CHAPTER 1

Mass production, monetary economy and the commercial vitality of the Mediterranean

The Roman economy

The Roman economy was as much a proto-industrial economy as an agrarian one.[1] It was characterised by an abundance of manufactured goods, competition within industries, widespread mass production and a massive, intensely structured exploitation of natural resources that reached staggering proportions with the opening up of Spain and North Africa to Roman imperial and business interests.[2] Tablewares, glass, nails, iron tools, bricks, marble, salted fish, olive oil, grain, wine, textiles were all mass-produced or produced in bulk to massive quantities for mass markets.[3] In the more purely industrial sectors such as pottery this implied standardisation. The single most widely produced Italian ware of the late Republic (Campana A) exemplifies mass production of a good-quality product at low cost. Standardisation, Morel argues, was linked to high productivity, a drive to structure labour processes to ensure a maximum

[1] K. R. Dark, 'Proto-Industrialisation and the End of the Roman Economy', in *External Contacts and the Economy of Late Roman and Post-Roman Britain*, ed. K. R. Dark (Woodbridge, 1996), pp. 1–21, and K. Dark, 'Proto-Industrialization and the Economy of the Roman Empire', in *L'artisanat romain: Évolutions, continuités et ruptures (Italie et provinces occidentales)*, ed. M. Polfer (Montagnac, 2001), pp. 19–29, are both seminal and should carry the debate forward. In the second of these papers he refers to the 'existence of a highly-developed Proto-industrial economy in the Early Roman Empire' (p. 25).

[2] E.g. A. Wilson, 'Machines, Power and the Ancient Economy', *Journal of Roman Studies* 92 (2002), 1–32, esp. pp. 17–23 describing the massive extraction of metal from mines in Spain and elsewhere.

[3] See A. I. Wilson, 'Large-Scale Manufacturing, Standardization, and Trade', in *Engineering and Technology in the Classical World*, ed. J. P. Oleson (Oxford, 2008), pp. 393–417, for most of these. A. Marzano, *Harvesting the Sea: The Exploitation of Marine Resources in the Roman Mediterranean* (Oxford, 2013) now deals with large-scale fishing operations; R. Étienne, Y. Makaroun and F. Mayet, *Un grand complexe industriel à Tróia (Portugal)* (Paris, 1994) calculate an annual export of 2 million Dressel 14 amphorae for one large salting complex in the Sado estuary, south of Lisbon (p. 164). G. Volpe, *Contadini, pastori e mercanti nell'Apulia tardoantica* (Bari, 1996), p. 168, estimates that the late Roman villa of San Giusto had an annual production capacity of 36,000 litres of wine, and Mattingly, 'The Olive Boom', *Libyan Studies* 19 (1988), 21–41, documents even larger production capacities in olive oil.

efficiency of labour power.[4] The samian potteries at la Graufesenque in southern Gaul were 'one of Europe's first large-scale manufacturing industries',[5] active from the earliest first century to the first third of the second century, with large-scale production based on a 'very strict division of labour'[6] and geared to a wide scale of exports throughout western Europe. Here individual workshops each produced millions of vessels, with total production running into 'probably tens of millions of vessels if not more'.[7] A striking feature of both Campana A and the French samian potteries is the sheer scale of production, which of course raises the pivotal issue of the economic structure of the industry – how was it organised? Who owned the potteries? Who made the commercial decisions? And, how important were those groups in shaping the nature of the Roman economy as a whole? In fact, how do we even begin to answer these questions if much of the argument is inferential or based on sources that *can* provide no answers? Ken Dark has noted that la Graufesenque was more advanced than the Staffordshire potteries of the early eighteenth century.[8] Maurice Picon has suggested that its manufacturing was organised on a capitalist basis.[9] Even if we agree with this (and I am inclined to), it does not follow that the investors who owned the massive furnaces at la Graufesenque also handled the marketing of their products, so we need a wider range of economic agents and crucially of course the sort of firms that could organise distribution and sales across vast areas of western Europe, namely, wealthy mercantile enterprises. This feature (of the intervention of merchant enterprise) is so unmistakeable in the Roman pottery industries that the 'merchant' emerges here as a more substantial figure than the commercial capitalists that Marx saw being subordinated to industrial capital in the late nineteenth century. Indeed, standardisation across whole swathes of the industry strongly implies the role of entities closer to the retail end of the trade. Thus Carandini in his most theoretical piece of writing referred

4 J.-P. Morel, 'La produzione della ceramica campana: Aspetti economici e sociali', in *Società romana e produzione schiavistica*, ed. A. Giardina *et al.* (Rome and Bari, 1981), vol. II, pp. 81–97, at 88.
5 M. Fulford, 'Gallo-Roman Sigillata: Fresh Approaches, Fresh Challenges, Fresh Questions', in *Seeing Red: New Economic and Social Perspectives on 'Terra Sigillata'*, ed. M. Fulford *et al.* (London, 2013), pp. 1–17.
6 A. Mees, 'The Internal Organisation of *Terra Sigillata* (Samian) Workshops', in *Seeing Red*, ed. Fulford *et al.*, pp. 66–96, at 66.
7 J. R. L. Allen, 'Some Potters of Samian Ware at la Graufesenque: Notes towards the Shape of the Industry', in *Seeing Red*, ed. Fulford *et al.*, pp. 49–65, at 50, 52.
8 Dark, 'Proto-Industrialization and the Economy of the Roman Empire', p. 23.
9 M. Picon, 'Production artisanale et manufacturière à l'époque romaine: À propos de *L'Histoire brisée* d'Aldo Schiavone', in *L'économie antique: Une économie de marché?*, ed. Y. Roman *et al.* (Paris, 2008), pp. 191–214, at 200–1.

to a type of production 'essentially subordinated to commercial capital',[10] and it is this nexus (of the domination of producers by merchants or their dependence on the latter) that Françoise Mayet and her colleagues have called 'commercial capitalism'. Of course, the relationship between merchants and producers would clearly have varied considerably, depending on who the latter were – the third-century aristocrats who dominated the massive trade in Libyan olive oil were at one end of this spectrum, the mass of *terra sigillata* producers conceivably at a very different end of it.

Both *terra sigillata* and the Roman brick industry have seen some exceptional work addressed to issues like the economic structure of the industry, the organisation of workshops (*officinae*) and the scales on which production occurred. The distinctive feature of much of this work is that the evidence is interpreted in terms of a model that is at least partly drawn from it, so that there is a close interaction between 'theory' and 'evidence' (a virtuous circle, if you like), much closer in fact than anything to be found in Moses Finley's deeply influential *The Ancient Economy*. Spanish *sigillata* was characterised by a handful of large firms plus a mass of small ones.[11] Rome's brick industry, by contrast, was almost entirely dominated by the city's aristocracy, which outsourced production to *officinatores* or 'workshop managers' who were actually entrepreneurs but in charge solely of the production end of the industry.[12] Control of the business itself lay firmly in the hands of the aristocracy (the *domini*, including members of the imperial family) and was doubtless just one of a fairly wide range of investments that typified the economy of Roman upper-class households. The repeated characterisation of the Roman aristocracy as a class of landowners is misleading *if* the suggestion is that it should be seen essentially as an agrarian class not fundamentally different from the Prussian junkers of the eighteenth century, or that 'agriculture' is where, say, 90 per cent of its economic interests lay. Apart from the cash-rich husbandry of suburban villas (*pastio villatica*) that was geared to extraordinary profits in super-rich markets[13] and the more widespread industrial-scale monocultures in wine

[10] A. Carandini, *L'anatomia della scimmia: La formazione economica della società prima del capitale* (Turin, 1979), p. 193.

[11] F. Mayet, *Les céramiques sigillées hispaniques* (Paris, 1984), p. 216, 'une foule de petits ateliers à côté de quelques grandes firmes'.

[12] This is basically the model Margareta Steinby develops, see M. Steinby, 'I senatori e l'industria laterizia urbana', in *Epigrafia e ordine senatorio* (Rome, 1982), vol. 1, pp. 227–37; 'L'organizzazione produttiva dei laterizi: Un modello interpretativo per l'*instrumentum* in genere?' in *The Inscribed Economy*, ed. W. V. Harris (Ann Arbor, 1993), pp. 139–44.

[13] Cf. Varro, *RR* 3.16.11, *ut magnos capiam fructus*, and see N. Purcell, 'The Roman *Villa* and the Landscape of Production', in *Urban Society in Roman Italy*, ed. T. J. Cornell *et al.* (London, 1995), pp. 151–79.

and olive oil, known senatorial investments at various times included warehouses, stone quarries, brick factories, mining contracts, financial investments in shipping and commercial enterprises[14] and all manner of speculation, not least in the hoarding of wine, foodgrains and so on. This characterisation of the Roman aristocracy carries over into the late empire where in fact it is much less visible except perhaps for the remarkably aggressive way in which it effected a wholesale takeover of the city's real estate market during the aristocratic housing boom of the fourth century.[15] Yet beyond the narrow circles of the aristocracy, Rome-based and provincial, lay a much wider group of business classes, from the powerful associations of wholesale merchants attested in the Foro delle Corporazioni at Ostia in the late second/early third centuries[16] to a mass of smaller entrepreneurs, in trade, construction, manufacturing, etc., who were the backbone of the urban economy in all periods of antiquity. If we view the Roman and Byzantine periods as a whole, from the late Republic to the last centuries of the Byzantine empire, this vitally important set of classes was never completely static in its composition and there is no obvious or unified terminology we can invoke either to refer to it or to latch on to as its official nomenclature. 'Businessmen' is Oikonomidès's loose translation of the Byzantine term *ergasteriakoi*, which he claims covered mainly merchants and artisans.[17] Indeed, much of the economic vitality of the late antique world, reflected in the radical changes to the configuration of numerous cities discernible from the fifth century (the economic saturation of town centres, the industrial reuse of public buildings and so on), was an expression of the expanded weight of these groups, and of the weight of the urban economy as a whole, in an empire now more dependent than ever on the east. Already in the fourth century the author of an anonymous tract had implied a broad division of the upper strata of late Roman society into bureaucrats, landowners and businessmen, describing the last group as *negotiatores mercium lucra tractantes*.[18] *Negotiator* was doubtless a generic term for the various business groups engaged in *large-scale* trade, banking and manufacture. It would have included the wholesale merchants involved in the Mediterranean wine trade, who were

[14] J. H. D'Arms, *Commerce and Social Standing in Ancient Rome* (Cambridge, MA, 1981), p. 39.
[15] See C. Machado, 'Aristocratic Houses and the Making of Late Antique Rome and Constantinople', in *Two Romes: Rome and Constantinople in Late Antiquity*, ed. L. Grig *et al.* (Oxford, 2012), pp. 136–58.
[16] G. Becatti, *Mosaici e pavimenti marmorei* (*Scavi di Ostia,* vol. IV) (Rome, 1961), pp. 64 ff.
[17] N. Oikonomidès, 'Entrepreneurs', in *The Byzantines*, ed. G. Cavallo (Chicago and London, 1997), pp. 144–71.
[18] Anonymous, *De rebus bellicis*, Praef. 6 (Thompson, p. 92).

organised in a *corpus* described as *splendidissimus*;[19] wholesale oil merchants like the Aelii Optati from Celti near Hispalis (Seville);[20] wealthy bankers like Julianus, one of many *argentarii* active in Ravenna in the sixth century; the money changers whose financial interests Symmachus defended in the 380s[21] – all of them wealthy commercial groups outside the main sector of the aristocracy proper. This, and the mass of smaller entrepreneurs known simply as *mercatores*, is the milieu least well attested in the literary sources (for obvious reasons perhaps) but massively presupposed in the archaeology where the growing weight of the 'productive and commercial middle classes'[22] is now seen as a major factor in the evolution of a new urban topography, or where the 'Byzantine shops' constructed in Sardis in the late fifth century, classic exemplars of the so-called 'encroachment of private enterprise … upon the formerly public spaces of the town', were less retail outlets than quarters that integrated homes with small business premises owned by an industrious and at least moderately affluent middle class.[23] As the coercive weight of the fourth-century empire declined dramatically in the fifth, trade associations in all lines of business acquired considerable autonomy,[24] some even attempting to run price cartels,[25] while preachers as far away as Gaul could complain of the 'hordes' of businessmen ('all from the east') that now apparently dominated 'almost the greater part of all the cities in the world'![26]

In the late Republic and early empire the aristocracy had consistently used slaves and freedmen as fronts for business activity, exploiting the resources of a sophisticated private law system that contrived considerable flexibility for the organisation and conduct of business by owners of

19 P. Baldacci, '*Negotiatores* e *mercatores frumentarii* nel periodo imperiale', *Rendiconti dell'Istituto Lombardo, Classe di Lettere* 101 (1967), 273–91, at p. 289; H. Bloch, 'Inedita Ostiensia I', *Epigraphica* 1 (1939), 37–40 (big wine merchants from the Sahel).

20 S. J. Keay, *Roman Spain* (Berkeley and London, 1988), pp. 102–3.

21 Symmachus, *Relatio* 29 (Barrow, p. 162).

22 E. Zanini, 'Artisans and Traders in the Early Byzantine City', in *Social and Political Life in Late Antiquity*, ed. W. Bowden *et al.* (Leiden and Boston, 2006), pp. 373–411, at 405.

23 A. Harris, 'Shops, Retailing and the Local Economy in the Early Byzantine World: The Example of Sardis', in *Secular Buildings and the Archaeology of Everyday Life in the Byzantine Empire*, ed. K. Dark (Oxford, 2004), pp. 82–122, at 116–17. Constantinople itself may well have anticipated the trend, cf. G. Dagron, *Naissance d'une capitale: Constantinople et ses institutions de 330 à 451* (Paris, 1974), p. 528.

24 M. Bianchini, 'Controllo dei prezzi e autonomia delle associazioni di mestiere in *Nov. Iust*. 122', in *Studi in memoria di G. Tarello* (Milan, 1990), vol. 1, pp. 117–40.

25 *CJ* 4.59.2 (483) with special mention of master builders and craftsmen in the building trades. See p. 44.

26 Salvian, *de Gub. Dei* IV.69 (G. Lagarrigue, *Salvien de Marseille, Oeuvres,* vol. II (Paris, 1975), p. 288), esp. *negotiatorum et Syricorum omnium turbas*.

capital. Di Porto has shown in detail exactly how this was done.[27] And again, there is no reason to suppose that this culture of doing business (the aristocracy's reliance on the entrepreneurial skills and management of various employees) saw any dramatic decline in the late antique world. A passage in Firmicus Maternus' astrological work *Mathēsis* suggests otherwise. It refers to the *scribae* (secretaries or agents) employed by the aristocracy to manage its financial accounts, banking operations, branch businesses and commercial transactions.[28] Marble workshops, stone quarries, brick factories and commercial shipping are some of the areas directly attested for the fourth-century aristocracy.[29] At this level, agriculture too was basically a business, with some three quarters of the total income drawn by the great aristocratic families of the city from their estates accumulating as cash reserves, if Olympiodorus is to be believed. For example, in the deep south of southern Italy, in the southern part of Calabria south of Catanzaro, where the late antique period saw a renewed burst of vigour, wine emerged as the leading cash crop and was grown on massive estates (*massae*) on a productive model closer to the industrial monocultures of North Africa than anything to be seen in Italy itself.[30] The sheer scale of production involved in Calabria's wine business can also be inferred from the very wide distribution of Keay LII, an amphora type produced locally at Pellaro and other kiln sites in the countryside around Reggio, the main port from which these containers were shipped and the base, apparently, of a major salted fish industry as late as the seventh century.[31] This shows, by the way, that where the written sources are exiguous (a brief reference in the *Expositio* to the wine of the Bruttii as *multum et optimum*), the archaeology can make a dramatic difference to our assessments, as Filocamo shows in his monograph on Calabria and the Straits region.[32]

[27] A. Di Porto, *Impresa collettiva e schiavo 'manager' in Roma antica (II sec. a.C.–II sec. d.C.)* (Milan, 1984).

[28] Firmicus, *Math.* III.x.1 (P. Monat, *Firmicus Maternus Mathesis* (Paris, 1994), vol. II, p. 101); see ch. 4, this volume, n. 35.

[29] As I note in Chapter 4, this volume, C. Caeionius Rufius Volusianus Lampadius, urban prefect in 365, had a marble workshop at Ostia, see G. Becatti, *Case ostiensi del tardo impero* (Rome, 1948), p. 31. For shipping cf. *IGR* I, no. 416 (Baiae), *Elpidios naukleros Symmachon ton lamprotaton enthade keitai*; for stone quarries, *CTh.* x. 19. 8 (376).

[30] A. B. Sangineto, 'Trasformazioni o crisi nei *Bruttii* fra il II a.C. ed il VII d.C?', in *Modalità insediative e strutture agrarie nell'Italia meridionale in età romana*, ed. E. Lo Cascio and A. S. Marino (Bari, 2001), pp. 203–46, esp. 226ff., who describes the background to the new estates as a prolonged restructuring of the countryside that led to massive concentration (218ff.).

[31] So I infer from a passing reference in L. Saguì, 'Roma, i centri privilegiati e la lunga durata della tarda antichità', *Archeologia Medievale* 29 (2002), 7–42, at p. 32.

[32] A. Filocamo, *Anfore, palmenti, monete: Il vino nell'economia dello Stretto della tarda antichità* (Naples, 2013).

As Bryan Ward-Perkins notes, 'The minimalist, and predominantly pessimistic, view that [A. H. M.] Jones had of the late Roman economy was to a large extent possible because he *almost completely ignored archaeological evidence*.'[33] What struck Jones most about the later empire was the overwhelming pressure of the state. Looking for explanations of the 'decline' of the empire, Jones decided in 1959 that this had to be due to taxation. The late empire was an empire impoverished by 'over-taxation'. The peasantry was malnourished and the death rate amongst it was 'abnormally high'.[34] The only solid piece of evidence Jones used in this article was *P. Cairo Masp.* 67059, the great tax register from Antaeopolis dating to the time of Justinian. Yet, curiously enough, Jones himself, analysing the same data in 1951, drew the very opposite conclusion: 'The rate [of tax] per arura does not work out at a startingly high figure, about 3⅕ artabae if the whole tax burden is calculated in wheat, about 7⅔ carats if it is reckoned all in gold … in the sixth century Egypt was not grossly overtaxed.'[35]

Minimalism

Minimalism simplifies social structures, denies economic complexity to pre-capitalist societies, regards trade and money as of little or no significance in the history of such societies (for example, it downplays the economic role of coinage) and in general believes that no 'modern economic concepts' can be used to analyse the world before, say, the eighteenth century.[36] No plausible minimalist historiography can ever be constructed simply because it would simplify the fabric of history so radically that the most we would have is an impoverished image of it or a strangely distorted one. When applied to the late empire these assumptions generate a model where exaggerated importance is ascribed to the state and to taxation as a

[33] B. Ward-Perkins, 'Jones and the Late Roman Economy', in *A. H. M. Jones and the Later Roman Economy*, ed. D. M. Gwynn (Leiden and Boston, 2008), pp. 193–211, at 203.

[34] A. H. M. Jones, 'Over-Taxation and the Decline of the Roman Empire', in *The Roman Economy*, ed. P. A. Brunt (Oxford, 1974) pp. 82–9, esp. 88; first published in *Antiquity* 33 (1959).

[35] A. H. M. Jones, *Journal of Hellenic Studies*, 71 (1951) p. 271 (review of Johnson and West, *Byzantine Egypt*).

[36] 'Modern economic concepts': cf. the following from Hopkins in what looks like his last published paper: 'But I do still have colleagues (as well as the ghost of my teacher Moses Finley in my conscience) who believe that it is impossible or at least unprofitable to use modern economic concepts in order to analyse the pre-industrial embedded economy. *For them, the ancient economy was a cultural system, which was dominated by nonrational considerations of status and ritual* and so was immune to cold rational analysis', K. Hopkins, 'The Political Economy of the Roman Empire', in *The Dynamics of Ancient Empires*, ed. I. Morris *et al.* (Oxford, 2009), pp. 178–204, at 200; my italics.

driver of the economy, while the relation between 'private economy' and the state is construed in terms of an overpowering dirigisme. This is exactly the image of the late Roman economy that underlies much of the argumentation in McCormick's *Origins of the European Economy*, where the Roman economy is described as 'an economy dominated by annona transport' and we are told that 'the annona … dominated all other forms of shipping in volume and importance'.[37] The simple answer to this is, how do we know? Do we have even the vaguest estimate of the total volume of business that flowed through the Mediterranean at *any* time between the first and the fourteenth or fifteenth centuries?[38] McCormick sets out to challenge 'the old vision of a stagnant and closed economy in northwestern Europe around 800 A.D.'[39] but leaves the old vision of 'late Roman economic decline' perfectly intact.[40] In particular, the one body of evidence that he completely ignores is data pertaining to the monetary history of the late empire and of late antiquity more generally. The same is true of Carandini. His views underwent a dramatic shift between the excellent introduction he wrote to the third volume of *Società romana e impero tardoantico* (1986) and the deeply pessimistic chapter in the corresponding volume of *Storia di Roma* published in 1993. In the first of these essays Carandini points out that Rome had been characterised by a 'commercial organisation' that was 'pre-industrial' but 'modern' all the same. The reference here was to Braudel's discussion of commercial capitalism in the early modern period and the distinction drawn there between types of markets according to the degree of domination exercised over them by, for example, large producers. Of particular interest in this essay was his critique of Whittaker (seen by Carandini as 'nullifying the market in favour of political dirigisme and pure subsistence', with theses described by him as 'primitivist') and the view, an exceptional one, that the state was not a burden on the economy but functional to its existence (this in a discussion of late Rome!).[41] In 'The Last Civilisation to be Buried', by contrast, late antiquity is viewed

37 M. McCormick, *Origins of the European Economy* (Cambridge, 2001), at pp. 116 and 783 respectively.

38 See Braudel's rough calculations of the total tonnage of Mediterranean shipping in *The Mediterranean and the Mediterranean World in the Age of Philip II* (London, 1975), vol. I, pp. 445 ff.

39 McCormick, *Origins*, p. 6.

40 McCormick, *Origins*, p. 119. Cf. 'The overall trend of the Roman economic world from c.200 to 700 was downward' (p. 30).

41 A. Carandini, 'Il mondo della tarda antichità visto attraverso le merci', in *Società romana e impero tardoantico*, ed. A Giardina (Rome and Bari, 1986), vol. III, pp. 3–19, esp. 10ff. (Whittaker), 12 (Roman commercial organisation), 17 (state and economy).

less as a historical period (contrast Mazzarino, for example) than a state of entropy that moves relentlessly from Italy's advanced stage of decline in the third century to North Africa under the Vandals, and eventually the eastern provinces from the late sixth century.[42] The essay is replete with biological metaphors and an unmitigated catastrophism, with several arguments clashing directly with the archaeological evidence that began to be laid out in the 1990s and certainly by the 2000s.[43]

The spate of Italian journals that emerged between the late 1960s and the early 1980s under the patronage of prominent left-wing academics like Bandinelli and Canfora is symbolic of the seminal role of the sixties as an intellectual and academic watershed in Italy.[44] The 'materialist' turn to archaeology,[45] the renewed interest in Marxism and eventually the at least *stated* intent of integrating history and archaeology and of treating 'the archaeological documentation as a source for ancient economic history'[46] would find their true dénouement, however, not in the serried ranks of Italy's archaeologists and historians but in the work of a medievalist based, at least formally, in Britain. This refers of course to Chris Wickham's magnificent integration of history and archaeology in *Framing the Early Middle Ages*. What was remarkable here was the sheer weight of the archaeological evidence in establishing a much richer, more complex and nuanced *non-catastrophist* reading of the evolution of the early Middle Ages out of the dissolution of the late Roman empire which remains our best single account to date. The main limitation, however, was Wickham's decision not to include a treatment of money as one of the many strands in the general fabric of his analysis. Though he himself has explained this at least partly on formal considerations (an already extended treatment of exchange in chapter 11),[47] the deeper reticence may well stem from the peculiar tenacity of a specific model of the Roman monetary economy that distinguished British minimalism in the seventies and eighties. If models have to have a name, this one can perhaps be called the 'closed monetary circuit' model.

[42] A. Carandini, 'L'ultima civiltà sepolta o del massimo oggetto desueto, secondo un archeologo', in *Storia di Roma,* vol. III/2, ed. A. Schiavone (Turin, 1993), pp. 11–38, esp. 19–22.

[43] The most extraordinary case of this is the description of seventh-century Syria as more like Merovingian Gaul (whatever that means) than the Roman province of the fifth century. Contrast A. Walmsley, *Early Islamic Syria: An Archaeological Assessment* (London, 2007).

[44] *Quaderni di Storia* was founded by Canfora in 1975; Bianchi Bandinelli started *Dialoghi di Archeologia* in 1967; and *Opus* was established by Ampolo and Pucci in the early 1980s.

[45] Cf. Carandini, *Archeologia e cultura materiale* (Bari, 1975).

[46] From Ampolo and Pucci's manifesto to the first issue of *Opus*.

[47] C. Wickham, 'The Problems of Comparison', *Historical Materialism* 19/1 (2011), 221–31, at p. 229.

In *Agrarian Change in Late Antiquity* I suggested that the crux of any theory of a late imperial decline 'has always been some set of postulates about the monetary history of the fourth century'.[48] The chief example cited there was Michael Crawford's claim that, come the late fourth century, Theodosius I abolished the last vestiges of any taxation in money, since the monetary circle (as he calls it) 'simply became increasingly meaningless'.[49] This was said in 1975, the very year that saw a monograph by Cerati setting out to show the *exact opposite* through a careful sifting of the numerous legal texts on taxation.[50] But the early seventies were clearly the heady days of monetary minimalism, since they had started with a more famous paper by Crawford that planned to conclude that 'an economic and social system in which coined money played a major rôle as a means of exchange, although it existed in the Roman world, was not common'.[51] Here was an argument about the Roman coinage that was clearly designed (1) to minimise its function as means of exchange and (2) to limit the scope of the monetary sector of the economy to the extent possible. Not only was the 'use of coined money as a means of exchange' 'largely limited to the cities of the Empire', Crawford argues in this paper, but the 'cities of the Roman Empire *came only by accident to adopt coined money as their means of exchange*'.[52] Crawford flatly denied that 'coined money' had any economic reason for existence in the ancient world. It was issued solely to 'enable the state to make payments, that is, for financial reasons', and, 'Once issued coinage was demanded back by the state in payment of taxes.'[53] In his 1975 paper the model was more fully elaborated to read: 'in the early Empire, money flowed from the treasury to the soldiers and officials, from them to the peasants in payment for food, from the peasants back to the treasury in taxes'.[54] Of course, once the silver coinage was debased, repeatedly and substantially, in the course of the third century, 'the monetary circle simply became increasingly meaningless' and (a *major* leap here!) was 'doubtless completely abolished in the end by Theodosius I'.

[48] J. Banaji, *Agrarian Change in Late Antiquity*, 2nd revised edn (Oxford, 2007), p. 23.
[49] M. Crawford, 'Finance, Coinage and Money from the Severans to Constantine', *Aufstieg und Niedergang der römischen Welt*, 2/2 (1975), 560–93, at p. 571.
[50] A. Cerati, *Caractère annonaire et assiette de l'impot foncier au bas-empire* (Paris, 1975).
[51] M. Crawford, 'Money and Exchange in the Roman World', *Journal of Roman Studies* 60 (1970), 40–8, at p. 40.
[52] Crawford, 'Money', p. 45. For an early critique see E. Lo Cascio, 'State and Coinage in the Late Republic and Early Empire', *Journal of Roman Studies* 71 (1981), 76–86.
[53] Crawford, 'Money', p. 46. [54] Crawford, 'Finance', p. 571.