possible that grammar did not begin to feature largely in the literate education even of the rich and cultured until around this time. If so, it is conceivable that it would have taken some time to percolate down to towns and villages, arriving (coincidentally, on this view) at the beginning of the Roman period. Even then it appears

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[21] Cic. *De or.* 1.42, Suet. *Gramm. et Rhet.* 2.1ff.
[22] Bowman and Rathbone (1992).

never to have been distributed widely, the texts whose provenance we know all coming from the Arsinoite nome or the large and cultured cities of Oxyrhynchus, Hermopolis and Antinoopolis.

If we combine the chronological and geographical tables to give the geographical distribution through time for each type of schooltext separately (Tables 3–10), we find that all the letters, alphabets, syllabaries and wordlists from the Ptolemaic period whose provenance is known, come from the Arsinoite nome, Memphis or Thebes. From the first century CE they appear in Oxyrhynchus, Hermopolis and Apollonopolis Magna, all large nome capitals and centres of Greek culture. In the second century they are found in Mons Claudianus, from the third, possibly, in the Herakleopolite nome, from the third–fourth in the Herakleopolite and Antinoopolis, and from the fourth–fifth in the Hermopolite.

This geographical pattern is repeated in other types of schooltext. Gnomic literary texts are found in the third century BCE in Philadelphia in the Arsinoite, and from the first century CE elsewhere in the Arsinoite and in Oxyrhynchus. From the second century they appear in Thebes, Elephantine and Mons Claudianus; from the third, in Abusir,[23] from the fourth, in Memphis and in the Byzantine period, in Antinoopolis. As in the case of alphabets and words, there is no particular sign that the spread of gnomic texts contracted after its expansion.

Well-known authors (chiefly Homer and Euripides) are found in the Arsinoite and at Ankyronpolis (south of Herakleopolis Magna) from the third century BCE, and in Memphis and Thebes from the second. They appear in Oxyrhynchus from the first century, in Apollonopolis Magna from the first century CE, and in Mons Claudianus in the second, Abutig (between Antaeopolis and Lykopolis) from the second–third and Antinoopolis from the third–fourth.

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[23] Those who have bought and/or published texts have not always specified to which modern town of Abusir they refer (e.g. Graves (1895)), so these texts may be from the area of Thebes or Memphis.

'Other writings', which constitute a mixed bag of unidentified prose and verse, possible scribal exercises, practice letters, riddles, catechisms and indecipherable texts,[24] are found in Philadelphia in the Arsinoite from the third century BCE, in Thebes from the second, in Naukratis and the Oxyrhynchite nome from the second–first, all over the Arsinoite from the first century CE, at Mons Claudianus in the second, in Oxyrhynchus from the second–third, the Hermopolite nome from the third–fourth, Hermopolis and possibly the Herakleopolite from the fifth and Kynopolis from the sixth–seventh.

Literary texts of all kinds are found in the Ptolemaic period chiefly in the Arsinoite nome, Memphis and Thebes, moving out towards the end of the Hellenistic period and the beginning of the Roman to some of the other large and cultured cities, especially Oxyrhynchus, and from there in the second and third centuries to other nome capitals, to Antinoopolis after its foundation, and more widely across the nomes. As in the case of elementary reading and writing exercises, once they have spread they do not appear to die out but continue to be found right across Egypt until the end of Roman rule and beyond. This, it would seem, is the core of literate education: learning to read and write and reading Greek authors. It appears to have taken some time to spread from areas of high Greek settlement, wealth and culture to other towns and cities and from there to the nome hinterlands, with a tendency for the north, nearer Alexandria, to get things earlier than the south.

Once schooltexts begin to appear in a city or nome, not one kind of them dies out, but the density of finds of all kinds, for instance, in Memphis, the Arsinoite, Oxyrhynchus and Thebes, changes over time. It remains relatively high and fairly constant until the fourth or fifth centuries. Thereafter, finds at Oxyrhynchus, Antinoopolis and Memphis decline to almost nothing while Thebes does rather better, yielding several schooltexts in the sixth and seventh centuries. This, however, reflects principally the pattern of abandonment of towns and

[24] Below, pp. 77ff., 85ff.

villages in later antiquity rather than the fortunes of education in particular.

The most remarkable feature of these tables is that although the distribution patterns of different exercises are similar, they are not synchronized. As we have already seen, scholia and grammar do not appear until the early Roman period. Scholia are found in the Arsinoite from the second century CE, in Oxyrhynchus from the second–third and in Panopolis in the fifth. Grammar is found in the Arsinoite from the first century CE, in Oxyrhynchus from the third, in Hermopolis in the third–fourth and in Antinoopolis from the fourth. Early rhetorical exercises are also found earliest in the Arsinoite, this time from the second century BCE, in Hermopolis in the first century CE, Oxyrhynchus in the third and Thebes in the fourth. Geographically, these figures are not unlike those for reading and writing and literature; the only difference being that the texts are much less widely spread overall and are confined entirely to the Arsinoite and large cities and nome capitals.

Grammar continues to appear until the end of Roman rule, but scholia are confined to the first five centuries CE, and are heavily concentrated at the beginning of that period. After the fifth century scholia disappear completely, even from texts of no known provenance. All the schooltext scholia are scholia to Homer, and their disappearance coincides with a sharp decline in the appearance of Homer in literary schooltext texts in the Byzantine period (Tables 11 and 12). So far we have been counting literary texts all together, but as I shall discuss further in Chapter Three, reading patterns within the category 'literature' evolved in the thousand or so years covered by this survey. The amount of literature read overall, with the apparent exception of gnomic texts, declined in the Byzantine period, and the reading of the most famous authors declined most of all.

Rhetorical exercises appear earlier, and persist for longer than grammar, with texts of unknown provenance dated to the fifth–sixth, sixth and seventh centuries. Their numbers bulge noticeably in the third and fourth centuries, declining

steeply thereafter.[25] The ratio of rhetorical texts to all texts for the Ptolemaic period, if such low figures can tell us anything at all, is 2:45, rising a little in the Roman period to 1:21 and falling back in the Byzantine period to 1:23. This suggests that however overall literacy rates fluctuated over time, a fairly steady percentage of literates went on to study rhetoric. In the Byzantine period, the numbers of literary texts fall in relation to the number of alphabets and wordlists, which suggests that while quite a number of people continued to learn to read and write, fewer may have progressed to reading much literature. If so, however, a larger proportion of the latter went on to study rhetoric, since the overall relation of rhetorical texts to other texts remains stable.

To some extent the pattern emerging from these figures is simply the pattern of Greek papyrus finds overall—the Fayum dominating in the Ptolemaic period, Oxyrhynchus featuring heavily from the early Roman period, and finds declining more steeply from some places than others in the Byzantine period.[26] Nevertheless, some more specific conclusions are possible. The pattern of finds in general is only partly due to accidents of excavation and climate; it also reflects many of the patterns of Greek settlement and culture. The educational evidence suggests that where Greek education followed the patterns of Greek settlement it did so closely, in time and place, but that it did not follow all of them to the same degree. From the beginning the teaching of basic literacy appears to have been far more wide-spread than more advanced elements of *enkyklios paideia*, which were practised in relatively few cultural centres. Moreover, when new subjects and exercises arrived, they tended to spread from place to place in the same pattern as earlier ones. We cannot account for this as we account for the first arrivals, by saying that it reflects settlement patterns. It suggests rather that many of the early settlements continued to be places of particular wealth and culture, and that new waves of education arrived first at them before spreading, if they did spread, to poorer and less cultured places.

It is likely that levels of literacy were lower in the Ptolemaic period than later (the bureaucracy grew in the Roman period), but the surviving schooltexts suggest that a similar proportion of those who learned to read and write under the Ptolemies went on to learn rhetoric, and no doubt other subjects, at every period. Not as many other subjects, however, were available under the Ptolemies as later. Grammar makes its appearance in the first century CE. The proportion of grammatical texts to all texts in the Roman period is much higher (1:13), and in the Byzantine period rather higher (1:18), than that of rhetorical texts to all texts in either period. This suggests that not only did levels of basic literacy fluctuate: so did the proportion of people who progressed as far as learning grammar, with the greatest number doing so in the Roman period. Since the proportion of people who went on to learn rhetoric remained fairly stable, we may be able to see here the effects of a general growth of literacy on a competitive social environment.

At a time when more people were learning to read and write, those who in an earlier generation would have secured a degree of cultural status simply by being literate, can be imagined to have wanted to maintain their status in the face of new competition. Grammar may therefore have entered education as an extra rung on the ladder of literate status: something which not everyone would get as far as studying, but which did not commit the learner to a further expensive education in rhetoric. Those who learned grammar but did not go on to study rhetoric may have formed something of a new, intermediate status-group in literate education. It is worth noting that it is at the same period that the greatest diversity of authors appears in schooltexts (Table 13). As we shall see, this may be another sign that the cultural environment was more than usually competitive, with readers attempting to assert their cultural superiority by reading more difficult or recondite literature than their neighbours.

Evidently, not only did Greek education take root earlier and more thoroughly in some places than others; the same places continued to be the first to receive new ideas, which percolated only slowly and partially across the country. Though

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[25] Against the trend of survivals overall.   [26] Turner (1979) 46–7.

levels of literacy increased and culture developed in the course of Graeco-Roman rule, relative cultural attainment remained fairly stable overall, fluctuating only in the middle ground around the teaching of literature and grammar.[27] The increase in numbers of literates, therefore, was not necessarily accompanied by any increase in social or cultural mobility (though, as ever, some individuals could and did rise through the ranks). The evidence suggests, however, that levels of cultural attainment proliferated and cultural status became more complex, or acquired a more complex means of expression, over time. It is likely that the proliferation of authors read and of grammatical exercises was matched by some similar proliferation in rhetorical exercises, though we do not have papyri to show it because most rhetorical education went on outside the area where texts have survived. The texts which codify the proliferation of elementary rhetorical exercises, the *progymnasmata*, are products of the Roman period.[28] Literacy, and literate culture, must therefore have become a more overtly complex phenomenon in the Roman period and later, with literates differentiated by increasingly various levels of accomplishment.[29] In Chapter Five, I shall discuss the impact which studying grammatical texts themselves had on pupils. On a larger, sociological scale, however, it may be that grammar entered education, and entered it at a time when literacy overall was probably beginning to increase as a means of creating extra levels of educational attainment and distinguishing the merely literate from the rather more cultured.

None of this could be deduced from the literary sources alone, all of which assume that pupils have access to every

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[27] On literacy levels in the Roman period see W. V. Harris (1989) 175ff., Horsfall (1991) 59ff. and Bowman (1991) 119ff.

[28] E.g. Aelius Theon (second century CE), Hermogenes (second century), Libanius (fourth century), Aphthonius (fourth–fifth centuries), Nicolaus (fifth century). Cf. Quint. *Inst.* 2.4, 6, 10, in a tradition going back to Arist. *Rh., Ad Alex.* (below, pp. 190ff.).

[29] These figures should not be seriously distorted by accidents of excavation, since the distribution of finds does not account for the relative numbers of different types of schooltexts surviving across time and place.

level of education, whether their aim is to practise rhetoric, philosophy or anything else. The papyri show traces of many pupils who never achieved anything like the higher levels of education; furthermore, they indicate how, outside the cultural elite, levels of education were differentiated, and differentiated more sharply and in more detail at times when literacy overall was increasing. The elite sources take for granted that readers have the resources to pick and choose what they learn. The papyri give us a glimpse of a more pressured world, where educational and, no doubt, financial resources were limited, and where having read a few scholia to one's Homer, or having memorized a grammatical table or two, might be a precious measure of cultural status, and having practised even the most elementary rhetorical exercises a rare commodity, a valuable and enviable distinction. The signs of distinction went on being treasured even as Roman power and culture retreated in the Byzantine period. Even though the reading of famous authors declines in later antiquity and an ever larger proportion of schooltexts display only alphabets, words and gnomic sayings, grammar and rhetoric went on being taught to a few.[30]

For nowhere else in the ancient world can we investigate the development of education with this degree of subtlety for any group below the elite, though a few individuals such as Ausonius and Fronto provide valuable glimpses of education in the western Roman provinces. These, and other such scraps as we have, present a picture recognizably related to that of the papyri. The Hermeneumata, themselves schooltexts, include among their so-called *colloquia*,[31] scenes from schools in late antique Gaul, perhaps the third or fourth centuries. One description of what happens in school includes reading, writing, Greek and Latin speech and letters, syllables and wordlists.[32] Another includes writing, reading, reckoning and

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[30] Bagnall (1993) 246ff., MacCoull (1988) 1–15, 57ff.

[31] Misnamed, since they are mainly narratives, not dialogues.

[32] *CGL* III 637–8.

taking dictation; another, writing, reading, interpreting glosses, reading syllables, writing names and verses, and grammar.[33] Sometimes, at least, reading seems to mean reading aloud to a teacher. Some of these exercises appear in an odd order, in comparison with the papyri and literary accounts, but the texts are rather garbled altogether, so their order may not be significant. The exercises themselves, however, are all familiar. The account of the school day which I discussed in the last chapter, and which probably comes from a similar place and time,[34] includes reading aloud, writing (copying rather than composition[35]), several kinds of mathematics, copying texts, learning glosses, listening to an 'exposition' on a text, reading scholia (probably), grammar and reading an impressive catalogue of literature.[36] Again, the order of exercises, not to mention the fact that they are apparently all done by one boy on one day, looks a little odd, but the exercises themselves fit what we find elsewhere. In the Roman west, in Latin or Latin

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[33] *CGL* III 639–40, 646, part of which reads: 'I go to school, I have entered, I have said: "Greetings, Master", and he has kissed me [and] returned my greeting. My secretary slave has handed me tablets, writing case, model, in my place I clean the (surface of the tablets?), I copy the model as instructed; as I have written, I show [my work] to the teacher; he has corrected it and smoothed it over; he orders me to read. After I have been ordered I have given [the text] to another. I learn glosses, I have recited (?) them. But immediately, a fellow pupil has dictated to me ... while this is going on, the little boys go, on the teacher's orders, to a separate place, and one of the older boys has provided syllables for them; others return in order to the assistant, and write names; they have written verses, and I have taken dictation in the first group. Then as we sit down; I go through commentaries, language, the art (of grammar). When I have been called to read I listen to expositions of the reading, interpretations, the (grammatical?) persons ...' Note the jumble of tenses and somewhat disconnected narrative. This may be a pupil's own composition, in which case, as his description of exercises in declamation and grammar would confirm, he must be an advanced pupil, perhaps describing a schoolroom in which many levels of education were taking place simultaneously and in part intertwined.

[34] Dionisotti, (1982) 98–101, above, pp. 30–1.

[35] Described as: 'dictate, deliver, write, delete. I delete and I draw a line to what is superimposed (?), and I write, and I show it to my teacher ...' (ibid. 99).

[36] Ibid. 100: the list includes the *Iliad* and *Odyssey*, Virgil, Cicero, Persius, Lucan, Statius, Terence, Sallust, comedy, Theocritus, Thucydides, Demosthenes, Hippocrates, Xenophon and the Cynics. Note, however, that these are presented in list-form, like the exhaustive lists of words for different exercises and conjugations earlier in the texts, so we should doubt that they represent a coherent reading programme; more likely they are all the authors/works the teacher, or pupil, could think of.

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and Greek speaking areas, literate education is recognizably the same as in Egypt at a similar date.

Overall, the survival rates of schooltext papyri across the centuries are in line with survivals of all dateable papyri. There are two exceptions. From the third to the second century BCE and again from the first century BCE to the first century CE, finds of schooltexts are very high as a proportion of all texts. Finds of schooltexts drop in the fourth–fifth centuries and recover in the fifth–sixth, but neither change is anything like as steep as those of papyri overall. Indeed, in general figures for schooltext survivals vary rather less than those for survivals as a whole, though this may be affected by the fact that almost all schooltexts are dateable, while nearly half of all other papyri are not.[37]

The first two observations invite a more interesting interpretation. These abnormal proportions occur close to the beginning of the Ptolemaic and Roman periods, when we know that there was also more than usual interest from the central administration of the time in promoting education. It is possible that the relatively large numbers of schooltexts surviving from these periods represent a response to the measures of Ptolemy Philadelphus in the third century BCE, and the early Roman emperors, to promote literacy and literate culture, in both cases for both practical and cultural purposes. If so, it is a rare and gratifying case where we can see educational activity at the highest levels of society having an immediate impact lower down the scale.

The curricular model

Graeco-Roman education has typically been regarded as 'curricular' in structure. On this account, a set collection of exercises existed in a set order, and pupils did them all, diverging only at the end to become orators or philosophers. In many accounts this 'curriculum' is hedged about with all sorts of other institutions, such as universal education for boys and

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[37] Hagedorn, above n.13.

even girls, fixed ages of entry and exit from school, designated school buildings and state controls.[38]

I have already argued that many of these assumptions, notably about school buildings, ages at which people were educated and universal education, cannot be sustained. Whether the content and order of exercises constituted a 'curriculum' is more difficult to assess. In some literary accounts it looks very much like it.[39] The papyri, however, suggest otherwise.

It is already obvious from the chronological and geographical distribution of the papyri that not everyone can have learned the entire 'curriculum' in every time and place, even if the curriculum in Egypt were taken to have consisted only of subjects for which we have papyrological evidence. If we look at the numbers of different exercises surviving overall, the pattern is even more pronounced.

The distribution of exercises of different kinds is set out in Table 14.[40] For the purpose of assessing which exercises were most important and most frequently performed, the figures on the left are not quite adequate. We need to count how many individual exercises of what kinds appear in papyri with more than one exercise, which are the figures on the right. The number of exercises on letters and words is difficult to count, because we sometimes cannot be sure whether what we have is a broken fragment of a longer exercise, or a complete exercise on one letter or word. The figure for lists of words may be exaggerated;[41] if we were to count everything that looks like an exercise on letters or words in composite texts, however, the figures might be half as high again. Alphabets and syllabaries are more easily identifiable: counting individual exercises rather than texts brings the total up slightly.

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[38] Bonner (1977) 165ff., Marrou (1975) chs. 5–10.
[39] Notably Quintilian's, cf. Dion. Halic. *Comp.* 25.
[40] 'Christian material' refers to overtly Christian material (hymns, extracts from the New Testament etc.). Many more texts from Christian contexts are indistinguishable in content from pagan texts, and are counted with them.
[41] Because continuous texts in a very fragmentary state may look like collections of words.

Figures for different types of literature are also necessarily imprecise, though probably by a small margin. Some attributions to known authors are not certain (Table 13); some collections of gnomai are very fragmentary. But it is clear that vastly more literary texts survive than texts of other kinds, and that it is much more common for literary schooltexts to contain more than one extract from literature than for texts to contain multiple extracts of any other exercise or combination of exercises.

It is also clear that some types of literature and some authors are far more popular than others. Far more gnomic sayings, about 250, survive than any other type of text. Of the roughly 150 other texts by known authors, 97 are extracts from the *Iliad* and the *Odyssey*. The next most popular author is Euripides, with 20 texts. After him come Isocrates with seven (all gnomic, however) and Menander with seven (not counting the vast number of Menandrean or possibly Menandrean gnomai), and after that we are down to one or two of a further twenty or so authors.[42]

Each of our surviving texts of scholia presents scholia to just one fragment of Homer, and scholia do not appear in multiple texts. Grammar, in contrast, often does, and if we count all the exercises in multiple texts our figure goes up by nearly half. Rhetorical exercises, however, do not: though several of them appear in combination with other exercises, only one ever appears at a time.

There is no reason to suppose that some types of exercise have suffered more drastic wastage than others, and some reason to believe that they have not. Most exercises appear throughout the Greek and Roman periods, and though one or two only appear late or die out completely in the Roman period, in general they appear in fairly consistent proportions to one another and there are few gaping holes in their distribution. It is therefore reasonable to assume that the proportions of different exercises we have are a usable reflection of the proportions in which they were produced.

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[42] Tables 15 and 13.

If that is the case, however, these texts cannot have constituted a curriculum. We have already seen that not everyone who learned to read and write got as far as studying grammar or rhetoric. That in itself undermines the curricular model. It might, however, leave us with a model in which everyone starts by doing the same thing and individuals drop out progressively: a situation, perhaps, in which the curriculum exists as an ideal but not everyone can afford to complete it.

The distribution of texts below the level of grammar and rhetoric makes that interpretation unlikely. It is clear from the very earliest exercises that while a wide range of texts and exercises was in use overall, very few of them were *widely* used. Everybody, so far as we can see, learned to read and write through reading and writing letters, alphabets and words, though syllabaries may not have been so popular. It is plausible to suppose that everyone read and copied gnomic sayings: their number and distribution in place and time support it. It seems likely that Homer was very widely read, at least up to the end of the Roman period. Beyond these, what our survivals represent is less a curriculum than a free-for-all. Euripides was clearly widely read, but we have little sense that any other author was consistently favoured. Our scattering of other known authors includes archaic, classical and post-classical writings, prose and verse, epic, tragedy, comedy, lyric, invective, didactic, romance and elegy. When we reach grammatical texts, they fall into several categories: conjugation and declension tables, classifications of parts of speech, lists of verbs with the cases they take and extracts from *technai* or alternative versions of them. Most of these are attested by Quintilian, but the small number of papyrus survivals does not allow us to assume that in Egypt they constituted a fixed range of exercises which everyone learning grammar performed. It looks more likely that different pupils did different things. The same is true of the rhetorical exercises: their diversity reflects descriptions by rhetorical theorists of different types of exercises, but too few exercises survive overall to

indicate that any one pupil performed, as theory would require, more than one type.[43]

The curriculum model makes no sense of this pattern of surviving texts. A different model, however, might: that of a 'core' and 'periphery' in education.

The 'core' I propose is a core in three senses. It includes what most people learned, what they learned first and, in the case of reading, what they went on practising longest. It would include methods of learning to read and write, the reading (and copying and, if we follow the literary sources, memorizing) of gnomic sayings and the reading of Homer (and Virgil in the Latin-speaking West), since these are the only texts which survive in sufficient numbers and in a sufficiently wide range of hands. (As we shall see in Chapter Three, not even all parts of Homer were equally 'core'). These texts include the vast majority of texts in the poorest and fairly poor schoolhands. Not all texts of gnomai or Homer, are in poor hands: many are in reasonable or accomplished ones, indicating that pupils continued to use them throughout education (Table 15).[44] Other literary texts, however, are written overwhelmingly in good or fairly good hands (Table 13).

The 'periphery', on my model, would include everything outside the 'core', but it would be in no way homogeneous, even in the nature and degree of its marginality. Some things appear to be more peripheral than others. Euripides, for instance, is probably the peripheral author closest to the core: more texts survive of his plays than of any other author apart from Homer, and they survive in a wide range of hands. Menander is more peripheral than Euripides, because fewer pupils read him (outside gnomic collections), but he is more

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[43] Cf. Quint. *Inst.* 2.4,6, *progymnasmata*; see Haarhof (1920) 131–2, who comments on the much smaller number of teachers of rhetoric than *grammatici* in late antique Gaul.

[44] Some of these texts could be teachers', but it is unlikely that all are: most do not display Cribiore's criteria for models, nor do they occur in multiple-text handbooks.

central than most other authors, whose distribution is very thin indeed and who are copied for the most part in middling or accomplished hands.

Grammar and rhetoric are peripheral in that few people appear to have learned them and they are virtually all in the most accomplished schoolhands we posses. They are not, however, as 'peripheral', in the sense of diverse, as are literary texts in similar hands. They are, then, in one sense more 'core' than some literature, though their low numbers overall do not put them in the same league of 'core' texts as gnomic sayings and excerpts of Homer. This pattern would make sense if most pupils did not reach the stage of studying grammar, making it less than a core element of education, but if for those who did, and for those who went on to study rhetoric, there was to some degree a 'core' to those subjects, in the sense of some agreed knowledge about declensions, conjugations, parts of speech and the basic rhetorical exercises.

The implication of this model, then, is that there were a few things which everybody learning to read and write studied, but that beyond these the content of education was very flexible, and people taught and learned different things for a variety of reasons (some, but not all of which we are likely to be able to identify). Everyone began with reading and writing and reading extracts from two favoured types of literature: Homer and gnomic sayings. Beyond these, some authors, like Euripides, commanded more widespread attention than others. Some more advanced subjects, like rhetoric and grammar, had some regular content for the few people who went on to learn them. But by and large the rest of what most people learned was flexible and undefined in content.

It should be noted that not only are the numbers of texts of each 'peripheral' author or exercise small; the number of peripheral texts altogether is relatively low. This provides further confirmation that the proportion of pupils who received more than a basic 'core' education was low at all times, however the figures for all papyrus survivals fluctuate.

The picture is in some respects an unexpected one to emerge from the papyri. We have so many literary texts on papyrus,

of so many authors, and so much evidence of highly cultured individuals in towns like Oxyrhynchus and Hermopolis, let alone Alexandria, that it would be natural to assume that a rather higher level of education and literary culture was widespread.[45] We shall return to this question in Chapter Three, but it is worth saying here that I am pessimistic about levels of literary culture in provincial cities – and indeed, in metropolitan cities – in general. The cultured belonged to a wealthy and highly visible sector of society, whether they were writing verse or erecting buildings, and their activities have left traces out of all proportion to their numbers. We might make a – strictly anecdotal – comparison with contemporary British culture. The presence of the Encyclopaedia Britannica or the complete works of George Eliot in every town library in the country does not prove that a large proportion of the population enjoys a high level of literary culture. It implies rather more about the culture of those who establish or furnish public libraries. Even the common currency of a quotation such as, 'To be or not to be: that is the question', is hardly testimony to high levels of 'high' culture in the twentieth century. And that is in a country with something approaching 100 per cent literacy. The presence of a smallish number of papyrus fragments of a large range of authors and works from Egypt, and even information about a number of libraries, should not encourage us to be too optimistic about either the numbers or the culture of literates.

I began this chapter with the assertion that education, as seen in the papyri, does not represent some kind of defective curriculum or dilution of elite practices, not least because elite practices themselves are described in diverse terms. It remains to consider why practices in Egypt may have fallen into the 'core and periphery' pattern I have outlined. In what follows, I shall try to show that this model is an appropriate and well-structured vehicle for the aims of literate education in ancient society.

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[45] So, for instance, Turner (1975) 1–24.

Joining the club: competition and evaluation

'Core and periphery' education performed two social tasks very efficiently. It constituted a mechanism for the admission of cultural non-Greeks or non-Romans into Greek or Roman cultural groups, while simultaneously controlling the numbers admitted. And it maximized both the acculturation of learners and their differentiation from one another, producing a pool of people who shared a common sense and common criteria of greekness or romanness but who were placed in a hierarchy according to their cultural achievements.

Any society employs a variety of measures of status and identity. These have their own history, identity and institutions and a degree of individual autonomy, but they are regularly found in combination, interacting and affecting one another. The most important of these in most societies are probably birth, wealth, and culture, broadly defined. I do not take the meaning of culture to be entirely dependent on society, but I do take it that culture is constantly used as a measure of social identity. And to whatever extent culture is used to measure social identity, to that extent, varying the people who have access to culture affects those who already identify themselves with it. These might respond in various ways: by incorporating new arrivals or trying to differentiate themselves from them, by adapting gradually or dramatically, successfully or unsuccessfully – but the chances are that a response of some kind occurs.[46]

Greek literate education was a cultural institution associated historically with one small, ethnically Greek, wealthy, typically aristocratic social group. In the Hellenistic and Roman periods it spread increasingly to non-Greeks, to people of limited wealth and undistinguished birth. To explore how this development in the clientele of education may have affected society, let us take as an example the teaching of literature, especially

[46] For some recent studies of the interaction of culture and education, see e.g. Apple ed. (1982a), Bourdieu (1984) and further comments of Hawker and May (1993), Hoggart (1957).

Homer, in Egypt and two characters who are among the few pupils to write their names on their schooltexts.

Homer is the quintessential Greek author, associated with hellenism and pan-hellenism as far back as we can trace. Reading Homer is, among other things, a statement of Greek identity, and more precisely of identity with those in a society who are reading Homer in any particular period. The fact, therefore, that Homer is part of an education to which all sorts of people have access, is likely to have implications for the membership of the Greek group.

Theophilos son of Martyrios wrote a group of literary exercises sometime in the fourth century CE.[47] He wrote on five notched wooden tablets which were hollowed out and filled with wax, now black with age. Only two of his exercises are now legible: a saying of Menander, 'Whenever a man's words are good while his deeds are bad, and his neighbour is not deceived, the evil is doubled for him', which was written by his teacher and copied by him, and a list of four-syllable names beginning with 'E', divided into syllables to make them easier to read. He is not an accomplished writer and the content of the tablets suggests a near-beginner in education. We do not know how far his education progressed or from how wealthy a background he came, though we can speculate from his name and his father's that they were Christians. Let us assume that they were comfortably off – if not wealthy, at least not poor and, recently at any rate, of officially Greek stock: when he read Menandrean maxims or Homer, they would confirm his sense of identity. His tablets were found somewhere in Upper Egypt.

Aurelios Apion son of Imouthes appears to be from a slightly different background. He too signed his name on a group of wax tablets, sometime in the fourth century, which were found in Upper Egypt.[48] On his tablets a teacher (not the same one) wrote out the same maxim as the one above which Aurelios then copied, along with a fragment of a story about how Achilles got his Achilles' heel. His writing is even worse

[47] *Pap. Flor.* XXII 28–9. [48] *Pap. Flor.* XXII 30–1.

than Theophilos'. Aurelios appears to come from a recently romanized, or hellenized, Egyptian background. Imouthes is an Egyptian name and Apion derives from the Egyptian god Apis, but he has also adopted or been given the imperial name Aurelios. We may perhaps think of him as an aspiring first-generation Hellene of modest background. Reading Menander or Homeric stories would not have confirmed Aurelios' sense of identity, but it might have helped to develop it.

Let us assume that Aurelios' family was upwardly mobile but far from 'arrived', and far from culturally Greek. His acquisition of two of the definitive features of greekness through education would have posed a dilemma for those around him who already counted themselves culturally Greek. Either they could change their definition of greekness to keep him out, or they could consider counting him in, which would imply, since culture does not occur in a social vacuum, counting him as in some sense socially Greek. The status of Homer was such that the Greeks would have had little choice. It would have been unthinkable for people like Theophilos and his family to abandon Homer as a symbol of greekness, so they would have been bound to recognize the Greek status of people like Aurelios to some degree.[49]

The fact that Homer was so prominent in education suggests that it was accepted that education would result in the entry of some non-Greeks to some degree of greekness. We cannot show that education alone created 'Greeks' and we should not expect to be able to do so. But it does form an element in the creation of identity which was available for those aspiring to Greekness as much as for those acquiring the trappings of the identity with which they were born.[50]

It does not follow from this that Theophilos and Aurelios

will have been equals for cultural purposes once both had read some Homer. On the contrary: the example of a wordlist such as that preserved in *Papyrus Bouriant* I[51] – a more extensive equivalent of the wordlist copied by Theophilos, and conveniently of the same period – gives us an idea how unequal their experience of the same educational material might have been. Suppose that they both learned to read using such a wordlist. Theophilos would have heard many of the names on this list at home since he was a baby – he might have been told the stories, known of the cults, or been told about the statues in the gymnasium.[52] We should expect him to have learned to read more quickly because the letters on the page would have corresponded to sounds he knew; he should have remembered more of the names because some of them were familiar and he could have been able to brag about knowing the stories to his friends, thereby acquiring status and a taste for power. Aurelios' family probably did not speak Greek at home nor attend the gymnasium, and if they practised Greek religion (assuming that they were not Christians), it must have been a novelty. He probably would not have heard the stories and might not have seen the statues. When he approached the namelist it would have been just a series of words, many barely distinguishable from one another. He might have been left with a permanent confusion between Basilides and Bacchylides, or Oileus and Oineus.[53] He may have read the same literature as Theophilos, but unless he was exceptionally talented, while he may have become something of a cultural Greek, he will never have been as cultured or as socially empowered by it as Theophilos.[54]

In this way the teaching of Homer could both have created

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[49] This scenario shows why the label 'conservative', sometimes applied to Graeco-Roman education, is inappropriate. It might have been conservative had the backgrounds and expectations of pupils been the same in every generation. In diverse contexts with diverse clientele, the reverse is true: education is part of the re-creation and renegotiation of social identity in every generation.

[50] So for instance Hopkins (1965), dealing with late antique Gaul.

[51] Table 16.

[52] On Greek social life and institutions in the Ptolemaic period see e.g. Bowman (1986), Préaux (1978) II pts. 3 & 4, D. Thompson (1988) chs. 1, 7.

[53] Oileus was a Locrian chief, follower of Ajax the less; Oeneus was a mythical king of Calydon, perhaps the father of Deianeira and Meleager; Basilides may mean 'prince' (LSJ).

[54] On the divergent status of the educated rich and poor in Gaul see Haarhof (1920) 131, Kaster (1988) ch. 3, cf. Bourdieu (1984).

a sense of identity among learners and differentiated them. Moreover, this model most effectively produces both identity and difference if the backgrounds of learners are diverse, as they must often have been. Some writers on education show that they are aware of its acculturating potential, and make every effort to distance themselves from the *nouveaux cultivés*. They emphasize that education alone cannot create a cultured man, and that family and background play a part. So, for instance, Ps.-Plutarch claims that education properly begins before the child is born, while Quintilian requires the child to be taught Greek before Latin, to ensure that he is fully bilingual.[55]

Both the acculturating and the differentiating functions of education are maximized by the fact that its most strongly acculturating element – the 'core' of education which is also the core of Greek literate culture with the strongest links to Greek identity – is to the forefront right from the start. Anyone who learnt anything was likely to read some Homer, giving him a sense of belonging to Greek culture to some degree. The differentiation of the more cultured then rested on how much else they knew as well. The more cultured will never have been in a position to reject those with only minimal culture, because education was structured in such a way that they did not progress *beyond* the authors they read first. They may have read more of them and more discriminatingly, but the same authors remained central. But while this is a force for integration, it may also be yet another device for reinforcing hierarchy, since it is typically those who have invested a certain amount in education who are most inclined to respect those with more.

If the 'core' of education both acculturates and differentiates, what about the periphery? What, for example, about all the literary texts of which only one copy survives and whose educational origin is sometimes doubtful, and all the anonymous fragments of verse and prose which might be

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[55] Ps-Plut. *De lib. educ.* 2, Quint. *Inst.* I.I.12.

school exercises or the idle jottings of a village scribe on a hot afternoon?[56]

An explanation presents itself in the need, to which I have referred, to differentiate between learners, and also in the need, which we can assume Greeks felt, to control the numbers entering the Greek cultural group, whether in the village or in high society. The diversity of peripheral authors may have been a means of continuing, for some learners, the process of acculturation and differentiation which the 'core' texts began. To show how, we turn to another central feature of ancient education: competition.

Competition was endemic in ancient society.[57] It is no surprise to find competition in literary accounts of education, especially at the rhetorical stage, despite the fact that most authors have frustratingly little to say about assessment or relationships between pupils and teachers in general. Quintilian mentions that the pupils will find it helpful to imitate his peers and will naturally compete with them, though he dislikes the habit boys sometimes have of cheering each others' speeches extravagantly.[58] Later, pupils compete in public in, for instance, ephebic festivals like the one recorded in Athens in the second century CE, of which the list of winners survives and which included competitions in poetry and prose eulogy.[59]

If competition was endemic, examination was all but non-existent. Neither Quintilian nor any other author hints at

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[56] The variety of literary texts in schoolhands may reflect the taxonomy of Greek literature outside education. It is now widely accepted that there was no fixed canon of Greek (or Latin) authors in the Hellenistic and Roman periods. Though a number of authors present lists of the 'best authors' in various genres, many different names appear on them and no list is presented as 'standard' or universally accepted (cf. Josephus, *Apion* 37–46, Vell. Pat. 1.16.3–18.3, Quint. *Inst.* 1.4.3, 1.8.1ff., 10.1.46ff., Assmann and Assmann (1984), Sandys (1903) 125–50 on the 'canons' of Aristarchus and Aristophanes, R. M. Smith (1995), *Kanon und Zensur* (1987)). On the other hand, there was clearly a good deal of interest in trying to limit and rank the corpus of well-known authors, and there was a measure of agreement about the outstanding examples of each genre (below, p. 99 n.39).

[57] Sweet (1987).

[58] 1.2.29, 2.2.8–12, 2.10.9.

[59] *IG* II 2119, 131–3, 177, 189, cf. 2115, 46–7, 2116, 12. Marrou (1975) 188ff., cf. p. 115, Könen (1977) and Roueché (1993) appendices.

anything resembling a periodic, formal examination of pupils by teachers or anyone else, nor of anything more than everyday assessment, of the kind: 'As soon as a boy has made sufficient progress in his studies to be able to follow what I have called the first stage of instruction in rhetoric, he should be placed under a rhetorician.'[60] Nor do we find in the Hermeneumata or in the papyri more than the most marginal examples of testing. Two catechisms about characters in Homer, and one or two texts containing grammatical rules and gnomic sayings in question-and-answer form, survive on papyrus. One begins:

What is a strange thing and a paradox in life? – Man.
What is the teacher of things? – Experience.
What is sweet in life? – Hope – Belief.[61]

Another begins, part of the way through:

Who was the most disgraceful? – Thersites.
Which of the gods helped the Greeks? – Hera, Athena, Hermes, Poseidon,
   Hephaestus.
Which helped the barbarians? – . . . .
Who was the king of the Trojans? – Priam.[62]

Texts like these are so few in number, however, that we can assume that they were not a significant feature of education as an institution.[63]

If the ancient sources have little to say about competition, and less still about any other institutionalized form of testing, modern education and contemporary scholars do not share their reticence; the sociology of education abounds in studies of different forms of assessment, especially public examination and competition. The issues are complex and wide-ranging, but without plunging too deeply into all their complexities it is

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[60] *Inst.* 2.2.1.
[61] Kenyon (1909) 36–7.
[62] J. Schwartz (1948) 104.
[63] There are five in all, the other three all doubtful. One or two inscriptions, such as *SIG* III 1028 (Cos, 159–133 BCE), have been identified by their editors as referring to the public examination of pupils. This text refers to processions by pupils in honour of an educational endowment (12–19) and 'showings' or 'demonstrations' of pupils (43–5). It is not clear what this means if not the physical showing of them in processions such as were common among ephebes, but there is no evidence to suggest that any kind of public examination is involved.

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possible to identify some features of each system on which there is a measure of agreement.

Examinations, in the first instance, qualify people for something, and in the process disqualify others for the same thing. (The connection between the subject of the examination and the end for which it qualifies one need not, of course, be direct, any more than a first in Greats was ever a direct qualification for running the Civil Service.[64] The results of examinations are typically determined by specialists in private, though their effects are public.[65] Examinations tend to qualify groups of people at once and the qualification typically lasts some time. Examined education systems are often accused of creating the impression that all the learning one needs is that in which one is examined.[66]

Examinations have a competitive element, especially when they are 'fixed' in such a way that, for instance, a constant 10 per cent of candidates get the top grade in a given examination. They are also competitive when that for which the examination is supposed to qualify people is in short supply: when, for example, there are fewer jobs for top-grade candidates than there are top grades awarded.[67] Examinations create competition by their very existence, because in any situation in which some succeed, the rest by definition fail, so there is competition to avoid failure as well as to gain success.[68]

Competitions, in turn, share some characteristics with examinations: most obviously, a competition usually professes to meet some absolute standard, and some reserve the right not to award prizes if there are no entrants of 'sufficient quality'. Nevertheless, competitions are distinguishable by many features from examinations. They typically rank rather than qualify participants, and on the whole they rank them singly rather than in cohorts. Competitions are often decided in public, by a jury and/or an audience specific to the occasion which does not necessarily convene to judge other

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[64] Broadfoot (1996), *passim.*   [65] Hargreaves (1980) 126ff.
[66] Freire (1980).   [67] Holt (1976) 83, Inui (1993), Rowntree (1980).
[68] Meadmore (1993).

competitions. The results of competitions typically last for a shorter time than those of examinations, from which derives the modern gnomic saying in the competitive world of the arts: 'You're only as good as your last performance.' The material on which participants are judged is very often, though not always, left to the participant or his or her teachers to decide: competitions do not generate curricula to the extent that examinations do.[69]

Following this outline, we can conjecture some of the effects which the existence of competitions, but not examinations, in ancient education may have had on its participants. The pupil would have had a degree of freedom in what he learned, but a corresponding degree of anxiety: he could never be sure that what he learned would impress the cultural group to which he aspired.[70] The lower his social status, the less access he would be likely to have to information about what the culture-group valued and the more likely he might be to play it safe:[71] it may be that if we knew who had written all our schooltext papyri, a majority of texts of Euripides, Aeschylus and Sophocles would come from a lower stratum of society and the more adventurous ones – Callimachus, Hipponax or Theognis – from a higher one. It is notable that all the more exotic authors who occur only once or twice in schooltexts and whose provenance is known, come from the Arsinoite nome, where Greek culture is known to have been deeply established and many wealthy Alexandrians held land.

Teachers can be assumed to have felt some of the same effects of competition. The absence of a curriculum would give teachers freedom but also a heavy responsibility: they would have to judge (unless instructed by the child's parents or someone else, and assuming that they had a choice of texts available) what authors and exercises would best serve their pupils. If they judged rightly, we can expect them to have acquired proportionately high status and more pupils. We

shall see in Chapter Seven what large claims Quintilian, as a successful teacher, makes for the social status and political importance of himself and his product: Quintilian is the voice of success in a precarious profession.

A competitive educational system gives society, or the already-acculturated group, a high degree of control over criteria for entry into that group.[72] The social benefits of this are obvious. The criteria of greekness cannot for practical purposes have been the same among the elite of Rome and in Herakleopolis Magna, but the competitive system should have allowed each dominant group to define it at their own level with, locally, comparable authority. In addition, we can assume that competition provided a mechanism for limiting the number of people who were deemed, by having excelled in competition, to qualify for entry to the culture-group at any one time.[73] The advantage of this suggestion is that the culture-group need never have been threatened by massed ranks of culturally qualified 'Greeks' or 'Romans' advancing on the gymnasium or the forum. If education had produced such qualified cohorts, as it did for a generation in Britain in the mid-twentieth century, Graeco-Roman education might have been a force for social change.[74] There is no evidence, however, that any ruling group in antiquity considered the possibility of challenging the social order through education.

Competitive systems have still further ramifications, some of which have been studied by sociologists and economists, particularly in the context of big business and industry. Their findings have relevance for educationalists. One such analysis has been carried out on a range of businesses, and its argument is summarized as follows: 'First, competition is a matter of relations, not player attributes. Second, competition is a relation emergent, not observed. Third, competition is a

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[69] Meadmore (1993), Moon (1990) 41.
[70] Burt (1992) 33.
[71] For some modern comparisons see e.g. Anyon (1981), DiMaggio (1982), P. Willis (1977) and comments of Gordon (1984).

[72] Cf. discussion of Little (1990), DiMaggio and Mohr (1985) (on education and improvements in status, especially by marriage).
[73] For a modern comparison of the exclusivity of elite social circles see Alba and Moore (1978).
[74] Jonsson and Mills (1993) (on education as a force for change, but putting the other view see e.g. Carrier (1984), P. Willis (1983)).

process, not just a result. Fourth, ... competition is a matter of freedom, not just power.'[75]

The first of these axioms is self-explanatory. The second emphasises that competition is an end in itself, not just a process – that it is constitutive of some societies, including many businesses. The third makes the point that the individuality of each player in a competitive system affects that system – that competition does not occur solely over the things which are most obviously to be competed over. The fourth reinforces this point with the observation, 'A player brings at least three kinds of capital to the competitive arena ... financial capital ... human capital ... and social capital.'[76] In other words, his or her qualifications, personality and connections.

One of the more surprising conclusions of this study is that freely competitive organizations, which look in some ways more democratic than rigidly hierarchical ones, are in fact more stable and slower to change at the top. When an employee has to pass well-defined tests to achieve promotion, the turnover of personnel throughout an organization is high. When promotion is a matter of competition and what it takes to win is never fully articulated, those who reach the top do so more slowly, by more various routes and in smaller numbers.[77]

Graeco-Roman education shares many of the features of a big business, on this analysis. As I shall argue in the next four chapters, it was steeply hierarchical, each stage admitting the pupil to a level from which he could look down on his inferiors and up to his remaining superiors. In its cultural aspect, the relative culture of its products was more important than their absolute level of attainment: a big fish in Panopolis need not, and generally did not, have the education of a big fish in Alexandria.[78] Like society as a whole, it was endemically

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[75] Burt (1992) 3–4, Burt (1982).
[76] Ibid. p. 8.
[77] Ibid. p. 3, cf. H. C. White (1970), White, Boorman and Breiger (1976), Granovetter (1974) pt. I.
[78] MacCoull (1987) gives a good example of the education of a large fish in a small pond in Dioscorus of Aphrodito, whose verse and flowery legal prose proclaim him a *litteratus* in Upper Egypt but have earned scorn from modern literary critics.

competitive, and it may be helpful to think of competition as an end in itself, a mode of social relations, as well as a means to other ends. The analysis of business also makes clear how many other factors, such as personality and connections, are involved in competition, as they are in culture. Lastly, we should take note of the principle that competitive societies tend to be more conservative than societies in which qualifications are important. Ruling elites throughout the Hellenistic and Roman worlds had well-documented conservative instincts. Though there was in practice a considerable degree of movement, mainly wealth-related, in Graeco-Roman society at all periods, political theorists and many other writers, both Greek and Roman, attest the reluctance of elites to recognize, let alone applaud it, and give numerous examples of *arrivistes* hastening to bury their past. The competitive element in education may have supported that attitude and helped to preserve the *status quo*, as well as sweetening the pill when social flexibility was inevitable, by disguising new members of the elite as members of the same ancient elite culture.

To return to the 'periphery' of education: the number and variety of peripheral literary texts, as I demonstrated earlier in the chapter, and the variety of grammatical and rhetorical texts surviving, are consistent with this interpretation of the structure and aims of education. The competitive aspect of education would make good use of the wide pool of Greek and Latin authors. To return for a moment to the unequally acculturated Theophilos and Aurelios: in principle, and in the prescriptions of literary theorists, there was no limit to what they could and should have read in the course of their education. In practice, both were limited in time, money and in access to teachers, Aurelios, no doubt, more so than Theophilos. In a competitive culture both of them will have needed to make the most of their accomplishments: to stand out, if possible, from the crowd in some way which they calculated would impress an audience. Their teachers, therefore, had various possible courses of action. One might have decided that Attic literature is always acceptable and read Sophocles and Demosthenes with his pupils. Another might have thought

that the difficult or obscure always gain credit, and opted for Aeschylus or Theognis. Yet another might have believed in learned modernity and taught Callimachus. The contents of the surviving anthologies in schoolhands (Table 17), which combine passages from Homer, Hesiod and Euripides with a wide range of other authors, most of which appear in no other schooltext, support the idea that the teachers who used them were trying to combine the works and authors known to be important with something out of the ordinary which might attract notice. One includes Homer, Hesiod, Euripides, Theognis and Ps-Epicharmus; another, Homer, Antimachus and Hipponax; another, Euripides and Callimachus.[79]

Given the large pool of potentially high-status authors available to education, we can expect there to have been constant negotiation between the dominant socio-cultural group – their expectations, what they themselves knew, and what they were willing to be impressed by – and the postulants who needed to stand out from their peers to be admitted into it. Such a situation would generate no regular pattern of reading in 'peripheral' texts over a long period. We lack evidence to reconstruct this conjectured social negotiation, but the written remains support it as a model in a way in which they cannot be made to support a curricular model of education. No more plausible explanation exists for the combination of relying on tried and trusted authors and experimenting unpredictably with a wider group of known or fashionable ones, which is visible in surviving schooltexts.[80]

If a 'core and periphery' model fits the distribution of the

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[79] Wilamowitz-Moellendorf (1918) (2), *MPER NS* v 74–7. It has been suggested that teachers, like scholars, passed teaching practices from one to another, which would imply rather less of a 'free-for-all' in parts of the system than I have described, and perhaps even distinct schools of thought about which authors should be read. Plausible as this idea is in principle, the evidence from papyri does not allow us to reconstruct any such connections between teachers in practice. It may, however, be worth speculating, though it is imposssible to prove, whether the divergent lists of 'canonical' authors which appear in a number of literary authorities may not have owed something to teaching practices as well as to literary theory.

[80] NB Burt's analysis does not require institutions to aim for these results: they happen spontaneously as a result of competition. By analogy we need posit no central authority directing education to this effect.

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schooltexts, it also fits our information about teaching and learning practices. Not only the content of education but also its physical surroundings are most clearly defined at the 'core', in the earliest stages of education. Most of our descriptions of pupils in schools or under a teacher come from the stage of learning to read and write and studying grammar. Later, though learners continue to have teachers and to study in groups, they have much more contact with the outside world. Seneca the Elder mentions that professional orators sometimes give demonstrations in schools.[81] Learners went to public lectures, sat at the feet of philosophers or shadowed an established orator to learn his job.[82] Education at this stage is so much part of the rest of life that it is impossible to pinpoint a moment when pupils leave the educational context behind: they may continue doing much the same things as they did in the later stages of education, as philosophers, orators or poets, amateur or professional, for the rest of their lives.[83] Even the event which perhaps comes closest to a formal 'graduation', the ephebic festival, finds literate education set alongside other activities, athletics and civic religion.[84] In its physical cir-

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[81] *Controv.* 2 pr. 15–16, Fairweather (1981) 5–6; on Sophists mixing teaching with public declamation: e.g. Philostratus *Soph.* 2. 571, 604.

[82] Cic. *Cael.* 9, Philostr. *V S* 2.564, Pliny, *Ep.* 4.13.10, Plut. *De aud.* 1ff., Quint. *Inst.* 5.7.7, Tac. *Dial.* 2.1, 31.1–2.

[83] Both aristocratic amateurs and professionals competed in both literary and athletic festivals, making such festivals an indication of the different ways that a comparable education marks people of different social group. See Mitchell (1990), Pleket (1973), Spawforth (1989). Also Roueché (1993) esp. Appendix 3, 88.1, cf. August. *Conf.* 4.2 (3). No-one, of course, was being taught their letters all the time and all education, in that sense, was interwoven with the rest of life – but as pupils grew older the boundaries became less and less clear.

[84] Even the archaeological evidence can be fitted – speculatively – into this model. It is a notable feature of ancient education that the only buildings for which we have any evidence are the so-called 'lecture halls' from advanced stages of education (e.g. Bowman (1990) 223). This is puzzling, if we expect the institutional nature of education to be recognized by some kind of bounded space. It is possible, however, that the opposite was true. Buildings are typically built for acknowledged social purposes. Perhaps, therefore, 'lecture halls' mark the point at which the learner becomes integrated into society, and at the earlier stages his separation from society – the fact that he was not yet socialized – was marked by his *not* having formally organized space, and going to school at a crossroads, in the marketplace or in a spare room in a house. For a detailed case study of the way in which the organization of school buildings and classroom space in nineteenth-century schools socially defined and controlled the pupils, see Marcus (1996).

cumstances and relations between pupils, teachers and others, as in the texts which were read and copied, education seems to have been most clearly and narrowly defined in its earliest stages.

It is also worth noting that the status and other activities of teachers reflect the degree to which their pupils are involved, in the course of their education, with the outside world. Teachers of rhetoric and philosophy have in general a much higher public profile (and are paid more[85]) than teachers of letters and grammar. Those teachers of letters and grammar whose writings have survived, such as Servius and Donatus, seem to have written educational works. Teachers of rhetoric and philosophy pursued a much wider range of activities, including legal careers, politics and all kinds of writing.[86]

In this chapter I have tried to show what the distribution of schooltext papyri can tell us about the spread of education at different levels and – roughly – about the proportion of those learning to read and write who went on to higher things. If we look closely at what was read and written in what hands, the distribution of authors and exercises does not support a curricular model of education but does fit a 'core and periphery' model, according to which everyone began by learning a small number of culturally important texts, but outside those, and increasingly as education progressed, what they learned was a free-for-all constrained mainly, it is reasonable to assume, by their need to present themselves as culturally equipped members of whatever social group they were born to or aspired to.

I have suggested that this pattern of reading makes sense in an education system, and a society, where competition was endemic and where education was one means by which people competed for entry into dominant Greek or Roman cultural

groups. Much of this theory cannot be explicitly supported by ancient writers on education, whose interests are not sociological, but in Chapter Seven we shall see that Quintilian, in particular, effectively describes how education fits a man for a particular role in society, by means of a complex and coherent series of images of the learning process.

In the next four chapters, however, I shall concentrate less on models and more on the detailed contents of schooltexts of three kinds: Greek and Latin authors, grammar and rhetorical exercises. My concern will be with what, exactly, was taught and why. The question I shall seek to answer is, how each stage of *enkyklios paideia* contributed to the formation of individuals so that they were equipped to act in a variety of social and cultural contexts.

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[85] See e.g. Diocletian's price edict 7.66–71, which sets the following prices for teachers in ascending order of status: teacher of elementary letters, 50 denarii per pupil per month; teacher of arithmetic, 75; shorthand writer, 75; Greek or Latin grammarian or teacher of geometry, 200; orator or sophist, 250 (Lauffer (1971)).

[86] So, among many others, Quintilian (Kennedy (1969)), Plutarch (Aalders (1981)), Philo (Ronald Williamson (1989), Goodenough (1938)), Seneca (Griffin (1976) 29ff.), Hypatia of Alexandria (Dzielska (1995) 27ff.), Fronto (Champlin (1980)), cf. Philostr. *Soph.* 2.600–1.