

PROFILE

ROMAN ECONOMIC AND MONETARY HISTORY

Fundamentally, Roman economic history is the study of how and why inhabitants of the Roman world produced, distributed and exchanged goods and services. By understanding the economic actions, events, institutions and products of the Roman world, Roman economic historians come to understand better the Romans themselves: their motivations, values, relationships and identities, among other things. With such a broad remit, today's Roman economic and monetary historians not only scour traditional sources for evidence of Roman commerce, prices, labour, capital and contracts, but they now deploy an ever-broadening range of methodologies, theories and approaches – some of which originate well outside the disciplines of both history and economics. Some Roman economic historians, for example, create, investigate and run simulations, using massive digital archives of data gleaned from ancient evidence. Others compare micro-nutrients in ancient wheat varieties with their modern counterparts to gain a better understanding of diet, nutrition and economic prosperity in Roman cities. Increasingly, specialists in some aspect of the Roman economy find themselves members of internationally funded interdisciplinary teams seeking to understand what Arctic ice cores or North-American tree rings say about money production in the Roman principate. Roman economic historians' scholarly sprawl has never been more challenging to describe, but I believe it is possible to group recent developments in the field into three overlapping areas: digitisation, particularisation and consilience.

Over the past few decades troves of ancient texts and objects have been translated into formats that can be easily accessed, organised, manipulated and even simulated via computer. The digital revolution was both rapid and comprehensive. Until only very recently, for example, most information concerning Roman coinage – coin types, die studies, hoard descriptions – lay locked in dense volumes in dark and dusty corners of university libraries. The same could be said of inscriptions, papyri and many other types of ancient sources. From the mid-1990s onwards, however, both amateurs and professionals in piecemeal fashion migrated such information into various digital databases (such as those found at Nomisma [nomisma.org], Epigraphic Database Heidelberg [edh.ub.uni-heidelberg.de/] or the Oxford Roman Economy Project [oxrep.classics.ox.ac.uk]; an exhaustive list, with commentary, is found in R. Bagnall and S. Heath, 'Roman Studies and Digital Resources', *JRS* 108 [2018]). Now scholars are less likely to perform cutting-edge research in museum collections, libraries and archives; often, all one needs is a laptop, a comfortable spot in a coffee shop and a good internet connection.

Such accessibility has many benefits, even for those who engage with the Roman economy through physical books. Two recent works are illustrative. C. Rowan's *From Caesar to Augustus (c. 49 BC–AD 14)* (2019) and L. Yarrow's *The Roman Republic to 49 BCE* (2021) are flush with coin images taken from digital archives with minimal copyright restrictions. Both books also rely heavily on recent numismatic data to support fresh perspectives on otherwise well-trodden Roman historiography. To take one theme as an example: it is debated whether Roman coin iconography should be thought of as 'propaganda'. Back when coin images were expensive and difficult to procure, and therefore rarely seen in high numbers in a single book, it might have been easy to underappreciate the dazzling assault of politically and ideologically charged iconography in Roman coinage from the

mid Republic onwards. Yarrow's book expertly displays and tracks the appearance of key words and images associated with elite Romans' core values and accomplishments. Rowan displays a coin (or two or three) on nearly every page – overwhelming readers with images, words and themes obviously selected to propagate values and ideas beneficial to the Late Republic's leading competitors for status and power.

Still, for all the obvious benefits, digitisation generates new and profound methodological quandaries. Which information from texts and other sources is translated and which is not? How do researchers determine responsible uses, representations and manipulations of such decontextualised information? Two recent edited volumes exemplify the state of debates among specialists about the role of computer modelling in Roman economic history: *Simulating Roman Economies: Theories, Methods and Computational Models* (2022), edited by T. Brughmans and A. Wilson, and *Complexity Economics: Building a New Approach to Ancient Economic History* (2021), edited by K. Verboven. Each volume features accessible and clear introductions, by Brughmans and Verboven respectively; these explore the potential and pitfalls of formal models, especially those that rely on computation. Most scholars agree that the Roman economy was a complex system – one composed of numerous interconnected and dynamic elements with varying kinds of relationships, many of which are difficult to predict or pattern. Computational models enable scholars to understand better such complexity through visualising digitised data in new ways as well as running complicated tests on that data – tests that in some cases use data and variables in numbers that require assistance from computers. Both volumes are dominated by case studies, often in the form of reports of computer simulations of transportation and trade, but also the odd plague or mass migration. The most useful chapters take readers 'under the hood' – exposing the rules and assumptions built into models. After all, researchers continue to debate the role of markets, the practical power of state actors and institutions, the degree to which prices reflect supply and demand and many other fundamental aspects of the Roman economy. Well-designed models, including those using computers, help historians think more carefully about such assumptions and preconceptions as much as they say anything about the ancient world. As Brughmans argues: 'A good formal model should go hand-in-hand with a rich description of the same model, its relevance and implications, and high-quality empirical datasets to confront it with. And vice versa, a good theoretical model described in natural language should be accompanied by the tools needed to prove or disprove it, which requires unambiguous representation and reproducibility' (p. 15).

One of the early arguments for digitisation was that Roman economic and monetary history could be integrated better into 'big-ish' history projects (not exactly 'big history'): studies of vast geographic and temporal breadth, such as tracking economic prosperity (at least in so far as such can be measured by aggregates like gross domestic product) over thousands of years. Indeed, several such recent works – by Roman economic historians no less – would not have been possible without unprecedented access to digital data and expansive use of modelling. W. Scheidel is responsible for sweeping accounts of inequality (*The Great Leveller* [2017]) and post-Roman economic competition and diversification (*Escape from Rome: the Failure of Empire and the Road to Prosperity* [2019]). Scheidel's books are model- and data-driven to be sure. But they also draw on comparative and counter-factual history as well as economics. Both books are methodologically innovative, even as they force readers to rethink the broad sweep of economic history, ancient and beyond. Similarly, K. Harper's *The Fate of Rome* (2018) narrates Roman history through the lens of climate change and disease. Harper's book leans on the work of climatologists, but also economic data produced through Harvard's Digital Atlas of Roman and Medieval Civilizations (darmc.harvard.edu/).

Such narratives are as compelling as they are controversial. Some scholars have sharply criticised each of these three books, in part, on grounds of missing the trees for the forest. The same access to digital data that makes such books easier to write also facilitates their deconstruction. One critic called Scheidel's *Escape from Rome* 'escapism' that 'oscillates between events-based history and an almost postmodern stance in dwelling upon counterfactual histories rather than drawing on an archive of new data to shape a new narrative' (R. Hodges, 'Escapism for lovers of Ridley Scott's *Gladiator*', *JRA* 34 [2021]). Scheidel, of course, disagrees (W. Scheidel, 'In defense of big history: a reply to Richard Hodges', *JRA* 34 [2021]). Harper's book generated a six-author three-part thirty-three-page response in the pages of *History Compass* (vol. 16 [2018]) as well as a fourteen-page rebuttal from Harper. Readers can judge for themselves the claims in these disputes; but the deconstructionist defence against recent 'big-ish' economic history remains entrenched in the field.

The reaction to these books also illustrates two additional and interrelated trends in the field of Roman economic history: particularisation and consilience. Historians appreciate that the Roman economy was a complex and dynamic system. Relative to other pre-industrial economies, it was also highly connected across numerous frameworks: legal, monetary etc. At the same time, powerful localising contexts and institutions dominated economic activity at regional and sub-regional levels. Complexity often involves contradictions. So even as some Roman economic and monetary historians publish high-profile and popularising large-scale histories, others are sharply narrowing their geographic, thematic and temporal interests. Archaeologists have always had a talent for particularisation, especially when it comes to geography. But it is a rare talent to conceptualise and communicate the broader economic significance of, say, a few badly preserved rural Roman farms in Tuscany. Yet such a feat has been accomplished by the Roman Peasant Project. Over a number of years the project team surveyed several sites with incredible precision – reporting on the structures, pottery, tiles, stones, pollen, animal bones and other remnants to capture the most complete assessment of the daily lives of small hold farmers to date. The peasants who inhabited these sites were surprisingly resilient – collaborating with each other to manufacture goods using shared facilities. K. Bowes's edited volumes (*The Roman Peasant Project 2009–2014. Excavating the Roman Rural Poor* [2020]) translate her team's archaeological work into comprehensible excavation reports. Most useful to economic historians are the second volume's lucid commentaries on the project's broader implications: in brief, that economic activity in the rural Roman economy, even among people we might categorise as 'poor', was far more extensive, interdependent and sophisticated than previously assumed.

Particularisation also takes the form of tight thematic focus on foundational economic activities, events, objects or behaviours. A. Riggsby's recent book, *Mosaics of Knowledge: Representing Information in the Roman World* (2019), considers Roman information management – a topic so taken-for-granted that few had thought to study it in such a concentrated way. As Riggsby underscores, accurate and transmissible information on prices, weights, measures, land etc. is central to the workings of any economy, ancient or modern. Riggsby's evidence suggests Romans managed and measured information according to localised standards and were content with approximation and stylisation more often than not. Riggsby dedicates less time to coinage – arguably the most pervasive standard of measurement in the Roman world – perhaps because coinage is already so well studied. Numismatists embraced particularism long before it was cool. With new and open digital datasets Roman coinage has never been studied in such detail. The overwhelming majority of contributors to J. Mairat, A. Wilson and C. Howgego's *Coin Hoards and Hoarding in the Roman World* (2022) offer narrow regional and thematic studies of coin circulation, derived in large part from the Coin Hoards of the Roman Empire database

(<https://chre.ashmus.ox.ac.uk/>). The related topic of coin debasement is also receiving new attention in volumes such as K. Butcher's (ed.) *Debasement: Manipulation of Coin Standards in Pre-Modern Monetary Systems* (2021). In contrast to Mairat et al., Butcher's volume features far fewer regional studies; instead, contributions combine to tell a diachronic story of how and why ancient and medieval monetary authorities manipulated coin quality and quantity. The collection's prominent featuring of specialists in metallurgy and the chemical composition of coins demonstrate a path forward for interdisciplinary and collaborative analysis of objects previously studied almost exclusively by numismatists and collectors.

In many sub-fields of Roman economic history collaboration is giving way to consilience – where teams of diverse specialists pool together knowledge and approaches across disciplinary boundaries. New partnerships, for example, have enabled new metallurgical studies of Roman coinage. One of these efforts is the European Research Council-funded 'Silver Isotopes and the Rise of Money' project. The project's team of historians, numismatists and geochemists has traced with incredible specificity the origins and movements of silver throughout the ancient world. Similarly, the Roman Peasant Project brought together archaeologists, geophysicists, historians, numismatists, archaeobotanists and other specialists. Such collaborations are increasingly necessary. It is simply no longer realistic for the lone scholar, even if well-networked and trained in several specialisms, to adequately master the breadth of knowledge and methodological literacy demanded by current research questions in the field. To assess, say, the economic impact of the Antonine plague – a matter of ongoing debate – requires literacy in palaeogenetics, palaeoclimatology, demography, computer modelling, statistics and food studies, and these in addition to the standard disciplinary tools sufficient to read and comprehend ancient papyri, inscriptions, coin evidence, literary sources and so on.

If consilience becomes the common way to address Roman economic history questions, dissemination of research may come to resemble more closely that of the sciences. At ancient economy conferences in just the past year participants have called for an end to single-author monographs on complicated subjects like plagues, climate change and their economic effects. Again, here the numismatists – especially those who study the chemical composition of coins – have a head start. The 'Rise of Money' team, for example, publishes their multi-authored studies in scientific archaeological journals as well as natural science journals like *Geology*. Roman archaeologists and historians have also recently co-authored articles linking climate change to economic developments in the Roman world in *Proceedings of the National Academy of Sciences of the United States of America (PNAS)* – among the world's leading scientific journals. Will single-author monographs on the Roman economy and monetary system find room in an increasingly digitised, particularised and collaborative future? Hopefully. The information in Scheidel's or Harper's books, for example, might have been (and in some cases was) just as easily and perhaps more accurately presented in multi-authored articles in scientific or social-scientific journals. But compelling narratives are always needed, and the field's great storytellers will thrive under conditions of improved accessibility, more detailed data and the interventions of experts from outside the field.

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