

REVIEW ARTICLE

GREEK KNOWLEDGE, ROMAN POWER*

I

Intellectual life, on one view, is a social luxury: a fine flower grown on the labor and surplus of a vigorous economy; the grace and adornment of a civilized society, but superfluous to the fundamental needs of survival. On another view, the exercise of intellect and power are more closely linked. Every society, however primitive, has its wise men; knowledge is power—or those who control access to the knowledge on which a system depends control the distribution of power in that system.

In the Greek world the links between intellectual life and power were often made explicit. In classical Greece, the specialists in σοφία claimed that they held the key to political power, through the power of persuasion and the power to discern truth from falsehood. A discourse that first evolved in the context of a democratic society accommodated itself to the rise of monarchy. The Hellenistic world was also a world defined by its intellectual culture. The centers of power moved out from Hellas to barbarian territory—Macedon, Anatolia, the Levant, and Egypt—but the language of power was Greek, and the dominant elite was defined by its hellenizing culture, its gymnasia, and the intellectual life that went with them. The great centers of learning were the great centers of power: Alexandria, Antioch, Pergamum, and, by the second century, Rhodes. Royal patronage may be invoked in explanation; but patronage is a reciprocal exchange of services, and the kings needed their intellectuals. Science flourished under kings who competed to develop sophisticated ballistics and warships, geography and ethnography under military commanders of wide territorial ambitions, scholarship and textual criticism under *condottieri* who needed to establish themselves as the champions of civilization.

The arrival of Rome into this Hellenistic world had a cataclysmic effect, not only on the distribution of knowledge and power in the eastern Mediterranean, but on the internal structures of the Romans themselves. The centers of Greek learning were inexorably extinguished: Pergamum, home of parchment, left to the Romans in a will; the learned courts of Bithynia and Pontus, destroyed in the Mithridatic wars; Antioch, fading with the Seleucids; and finally Alexandria, its scholars scattered by a philistine Ptolemy, its library burned by Caesar, its power broken by Octavian.

* *Intellectual Life in the Late Roman Republic*. By ELIZABETH RAWSON. Baltimore: The Johns Hopkins University Press, 1985. Pp. x + 355. \$29.50.

That Rome should emerge as the new intellectual center of the Mediterranean seems in retrospect inevitable; but the intellectualization of Rome runs parallel, by more than coincidence, with a transformation of the structures of its power and society. Rome had always had wise men: pontiffs learned in the ways of the gods to man; jurists learned in the proper ways of man to man; and in general a noble ruling class steeped in the lore of its own ancestors. And Romans were always ready learners, when the lessons brought advantage. But what would be the impact on their society of Greek knowledge and learning, an alien discourse from an alien world? Or the impact of their power upon the structures of knowledge and learning?

Classicists, at least in England, have long tried to persuade themselves that knowledge and power are separate and separable worlds; that the study of history is distinct from the study of culture; that the intellectual world is tangential to the world of war and politics. The Romans were not so naive. With conquest they embraced Greek learning, seeing in it both an opportunity and a threat. The hysteria with which they periodically expelled intellectuals, rhetoricians, philosophers, and astrologers from their city, threatening to reduce it to an intellectual Sparta, and with which they blamed Greek influence for the apparent disintegration of the fabric of their society, is closely linked to the competitive anxiety with which as individuals they pillaged the intellectual heritage of the East for personal advancement. Both tendencies, however contradictory, betray Roman awareness of the power of knowledge. To understand the processes of hellenization at Rome is to go to the heart of Roman social change; and that so little progress has been made to date in this direction is a telling commentary on the narrowness of our conception of Roman history.

II

But the tide is turning. A handful of recent books reveal a dawning awareness of the centrality of this subject and new bridges under construction between the "historical" and the "intellectual" or "cultural." A clear signal comes from M. Beard and M. Crawford in their *Rome in the Late Republic* (Ithaca, 1985), where a chapter on cultural change provocatively precedes those on political and social change—though the chapter also betrays how little of the essential groundwork has yet been done. Two of the best recent attempts to illuminate the social and intellectual world of first-century-B.C. Rome have sprung from discussion of Latin poets, in Jasper Griffin's work on the Augustan poets and Peter Wiseman's work on Catullus.¹ Among these, Elizabeth Rawson's *Intellectual Life in the Late Roman Republic* constitutes a landmark: a monument of formidable learning, an unprecedented assault on a subject as difficult as it is important.

What is the subject, and what are the solid gains of this book? The author confesses to finding "intellectual life" a subject "not altogether easy to define" (p. vii) and shies away from defining it. This has important consequences to which I shall return. One might say, however, that the book is about παιδεία in Rome.

1. J. Griffin, *Latin Poetry and Roman Life* (Chapel Hill, 1986); T. P. Wiseman, *Catullus and His World: A Reappraisal* (Cambridge, 1985).

The category is one which the Greeks had no trouble in defining, but which for us and the Romans is rather more elusive (that contrast is telling). Παιδεία is a coherent complex: a process of learning a package of interconnected intellectual skills (the ἐγκύκλιος παιδεία) without which a man cannot become a full member of civilized society, and at the same time a process of production of written works on the various branches by men of learning and their consumption by the educated. It thus embraces the various activities of a modern university but goes beyond them; for the ancient world, in lacking universities, lacked an institutional structure to differentiate and define off intellectual activity from the other activities of a civilized society.

If the subject of the book is defined by the Greeks rather than the Romans, the questions it asks must be questions about cultural assimilation: which aspects of παιδεία did the Romans make their own (which, too, did they not), and in what social context did they do so? These questions the book sets about answering in minute and constantly illuminating detail. The first part examines the social context. The scene is set by the meeting of Romans with Greeks (chap. 1); here the slowness of the assimilation is underlined, and the Mithridatic Wars emerge as a turning point. Rome is next, interestingly, set in an Italian context (chap. 2); then we look at the context of intellectual activity at Rome: what emerges is a sharp contrast between the public institutions of the Hellenistic world—gymnasia, museia, libraries supported by state or royal patronage—and the competitive private patronage of the powerful noble houses of Rome, which left no room for public patronage before the dictatorship of Caesar and the gradual establishment of autocracy. (This vital theme is introduced in chap. 3 but must be considered in conjunction with chap. 7 and the conclusion.) Against this background, the standing in society of the intellectuals themselves is examined (chaps. 5 and 6). Here the vital point to emerge is the differentiation of different disciplines. Far from there being a single place for “the intellectual” in Roman society, there is an extraordinary spectrum of positions, with intellectual activity spreading from the highest to lowest in the social hierarchy, and the various branches of learning themselves tending to occupy definite places in that hierarchy: law and historiography as the almost exclusive province of the senatorial elite; medicine kept almost exclusively for Greek outsiders; and *grammatica* offering a unique blend of Greek and Roman, of low-class ex-slave teachers and high-class senatorial and equestrian amateurs (see esp. pp. 98–99).

The second part looks at the disciplines themselves. Just what was being written and read in each discipline in this period? The organization of the book follows that of the disciplines themselves. Pride of place (chaps. 8–10) goes to the triad that dominated “the intellectual horizon of the late Republic . . . , *grammatica*, rhetoric and philosophy” (p. 320), though for reasons never fully revealed, parts of *grammatica* and philosophy are reserved for later treatment (chaps. 18 and 19). Then follow the other disciplines that constituted the Hellenistic ἐγκύκλιος παιδεία (chap. 11 on the mathematical arts) and the somewhat broader *Disciplinae* of Varro (chap. 12 covers medicine, chap. 13 architecture). We then move away from Hellenistic influence and look at intellectual activities of central importance in the Roman tradition, the study of law (chap. 14), history (chap. 15), and Roman antiquities (chap. 16), though in each case there is profound Greek influence to trace. Geography (chap. 17) proves a surprise:

this science, which might have appealed so to the historically and militarily minded Romans, is left almost wholly in Greek hands. Theology (chap. 20) might seem a fitting conclusion, in that it appears to point to late antiquity and the Middle Ages—though that, in the hands of conventional Roman piety, is precisely what it failed to do.

From this second part, among innumerable points of detail, two themes of wide importance emerge. One is a general theme concerning the assimilation of *παιδεία* and the ranking of its component disciplines within a Roman intellectual hierarchy. Just as “the intellectual” in republican society emerges as not one social type but many, so we find that the Roman absorption of disciplines is not a homogeneous process, but one marked by sharp differentiations. We have now documented with far more precision than was previously available the striking gaps in the Roman intellectual armory, the areas they either left to Greeks (albeit Greeks working at Rome under Roman patronage) or even ignored completely. The mathematical arts of geometry, arithmetic, astronomy, and music were essential parts of Greek *παιδεία*: the Romans neither understood nor respected them (p. 156). It may be true that geometry was in decline even in the East after Eratosthenes (p. 63); but that will not explain the neglect of the subject in the educational curriculum of the Romans, nor the blundering ineptitude of intelligent Romans when they turned to necessary mathematical calculations. How could an architect like Vitruvius survive in ignorance of the value of π (p. 160)? The Roman suspicion of music is well known; but again, one might expect the architect who concerned himself with the acoustics of the theater to have a more sophisticated grasp of Aristoxenus (pp. 168–69). Only astronomy forms a partial exception, but for the telling reason that Aratus had reduced complicated mathematical calculations to easily digestible verse (p. 167).

This mathematical innocence, startling in a nation of land-distributors, financiers, engineers, and bridge-builders, extends into other fields. Roman neglect of geography, except insofar as it formed an inescapable part of historiography, may seem less strange when we consider that mapmaking had not yet reached a level of sophistication capable of aiding the general in the field (p. 259); but it is revealing that it is the theoretical side which leaves them cold, and that even Cicero “rapidly got out of his depth on the mathematical side of geography” (p. 257). The same goes for other subjects that we see as sciences. R. cautions us severely against facile generalizations about the Romans and physics: “there was enough interest in *physica*, natural science . . . , to make the common generalisation about the Romans’ philosophic interests being confined to ethics not wholly fair” (p. 282). Further than that “not wholly fair” she could scarcely have gone: to set beside Lucretius we find little more than a book of physics by the minor Epicurean Catus (p. 284) and a flickering interest in meteorology on the part of Varro (p. 288). Neither as schoolchildren nor as authors were the Romans significant physicists. Nor, of course, were they physicians. Medicine was an area left scrupulously to the Greeks. Against that background, it seems a piquant discovery to find that the most popular lecturer in Rome at the start of the first century was the doctor Asclepiades (p. 171).

R.’s careful study of the late Republic thus confirms that from the start a pattern was set that was broadly to characterize Roman intellectual civilization. Romans, writing in the Latin language, made themselves at home in an Arts

Faculty whose departments had been set up by the Greeks: the study of language and literature (both native and foreign); history and, notably, local history; philosophy (within limits); and above all, rhetoric. The Faculty of Law was very much their own. As for the Faculty of Science and Medicine, they had one, of course, but they manned it with foreign professors, whose research records never quite equaled those of their Hellenistic predecessors. The Romans, so it seems, would have agreed with Flaubert in preferring a book of poetry to a railway. It helps to explain why their civilization came nowhere near developing the latter.

The second major theme to which attention should be drawn is more specific. It is a major reassessment of the precise role of philosophy at Rome. The view of the Romans as exclusively concerned with the ethical side of philosophy is inadequate, not primarily because Roman physics has been underestimated, but because the vital role of dialectic has been overlooked (chap. 9). Dialectic was "the art of dividing a whole subject into parts, explaining implications by defining, first observing and then distinguishing ambiguous matters, finally commanding a standard for judging true and false what follows or does not follow from a proposition" (p. 207). The definition is Cicero's, and he is commenting on the way this art contributed to the achievement of his friend the lawyer Servius Sulpicius. R. uses legal studies and agricultural writings (pp. 134–39) to demonstrate the advances in logical organization of thought attributable to dialectic (the argument is less scattered and therefore easier to follow in her article, "The Introduction of Logical Organization into Roman Prose Literature," *PBSR* 46 [1978]: 12–34). The consequences she draws are large: Greek logic transformed Roman thought in something of the manner Aristotelian logic transformed the Middle Ages, "an instrument," as Sir Richard Southern put it, "of order in a chaotic world" (p. 142). Abstruse though logic-chopping may seem, it served the practical ends of the Romans: "they wanted to communicate and persuade, to learn law more easily, to discover the future or restore the past. But to do all this they needed to develop their language and their powers of thought" (p. 321). To these important claims I shall return.

But the book is not a work dominated by or even shaped by themes, and those I have pointed to need to be teased out of the chapters in which they rather coyly shelter. The book is held together above all by a dominant figure, Varro, "il terzo gran lume Romano" (p. vii). Modestly (as ever) the author disclaims completeness in the treatment of Varro, which would demand "a lifetime's work." But this is the most extensive treatment yet available, and he towers in these pages above all other figures save Cicero. In the index his entries occupy a full column, making pygmies of others like Asclepiades of Bithynia, Philodemus, Posidonius, Tyrannio the Elder, Atticus, Nepos, Nigidius Figulus, Vitruvius, and even Julius Caesar, though on each of these the book contains a wealth of interesting discussion. None (save again Cicero, for whom the index registers merely "*passim*") could touch Varro in the sheer range of his intellectual interests, though several of them (including Vitruvius) cover a wide field. It is Varro's *Disciplinae* that suggests the structure of chapters 8–13 (cf. p. 117). In his *De lingua Latina* he placed the study of the language on a new, systematic basis (pp. 125–31). He fashioned the language of Latin dialectic (p. 132), and his works, even his agricultural works, show the obsessional effect of dialectic on his

organization of material (pp. 137–38). The mathematical arts got their proper coverage in the *Disciplinae* (pp. 158–59), but he went further in a variety of other works, notably the nine books *De principiis numerorum* (pp. 160–64). Medicine found a place in his *Disciplinae*, though no part of the ἐγκύκλιος παιδεία (p. 179), and again medical knowledge emerges in his other works (pp. 178–79). In architecture he takes second place to Vitruvius, though this too he saw as a discipline (pp. 185–86); in the history of art he broke new ground (pp. 197–99). Fifteen books *De iure civili* establish his claims as a jurist (p. 212), or rather, perhaps, as a legal antiquarian. He discussed the principles of historiography, without putting them into practice (p. 215); his forte was in the more learned genre of biography (pp. 230–31) and above all in antiquarianism, in which no other, Greek or Roman, could touch him (pp. 233–49). His geography earned the praise of St. Jerome (p. 265). He was an important literary historian, focusing on the theater, though not much of a critic (pp. 273–78). He wrote *De philosophia* separately from the *Disciplinae* (p. 282): this apparently explains the odd feature of organization that divorces the rest of philosophy from dialectic in R.'s book. The final chapter, on theology, again shows Varro at his most magnificent, and it is of course his *Antiquitates rerum divinarum* that throws the bridge to late antiquity and Augustine (pp. 312–16), a fitting finale.

Varro's range is dazzling, and R.'s admiration for him wholly justified. The material is here, and I wish the author could be persuaded to take advantage of it, for a popular paperback edition entitled *Varro and Intellectual Life at Rome*. For the present work is, frankly, tough going, even for specialists in the subject, and it deserves to be made more accessible. But there is another consequence, important to note, of bringing Varro front-stage and pushing Cicero to the wings, worthwhile though this was (cf. p. vii). It means pushing rhetoric, insofar as is humanly possible, into the wings. This is the only discipline in which Varro's contribution can be reduced to a single sentence, and that eloquent: Quintilian never refers to the rhetorical works of Varro (p. 152). Varro had nothing to say, and he left the subject to Cicero. His preference for biography over history is part of the same thing: history could be seen as a branch of rhetoric (p. 215). That rhetoric was overwhelmingly the most important discipline to the Romans is so well known that it does not need this book to reiterate the point, though it still needs explaining. But the emphasis on dialectic, which is such a new and interesting feature of the book, is in fact made possible by the "privileging" of Varro. His peculiar interest in this branch of philosophy was observable: the degree to which his voluminous works were "logically" organized was perhaps unique. To use his agricultural writings, in contrast to Cato's, to argue a *general* Roman advance in logicity may be misleading, especially when Columella fails to follow suit (p. 141). When one brings Cicero and the rhetoricians back on stage, there must be a lurking suspicion that it was they, who well appreciated the organizational power of dialectic (cf. p. 148), who in fact mediated to the Romans the lessons of clear-thinking philosophers. Varro is too much of a loner to be taken for a tendency.

Before turning to what I conceive as the limitations of this book, I wish to reiterate its importance. "We read Cicero and Lucretius; we also read Catullus, Caesar (though not the fragments of his *De Analogia*) and Sallust; but we tend

to know far too little of the intellectual, as opposed to the political, background to these writers" (p. vii). To read the latest compilation describing itself as a history of Latin literature is to appreciate the truth of these words. R. presents us, massively, with the sort of material without which literary criticism is superficial and social and political history impoverished. The obscurity and at times aridity of the material offer no excuse, either to critic or to historian, for continuing to ignore it.

III

If R. were pushed to swear allegiance to one of the philosophical schools known to Varro's contemporaries, it would surely be to the Skepticism of Carneades. She is too distrustful of ideas for a Platonist, too tolerant for a Stoic, too little impassioned for an Epicurean, too averse to vulgarity for a Cynic, though her penchant for analysis might almost incline her to the Peripatetics. But to account for the intellectual background of her book, we need to turn to the schools of the present age. Two great intellectual figures may be supposed (they are certainly not declared) to stand behind these pages. It was Eduard Fraenkel who taught Oxford most of what it knows about Latin scholarship (no one writing from his college could forget this), transmitting lessons learned from his master Friedrich Leo on Plautine scholarship and literary biography. He would have welcomed the noble learning of this work, though he himself would have worn it more lightly.

My second figure (also a refugee) is Moses Finley. Nobody could pass through Cambridge and escape his influence, though it is not always observed that this was as fruitful in provoking reaction as imitation. Whether the element of social history in the first part of this book owes something positively to Finley I am uncertain; but the negative influence—and here Carneadean Skepticism too plays its part—lies in acute discomfort about the use of generalization. "The historian must make generalisations; it is the condition of his understanding his material"—so far the concession to Finley—"But a historical generalisation means nothing, is totally empty, without the concrete details from which it emerges and to which it lends significance" (p. ix). It is this negative note that is to dominate the work. The generalizations we meet darken, not illuminate, bloated monstrosities that need to be punctured with pinpricks of empirical evidence. Is it true that Greek men of learning tailored their studies to a Roman market? The evidence is used to subvert overbold assertions on the matter. The author's own conclusion? "It is simply that we must not make rash generalisations" (p. 64).

The great strength of this position is that it replaces crudity with fine nuance. It also opens the way to the explosion of myths. Among those now laid to rest: the Romans only concerned themselves with the ethical element of philosophy, and they were strictly practical and anti-intellectual (p. 321). But above all, R. teaches us that hellenization was not an invasion that advanced equally at all times on all fronts. Roman reactions to different parts of the Greek intellectual package were sharply differentiated: "Literary scholars today, generalising about the Hellenization of Rome, often base themselves almost exclusively on this

subject [i.e., *grammatica*]; but we have seen how different the pattern was in different fields" (pp. 267–68).

But once the winds of skeptical empiricism have blown away the cobwebs of tired generalization spun by the lazy spider of half-knowledge, what do we have to hang on to? What is the Ariadne's thread that will guide us through the labyrinth of evidence and not break under the strain of testing? Here the skeptic lets us down: we are offered a map of the labyrinth but find to our dismay that no exit is marked.

So cautious and hesitant is our guide that the leads we *are* offered are hedged about with precautions. Thus on the Bithynian doctor Asclepiades: "it is almost possible to argue that he was the most original and influential figure working in Rome during the late Republic" (p. 171). Almost, but not quite? The rediscovery of Asclepiades is indeed as fascinating as it is unexpected (p. viii), but we are offered no reasons for rating him above the more familiar Posidonius or the elder Tyrannio (who had the advantage of working in fields that the Romans did not hold so deeply suspect), nor are we told how we would gain in understanding if the argument were right.

To generalize (let alone rashly) is not enough. What is missing is a hypothesis: an argument to hold the material together, an idea upon which the evidence can be brought to bear, to test, confirm, reject, modify. We are all groping in the dark, and no scholar is likely to find the perfect, unassailable idea to guide us to the light. It makes it the more necessary to spell out what we are looking for, and what clues we think we have found. We are trying to understand the complex Roman response to a sophisticated system of knowledge developed by another culture. One idea offered to us, with tantalizing brevity, is that of "order out of chaos": "There must have been many Romans of the later second century B.C. for whom the rules of rhetoric, far from appearing a straitjacket . . . , helped to produce order out of chaos" (p. 143)—an echo of Southern's observation on Aristotle and the Middle Ages that R. applies to dialectic. These ideas are taken up in some fine paragraphs of conclusion (pp. 320–21): *grammatica*, rhetoric, and dialectic were to the practical Romans tools that promoted imperial rule. Provocative thoughts; but it is necessary to unravel this skein further before we can judge how far it will help us through the labyrinth.

IV

If it is true that knowledge is power, it has also the potential of subversion: new knowledge is a threat to the established order of power, as it is to the established order of knowledge. But if that is so, wherein were the Romans threatened? If the disciplines the Romans shunned were those that threatened them, where was the danger in subjects as mild as geography, music, and mathematics?

"Strabo, looking back, said that the Romans had been able to rule the world because they had devoted themselves to *paideia*" (p. 322). But then, should it not have been the Greeks who ruled the world? Let us pursue the idea of "order out of chaos." In learning to order their thought, the Romans learned to order the world. But the problem with order and chaos is that both are subjective. In chaos, too, there is pattern; it becomes order when we learn to recognize and so

to control its patterns. Could the second-century Roman really regard himself as learning to impose order on chaos? Order was precisely what the *maiores* had passed on to him; and chaos was just what troubled the *Graeculi* and caused the collapse of Greek states that necessitated the imposition of Roman order. Greek thought and Greek ways threatened to sap and subvert ancestral Roman order: was not that the lesson the late Republic proved?

Roman order and Greek order start in conflict with each other, alien and irreconcilable systems. The Roman achievement is to master and tame the alien order without compromising the existing order; to defuse the threat and turn it into a tool. It follows that παιδεία could not be appropriated lock, stock, and barrel. In the struggle to gain mastery it will matter precisely how the incoming system of knowledge meshes with the existing system, at what points there is the closest contact.

At first, the Romans doubted that mastery was possible. The intellectual poverty of the early first century now emerges clearly: the Roman intellectual flowering was long delayed in its coming, not before the 50s and 40s (pp. 3–7)—and this though the second century had promised so much. It is as if the Romans, having seen the exciting possibilities of παιδεία, shrank back in fear: Cato's warning had gone home. Strikingly, it was not until Cicero felt the *res publica*, the old Roman order, crumbling that παιδεία could properly take root. It was not, however, only the *res publica* that crumbled: παιδεία, too, disintegrated, broken up by the Romans into its component parts.

As knowledge gives power, so the purveyors of knowledge act as the gatekeepers of power. They control who is and is not to be admitted by providing them with the key of learning. The traditional gatekeepers at Rome were the nobles themselves: the law, the worship of the gods, the *mos maiorum*, the skills of military command, the power of persuasion in public speech, all were transmitted by direct apprenticeship, and noble patronage could still control access, even for a Cicero, to power. Noble patronage maintained its stranglehold to the end of the Republic: private patronage was the only context in which παιδεία existed at Rome because it was the context within which the Romans needed to control it. For the rhetorician or philosopher was a new kind of gatekeeper. Even the Greek gatekeeper was a threat, though through the power of patronage the nobility could still control access. Latin gatekeepers opened new, unsupervised gates (freedmen could be distressingly disloyal to their patrons), and it was not until the State, under new control, actually wanted to undermine the nobility's monopoly of patronage that the new gatekeepers met official approval and encouragement, and we can start to talk of public patronage of learning.

Greek παιδεία, as far as we can see, was socially undifferentiated, belonging to, even defining, the world of the leisured. It was part of the Roman response to a threat to introduce sharp differentiation. This is seen not only in the differentiation of disciplines but also in a new divorce between teaching and performing. The freedman rhetorician belongs to a different social world from the noble orator. And the Romans make a specialty of the gentleman amateur: the great Roman scholar like Varro is not the sort to take fees. Here lies a crucial difference between Greek παιδεία and Roman "intellectual life": a catalog of intellectual writers and their writings does not reflect the nature of contemporary

education at Rome as it would in Hellenistic Greece or even the modern western world.

Why *did* the Romans privilege some disciplines against others? This differentiation reflects the proximity of the new disciplines to the existing distribution of power and knowledge. Knowledge of law, speech, religious and civil and military customs already defined the aristocracy: hellenized jurisprudence, rhetoric, historiography, and antiquarianism could be accommodated, not without compromise and adaptation. The disciplines the Romans embrace—*grammatica*, rhetoric, and dialectic—are those that serve to define a new aristocracy that has its roots in an old aristocracy.

As for the disciplines kept at arm's length in the safety of a foreign tongue, they are ones for which a Roman elite had no use, forms of knowledge that in the context of Roman society would have been disruptive. Take music, seemingly so innocent. For the Greeks it defined the gentleman: ἀνὴρ μουσικός represents the civilized man. To the Romans, musicians were popular entertainers. Since financing popular entertainment was a standard technique by which members of the elite ritually displayed their social predominance, what would happen if games-givers and entertainers confused their social roles by sharing knowledge? In a later generation, when the elite did flirt with music, Nero earned the hatred of his social class by taking to the stage.

Greek mathematics (and mathematical calculation underlay not only arithmetic and geometry but also astronomy, musical theory, parts of geography, and philosophy) meshed most uncomfortably with the existing distribution of knowledge within the Roman social system. The practical uses of mathematics with which they were familiar—land-measuring, money-reckoning, and the like—were socially low-grade activities, which scarcely encouraged the promotion of mathematical skills. The frisson of danger that they associated with high-level mathematics comes out in their fascination with and fear of astrology. *Mathematici* were a category in need of expulsion from the city in times of popular disquiet. But they aided the rulers at other times. Caesar used the mathematical skills of Sosigenes of Alexandria to destroy pontifical control of the calendar and hence the power of the aristocracy to shape the Roman year. Later, Augustus used a mathematician to refine and confirm Caesar's arrangements: this time it was a Roman, Facundius Novius.

These reflections are offered not as a generalization but as the beginnings of a hypothesis by which to account for the complex phenomenon of the hellenization of Roman intellectual life. Much expansion, testing, and modification would be needed before the value of such a hypothesis could be assessed. Above all, it would be necessary to build on the foundations so solidly laid by R. and to extend the chronological scope of the inquiry into the Empire. For clear though the caesura may be that divides late Republic from early principate, it is as the caesura dividing two halves of a hexameter. To study the late Republic in isolation is to study a half-line.

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