

# Greco-Roman Studies in a Digital Age

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*Abstract: What is the audience for the work that we professional researchers conduct on Greco-Roman culture? If the public outside academia does not have access to up-to-date data about the Greco-Roman world, whose problem is it? Frequently heard remarks, observed practices, and published survey results indicate most of us still assume that only specialists and revenue-generating students really matter. If we specialists do not believe that we have a primary responsibility to open up the field as is now possible in this digital age, then I am not sure why we should expect support from anyone other than specialists or the students who enroll in our classes. If we do believe that we have an obligation to open up the field, then that has fundamental implications for our daily activities, for our operational theory justifying the existence of our positions, and for the hermeneutics (following a term that is still popular in Germany) that we construct about who can know what.*

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Many traditional humanists have objected – quite correctly – that digital humanists focus too much of their attention on questions of *how* we should exploit new forms of technology in our teaching and research and not enough on questions of *why*. Of course, in many cases, such criticisms underestimate the immense challenges that humanists face as they attempt to implement universally desired capacities in a digital space that require far more expertise than amateur digital humanists can usually acquire. (The production of annotations that we can manage across different editions of a text and over many years is one such deceptively simple but essential task.) Of course, even if there is much that requires the attention of us digital humanists (in which we can justifiably focus upon the question of *how*), the most important questions always return to our motivations for using technology in the first place.

The digital question now before all academics is the extent to which the shift from print to a digital space changes how our particular fields can contribute to society as a whole. From a Darwinian per-

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spective, we need to reflect upon the degree to which new forms of technology may alter the social contract upon which our departments, our positions, our place in the curriculum, and our research funding (such as it is) depend. When we ask why we might use new methods (digital or otherwise), the first question is not how these methods can improve specialist-on-specialist discourse or even the experiences of our tuition paying students, but why our particular discipline should exist at all. We cannot insist upon theorizing the humanities in a digital age or demand a new hermeneutics for them unless we explicitly consider as well how our new theorizing and hermeneutics affect the reasons why professional academics should exist.

Figures published in the American Academy of Arts and Sciences' Humanities Indicators demonstrate the degree to which professional academics explicitly exclude from serious consideration the hard question of how our fields contribute to the intellectual life of society as a whole. That exclusion stands out when we observe the factors that faculty consider important for tenure: the most important single judgment to which faculty are subject. Even the initial hire to a tenure-track line is subordinate to the subsequent tenure decision, and most departments are careful only to hire those candidates who have shown that they will (or at least can) meet the requirements for tenure.<sup>1</sup>

The Academy's data show predictable and remarkably complementary perspectives about the importance of teaching and research at both teaching- and research-oriented institutions: at primarily undergraduate institutions, roughly 90 percent of the respondents report that good teaching is essential for tenure, as opposed to 50 percent who cite strong research as essential; at research institutions, the figures

are reversed, with roughly 90 percent citing strong research and 50 percent citing strong teaching as essential. But at both sorts of institution, faculty agree on one factor for tenure: only 1 percent of those surveyed consider "public humanities (making the humanities and/or humanities scholarship accessible to the general public)" essential for tenure. By contrast, in both cases, 70 percent of respondents asserted that making the humanities accessible to a general public was either unimportant or marginally important for tenure. About 30 percent stated that such work was important or very important, but the final figure shows (in my view) the true value of such work: 99 percent of those polled agreed that making the humanities and/or humanities scholarship accessible to the general public was not an essential part of a tenure dossier. And given the pressure on junior faculty to win tenure, they understandably can only afford to focus on those essential parts of their work.

For Greco-Roman studies (as well as English and History, the two biggest humanities majors), the figures were even more striking; the respondents were unanimous: 0 percent considered it essential that humanists demonstrate an ability to explain the humanities or humanities research to a wider audience.<sup>2</sup> Anyone who has spent time as a faculty member, especially a faculty member in the argumentative humanities, will recognize how hard it is to get any group of professors to agree on anything (other than, perhaps, the belief that they should be paid more, given more research support, enjoy more general respect, and teach less). When 100 percent of the faculty from three major humanities fields independently agree that a mission is not essential, we have an extraordinarily telling piece of data.

By contrast, the STEM disciplines (science, technology, engineering, and mathe-

matics) maintain a steady marketing campaign to justify the support they receive on the basis of the economic, medical, and other tangible goods that they deliver to society as a whole.<sup>3</sup> Scientists are challenged to reflect on the general importance of what they do: reviewers for the National Science Foundation (NSF) are formally charged to evaluate every proposal on the basis of two criteria: “intellectual merit” and “broader impacts.”<sup>4</sup>

Scholars of Greco-Roman antiquity are not producing new drugs; we are not pioneering ways of better harnessing solar energy, or creating new forms of mathematics that may, in the future, revolutionize some branch of scientific inquiry. Instead, we advance the intellectual life of society, and we can do that only if we make the public humanities a central focus of our work. If there are potential dangers in popularization, the humanities suffer even more damage from overspecialization and inbred scholasticism.

Fields like Greco-Roman studies recognize only three sources of input: specialists in the same university (the need for service), specialists in the same field (the need for research), and students (the group that ultimately pays for most humanities-faculty salaries). The need to attract students is the one saving force that subjects those of us who teach Greco-Roman culture to the judgments of nonprofessionals and challenges us to view the field itself and its purposes from at least one different – and arguably broader – perspective. In this, we enjoy in the United States an odd advantage over colleagues in a country like Germany. In Germany, ancient historians and Greek and Latin philologists teach a steady stream of prospective primary and secondary school teachers who must have a background in ancient history to teach European history, or to join the ranks of the nine thousand Latin teachers needed to teach the seven hundred thousand-plus stu-

dents of Latin in Germany. That American professors of Greco-Roman studies cannot rely upon a comparably steady stream of majors makes their life anxious, but also challenges them.

Although the number of students enrolled in foreign language courses increased from 1 million in 1968 to 1.6 million in 2009 and the relative percentage of Greek and Latin students declined in this period, the number of students in Greek and Latin had, at least in absolute terms, remained essentially the same (there was a disturbing 20 percent dip from 2009 to the figures released for 2013, but this may reflect a short-term anxiety about more transparently practical measures after the financial crisis).<sup>5</sup> Also, although precise figures are not available, the big classics Ph.D. programs seem to be basically as large as they were in 1985 – perhaps up or down by one faculty position, but essentially the same. In Germany, by contrast, we can point to fifty-one chairs of Greek, Latin, ancient history, and Greco-Roman archaeology listed as *gestrichen* (cut) in the same time period.<sup>6</sup> It may well be that the lack of a guaranteed clientele has benefited the field in the United States by pushing us to address the needs of a wider and mobile prospective student base rather than serving a captive audience.

But the focus on serving these revenue-generating students has left not only Greco-Roman studies but the humanities as a whole exposed. The National Endowment for the Humanities (NEH), for example, provides almost three times as much support to its federal/state partnerships for public humanities (\$42.5 million out of a total budget of \$146 million in 2015) as it does to its traditional research programs (\$14.5 million, or about 10 percent of the overall budget).<sup>7</sup> Even if we include investments in preservation and access (\$15.4 million) and in digital humanities (\$4.4 million), the overall funding for research

remains relatively modest and accounts for less than one-quarter (23.5 percent) of the 2015 NEH budget. And even that modest support attracts sometimes virulent criticism from members of Congress and from political candidates. Unfortunately, insofar as professional humanists care only about other specialists and revenue-generating students, they undermine their claim to support from public funding. If we are subject to attack, we have, for the most part, brought it on ourselves. On the other hand, if we can manage to shift our focus and assert, seriously and tangibly, a commitment to advancing the contributions of the humanities and of humanities research to society as a whole, we have a chance of reestablishing, over time, the social contract by which various aspects of the humanities justify their existence.

So, what does this mean in practical terms for Greco-Roman studies? We can take several steps now, and for some of these, digital technology has a crucial role to play. First, if we are to advance the intellectual life of society as a whole as effectively as possible, we need to shift not only to *open access* (resources available to the public free of restriction or charge) but to *open data* (source data available to the public for their own use and manipulation). An analysis of 780 websites for German and U.S. faculty in Greco-Roman studies revealed that perhaps fifteen of these researchers were actively contributing to the fundamental task of creating open resources and building the sort of open infrastructure needed for study of Greco-Roman culture in a digital age. A handful of faculty, for example, have made an effort to make their work available under an open-access license, and a handful of publications (such as the now venerable *Bryn Mawr Classical Review*) do make their content freely available. But making the thousands of publications cited on these websites available

under an open-access license would be a necessary, though by no means sufficient, condition for reaching beyond this closed academic network.

Second, we need a new theoretical foundation for Greco-Roman studies in a digital age, one that takes into consideration our new ability to advance the intellectual life of society as a whole. When we speak of advancing human understanding, we may imagine an idealized expert who has internalized all the primary and secondary literature and who has gained a new perspective (notice that I carefully avoid positivistic references to knowledge). Such an idealized expert provides, however, only one perspective. If there is no plausible pathway from the impact of that professional to anyone beyond other specialists, then I am not sure how strongly we can argue for the value of that new perspective. We need a theoretical foundation that accounts for what happens in the brains of many different people, starting with students but extending to nonspecialists as well, including not only members of the general public but also professors in other disciplines. Such a theoretical foundation will help us prioritize the unbounded range of research topics that we can pursue. If we assume that the most important case is the idealized, all-knowing expert, we will prioritize in one way; if, by contrast, we primarily wish to advance understanding beyond specialist circles and see idealized expert knowledge as a means to this larger end, then we will have very different priorities.

Third, we need to ponder what information we wish to represent, given the very different capabilities of born-digital publications. For me, the classic case is the digital edition: I think we should as a matter of course encode morpho-syntactic interpretations, geospatial and social networking data, our interpretations of where one text references another, and explicit align-

ments – on the word and phrase level – between our source texts and translations into multiple languages. What we choose to encode, of course, depends upon both our research objectives and the audiences we wish to reach. But one fundamental change is clear. In print culture, there was pressure to distinguish scholarly editions, with elaborate textual notes aimed at professional scholars, from bilingual editions, with (for the most part) much briefer textual notes, but with facing translations into English, French, German, Italian, or some other modern language. In a digital space, we can personalize the data that we present to different audiences, and include many more kinds of data, including much more expressively encoded textual notes and translations into multiple languages.

Fourth, there is the challenge of “big data,” which in this case is largely textual data. This challenge appears not only as we begin to grapple with the billions of words of Greek and Latin already available in the millions of digitized documents now available, but also as we begin to work with proliferating categories of automatically generated annotations (including, as mentioned above, linguistic annotations, geo-spatial and social networking data, text reuse detection, general optical character recognition [OCR], and topic modeling). We have to understand how to work with error rates. We need to integrate distant and close reading and we need to understand how to sample our data and to consider how certain we can be of our conclusions. We need to think algorithmically and we need to understand the implications of text mining and visualization for the ways in which we conceptualize our sources; these new media rewire our brains and we need to study that as best we can.

Fifth, we need to open up the field and to engage citizen scholars (or citizen scientists as they are called in Germany, where Greco-Roman studies and physics are both

*Wissenschaft*). This is necessary in part because we just have too much data for a handful of advanced researchers and professional scholars to process. But we also need to do this because opening up the field transforms the contributions that Greco-Roman studies can make to society: insofar as our fellow citizens can join us, not just as anonymous members of a crowd, but as individuals who can develop increasingly sophisticated skills as they contribute over time, we thus advance the intellectual life of society beyond academia and attack the intellectual scholasticism that is documented in our commercial publications and in the data collected by the American Academy of Arts and Sciences.

Sixth, we cannot in a globalized world continue to use the term *classics* as synonymous with ancient Greek and Latin language and literature or *classical civilization* as coextensive with Greco-Roman culture. I still find it hard to believe that my professional association in the United States recently changed its name from the American Philological Association to the “Society for Classical Studies,” formally asserting in the early twenty-first century that professors of Greco-Roman culture represented classical languages and literatures as a whole. The department from which I received both of my academic degrees still defines itself as the “Department of *the Classics*” (italics mine), with the definite article driving home the point that other classical languages including classical Sanskrit, classical Chinese, classical Arabic, and classical Persian are free to find space elsewhere in the university, but they are not *the classics*. I do not know anyone, however conservative, in our profession who would actually advance such a position. But somehow we have simply accepted past usage (just as we continue to publish articles and monographs in the same basic formats, through the same commercial channels, and for the same specialist

audience). The equation of classics with Greek and Latin comes from a very problematic tradition of European hegemonic thought, and emerges from shared assumptions of European privilege that are neither acceptable nor realistic in a world where nations such as China and India are global powers.

And so, the final step we can take is to evolve from a regional discipline, conducted almost entirely in a handful of European languages and focused on Greco-Roman culture, to one that participates in a global network of historical languages and cultures, many of which are now considered classical (as of 2014, India had six official classical languages: Tamil, Sanskrit, Telugu, Kannada, Malayalam, and Odia,<sup>8</sup> with some arguing that Pali should be included as a distinct language in this group).<sup>9</sup> To do this, we need to redesign our departments, forming strategic partnerships with colleagues in our universities (such as with professors of Sanskrit or classical Arabic, if we are lucky enough to have them), and making creative use of new communications technologies to work with colleagues not only in other universities but in universities beyond Europe and North America. We need students in Tehran and Texas reading classical Greek and classical Persian together, establishing in the process dialogues across boundaries of space, languages, and culture. Bilingual editions that face Greek and Latin texts with translations into English (Loebs), French (Budés), German (the *Tusculum* editions), or Latin (older series like the *Patrologia Graeca* in France or the *Bipontine Editions* in what is now Germany) are not enough. We need editions that can support readers of non-Western languages like Mandarin and Arabic, while also offering much better support for Spanish and Portuguese readers. We need serious research into the limits of what ideas we can represent in formats that can be quickly translated across lan-

guages and customized for different cultural perspectives. Here, the growing coverage of non-English versions of Wikipedia provides a better model than any of the rigid workflows from conventional Western academia.<sup>10</sup>

Those of us who have the privilege to earn a living as students of the Greco-Roman world have a decision before us about the field we wish to build. We can continue producing publications to which only other specialists have intellectual or (because we hide them behind paywalls) practical access, doing what we need to attract and hold revenue-generating students, and ignoring (if not disdaining) members of society as a whole. We can continue writing and teaching in much the same way we always have, exploiting new digital methods as ancillary tools by which we compose more traditional articles and books, rather than asking ourselves what the purpose of our research and teaching should be and then exploring new forms of intellectual activity and production. We can even continue to conflate the idea of classical with Greco-Roman and, in so doing, define ourselves as, at best, a parochial community. Deviating from any of these paths will be difficult: it entails redefining our field and thus inevitably challenges established structures of authority and institutional power. But the potential benefits are immense, and there will be opportunities for anyone in the field, at whatever level of seniority, to contribute to and flourish within the world we collectively fashion.

Author's Note: Some of the ideas expressed in this essay were first disseminated in 2015 as blog posts; see Gregory Crane, "Essays on Digital Classics and Digital Humanities," Perseus Digital Library Updates, <http://sites.tufts.edu/perseusupdates/2015/07/28/essays-on-digital-classics-and-digital-humanities/>. I would like to express my thanks for the comments I received at that time, as well as for the editorial suggestions I received in submitting this piece to *Daedalus*.

- <sup>1</sup> Humanities Indicators, 2012 – 13 *Humanities Departmental Survey (HDS-2)* (Cambridge, Mass.: American Academy of Arts & Sciences, 2014), <http://www.humanitiesindicators.org/content/indicatordoc.aspx?i=457>; and Susan White, Raymond Chu, and Roman Czujko, *The 2012 – 13 Survey of Humanities Departments at Four-Year Institutions* (College Park, Md.: Statistical Research Center, American Institute of Physics, 2014; study conducted for the American Academy of Arts & Sciences' Humanities Indicators Project), "Table 7: Considerations in Tenure Decision Made by Humanities Departments (All Disciplines Combined), by Institutional Type, Fall 2012," 14, [www.humanitiesindicators.org/binaries/pdf/HDS2\\_final.pdf](http://www.humanitiesindicators.org/binaries/pdf/HDS2_final.pdf).
- <sup>2</sup> Humanities Indicators, 2012 – 13 *Humanities Departmental Survey*, 65 (English), 97 (history), and 185 (classical studies).
- <sup>3</sup> See, for example, Institute of Medicine, National Academy of Sciences, and National Academy of Engineering, *Rising Above the Gathering Storm: Energizing and Employing America for a Brighter Economic Future* (Washington, D.C.: The National Academies Press, 2007); and American Academy of Arts & Sciences, *Restoring the Foundation: The Vital Role of Research in Preserving the American Dream* (Cambridge, Mass.: American Academy of Arts & Sciences, 2014).
- <sup>4</sup> National Science Foundation, "Merit Review Facts," [http://www.nsf.gov/bfa/dias/policy/merit\\_review/facts.jsp#1](http://www.nsf.gov/bfa/dias/policy/merit_review/facts.jsp#1).
- <sup>5</sup> David Goldberg, Dennis Looney, and Natalia Lusin, *Enrollments in Languages Other Than English in United States Institutions of Higher Education, Fall 2013* (New York: Modern Language Association of America, 2015), 19 for the overall rates, 23 for Latin, 24 for Greek, [https://www.mla.org/content/download/31180/1452509/2013\\_enrollment\\_survey.pdf](https://www.mla.org/content/download/31180/1452509/2013_enrollment_survey.pdf).
- <sup>6</sup> See the Arbeitsstelle Kleine Fächer (Johannes Gutenberg–Universität Mainz), [www.kleinefaecher.de](http://www.kleinefaecher.de).
- <sup>7</sup> National Endowment for the Humanities, *Appropriations Request for Fiscal Year 2016* (Washington, D.C.: National Endowment for the Humanities, 2015), 9, [http://www.neh.gov/files/neh\\_request\\_fy2016.pdf](http://www.neh.gov/files/neh_request_fy2016.pdf). In fiscal year 2015, out of a total budget of \$146,021,000, \$14,784,000 went to research programs, but \$42,528,000 went to the federal/state partnership, "the liaison between the National Endowment for the Humanities and the nonprofit network of 56 state and jurisdictional humanities councils."
- <sup>8</sup> "Languages of India – Classical Languages," [https://en.wikipedia.org/wiki/Languages\\_of\\_India#Classical](https://en.wikipedia.org/wiki/Languages_of_India#Classical) (accessed January 22, 2016); for the press release on Odia, the most recent language declared classical, see the Press Information Bureau of the Government of India, "Classical Status to Odiya Language," August 14, 2013, <http://pib.nic.in/newsite/erelease.aspx?relid=98244>.
- <sup>9</sup> Binay Singh, "Removal of Pali as UPSC Subject Draws Criticism," *The Times of India*, May 5, 2013, <http://timesofindia.indiatimes.com/city/varanasi/Removal-of-Pali-as-UPSC-subject-draws-criticism/articleshow/19890980.cms>.
- <sup>10</sup> My colleagues at Tufts led the way for me. Steve Hirsch has taught ancient China and the Greco-Roman world for years. Anne Mahoney has relentlessly maintained a curriculum in Sanskrit – an array of courses that will finally appear as formal offerings in our course catalog. We were able to bring Maxim Romanov, an expert in classical Arabic, and, thanks to Vickie Sullivan, Riccardo Strobino, an expert on the intimate relationship between Greco-Roman and Islamic cultures and the debt that the West still owes to its Islamic brethren, into our department of classics. If we could do more, we would. At Tufts, I am a professor of classics and work in a department of classics, and I say so now with assurance and invitation: my colleagues have been true leaders in developing a field that we can truly call classics or classical studies.