INTRODUCTION
BY
LUKAS DE BLOIS, HARRY W. PLEKET AND JOHN RICH

Did a Roman imperial economy exist under the Late Republic, the Roman Principate and the Later Roman Empire? And if so, what type of economy was it? Another equally important question is: did the Roman Empire, by specific actions, the creation of infrastructures, or its very existence, trigger a transformation of economic life in the regions which it dominated? Or was the Empire a marginal affair in the regions that belonged to it, and did economic developments take their own course, independently of the Empire? Questions like these, which are of great consequence to any student of Roman history, archaeology, and Roman law, were at the centre of interest during the second workshop of the network Impact of Empire¹.

Recent discussion of the Roman imperial economy has been dominated by the controversy between modernists like Michael Rostovtzeff, primitivists like Moses Finley and scholars who take an intermediate position, like Keith Hopkins, with his well-known argument that Roman taxation stimulated trade empire-wide². In reaction to Rostovtzeff's modernistic interpretations

¹ We owe thanks to Luuk de Ligt for his advice. This introduction draws heavily on articles by H.W. Pleket. See his contribution to F. Vittinghoff, ed., *Handbuch der europäischen Wirtschafts- und Sozialgeschichte I: Europäische Wirtschafts- und Sozialgeschichte in der römischen Kaiserzeit* (Stuttgart 1990), 25-160; H.W. Pleket, 'Rome: A Pre-industrial Megalopolis', in T. Barker & A. Sutcliffe, eds., *Megalopolis. The Giant City in History* (London 1993), 14-35 (= Pleket 1993A); Idem, 'Agriculture in the Roman Empire in Comparative Perspective', in H. Sancisi-Weerdenburg, et al., eds., *De agricultura* (Amsterdam 1993), 317-342 (= Pleket 1993B); Idem, 'Het Romeinse Rijk: politieke integratie en economische desintegratie', in J.C. Dagevos, P.G. van Druenen, P.Th. van der Laar, and P.R.A. Oeij, eds., *Historie en Integratie. Drijvende krachten achter processen van integratie en desintegratie* (Kampen 1994), 12-25 and 154-156; Idem, 'Tussen Rostovtzeff en Finley. De economie van het Romeinse Keizerrijk in vergelijkend perspectief', *Lampas* 31, 4 (1998), 276-289. Cf. Idem, 'The Roman State and the Economy: The Case of Ephesos', in *Entretiens d'archéologie et d'histoire. Economie antique: Les échanges dans l'antiquité. Le rôle de l'état* (Saint Bertrand de Comminges 1994), 115-126. In this introduction the concept of 'connectivity' has been borrowed from P. Horden & N. Purcell, *The Corrupting Sea: A Study of Mediterranean History* (Oxford 2000).

² See M.I. Rostovtzeff, *Social and Economic History of the Roman Empire* (Oxford 1926; 1957, 2nd ed.); M.I. Finley, *The Roman Economy* (London 1973; 1985, 2nd ed.); K. Hopkins, 'Taxes and Trade', *Journal of Roman Studies* 70 (1980), 101-125; Idem, 'Rome, Taxes, Rents, and Trade', *Kodai, Journal of Ancient History* 6-7 (1995-1996), 41-75; Idem, 'Rents, Taxes, Trade and the City of Rome', in E. Lo Cascio, *Mercati permanenti e mercati periodici nel mondo Romano. Atti degli incontri di storia dell'economia antica, Capri 13-15 Ottobre 1997* (Bari 2000), 253-267. On earlier "primitivist" views and early impulses towards primitivist theories see C. Nicolet, *Rendre à César. Économie et société dans la Rome antique* (Paris 1988), 13-40.

and anachronistic terminology Finley analysed the economy of the Roman Empire as a conglomerate of rather primitive, small-scale rural economies, centred around small settlements dominated by landed proprietors, who lived in the built-up centres of their communities, to which they transferred a good part of the products of their estates. In doing so they brought into being a small-scale local exchange economy, in which the urban artisans essentially provided for the needs of the urban inhabitants. On a strict interpretation Finley's model postulates a dichotomy of landed proprietors living from the rents (whether in money or in kind) of their tenants. The otherwise very probable presence of a group of small independent farmers can easily be accommodated in the Finleyan model of basically local urban exchange-circuits in which substantial import- and export-flows were absent. The middle-group of independent farmers bought the artisanal products they needed and sold their small surpluses in the nearby urban market. The concept 'model' should be emphasized here. A certain amount of 'connectivity' (to use one of the keywords in Purcell-Horden's recent *The Corrupting Sea*) between such market-centres and nearby villages or regions is not to be denied, but such 'connectivity' does not concern the dominant features of such local economies, at least not in the interior. Those small urban *nuclei*, a large majority of which counted far below 10.000 inhabitants, were not production centres in a Weberian sense, which produced for far-off markets and planned future profits, but small consumer settlements that lived off the surrounding countryside. In this primitivist view farmers, landed proprietors, and craftsmen did not aim at the maximizing of profits and at regular, profitable, previously calculated sales in inter-regional markets, but at self-sufficiency and at meeting the demands of a narrowly local circle of customers. On such views long-distance transport and trade were invariably interpreted in terms of politically engineered flows of goods, resulting from government actions like taxation in cash or kind, ad hoc requisitions by armed forces, and the regular provisioning of the city of Rome and standing armies and fleets. Free inter-regional trade was of marginal significance, port towns were quantitatively negligible anomalies, and merchants, with the exception of a few bankers and *publicani*, were small fry. A large majority of them enjoyed a humble status in their communities. There were practically no technological innovations, which could have fostered progressive developments in craftsmanship and agrarian skills. On such primitivist views the Roman Empire was a military and administrative structure, which successfully sapped food, goods, money and services from an endless

number of primitive, small-scale, self-sufficient communities, which were hardly integrated in a supra-local imperial economy, and from a tiny number of exceptional trading communities that had more inhabitants. What seemed to be inter-regional long-distance trade was a consequence of the Roman imperial administration, which concentrated food, goods and means of transport in military zones and at the political centre, the city of Rome. Transport of tax goods, to Rome and the armies at the frontier, was far more important than inter-regional trade in market-goods³. Implicit in this view is the teleological approach that the Roman Empire was simply more primitive than later medieval Europe and even more so than the pre-industrial western societies that existed from about 1500 to 1800 and underwent important changes, which ultimately led to revolutions and take-offs in industry, husbandry, trade and transport. And it is in the Middle Ages and during the *Ancien Régime* that the so-called birth of capitalism is to be located and the teleology begins to work. Antiquity was different. Finley was very good in saying what it was not. Richard Saller recently suggested that for Finley the economies of both Antiquity and later pre-industrial Europe up to A.D. 1800 were different from the industrial economy of the 19th and 20th centuries. Finley may well have agreed with this proposition on the condition that it does not imply that the difference between Antiquity and pre-industrial Europe was insignificant. Both periods were different from industrial Europe in all meaningful aspects (technology, agricultural production and productivity, urbanization, growth-rates, both aggregate and per capita), but Antiquity was more different than later pre-industrial Europe⁴.

³ As to the provision of Rome and the armies with wine and oil see now L. Wierschowski, 'Die römische Heeresversorgung im frühen Prinzipat', *Münstersche Beiträge zur antiken Handelsgeschichte* 20, 2 (2001), 37-61, who argues that these commodities were essentially market-goods; *contra* J. Remesal Rodríguez, 'Heeresversorgung im frühen Prinzipat. Eine Art, die antike Wirtschaft zu verstehen', *Münstersche Beiträge zur antiken Handelsgeschichte* 21, 1 (2002), 69-84, who has an open eye for the vast movements of bulk goods toward Rome and the legions, believes in an "Austausch von Produkten über (große) Entfernungen", but still holds that taxes and rents in kind provided the bulk of those products. The "Austausch" turns out to be largely transport of such goods. This is not what commonly the term 'exchange' covers.

⁴ R.P. Saller, 'Framing the Debate over Growth in the Ancient Economy', in W. Scheidel & S. von Reden, eds., *The Ancient Economy* (Edinburgh 2002), 251-269; see also his remarks in *Journal of Roman Archaeology* 14 (2000), 580-584. As to Saller's own views, he admits that during the first two or three centuries of the Empire there may well have been some economic growth, both in aggregate production and per capita, *i.e.*, in productivity, but he calls this growth modest and limited; it was even very modest compared to that of the early modern states of pre-industrial Europe. In fact it may have been very modest compared to the growth-rate of the Netherlands between 1500 and 1700, but I am not at all sure that the

Doubts arose. Scholars like Hopkins, Nicolet and Duncan-Jones adopted intermediate positions between modernism and primitivism. In spite of their occasionally less primitivist vocabulary, however, they apparently accept the thesis that the economy of the Roman Empire was significantly more simple and primitive than that of later pre-industrial western societies. According to Keith Hopkins⁵, Roman taxation stimulated surplus production and supra-local export trade, both of which were needed to raise the money and products with which taxes could be paid. In this way Hopkins assumes the existence of an empire-wide impact of Roman administration and taxation, but he simultaneously takes it for granted that this surplus production and long-distance trade constituted a thin veneer of modernity on top of an omnipresent primitive subsistence economy, which did not foster any really Weberian production centres.

Another scholar who assumes the existence of an empire-wide impact of the Roman imperial administration is Claude Nicolet. He speaks of an “*économie d’empire*” and adduces evidence about trade between the Empire and the oriental world to argue that the “*économie d’empire*” was transformed into an “*économie-monde*”, thereby borrowing terms from I. Wallerstein who suggested that the incipient trade between European national states and the non-European world contributed to the rise of a ‘world economy’. Nicolet simultaneously takes it for granted, however, that the Roman economy was predominantly agrarian, in a rather primitive sense, and that towns were centres of administration, public culture and religion⁶.

According to Duncan-Jones the Principate was a period of increasing inter-regional trade. He argues on the one hand that the existence of big cities, like Rome, Alexandria, Ephesus and Carthage, caused long-distance trade in food, luxury goods and building materials, but on the other hand he holds that empire-wide taxation hampered and limited free market-oriented trade, and forestalled a rise in status of rich long-distance traders⁷. He contrasts the mentality of Roman senators towards trade and manufacture with that of the elite of medieval Florence, thereby implying that the senatorial mentality can be taken as representative of the mentality of elites

Roman growth was all that more modest compared to that of less ‘progressive’ pre-industrial European countries.

⁵ See Hopkins’ articles mentioned in note 2; for some criticism see H.W. Pleket, ‘Models and Inscriptions: Export of Textiles in the Roman Empire’, *Epigraphica Anatolica* 30 (1998), 117-128.

⁶ See Nicolet 1988, op. cit. (n. 2), 205-211 and 153 f.

⁷ See R.P. Duncan-Jones, *Structure and Scale in the Roman Economy* (Cambridge 1990), 30-47.

in the larger cities of the Empire. The real problem, however, is not whether Rome, the atypical metropolis of an empire, resembled Florence (which it evidently did not), but rather whether there were cities like Florence in the Roman world.

Thus scholars like Hopkins, Nicolet and Duncan-Jones, who take an intermediate stand in the debate, still appear to accept that the bulk of the Roman imperial economy was rather primitive and fragmented, and that the economy of the Roman Empire was more primitive than that of later medieval and pre-industrial Europe.

One generally accepted primitive aspect of the Roman imperial economy was its fragmentation into regional and even local circuits. Did something like a 'Roman imperial economy' exist? Archaeological research demonstrates how strongly regions of the Empire differed. Syria and the Rhineland admittedly shared Roman imperial culture. They both had Roman public buildings, fortifications, army camps, altars of the imperial cult, and paved roads, but in many respects those provinces were different worlds. The Roman Empire may have been nothing else than a conglomerate of different cultural and economic entities, which were kept together by the Roman imperial administration, the armed forces, and - to a lesser extent - Graeco-Roman elite culture, but certainly not by economic integration. The Roman Empire did not have a fully integrated economy, in the Finleyan sense of a system of interdependent markets, with interlocking behaviour and responses over wide areas. Connections between distant areas or regular exchanges of goods between such areas are not to be interpreted as evidence for an integrated imperial economy. For such an economy to come into existence one needs more than a more or less regular trade in some bulk goods (oil, wine) and luxuries (textile). Such trade did not "link the whole of the economy to any single process of price-formation in the world-market And price-formation is, of course, the only yardstick available to the economist for measuring the extent and the working of any market, the world-economy's market included"⁸. The absence of such a system of price-formation appears from what we read in *Digesta* 13.4.3 about prices for wine, olive-oil and grain differing from city to city and from region to region; the same truth, though clad in different words, is on record in Cicero,

⁸ P.W. Klein, 'The China Seas and the World Economy between the Sixteenth and Nineteenth Centuries: The Changing Structures of Trade', in E.L. Holtfrerich, ed., *Interactions in the World Economy. Perspectives from International Economic History* (New York 1980), 61-89, esp. 66.

Verr. 2.3.192, where the author writes that there was no optimal exchange between surplus-generating areas and areas suffering from shortages. This is not to deny that there was “a market economy in the Roman Empire”, to quote the title of a recent article by P. Temin⁹. Temin’s evidence, however, largely pertains to local markets, and although Temin in the end is prepared to speak about interdependent markets, at the same time he uses the term “comprehensive Mediterranean market” and admits that parts of the imperial economy were not tied together as tightly as in the modern economy and that markets were “imperfectly coordinated”. The threat of a rather non-productive ‘battle about words’ seems imminent here. A salutary way-out is provided by J. Paterson who recently wrote: “The best model may be that of a network of micro-regional economies [that is – in our view – essentially local economies with an occasional ‘shot’ of ‘connectivity’ à la Purcell/Horden] These micro-economies have their own natural rhythms and structures designed essentially to meet *local* [italics are ours] needs But at certain periods some of these economies become more closely linked with the wider world and find a wider market for their goods”¹⁰. To those who prefer to believe that the Roman imperial economy was more fragmented (or less ‘comprehensive’, for that matter) than and therefore essentially different from the medieval and *Ancien Régime* economies, a salutary antidote may be offered in the form of a quotation from P. O’Brien, one of the leading scholars in the field of comparative and global history: “Throughout the early modern era [let alone, we add, throughout the Middle Ages] connections between economies (even within states) remained weak, tenuous and liable to interruption”¹¹. More or less regular ‘links’ or ‘connections’ are acceptable and productive concepts; they are, however, a far cry from an integrated, empire-wide economy.

An appropriate assessment of the quantity, quality, and thus the economic importance of regional and long-distance trade is seriously hampered by a lack of numerical data. In addition, the relation between the ‘command-economy’ of tax goods and requisitioned commodities, and the ‘market-economy’ constitutes an almost unsurmountable obstacle for those

⁹ P. Temin, ‘A Market Economy in the Roman Empire’, *Journal of Roman Studies* 91 (2001), 169–181.

¹⁰ J. Paterson, ‘Trade and Traders in the Roman World’, in H. Parkins & C. Smith, eds., *Trade, Traders and the Ancient World* (London 1998), 164.

¹¹ P.K. O’Brien, ‘European Economic Development: The Contribution of the Periphery’, *Economic History Review* (1982), 1–18, esp. 18.

who would like to gauge the role of inter-regional trade and thereby the extent to which ‘Smithian’ growth took place¹².

In certain areas (e.g. the ‘triangle’ Baetica-Rome-Gallia) the provisioning of Rome and the standing armed forces brought into being regular long-distance transport structures, on the back of which merchants could transport their goods to distant markets. Incidentally, even if it could be shown that the status of *negotiatores* is not that of urban *bourgeois* and therefore hardly comparable with later pre-industrial European mercantile *bourgeoisies*, this does not necessarily imply that the volume of trade and its wealth-generating potential were equally incomparable. Here the phenomenon of (in)dependent freedmen comes to the fore; elsewhere we launched the term ‘pseudo-bourgeoisie’ for those people. The recent study by John D’Arms of the *collegium* of *Augustales* in Misenum – with 100 members about the size of the *curia* of the city – shows how numerous and wealthy such freedmen could be in a harbour city¹³. Many of them will have accumulated their wealth in trade and/or manufacture, though wealthy *agrarian* freedmen are not to be excluded completely.

In the above-mentioned ‘triangle’ Southern Spain became one of the “hot spots of development --- made possible by combining regional peculiarities with highly centralized Mediterranean-wide systems of ‘connectivity’ and by a high external demand”¹⁴. Much of this development was focused on Rome and its legions, although this should not be exaggerated. There is a tendency nowadays to interpret the rise and growth of major provincial towns and areas as a result of their role as so-called ‘feeder-towns’ (or ‘feeder-areas’) of Rome¹⁵. For Baetica this concept may be more appropriate and it may have more explanatory value than for certain areas in the Greek East. In the latter merchants are less likely to have travelled on the back of tax goods transported to Rome under the regime of

¹² For ‘Smithian’ growth see J. Mokyr, *The Lever of Riches. Technological Creativity and Economic Progress* (Oxford 1990), 5: “Economic growth caused by an increase in trade may be termed Smithian growth”.

¹³ J.H. D’Arms, ‘Memory, Money, and Status at Misenum: Three New Inscriptions from the *Collegium* of the *Augustales*’, *Journal of Roman Studies* 90 (2000), 126-144.

¹⁴ B.D. Shaw, ‘Challenging Braudel: A New Vision of the Mediterranean’, *Journal of Roman Archaeology* 14 (2001), 419-453, esp. 431. ‘Hot spots of development’ is more or less what H.W. Pleket meant when he wrote about “Polen um die herum Wachstum stattfinden konnte und stattfand”. See Pleket 1990, op.cit. (n.1), 61.

¹⁵ See Hopkins’ article in *Kodai* (see note 2), 58, 60 and 63, and the remarks of H.W. Pleket in *Epigraphica Anatolica* 1998, op.cit. (n.5), 122 with note 22.

the *annona*. A case in point is the trader Flavius Zeuxis from Hierapolis in Phrygia who, according to the epitaph engraved on his impressive sarcophagus, sailed seventy-two times round Cape Malea to Italy. He is likely to have exported, *inter alia*, high-class woollen garments from Laodicea/Hierapolis to prosperous regions of Italy¹⁶. There is no evidence for the view that *annona*-ships regularly sailed from Ephesus to Italy; nor is there reason to believe that the developments in western Asia Minor in general and in a renowned textile centre like Laodicea/Hierapolis in particular were a function of their role as a 'feeder of Rome'¹⁷.

Similarly there is no compelling reason to believe that the regular export of luxury textiles, manufactured in cities like Scythopolis, Byblos and Tyre, could only take place because these cities took advantage of the availability of regular services of *annona*-ships, *i.e.*, of cheap, state-subsidized transport. These cities were governed by mercantile elites and owed their wealth to empire-wide export, which testifies to their 'Smithian' growth. The latter is to a large extent to be explained by the opening up of distant markets, made possible by incorporation in the Empire: in other words, a case of the 'impact of the Roman Empire'.

The above does not alter the fundamental fact that economic activities in the Empire were predominantly local or regional. This view is more or less corroborated by calamities that hit the Empire from about A.D. 230. Most crises were predominantly regional affairs, with the sole exception of the plague, which raged from about A.D. 250 to 280. It remains to be seen whether this situation essentially differs from that in later pre-industrial Europe. P. O'Brien's conclusion, mentioned above, certainly justifies scepticism about an affirmative answer.

We should perhaps place primitivist theories more into their proper perspective than Hopkins, Nicolet, and Duncan-Jones have done. The economy of the Roman Empire may have been less primitive than they, still following Finley, have suggested¹⁸. On the other hand the economies of

¹⁶ See Pleket 1998, op.cit. (n.5), 126.

¹⁷ For an attempt to show that Western Asia Minor went through a process of modest growth both of aggregate and per capita production and that this process owed much of its strength to the incorporation of the region in the Pax Augusta of the Empire rather than it being a 'feeder of Rome', see H.W. Pleket, 'Economy and Urbanization: Was there an Impact of Empire in Asia Minor?' (forthcoming in a volume of *Asia Minor Studien*, Bonn 2003).

¹⁸ A few scholars who try to escape from Finleyan views: H. Parkins, ed., *Roman Urbanism beyond the Consumer City* (London/ New York 1997); Parkins & Smith 1998, op.cit. (n.10); Z.H. Archibald, J. Davies, V. Gabrielsen & G.J. Olivier, eds., *Hellenistic Economies* (London/ New York 2001); P.P.M.

medieval European regions and post-1500 pre-industrial western countries may have been less developed and modern than many historians seem to believe. In this respect it is appropriate to quote the English historian A.R. Bridbury: “The most striking features of the economic institutions of medieval life is *how like they were to those we find both earlier* [italics are ours] and also later in European history”. This is not to deny changes, but “many things can change without anything developing”¹⁹. Primitive, pre-capitalistic features were typical of large sectors of the economy both of the Roman Empire and of Europe during the Middle Ages and the period of the *Ancien Régime*, but at the same time in both periods there were ‘niches’ of a more capitalistic economy, characterized by structural long distance trade in staples (wine, oil, grain) and luxuries (textile, spices, marble), and by production of those goods for the market²⁰. In both periods markets tended to function with a high degree of imperfection. In both the Roman Empire and medieval and pre-industrial Europe scarcity of credit, an inflexible labour market and a constrained land market together constituted imperfect factor markets, and a low degree of market integration, resulting in a high volatility of prices and an insecure exchange value of crops, goods and services, characterized an imperfect product market²¹. Roman bookkeeping and accounting techniques may have been different from medieval and later pre-industrial ones, but they were hardly inferior to them²². As to the alleged technological backwardness of Antiquity in comparison with the alleged technological revolution of the Middle Ages and the general technological performance of later pre-industrial Europe, it is worthy of note to point to A. Wilson’s magnificent article about ‘Machines, Power and the Ancient Economy’²³: “Agriculture remained fundamental to the Roman economy, but

Erdkamp, ‘Beyond the Limits of the Consumer City. A Model of the Urban and Rural Economy in the Roman World’, *Historia* 50 (2001), 332-356.

¹⁹ A.R. Bridbury, ‘Markets and Freedom in the Middle Ages’, in B.L. Anderson & A.J.H. Latham, eds., *The Market in History* (London 1986), 79-119, esp. 91 f. and 95.

²⁰ See Pleket 1993B, op.cit. (n.1), 317.

²¹ A comment made by Paul Erdkamp, to whom I owe thanks. Cf. F. Ellis, *Peasant Economics. Farm Households and Agrarian Development* (Cambridge 1988).

²² Pleket 1998, op.cit. (n.1), 288 f.; cf Pleket 1990, op.cit. (n.1), 51 f., note 41; 62; 96-99.

²³ *Journal of Roman Studies* 92 (2002), 1-32, esp. 30. Wilson’s approach seems to us to have more explanatory potential to explain urbanization and modest economic growth than recent attempts to explain the impressive urbanization within the Roman Empire as a function of ruthless exploitation of the countryside by the ‘Romans of Rome’. True enough, Rome itself is a magnificent example of a parasitic pre-industrial metropolis, but other big cities and towns in the intermediate range cannot so easily be explained by the mechanism of exploitation.

the Roman Empire in the earlier centuries A.D. saw both aggregate and per capita economic growth, and I believe this was due to significant technological progress, both in agricultural technology to sustain a greater number of non-agricultural workers in perhaps the most highly urbanized pre-industrial society the world has known, and in non-agricultural technologies, such as mining”.

Another equally important problem is that of the typology of cities in the Roman Empire and in later periods of European history. Not all towns in the Roman Empire were small consumer-towns that lived off the surrounding countryside. There were Weberian ‘production cities’ in the Near Orient (Tyre, Scythopolis, Byblos) and in Asia Minor (Tarsus, Laodicea/Hierapolis), which exported high quality textiles to distant markets and generated significant wealth. Urbanization patterns of the Roman Empire were not all that different from later medieval and 1500-1800 pre-industrial European patterns. In both the Roman Empire and pre-industrial Europe most towns were very small, with locally oriented economic structures. And both the Roman Empire and pre-industrial Europe housed only a handful of really big cities, with more than 100,000 inhabitants, and not many medium-sized towns with 10-20,000 inhabitants. Only well into the nineteenth century did European patterns definitely start to differ from imperial Roman patterns. In that age the number of European towns of more than 10,000 inhabitants rose from 364 to 1709²⁴.

The economic functions of the city of Rome, and analogously of imperial Roman standing armies, may have been more varied and ‘modern’ than Finley and others suggest. Rome and the armed forces consumed large quantities of food and goods, which had been extorted by Roman governors from provinces like Egypt and Africa, but the city - like the armies - also attracted free traders. In an admittedly rhetorical showpiece, his eulogy of the city of Rome, Aelius Aristides boasts that all products from all corners of the world turn up in Rome²⁵. Free traders, intellectuals, and soldiers accompanying convicts could all travel on the ships that brought food and goods to Rome, and along the paved military highways leading to the city²⁶.

²⁴ Pleket 1998, op.cit. (n.1), 285-288.

²⁵ Aelius Aristides, *Eis Rhomèn* 11-13.

²⁶ On the economic functions of the city of Rome see Pleket 1993A, op.cit. (n.1), 14-35 and N. Morley, *Metropolis and Hinterland. The City of Rome and the Italian Economy, 200 B.C. - A.D. 200* (Cambridge 1996).

Contributions to the debate about the character of the Roman economy are offered by several chapters in this volume. Peter Bang proposes a model of the Roman economy and of the role of tribute extraction; Willem Jongman stresses both primitivist elements in the economy and the scale of Roman urbanization and of the Roman state; Luuk de Ligt considers the mechanisms for money transfers, and both he and Bang draw comparisons with the Mughal Empire. Aspects of governmental economic activity are examined by Anne Kolb, discussing transport, and José Remesal Rodríguez, discussing military supply. Food supply is also considered by Paul Erdkamp, who argues that E. P. Thompson's concept of the 'moral economy' is a fruitful tool for interpreting food riots in the Roman Empire. Differences between Roman and modern business practice are considered by Willem Zwulve, who discusses the legal status of slaves conducting business with a *peculium* and argues that they may be seen as the Roman equivalent of modern companies.

Several contributors offer studies of particular regions, and three of these deal with Gaul and the Rhineland. John Drinkwater argues that for Gaul, following a period of convergence, the crucial moment of Roman impact and consequent economic transformation came with the reign of Augustus and that emperor's militarization of the province. Philippe Leveau shows how recent archaeological work has illuminated economic development in Gallia Narbonensis. Augustan military activity in Gaul and Germany is also treated by Jos van der Vin, who discusses the coin finds from the Kops Plateau near Nijmegen, occupied c. 15-10 BC at the time of the Augustan advance into Germany, and the monetarization of the Rhine frontier zone. Hugh Elton discusses a region at the opposite end of the Empire, Cilicia, examining the political and economic impact of Roman rule both in the relatively urbanized eastern part of the province and in the wilder zone of Rough Cilicia. Finally, we move beyond the frontier with David Mattingly's discussion of economic development among the Garamantes of the Sahara and the extent to which it may have been influenced by Roman contacts.

The volume closes with a group of chapters focusing on aspects of the Later Roman Empire. Lukas de Blois discusses the third century crisis, arguing that it cannot be dismissed as a modern myth. Antonio Polichetti discusses Diocletian's Price Edict with particular reference to labour costs. Wolfgang Liebeschuetz reviews the evidence for changes in the density of rural settlement in different regions of Italy and the Empire from Republican times to the Late Empire, with a view to shedding light on the problem of ruined landscapes in the Late Empire. Andrew Poulter presents the evidence

for economic collapse in the countryside and the transformation of cities into fortresses on the lower Danube in late antiquity.

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