

# Globalizing Late Antiquity: Models, metaphors and the realities of long-distance trade and diplomacy

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## Introduction

This contribution addresses the 'big picture' of conceptualising the long-distance contacts between the lands around the eastern Mediterranean and other geographical regions in the first to seventh centuries AD. These contacts will be discussed in relation to the Roman Empire prior to the fifth century, and then to the period of Late Antiquity – understood here as from the early fifth to the late seventh century. Discussion of these contacts provides an opportunity to evaluate the analytical relevance to both the Roman period and to Late Antiquity of the much-debated theoretical concept of 'globalization'.

## The imperial Roman economy

In recent years, long-held interpretations of the Roman imperial economy have come under intense criticism from both ancient historians and, especially, archaeologists. These, which envisaged a 'Classical' economy based on agricultural production and the spoils of war, have been challenged both through the implications of new archaeological evidence and by new directions in scholarly debate. In particular, the minimal roles assigned by Finley and others to long-distance trade and large-scale production have been comprehensively rejected in the face of overwhelming material evidence. This revolution in thinking about the Roman economy, associated most closely with the work of Kevin Greene and David Peacock, has placed archaeological evidence – especially that relating to production and exchange – 'centre-stage' in such discussions.<sup>1</sup>

Work by many scholars on data from across the Roman world has shown convincingly that long-distance bulk trade played a significant role in Roman economic life, and manufacturing took place on a large scale. Basic commodities such as oil, grain, pottery and building materials were produced in large quantities and transported over long distances. This has rendered the argument that long-distance trade in the Roman Empire involved only luxury goods no longer tenable.<sup>2</sup>

Simultaneously, the assumed centrality of slavery and of the military in the Early Roman economy have come to be questioned. While the Early Roman rural economy was – at least in specific provinces (especially in Italy) – heavily dependent on slaves, the economic role of the free – if oppressed – provincial 'peasantry' and of urban populations has been increasingly emphasised. Towns can be seen as centres of production and the provision of services, rather than parasitical 'consumer cities'. Even the role of 'Roman' culture within the Empire has become hotly debated, so that the social matrices within which economic activity took place, and its societal consequences, have become contested among alternative interpretations.<sup>3</sup>

Again, the key evidence here is archaeological, although textual sources also attest low-status economic actors operating in what is effectively a laissez-faire capitalist economic system based on profit and loss. This economy appears to have been transformed after the mid-third century into one in which state control played a larger role, even perhaps to the effect of becoming a 'command economy' in which the state operated as the principal economic actor. However, private enterprise,

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*Structure and Scale in the Roman Economy* (Cambridge, Cambridge University Press, 1990); R. Duncan-Jones, *Money and Government in the Roman Empire* (Cambridge, Cambridge University Press); C.E. King and D.G. Wigg (eds.), *Coin Finds and Coin-Use in the Roman World* (Berlin, Mann, 1996); M. Polfer (ed.), *L'artisanat romain : évolutions, continuités et ruptures (Italie et provinces occidentales). Actes du coll. intern. des 26-28 oct. 2001 à Erpeldange* (Monographies Instrumentum 20), (Montagnac, Editions Monique Mergail 2001). See also: D.J. Mattingly, 'Oil for export? A comparison of Libyan, Spanish and Tunisian olive oil production in the Roman empire', *Journal of Roman Archaeology* 1 (1988): 33-56; C. Howgego, 'Coin circulation and the integration of the Roman economy', *Journal of Roman Archaeology* 7 (1994): 5-21.

<sup>3</sup> Capitalist' is meant in this paper to designate any economic practice of buying and selling for profit, rather than (for example) networks of the consumption or transfer of material goods and of services embedded in social, cultural or religious relationships. Thus, an economy based only on socially-prescribed dues and renders would not be classified here as 'capitalist' while one in which the sale of goods for personal, family or institutional profit was the convention would be categorised in that way. For evidence of a capitalist market economy in the Roman Empire: B. Levick, 'The Roman economy: trade in Asia Minor and the niche market', *Greece & Rome* 51 (2004): 180-198; P. Temin, 'A Market Economy in the Early Roman Empire', *Journal of Roman Studies* 91 (2001): 169-181; D. Rathbone, *Economic Rationalism and Rural Society in Third-Century AD Egypt: The Heroninos Archive and the Appian Estate* (Cambridge, Cambridge University Press, 1991); W. Scheidel, S. Von Reden (eds.), *The Ancient Economy* (Edinburgh, Edinburgh University Press 2002); D.J. Mattingly and J. Salmon (eds.), *Economies beyond agriculture in the Classical world* (London, Routledge, 2001); B. W. Frier, 'The Rental Market in Early Imperial Rome', *Journal of Roman Studies* 67 (1977): 27-37.

<sup>1</sup> M. I. Finley, *The Ancient Economy* (revised 3<sup>rd</sup> ed.) (Berkeley, University of California Press, 1999); J.H. D'Arms, *Commerce and social standing in Ancient Rome* (Cambridge Mass., Harvard University Press, 1981); P. Garnsey and C. R. Whittaker (eds.), *Trade and Famine in Classical Antiquity* (Cambridge, Cambridge Philological Society, 1983); P. Garnsey, K. Hopkins and C.R. Whittaker (eds.), *Trade in the Ancient Economy* (London, Chatto and Windus, 1983).

<sup>2</sup> K. Greene, *The Archaeology of the Roman Empire* (London, Batsford, 1987), pp. 14-15; D.P.S. Peacock and D.F. Williams, *Amphorae and the Roman Economy* (London, Longman, 1986); R. Duncan-Jones,

entrepreneurship and associations of free, non-state, traders all remain extensively attested. Local and regional producers, unlikely to be under direct state control, flourished in the provinces and a greater provincial and diocesan self-reliance are visible, as evidenced for example in the regionalisation of both pottery and iron production in Late Roman Britain.<sup>4</sup>

Other recent work, both in archaeology and ancient history, is revising even this newer model of the Roman imperial economy, suggesting that the Roman Empire had what economists and economic historians term a 'proto-industrial' economy. A 'proto-industrial' economy is one in which mass-production of standardised goods based on traditional manufacturing practices serves regional or even inter-regional markets. Such economies were common in pre-modern contexts and characterised the immediately pre-Industrial economies of Europe. There is even evidence that the so-called 'long waves' of economic 'boom' and 'bust' characteristic of capitalist market economies may also be visible in the Roman period.<sup>5</sup>

These patterns of long-distance exchange and domestic growth appear more akin to those of seventeenth- and early to mid-eighteenth-century England rather than to those of medieval feudalism. However, it must be stressed that a 'proto-industrial' economy is one in which full industrialization has not occurred and in which agriculture remains the basis of economic production.<sup>6</sup>

<sup>4</sup> Concerning technology see also: P. Leveau, 'The Barbegal water mill in its environment: Archaeology and the economic and social history of antiquity', *Journal of Roman Archaeology* 9 (1996): 137-53; A. Wilson, 'Machines, power and the ancient economy', *Journal of Roman Studies* 92 (2002): 1-32; Ö. Wikander, *Exploitation of Water-Power or Technological Stagnation in the Roman Empire* (Lund, Gleerup, 1984); K. Greene, 'Technology and innovation in context: the Roman background to mediaeval and later developments', *Journal of Roman Archaeology* 7 (1994): 22-33.

<sup>5</sup> K.R. Dark, 'Proto-industrialization 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, Boydell, 1996), pp. 1-22. For economic 'long-waves' in the Roman economy: C. Going, 'Economic "long waves" in the Roman period?', *Oxford Journal of Archaeology* 11 (1992): 93-111. The propensity for 'long-waves' of expansion and decline in modern capitalist market economies was first identified by the economist N.D. Kondratieff in the 1920s, and is widely (although not universally) credited in modern economic theory. Note also Hitchner's work on sustained growth and productivity in the Roman economy: R.B. Hitchner, 'The Advantages of Wealth and Luxury: The Case for Economic Growth in the Roman Empire', in *The Ancient Economy. Evidence and Models*, eds. J.G. Manning and I. Morris (Stanford, Stanford University Press, 2005), pp. 207-222; R.B. Hitchner, 'Olive production and the Roman economy: the case for intensive growth in the Roman empire', in *La production du vin et de l'huile en Méditerranée*, eds. M.-C. Amouretti and J.P. Brun Bulletin de Correspondance Hellénique supplement 26 (1993): 499-506; R. Saller, 'Framing the Debate Over Growth in the Ancient Economy', in *The Ancient Economy. Evidence and Models*, eds. J.G. Manning and I. Morris (Stanford, Stanford University Press 2005), pp. 223-238. For a radical but interesting suggestion concerning Roman-period credit and finance without using coinage: M. Shaheen, 'Credit Cards in Ancient Times', *Anistorion* 23 (2002): unnumbered pages.

<sup>6</sup> K.R. Dark, 'Proto-industrialization and the economy of the Roman Empire', in *L'Artisanat Romain: évolutions, continuités et ruptures. Actes du 2e Colloque d'Erpeldange 26-28 Octobre 2001*, ed. M. Polfer

Nevertheless, revising economic models of the Roman world in this way has the potential to open new debates in the study of the economy regarding, for example, the exploitation and commoditization of labour and time, the part played by innovation and technology and the relevance of neo-classical economic models to pre-modern economic history.

This economic system had profound implications for the provinces of the Roman Empire. Despite the current debate over the validity of the term 'romanization', it is hard to dispute that populations in the Roman Empire frequently had unprecedented access to manufactured goods, often including goods standardised between provinces, and that material standards of living (at least for many urban communities) were transformed. In the western provinces of the Empire, urbanism and bureaucratic government were introduced as a consequence of incorporation into the Roman state.<sup>7</sup>

This is a long way from the model of the 'Classical economy' envisaged by earlier scholars such as Finley, or even the 'peasant economy' model of the Roman world favoured by archaeologists in the 1970s and 1980s. Our knowledge of the extensity – the geographical range – of the Roman economy has also been transformed by recent archaeological work. In particular, it is clear from excavations and other work in Egypt – especially at Berenike on the Egyptian Red Sea Coast – and in South Asia, that Roman trade across the Indian Ocean was far more intensive and wide-ranging than previously thought, and that its products reached across the Empire, being especially common in the Eastern provinces. While Roman material in South Asia has been systematically studied since Wheeler's seminal work in the area, and the existence of trading centres such as Broach and

(*Instrumentum* monograph 20) (Montagnac, Instrumentum, 2001), pp. 19-29. See also: D. Whittaker 2003 'Roman Proto-industry in Southern France: Some Indian Comparisons' *The Medieval History Journal* 6.2, 293-301.

<sup>7</sup> For the results of cultural and economic interactions across Roman frontiers: L. de Blois and J.W. Rich (eds.), *The Transformation of Economic Life under the Roman Empire* (Impact of Empire 2) (Amsterdam, Gieben, 2002); N. Roymans, 'Romanization and the transformation of a martial elite-ideology in a frontier province', in *Frontières d'empire. Actes de la table ronde internationale de Nemours 1992*, eds. P. Brun et al (Nemours, Mémoires du Musée de Préhistoire d'Ile-de-France, 5, 1993), pp. 33-50; A. Gardner, 'Military identities in late Roman Britain', *Oxford Journal of Archaeology* 18 (1999): 403-17. For an alternative concept of Classical cultural integration: I. Morris, 'Mediterraneanization' in *Mediterranean Paradigms and Classical Antiquity*, ed. I. Malkin (London and New York, Routledge, 2005), pp. 33-55. For the Mediterranean as an analytical unit: P. Horden and N. Purcell, *The Corrupting Sea. A Study of Mediterranean History* (Oxford, Blackwell, 2000). For the recent debate on the term 'romanization': E. Fentress, 'Romanizing the Berbers', *Past and Present* 190 (2006): 3-34; D. Mattingly, 'Being Roman: expressing identity in a provincial setting', *Journal of Roman Archaeology* 17 (2004): 5-25; P.W.M. Freeman, 'Romanisation' and Roman material culture' *Journal of Roman Archaeology* 6 (1993): 438-445; J. Webster, 'Creolizing the Roman Provinces', *American Journal of Archaeology* 105 (2001): 209-225.

Arikamedu has not been in doubt, the intensity of this contact has only become apparent in recent decades.<sup>8</sup>

Whether or not these goods arrived in Roman, Arabian or Indian ships – or in a combination of these – the commodities of this trade included spices, exotic wood, ivory, valuable stones, pearls and silk. Not only luxury goods were involved, as work in Roman Egypt has shown, but bulk everyday items such as pottery. This trade, apparently outside of state control, again offers strong evidential grounds for doubting minimalist interpretations of the Roman economy. Moreover, it was much more long lived than previous supposed: involving – in its Roman-period phase – dateable material from the second century BC to at least the fifth century AD.

At the other end of this commercial link, Roman material in South Asia includes pottery, glass and over 6,000 coins, some of the latter in large hoards as at Akkampalle, which contained 1,531 *denarii*. Local potters copied Roman ceramic forms and cultural connections can also be seen, with early first millennium AD Indian art, and perhaps religion, being influenced by Roman models. To give an example, excavations in Kerala at Pattanam (which may be the ancient port of Muziris) have revealed hundreds of sherds of Roman pottery and a large hoard of Roman coins was found c.6 miles from the site. Finds of gems and precious stones may hint that these were among the material being exported.<sup>9</sup>

<sup>8</sup> On the nature and permeability of Roman imperial frontiers: C.R. Whittaker, *Rome and its Frontiers. The Dynamics of Empire* (London and New York, Routledge, 2004); R. Talbert (ed.), *Barrington Atlas of the Greek and Roman World* (Princeton, Princeton University Press, 2000); H. Elton, *Frontiers of the Roman Empire* (London, Batsford, 1996). There is a vast academic literature on Roman contacts with India; for surveys see: S. Suresh, *Symbols of Trade: Roman and Pseudo-Roman Objects Found in India* (New Delhi, Manohar, 2004); G.K. Young, *Rome's eastern trade: international commerce and imperial policy, 31 BC-AD 305* (London, Routledge, 2001); P. Lunde and A. Porter (eds.), *Trade and Travel in the Red Sea Region Proceedings of Red Sea Project I held in the British Museum October 2002* (Oxford, British Archaeological Reports International Series S1269 / Society for Arabian Studies Monographs 2, 2004); J. Moorhead, *The Roman Empire Divided 400-700* (Harlow, Longman, 2001) p. 294, n.19; R. Tomber, 'Indo-Roman trade: the ceramic evidence from Egypt', *Antiquity* 74 (2000): 624-631; J.I. Miller, *The spice trade of the Roman Empire* (Oxford, Clarendon, 1998); W. Ball, *Rome in the East* (London and New York, Routledge, 2000), pp. 123-133; R.M. Cinimo (ed.), *Ancient Rome and India* (New Delhi, Munshiram, 1997); V. Begley and R.D. de Puma (eds.), *Rome and India: The Ancient Sea Trade* (Madison, University of Wisconsin Press, 1991); L. Casson, 'Egypt, Africa, Arabia and India: patterns of seaborne trade in the first century AD', *Bulletin of the American Society of Papyrologists* 21 (1984): 39-47; V. Begley, 'Arikamedu Reconsidered', *American Journal of Archaeology* 87 (1983): 461-481. The starting point for this work is: R.E.M. Wheeler, *Rome beyond the Imperial Frontiers* (Penguin, London, 1954). On long-distance overland trade, see also: F. Millar, 'Caravan cities: The Roman Near East and long-distance trade by land', in *Modus Operandi: Essays in Honour of Geoffrey Rickman*, eds. M. Austin, J. Harries and C. Smith (London, Institute of Classical Studies, University of London 1998), pp. 119-137.

<sup>9</sup> Ball, pp. 139-48, 400-404; N. Durani, 'Pepper Port. Muziris Found', *Current World Archaeology* 2.6.1 (2006), 18-19, quoting Tomber. Note also the fifth- and sixth-century material reported by: N.D. Sheth 2006 'Roman relics found near Elephanta', *India Daily News*, 15 September

The quantity of Roman material in South Asia is matched by its wide distribution. Roman coins have been found on at least 130 sites, with a concentration in the Krishna valley in Andhra and the Coimbatore region in Tamilnadu. Local counter-marking shows that these were in use as coinage within the subcontinent and Roman material of the same range and date as the authenticated Indian finds is not just found in India, but also in Sri Lanka and southeast Asia also.<sup>10</sup>

This link with the Roman Empire involved not only the export of things but also beliefs, values and concepts – so that South Asian cultural history will need to be revised in the light of this pattern of links. For example, in 180, Pantaenus, a Sicilian Christian sailing from Roman Alexandria could even, it seems, find a local Christian community in India. Thus archaeology and texts leave us in no doubt that there was regular contact between the Roman Empire and India, with both economic and cultural consequences.<sup>11</sup>

How much further East Roman traders ventured remains a problem. Roman contacts with China are a relatively new area of archaeological investigation, although these may have been much more extensive than often supposed. However, it is unlikely that such regular contacts were maintained as with South Asia, due to the rigours of the overland route and the difficulties of maritime contact.<sup>12</sup>

Closer to the Roman Empire, in Persia, one need only look at the Persian town of Jundeshapur to realise just how much evidence of Roman contacts one can see outside the Empire in the East. The town, built on the plan of a Roman fort, became the centre for Roman culture in Persia and was even the place to which the pagan philosophers of the Academy Athens later fled when Justinian I closed down their school in the sixth century. A few other cities in Persia also followed Roman plans. For example, Bishapur had a temple constructed in the manner of Roman Syria, an honorific column commemorating its foundation and townhouses decorated with what appear to be Antiochine mosaics. Although the settlement of Roman captives may have

2006 <http://www.dnaindia.com/report.asp?NewsID=1053100> (accessed 29 May 2007).

<sup>10</sup> P.J. Turner, *Roman Coins from India* (London, Royal Numismatic Society, 1989); D.P.M. Weerakkoddy, *Taprobane: Ancient Sri Lanka as known to the Greeks and Romans. Indicoeleustoi: Archaeologies of the Indian Ocean* (Turnhout, Brepols, 1997); D.P.M. Weerakkoddy, 'Roman Coins of Sri Lanka: Some Observations', *The Sri Lanka Journal of the Humanities* 21.1-2 (1995): 1-30; Ball, p. 469, n. 85.

<sup>11</sup> Ball, p. 130.

<sup>12</sup> Ball, pp. 133-9. One should note also that South Asia and China were closely connected throughout the period discussed by this paper: X. Liu, *Ancient India and Ancient China: Trade and Religious Exchanges AD 1-600* (Delhi and Oxford, Oxford University Press, 1994). I am currently collaborating with a Chinese team which is attempting to catalogue Roman and Byzantine material found in China. For a recent review of this period in Chinese history: J.C. Wyatt, *China: Dawn of a Golden Age 200-750 AD* (New York, Metropolitan Museum of Art, 2004).



had some part in promoting Roman culture in these places, the employment of craftworkers such as mosaicists from the Empire attests continuing cultural connections and trade. These were not isolated prisoner-of-war camps, but thriving urban centres that retained their connections with the Mediterranean world.<sup>13</sup>

There is also evidence of links southeast into Arabia and the Persian Gulf, and northeast into Armenia and Georgia. The integration of Arabia into the trade with Asia is especially interesting, given its role in medieval commerce in the Indian Ocean. These were the connections that took Christianity into these areas from the fourth century onward.<sup>14</sup>

The long-distance contacts of the Roman Empire far beyond its frontiers extended not only to the East but also to the North and South. Roman contacts stretched into Scandinavia, as Lotte Hedeager and others have shown. These links were also varied in intensity and character, involving both unofficial (even illegal) and official interactions with people beyond the Rhine. There they connected with other networks operating to the North of the Roman World and encompassing much of Scandinavia and the Baltic coasts.<sup>15</sup>

<sup>13</sup> Ball, pp. 115-17.

<sup>14</sup> Arabia and the Persian Gulf: G.W. Bowersock, *Roman Arabia* (Cambridge and London, Harvard University Press, 1983); D.T. Potts, *The Arabian Gulf in antiquity* (Oxford, Clarendon Press, 1990); Casson, 'Egypt, Africa, Arabia, and India'; B. Isaac, 'Trade-routes to Arabia and the Roman provinces in the Desert,' in *L'Arabie préislamique et son environnement historique et culturel*, ed. T. Fahd (Strasbourg, Université des sciences humaines de Strasbourg, 1989), pp. 241-256; Ball, pp. 60-64 and 101-5; D.F. Graf, *Rome and the Arabian frontier from the Nabateans to the Saracens* (Aldershot, Ashgate, 1997); M. P. Spiedel, 'The road to Dumata (Jawf in Saudi Arabia) and the frontier policy of praetensio colligare', *Historia* 36 (1987): 213-221. For Armenia: N.H. Baynes, 'Rome and Armenia in the Fourth Century', *English Historical Review* 25 (1910): 625-643; R.W. Thomson, 'Armenia in the Fifth and Sixth Century', in *The Cambridge Ancient History Vol. XIV Late Antiquity: Empires and Successors AD 425-600*, ed. A. Cameron, B. Ward-Perkins, M. Whitby (Cambridge, Cambridge University Press, 2000), pp. 662-677; D. Braund, *Georgia in Antiquity* (Oxford, Clarendon Press, 1994). Christianization included Persia: T.D. Barnes, 'Constantine and the Christians of Persia', *Journal of Roman Studies* 75 (1985): 126-136. See also: D.J. Mattingly, 'Impacts beyond Empire: Rome and the Garamantes of the Sahara', in *The transformation of Economic Life Under the Roman Empire, Proceedings of the Second Workshop of the International Network 'Impact of Empire' Nottingham 2001* eds. L. de Blois and J. Rich (Amsterdam, Gieben, 2002), pp. 184-203.

<sup>15</sup> L. Hedeager, *Iron-Age Societies: from Tribe to State in Northern Europe, 500 BC to AD 700* (Oxford, Blackwell, 1992); L. Hedeager, 'Empire, frontier and the barbarian hinterland: Rome and northern Europe from AD 1-400', in *Centre and Periphery in the Ancient World* eds. M. Larsen and K. Kristiansen (Cambridge, Cambridge University Press, 1987), pp. 125-140; U. L. Hansen, *Römischer Import im Norden* (Copenhagen, Det Kongelige nordiske Oldskriftselskab, 1987); M.G. Fulford, 'Roman material in barbarian society c.200-BC-AD 400' in *Settlement and Society. Aspects of West European prehistory in the first millennium BC*, ed. T.C. Chapman and J.V.S. Megaw (Leicester, Leicester University Press, 1985), pp. 91-108; K. Randsborg, 'Beyond the Roman Empire: archaeological discoveries in Gudme on Funen, Denmark', *Oxford Journal of Archaeology* 9 (1990): 355-366; P.O. Thomsen et al., *Lundesborg- en handelsplads fra jernalderen* (Svendborg and Omegns Museum, Ringe, 1993); P.O. Thomsen, 'Lundeberg - a port of trade in Southeast Funen', in *The archaeology of*

To the South, Roman beads have been found at the Rufiji Delta in Tanzania. In this zone, work by Felix Chami has shown that twenty iron-working sites have evidence of long-distance contacts, including Roman pottery, glass and beads at Kivinja, and the site at Unguja Ukuu also received goods from the Roman world. Gold/silver-in-glass beads from Rhodes dating to between the first century BC and fifth century AD have been recorded at Mkukutu near Kibiti. Roman material was, therefore, reaching sub-Saharan Africa whether directly or indirectly.<sup>16</sup>

That is, an extensive series of overlapping networks of long-distance contacts can be recognised throughout the first to fourth centuries. The Roman world played a major role in these and its citizens may have been the instigator of at least some of them. The nature of these contacts varied both in context and intensity, so that their affects also differed from the adoption of provincial Roman culture to the use of artefacts manufactured in the Empire devoid of any Roman connections. This was an extension of the large-scale production and inter-regional trade evidenced within the Roman world, and a flourishing market economy capable of generating large-scale profit from high-risk trade may have been what enabled traders to engage in perilous but lucrative extra-European trade. Thus, the Roman Empire seems to have had both a proto-industrial economy and an economic system in several other respects similar to that of the post-medieval states which facilitated later European global imperialism and ultimately contemporary globalization.

### Long-distance contacts in Late Antiquity

Such commercial and cultural interactions did not disappear as the Western Roman Empire collapsed, although they were re-configured and perhaps reduced in volume by changed circumstances. These interactions involved the flow of information, material and beliefs both around the Mediterranean and across political and cultural borders to its West, North, East and South. For example, we see fifth-century 'barbarian' kingdoms in

*Gudme and Lundeberg*, eds. P.O. Nielsen, K. Randsborg and H. Thrane (Copenhagen, Akademisk Forlag, Universitetsforlaget København, 1993), pp. 23-29; U. Rald, 'The Roman swords from Danish bog finds', *Journal Roman Military Equipment Studies* 5 (1994): 227-241; M. Jansen, 'The Archaeology of Danish Commercial Centers', in *The Voyage to the Other World* eds. C.B. Kendall and P.S. Wells (= *Medieval Studies at Minnesota* 5) (Minneapolis, University of Minnesota Press, 1992), pp. 171-181 (171-3); M. Axboe, 'Danish kings and dendrochronology: archaeological insights into the early history of the Danish state', in *After Empire. Towards an Ethnography of Europe's Barbarians* ed. G. Ausenda (Woodbridge, Boydell, 1995), pp. 217-238, esp. pp. 255-6; R. Hodges, 'Gudme and Lundeberg: "Rome" beyond the frontier', *Minerva* 12.1 (2001): 30-31.

<sup>16</sup> F. Chami, 'East Africa and the Middle East relationship from the last millennium BC to about 1500 AD', *Journal de Africanistes* 72 (2002): 1-2; Moorhead, *The Roman Empire Divided 400-700*, p. 257; F. Chami, 'Roman Beads from the Rufiji Delta, Tanzania: First Incontrovertible Archaeological Link with the Periplus', *Current Anthropology* 40/2 (1999): 237-241.

Europe engaging in regular interactions with the Eastern Roman, at this period one may say Early Byzantine, Empire and such links spread the distribution of fifth- and sixth-century red-slipped wares and amphorae from the Mediterranean to Ireland and Britain.<sup>17</sup>

As the work of Anne Bowman, Ewan Campbell, Anthea Harris and others, has shown, in Britain this distribution was in part probably the result of direct long-distance contacts with the eastern Mediterranean, at least partly for non-commercial reasons. This involved what may be directional – and perhaps diplomatic – contacts between western Britain and the city of Constantinople itself. Mike Fulford has credibly argued for a Constantinopolitan pottery assemblage at Tintagel, and the same arguments could be extended to other British settlements. Sherds of distinctive Byzantine ships' water jars and the ceramic stoppers from amphorae imply the arrival in Britain both actual Byzantine ships and amphorae intact from the eastern Mediterranean. Medieval church dedications in Cornwall and Wales suggest that Byzantine saints, again some with specifically Constantinopolitan connections such as St Ila (whose shrine was near the Golden Gate), were also venerated in Britain. Remarkably, the dedication to 'St Stinian' at a tiny chapel near St David's appears to retain a memory of the great Byzantine ruler Justinian, whose role in sixth-century East-West contacts is well known.<sup>18</sup>

<sup>17</sup> In general: A. Cameron, *The Mediterranean World in Late Antiquity* (London, Cambridge University Press, 1994); A.D. Lee, *Information and Frontiers: Roman Foreign Relations in Late Antiquity* (Cambridge, Cambridge University Press, 1993); A. Gillett, *Envoys and political communication in the Late Antique West* (Cambridge, Cambridge University Press, 2003), pp. 411–533. For specific example of the expanding pattern of interactions around the eastern Mediterranean in the fourth to seventh centuries: J.W. Hayes, 'From Rome to Beirut and Beyond: Asia Minor and Eastern Mediterranean Trade Connections', *Rei Cretariae Romanae Fautorum Acta* 36 (2000): 285–98; P.M. Watson, 'Ceramic Evidence for Egyptian links with northern Jordan in the 6<sup>th</sup>–8<sup>th</sup> centuries AD', in *Trade, contact, and the movement of peoples. The Eastern Mediterranean. Studies in Honour of J. Basil Hennessy*, eds. S. Bourke and J.-P. Descoeudres (Sydney, Meditarch, 1995), pp. 303–320; C. Abadie-Reynal, 'Céramique et commerce dans le bassin égéen du IV<sup>e</sup> au VII<sup>e</sup> siècle', in *Hommes et Richesses dans l'empire byzantin I, IV<sup>e</sup>–VII<sup>e</sup> siècle* (Paris, Lethielleux, 1989), pp. 143–159. For the western Mediterranean: P. Reynold, *Trade in the western Mediterranean AD 400–700: the ceramic evidence* (Oxford, British Archaeological Reports International Series 604, 1995); S. Keay, *Late Roman amphorae in the western Mediterranean. A typology and economic study. The Catalan evidence* (Oxford, British Archaeological Reports International Series 196, 1984).

<sup>18</sup> K.R. Dark, *Britain and the End of the Roman Empire* (Stroud, Tempus, 2000); J.M. Wooding, 'Cargoes in trade along the western seaboard', in *External Contacts and the Economy of Late Roman Britain and Post-Roman Britain*, ed. K.R. Dark (Woodbridge, Boydell, 1996), pp. 67–82. See also: M. Comber, 'Trade and Communication Networks in Early Historic Ireland', *The Journal of Irish Archaeology* X (2001): 73–92, pp. 82–3 and 87; C. Thomas, 'Gallici nautae de Galliarum provinciis – A sixth/seventh century trade with Gaul, reconsidered', *Medieval Archaeology* 34 (1990): 1–26; A. Harris, *Byzantium, Britain and the West: the archaeology of cultural identity, AD 400–650* (Stroud, Tempus, 2003); E. Campbell, 'The archaeological evidence for external trade contacts: imports, trade, and economy in Celtic Britain A.D. 400–800', in *External Contacts and the Economy of Late Roman Britain and Post-Roman Britain*, ed. K.R. Dark (Woodbridge, Boydell, 1996), pp. 83–96.

Another long-distance route – perhaps relating to Egypt – brought so-called 'Coptic Bowls' and other Byzantine objects to eastern Britain and Gaul, while a scatter of Eastern (especially Egyptian) glass finds occur across the West. Pilgrimage also brought new long-distance connections, evidenced for example in the so-called Menas flasks (or *ampullae*), found widely within and beyond the Empire, including the West as Susanne Bangert's paper shows.<sup>19</sup>

These contacts can be conceptualised in terms of two separate routes: one broadly East-West and motivated by diplomacy as much as trade, the other North-South and more strictly mercantile. The first – connected perhaps with Syrian merchants and with the city of Constantinople itself – also resulted in a series of Byzantine mercantile communities across Europe, which served both diplomatic and economic roles. These, identified in political centres in Italy, Gaul, Spain and North Africa, may have existed in Britain also.<sup>20</sup>

South of the imperial frontiers in the Mediterranean the East Byzantine trade and diplomacy still encompassed Ethiopia, Nubia, the Sudan, and adjacent areas – the former regions sharing the continuous tradition of Byzantine church architecture and Byzantine Christianity. Ethiopia in particular appears to have been deeply affected by Byzantine culture, as discussed in Niall Finneran's paper. The extent of Byzantine contacts in Arabia, while still in need of further study, was clearly wide-ranging and had long-lasting consequences.<sup>21 22</sup>

Persia, although the principal superpower rival of the Byzantine state, was pervaded by Early Byzantine culture. Christianity had arrived as early as the reign of Shapur II and within a generation reached to the Merv oasis, where Christians are still recorded as late as the tenth century. One sixth-century city, populated with captives from Antioch, had something like 30,000 –

<sup>19</sup> A. Harris, *Byzantium, Britain and the West*; Bangert, this volume.

<sup>20</sup> K.R. Dark, 'Early Byzantine mercantile communities in the West', in *Through a Glass Brightly* ed. C. Entwistle (Oxford, Oxbow, 2003), pp. 76–81; S. Lebecq, 'Les échanges dans la Gaule du Nord au VI<sup>e</sup> siècle', in *The sixth century: production, distribution, and demand*, ed. R. Hodges and W. Bowden (Leiden, Brill, 1998), pp. 185–202.

<sup>21</sup> Again, there is an extensive scholarly literature on these interactions. For summaries and critical evaluations see: D.N. Edwards, *The archaeology of the Meroitic state: new perspectives on its social and political organization* (Cambridge Monographs in African Archaeology 38) (Cambridge, Cambridge University Press, 1996); L. Török, *The Kingdom of Kush: Handbook of the Napatan-Meroitic Civilization* (Leiden, Brill, 1997); I. Wallerstein, *The Modern World-System* (3 vols.) (New York, Academic Press, 1974–1989); S. Munro-Hay, *Aksum: an African civilisation of Late Antiquity*, (Edinburgh, Edinburgh University Press, 1991). See also the paper by Finneran, this volume.

<sup>22</sup> L. Török, *Late Antique Nubia: history and archaeology of the southern neighbour of Egypt in the 4<sup>th</sup>–6<sup>th</sup> century A.D.* (Budapest, Antaeus, Communicationes ex Instituto Archaeologico Academiae Scientiarum Hungaricae 16, 1988); V. Bernard and J.F. Salles 'Discovery of a Christian Church at Al-Qusur, Failaka (Kuwait)' *Proceedings of the Seminar for Arabian Studies* 21 (1991): pp. 7–21; J. Bowman, 'The Christian monastery on the island of Kharg', *Australian Journal of Biblical Archaeology* 2/3 (1975/6): 49–64.

mostly Christian – inhabitants living in a Roman-style city with a hippodrome, baths and other comforts of home.<sup>23</sup>

These ‘transnational’ interactions across political frontiers between separate polities were accompanied by intensive cross-border economic and information flows within the Byzantine Empire itself. In all of these areas not just commercial and diplomatic, but also religious and cultural contacts took place. Christianity, and heretical beliefs derived from the Byzantine world, spread widely in Asia. There is textual or archaeological evidence for Christian communities in Late Antiquity in Arabia, China, India and across Central Asia. There were Christian states in Ethiopia and the Sudan with close ties to the Byzantine state and Church. These contacts were expanding throughout the sixth century – for example, Byzantine missionaries introduced Christianity to the city of Soba on the Blue Nile in 580.<sup>24</sup>

In Ireland, this period saw the introduction of aspects of Roman culture, which were not found in the Roman period, alongside large-scale Conversion to Christianity. By the seventh century this had affected both technology and many aspects of daily life including language, social organization, building design, everyday artefacts, art styles, burial practices and probably personal appearance. The introduction of Latin literacy, scripts and learning during this period proved of enduring significance to both Ireland and broader European cultural history.<sup>25</sup>

Links with South Asia appear also to have been sustained. The published Roman coin series runs to the seventh century, and recent work by Roberta Tomber is beginning to show that ceramic evidence also supports continuing contacts through the fifth and sixth centuries. For example, an examination of amphorae from coastal and inland sites in western India, from Gujarat to Kerala, identified continuing contact with the Mediterranean from the fourth to sixth centuries.<sup>26</sup>

<sup>23</sup> On the relationship between the Byzantine and Persian empires in Late Antiquity: J. Howard-Johnson, ‘The two Great Powers in Late Antiquity: a comparison’, in *The Byzantine and Early Islamic Near East III: States, Resources and armies*, ed. A. Cameron (Princeton, Darwin Press, 1995), pp. 157–226; G. Greatrex, ‘Byzantium and the East in the Sixth Century’, in *The Cambridge Companion to the Age of Justinian*, ed. M. Maas (Cambridge, Cambridge University Press, 2005), pp. 477–509 esp. 501–503; A. Cutler, ‘Silver across the Euphrates. Forms of exchange between Sasanian Persia and the Later Roman Empire’, *Mitteilungen der Spätantiken Archäologie und byzantinische Kunstgeschichte* 4 (2005): 9–37. For Persia’s maritime contacts: D. Whitehouse, ‘Sasanian maritime activity’, in *The Indian Ocean in Antiquity*, ed. J. Reade (London, Kegan Paul, 1996), pp. 40–42. For fifth- and sixth-century silver finds in Central Asia: M. Mundell Mango, ‘The archaeological context of finds of silver in and beyond the Eastern Empire’ in *Acta XIII Congressus Internationalis Archaeologiae Christianae*, eds. N. Cambi and E. Marin (Vatican City and Split, 1998), pp. 207–52. Christians in Persia are considered by: Z. Rubin, ‘The Sasanid monarchy’, in *The Cambridge Ancient History XIV Late Antiquity. Empire and Successors, A.D. 425–600*, eds. A. Cameron, B. Ward-Perkins and M. Whitby (Cambridge, Cambridge University Press, 2000), pp. 638–661, esp. 638–677; G. Greatrex, ‘Khusro II and the Christians of his empire’, *Journal of the Canadian Society for Syriac Studies* 3 (2003): 78–88; S. Brock, ‘Christians in the Sasanid empire: a case of divided loyalties’, in *Religion and National Identity*, ed. S. Mews (Oxford, Blackwell, 1982), pp. 1–19; F. Millar, *The Roman Empire and its Neighbours* (2nd ed.) (London, Duckworth, 1981), pp. 249–69, esp. 264; N.G. Garsoïan, ‘Byzantium and the Sassanians’ in *Cambridge History of Iran (Vol. 3)*, ed. E. Yar-shater (Cambridge, Cambridge University Press 1983), pp. 568–592; P. Gignoux, ‘Sceaux chrétiens d’époque sassanide’, *Iranica Antiqua* 15 (1980): 299–314; F. Decret, ‘Les Conséquences sur le christianisme en Perse de l’affrontement des empires romain et Sassanide de Shapur Ier à Yazgard Ier’, *Recherches Augustiniennes* 14 (1979): 91–152; R.N. Frye, ‘Iranian-Byzantine commercial and diplomatic rivalry’, *Bulletin of the Asia Institute* 1.4 (1976): 1–18; O. Reutner, ‘Sasanian churches’, in *Survey of Persian Art*, ed. A.U. Pope (Oxford, Oxford University Press 1939), pp. 560–566; Elton, *Frontiers of the Roman Empire*, p.101; Ball, *Rome in the East*, pp. 115, 122 and 134.

<sup>24</sup> S.J. Trimingham, *Christianity among the Arabs in Pre-Islamic times* (London, Longman, 1979); C. Balint (ed.), *Kontakte zwischen Iran, Byzanz und der Steppe im 6.-7. Jahrhundert* (Budapest-Naples-Rome, Publicationes Instituti Archaeologici Academiae Scientiarum 2000), pp. 185–92; D. Welsby and C.M. Daniels, *Soba I. Archaeological research at a medieval capital on the Blue Nile* (London, British Institute of East Africa, 1998); D.W. Phillipson, *Aksum: its antecedents and successors* (London, British Museum Press, 1998); D.A. Welsby, *The Medieval Kingdoms of Nubia. Pagans, Christians and Muslims along the Middle Nile* (London, British Museum Press, 2002), esp. chapters 3 and 9; J.A.

Langfeldt, ‘Recently discovered early Christian monuments in north-eastern Arabia’, *Arabian Archaeology and Epigraphy* 5.1 (1994): 32–60; C.J. Gardberg, *Late Nubian Sites: Churches and Settlements (The Scandinavian Joint Expedition to Sudanese Nubia, Vol. 7)* (Jonsæd, Astrom, 2001); A.V. Sedov, New archaeological and epigraphical material from Qana (South Arabia), *Arabian Archaeology and Epigraphy* 3/2 (1992): 110–37; A.V. Sedov, ‘Qana’ (Yemen) and the Indian Ocean. The archaeological evidence’, in *Tradition and Archaeology. Early Maritime Contacts in the Indian Ocean. Proceedings of the International Seminar Techno-Archaeological Perspectives of Seafaring in the Indian Ocean 4th cent. B.C. – 15th cent. A.D. New Delhi, Feb. 28–March 4, 1994*, eds. H.P. Ray and J-F. Salles (Lyon/New Delhi, Manohar 1996), pp. 11–35; Y. Okakda, ‘Ain Sha’ia and the Early Gulf Churches: An Architectural Analogy’, *al-Rafidan* 13 (1992): 87–93; Y. Okakda, ‘Early Christian Architecture in the Iraqi South-Western Desert’, *al-Rafidan* 12 (1991): 71–83; Bernard, Olivier Callot and Jean Francois Salles, ‘L’église d’al-Qousour Failaka, Etat de Koweït’, *Arabian Archaeology and Epigraphy* 2 (1991): 145–181.

<sup>25</sup> For Ireland in this period: T. Charles-Edwards, *Early Christian Ireland* (Cambridge, Cambridge University Press, 2000); D. O’Croinin, *Early medieval Ireland 400–1200* (London, Longman, 1995); H. Mytum, *The origins of Early Christian Ireland* (London, Routledge, 1992); N. Edwards, *The archaeology of early medieval Ireland* (London, Batsford, 1990).

<sup>26</sup> R. Tomber, ‘Beyond western India: the evidence from imported finds’ PANEL: Issues in Indian Ocean Commerce and the Archaeology of Western India, summarising lectures by L. Blue, S. Gupta, Rukshana Nanji & Vishwas D. Gogte, Pia Brancaccio, V. Selvakumar, Shajan, K.P., P.K. Gopi, R. Tomber, <http://www.ucl.ac.uk/southasianarchaeology/Indo-Roman%20Commerce.pdf> <http://www.ucl.ac.uk/southasianarchaeology/Conference%20Handbook%20Vol%202.pdf> (accessed 10 February 2007); Turner (op. cit. n. 10) lists Byzantine coins dating to the fifth to seventh centuries from India: pp. 46, 48, 60, 86 and 125. See also: A. Wink, *Al-Hind, the making of the Indo-Islamic World. Vol. I, early medieval India and the expansion of Islam* (Leiden, Brill, 1990). A report entitled: ‘Search for India’s ancient city’ on BBC News, 11 June 2006, [http://news.bbc.co.uk/2/hi/south\\_asia/4970452.stm](http://news.bbc.co.uk/2/hi/south_asia/4970452.stm) (accessed 29 May 2007) recounts the discovery by K.P. Shajan and V. Selvakumara of Muziris in Kerala at Pattanam, including large quantities of Roman pottery at a site with glass beads, gems and precious stones. This is about six miles from the findspot (in 1983) of a large hoard of Roman coins. A reported comment by Roberta Tomber indicates that there is growing evidence that trade continued much longer, if not necessarily continuously, into the sixth and early seventh centuries. Reports of more recent excavation at the site (up to March 2007 at the time of writing) can be found on the Nasrani Syrian Christian Network at



Diplomacy may also have played a part in such South Asian links. In 631-2 a 'king of Indians' is said to have sent Heraclius congratulatory presents of pearls and precious stones after his victory over the Persians. Heraclius also displayed Indian elephants, which may have been from this or another exchange, in a triumph. In this context it may be relevant that the only real (as opposed to mythical) animal from outside the Empire depicted on the, possibly Heraclian, Great Palace peristyle mosaic currently displayed in the Mosaic Museum in Istanbul is an Indian elephant.<sup>27</sup>

Formal contacts with East Asia also remained. As late as 605-17, the emperor Yang Ti attempted to form a diplomatic relationship with Constantinople and official Chinese visitors recorded their awe at seeing Constantinople. In contrast to current perceptions of the relative technological development of East and West in the first millennium AD, one of their principal observations was how advanced the 'Roman' technology was. They noted, for example, the (otherwise unattested) use of a cooling system for the capital's buildings in which cold water flowed over the roof. They also note how formidable 'Roman' military capabilities were compared to those of China.<sup>28</sup>

Nor did links with the North lose their intensity. Intensive and long-lasting contacts between eastern Britain, Scandinavia and continental Europe are widely attested. In fact, as Näsman has pointed out 'one of the important changes which followed in the wake of the fall of the Western Roman Empire was the new cultural and political network which developed between regions on both sides of the fallen *limes*.' This included long-distance interactions involving Byzantine objects extending into Scandinavia, although the role of Byzantine merchants is unclear. Whether or not traders from the Mediterranean were present in this region, the consequences of these interactions had profound effects on Scandinavian and other northern European societies.<sup>29</sup>

<http://nasrani.net/2007/03/17/muziris-pattanam-%E2%80%93-follow-up-on-the-excavations-i/> and <http://nasrani.net/2007/03/24/muziris-pattanam-significant-evidences-boat-follow-up-on-excavations-iii/>.

<sup>27</sup> Moorhead, p. 258; C. Mango and R. Scott (with G. Greatrex) (translation, introduction and commentary), *The Chronicle of Theophanes. Byzantine and Near Eastern History AD 284-813* (Oxford, Clarendon Press, 1997), pp. 631-2; K.R. Dark, 'Roman architecture in the Great Palace of Byzantine Constantinople from the sixth to the ninth centuries', *Byzantion*, in press.

<sup>28</sup> Conveniently translated into English in F. Hirth (ed. and trans.), *China and the Roman Orient* (Chicago, Ares Press 1885) (reprinted 1975). (The water-cooling system is described on page 58). Note that these Chinese sources include descriptions of structures in the Eastern Roman/Byzantine capital that can be independently checked in Western sources, for example the Chalke Gate and the covered passage from the Great Palace to 'Great Church' of Hagia Sophia (93, 57-8). P. Schreiner, 'Eine chinesische Beschreibung Konstantinopels aus dem 7. Jahrhundert' *Istanbul Mitteilungen* 39 (1989): 493-305.

<sup>29</sup> H. Näsman, 'The Justinianic Era in South Scandinavia', in *The sixth century: production, distribution, and demand* eds. R. Hodges and W. Bowden (Leiden, Brill, 1998), pp. 255-278, pp. 265-7; J. Callmer, 'Oriental Beads and Europe, A.D. 600-800', in *Rome and the North* eds. A. A. Ellegård and G. Åkerström-Hougen (Jonsö, Sweden,

So we can reasonably envisage long-distance trading and diplomatic networks, along with cultural and religious exchanges, based on the Byzantine Empire throughout Late Antiquity. These were maintained and expanded up to the early seventh century. At least at some times, such networks extended across the known world, from Britain (and perhaps Ireland) to China, from Scandinavia to Africa south of the imperial frontiers. Other networks of contact, for example that bringing amber into Anglo-Saxon England, were not focussed on the Empire, although Byzantine merchants and customers may have been involved. Taken together, such networks connect almost every part of the 'World of Late Antiquity' either directly or by, at most, a single indirect step in the communication system.<sup>30</sup>

The international networks of Late Antiquity seems to be continuous with that of the Roman period, at least in part, so it is reasonable to consider it as a continuation of the same system. That this system was perhaps expanded in Late Antiquity need not surprise us, as increasingly evidence from shipwreck and ceramic studies supports the view that the fifth and sixth centuries were a period of exceptional material wealth and economic vitality in the eastern Mediterranean.<sup>31</sup>

### Conceptualising long-distance linkages

This raises the question of how should we conceptualise this very extensive long-distance network of contacts, ranging perhaps from the first to seventh centuries? Archaeological theory offers surprisingly few of its own models for long-distance interactions of this sort, with only two models widely used since the demise of diffusionist theory in the 1970s.

The first of these models is genuinely 'archaeological' in that it was proposed in the course of archaeological debate rather than imported from another field. This is Renfrew's 'Peer-Polity Interaction' theory, which – at least in its usual form – is related more directly to inter-

Astrom, 1996), pp. 53-71, esp. fig.2 on p. 65 and p. 631. For North Sea networks at this date: I. Wood, 'The Channel from the 4<sup>th</sup> to the 7<sup>th</sup> centuries AD', in *Maritime Celts, Frisians and Saxons*, ed. S. McGrail (CBA Research Report No. 71) (London, Council for British Archaeology, 1990), pp. 93-97; M. Welch, 'Contacts across the Channel between the fifth and seventh centuries: a review of the archaeological evidence', *Studien zur Sachsenforschung* 7 (1991): 261-9; J. Hines, *The Scandinavian character of Anglian England in the pre-Viking period* (Oxford, British Archaeological Reports British Series 124, 1984).

<sup>30</sup> Harris, *Byzantium, Britain and the West*; J. Huggett, 'Imported grave goods and the early Anglo-Saxon economy', *Medieval Archaeology* 32 (1988): 63-96.

<sup>31</sup> L. Ellis and F.L. Kidner (eds.), *Travel, communication and geography in late antiquity: sacred and profane* (Aldershot, Ashgate, 2004); S.A. Kingsley (ed.), *Barbarian Seas: Late Roman to Islam* (London, Periplus Publishing, 2004); S.A. Kingsley and M. Decker (eds.), *Economy and exchange in the East Mediterranean during late antiquity* (Oxford, Oxbow 2001). Harris has recently argued that these relationships constituted a 'Byzantine Commonwealth' in Late Antiquity: Harris, *Byzantium, Britain and the West*; A. Harris, 'Commonwealth, Byzantine', *Encyclopedia of Greece and the Hellenic Tradition* (vol. 1) (London and Chicago, Fitzroy Dearborn, 2000), pp. 368-371 (370).

state interactions rather than those transcending state borders. According to the model, interacting polities come to resemble each other more closely over time through the process of interaction itself. This is very similar to the neo-classical economic theory of 'convergence', in which competitors become increasing alike through competitive emulation.<sup>32</sup>

The second derives from work at the interface of 'Structuralist' International Relations theory and Marxian historical sociology. This is 'World-Systems Theory', based on the existence of unequal centre: periphery relationships in the global economy. These can be resolved into a series of sets of concentric circles, in which an inner core exploits an outer periphery. The emergence and decline of such relationships (the 'world-systems' of the theory) depends on patterns of economic boom and bust, according to the principles set out by Kondratieff (so-called 'Kondratieff Cycles').<sup>33</sup>

World-Systems Theory ('WST') has been widely applied to both contemporary and earlier economic patterns, and some archaeologists have been especially enthusiastic about adopting this model. The principal shortcoming of all purely economic approaches, such as WST, is that they fail to capture the prominent role of cultural and political interactions in long-distance contacts. The 'core' in classic WST of the type used in archaeological theory is characterised on economic grounds alone, so that economic relationships also circumscribe the relationship of the 'core' to the 'periphery'.

However, other 'cores' and 'peripheries' may be recognised in social, cultural, religious, and military terms, all potentially with their own separate dynamics, as we see in the case of the relationship between fifth- and sixth-century interactions around the North Sea and those focussed on the Mediterranean. These might overlap and conflict with the economic relationships of core:periphery relations. So, 'core' and 'periphery' in the sense these terms are used in classical WST are categories produced by considering the international system in a narrowly historical materialist fashion that few contemporary social, political or economic theorists would countenance.<sup>34</sup>

One should not overlook the considerable academic literature on WST in other fields. A characteristic of this has been to abandon increasingly both the materialist concept of the 'world system', and its intrinsic link with modern capitalist economies. The latter development, exemplified by the rise of 'World System Analysis' (note the lack of a hyphen and plural!) is to suggest that there

has only ever been one world system, originating in Mesopotamia in the 4<sup>th</sup> millennium BC, and that this is to be conceptualised in terms of an expanding network of *mostly* economic relationships between states. This network retains the core:periphery relations of WST but is neither dependent upon capitalism nor is it visible only in purely economic terms. Even those favouring a more economically based version of WST have reconsidered the basis of such systems so radically that almost any unequal economic relationship can be described in terms of core: periphery relations. For example, Chase-Dunn and Hall envisage 'very small world-systems' in a single valley!<sup>35</sup>

Unsurprisingly, in the context of such theoretical confusion over basic concepts (such as 'what is a world-system') and faced with the cognitive and socio-cultural critique mentioned above, the credibility of both WST and WSA has become somewhat strained. It might be questioned whether, beyond the 'commonsense' concepts of core and periphery themselves (concepts that are not an invention of World-Systems theorists, even in their academic form), this theoretical tradition has anything to offer archaeologists beyond that of a Classical Marxist analysis. Thus, some world-systems theorists (notably Kristian Kristiansen) have explored what may be more strictly classified as a regional approach.<sup>36</sup>

<sup>35</sup> For example: R.F. Newbold, 'Centre and Periphery in the eye of the late Roman Empire', *Florilegium* 3 (1981): 72-103; K.R. Dark, 'Culture and the Myth of Economic Determinism in Global History and World Politics', in *Cultural Factors in Economic Growth*, eds. M. Casson and A. Godley (New York, Springer, 2000) pp. 182-209; L. Zucker, 'Production of Trust: Institutional Sources of Economic Structure 1840-1920', *Research in Organization Behavior* 8 (1986): 53-111; P.J. Di Maggio, 'Interest and agency in institutional theory', in *Institutional patterns and organizations: culture and environment*, ed. G.L. Zucker (Basingstoke, Cambridge MA, 1988), pp. 3-21; M.C. Casson, 'Cultural Determinants of Economic Performance', *Journal of Comparative Economics* 17 (1993): 418-82; M. Granovetter, 'Economic Action and Social Structure: the Problem of Embeddedness', *American Journal of Sociology* 91.3 (1985): 481-510; R.A. Dodgshon, *Society in Time and Space. A Geographical Perspective on Change* (Cambridge, Cambridge University Press, 1998). Dodgshon makes the important point (chapter 5) that the creation of material cultures and modification of environments, in effect, 'institutionalise' human cultures and practices. For the contrast between North Sea and Mediterranean 'centres' of economic interaction: M.O.H. Carver, *Arguments in Stone. Archaeological Research and the European Town in the First Millennium* (Oxbow Monographs 29) (Oxford, Oxbow Books, 1993); M.O.H. Carver, 'Pre-Viking traffic in the North Sea', in *Maritime Celts, Frisians and Saxons* ed. S. McGrail (Council for British Archaeology Research Report No. 71) (London, Council for British Archaeology, 1990), pp. 117-125; H.B. Clarke, 'The North Sea. A highway of invasions, immigration and trade in the fifth and ninth centuries', in *The North Sea: a highway of economic and cultural exchange* eds. A. Bang-Anderson, B. Greenhill and E.H. Grude (Oslo, Norwegian University Press, 1985), pp. 39-49.

<sup>36</sup> C. Chase-Dunn and T. Hall, *Rise and Demise. Comparing World-Systems* (Boulder, CO., Westview, 1997); C. Chase-Dunn and K.M. Mann, *The Wintu and Their Neighbors: A Very Small World-System in Northern California* (Tucson, AZ., University of Arizona Press, 1998); C. Chase-Dunn and E.S. Manning, 'City systems and world-systems: four millennia of city growth and decline', *Cross-Cultural Research* 36.4 (2002): 379-398; C. Chase-Dunn and A.K. Jorgenson, 'Regions and Interaction Networks: an institutional materialist perspective', *International Journal of Comparative Sociology* 44.1 (2003): 433-450.

<sup>32</sup> A.C. Renfrew and J.F. Cherry (eds.), *Peer polity interaction and socio-political change* (Cambridge, Cambridge University Press, 1986).

<sup>33</sup> Wallerstein (op. cit., n. 24)

<sup>34</sup> For a review of the utility of this sort of 'classic' world-systems analysis in relation to the Roman Empire: G. Woolf, 'World systems analysis and the Roman empire' *Journal of Roman Archaeology* 3 (1990): 44-58.



Strangely, Marxist archaeology has had surprisingly little to say about past international systems, beyond stock critiques of imperialism and exploitation dating back at least to the time of Lenin's work on modern imperialism. That is, there is no distinctive archaeological Marxist tradition in archaeology of characterising international networks.<sup>37</sup>

If archaeological theory has a surprising lack of theory relating to long-distance and international networks, then one option would be to turn to the theory of global politics, that is, to International Relations ('IR') theory. It is worth noting at the outset that IR is often misunderstood as an analytical field and is far more wide-ranging both in scope and time than usually supposed. IR theorists are concerned with all inter-regional and long-distance interactions, and their local consequences and sources, from their origins to the present. IR is, therefore, about more than governments and their foreign policies, but includes social, cultural, religious and economic beliefs, values, institutions and activities and their contexts in, and effects on, the natural world. If it seems as if IR claims every part of human life to be within its remit, then one should recall that so often does archaeology. The fields have many other similarities, not least their highly eclectic character and willingness to move rapidly into new fields of inquiry and challenge long-held historical interpretations.<sup>38</sup>

In addition, the origins of IR as a field of study have given it an enduring interest in pre-modern, especially Hellenistic, Roman and medieval, politics and their neighbours. In my experience it can come as a surprise to some archaeologists to find just how central a role the 'distant' past plays in the main themes of IR debate, just as IR theorists were until the 1990s generally unaware of archaeologists' interest in, and potential contribution to, their field.<sup>39</sup>

Note also: S.K. Sanderson (ed.), *Civilizations and World Systems* (Walnut Creek, CA. and London, Altamira & Sage, 1995); R. Denemark, J. Friedman, B.K. Gills and G. Modelski (eds.), *World System History: the social science of long-term change* (London, Routledge, 2000); G. Modelski and W. R. Thompson, *Leading sectors and world powers: the co-evolution of global politics and economics* (Columbia, SC., University of South Carolina Press, 1995); A.G. Frank and B.K. Gills (eds.) *The World System: Five Hundred Years or Five Thousand?* (London, Routledge, 1993); A.G. Frank, 'The bronze age world system and its cycles', *Current Anthropology* 34 (1993): 383-413.

<sup>37</sup> M. Rowlands, M. Larsen, and K. Kristiansen (eds.) *Centre and Periphery in the Ancient World* (Cambridge, Cambridge University Press, 1987); K. Kristiansen, *Europe Before History* (Cambridge, Cambridge University Press, 1998).

<sup>38</sup> On the scope and character of IR in relation to archaeology and other fields: K.R. Dark, *The Waves of Time. Long-Term Change and International Relations* (London and New York, Continuum, 1998), chapter 1.

<sup>39</sup> On the potential value of a close relationship between archaeological research and theory and IR theory, see: Dark, *The Waves of Time*. As far as I am aware the only in depth and lengthy analysis of the external relations of the Roman Empire by an IR theorist remains: E.N. Luttwak, *The Grand Strategy of the Roman Empire from the First Century A.D. to the Third* (2<sup>nd</sup> ed.) (London, Weidenfeld & Nicholson, 1999).

What is significant here is that IR is a field in which, of course, scholars have long needed to discuss such interactions both in relation to the present and in relation to pre-modern international interactions. As already noted, although archaeological theorists seem often not to realise this, WST itself derives from, and has played a major part in, IR theory. As a consequence it is, as already mentioned, long debated and widely criticised in IR. In fact, numerous alternative perspectives on analysing long-term transformations and large-scale networks of contact have been developed in IR that have not yet been sufficiently explored in archaeological research, such as David Wilkinson's concept of networks of urban centres or George Modelski's linkage between urbanism and long-cycles in the development of states.<sup>40</sup>

However, recently, archaeologists of the Roman world have been showing an interest in the area of IR theory that is particularly relevant here: the theory of globalization.

### Thinking about globalization in relation to the Roman world

Although Bruce Hitchner has discussed the relevance of the concept of globalization to the Roman world in unpublished lectures, only two scholars have yet published substantial academic works on the subject. Tadeusz Aleksandrowicz has considered the question of whether or not the Roman world was globalized, and in *Globalizing Roman Culture* Richard Hingley has argued that 'globalization theory' has a direct relevance to analysing the Roman world. Aleksandrowicz's work has largely gone un-noticed in archaeological debate but Hingley's book has been a basis for further discussion, for example with a Theoretical Roman Archaeology Conference session in 2006 on the subject of 'Making ends meet or early globalisation? Economies of power, culture and identity in the Roman world'. Consequently, it may be useful here to discuss Hingley's theoretical framework as a starting point for evaluating how globalization theory might contribute to understanding the Roman-period and Late Antique interactions already outlined.<sup>41</sup>

Hingley's use of the concept of globalization is as a conceptual tool to investigate non-state transnational linkages rather as a way to understand the domestic affairs of the Roman state. Although his discussion ranges widely across the Roman Empire, the basis of his theoretical position is that 'Roman culture' formed as

<sup>40</sup> D. Wilkinson, 'Civilizations as Networks: Trade, War, Diplomacy, and Command-Control', *Complexity* 8 (2002): 82-86; D. Wilkinson, 'Central Civilization', *Comparative Civilizations Review* 17 (1987): 31-59; C. Chase-Dunn and T.D. Hall (eds.): *Core/Periphery Relations in Precapitalist Worlds* (Boulder, CO, Westview, 1991), pp. 113-166.

<sup>41</sup> On globalization theory in IR (excluding works mentioned in the text of this article): M. Castells, *The Rise of the Network Society* (Oxford, Blackwell, 2000); D. Held et al, *Global Transformations: politics, economics and culture* (Cambridge, Polity, 1999).

series of structures and contexts for both complex interactions between people and the state, and between local and more generally Roman identities and customs. In this respect, Hingley's discussion attempts to attach a theory of 'global culture' to the 'post-colonial' perspectives currently popular among some 'post-processual' archaeologists working on the Roman Empire.<sup>42</sup>

However, globalization theory is not designed to be a theory of intra-state or local interactions. As we shall see shortly, there is no single 'globalization theory', but the basis of almost all of the theoretical schools that could be classified as 'globalization theory' is quite the opposite. These almost all contend that long-distance ('global') interactions and cultures transcend existing political and cultural identities and frontiers, usually with transformative affects promoting commonalities between originally disparate groups. Yet Hingley argues for the persistence of local tradition in the face of transnational imperial forces. This is a theory of resistance, not of transformation, and of the precedence of the local over global dynamics – arguably the opposite of what is usually understood by the process of globalization!<sup>43</sup>

If we use globalization theory in archaeology at all, it is perhaps wiser to use it in the way it has been intended, by applying it to understanding long-distance contacts and their effects. This does not address the question of what we mean by globalization, let alone how to draw on the vast theoretical literature concerning it, and before we can use the concept at all we need to ask a basic question: what is globalization and how might this possibly relate to the Roman world or Late Antiquity?

### Globalization and the Roman and Byzantine worlds

It might be said that the Romans and Byzantines could not have been globalized because they had no concept of the earth as a globe. In fact, this assumption is a myth: the Romans frequently conceptualised and depicted the earth as a sphere, as illustrated at the centre of the Empire by the recently discovered fourth-century imperial regalia

found in Rome. Furthermore, Roman scholars also believed the sky also to be spherical, so that the globe of the earth was contained within another sphere. Pursuing this argument to its logical conclusion one could say that in this fashion the Romans were more 'globalized' than we are today!<sup>44</sup>

Hingley's discussion gives the impression that globalization is a single fixed and clear-cut concept. However, when we look at IR theory, it is immediately apparent that there is much debate over what globalization is, and if it even exists in the modern world, let alone the ancient world. This is certainly not the place to enter into a full discussion of the extensive academic literature on this subject written by IR analysts in the last decade, but it is perhaps useful to start with a relatively straightforward characterisation of globalization and discuss that.<sup>45</sup>

Globalization can be said to be the 'becoming worldwide' of interactions between people, states and institutions. If one works from our everyday understanding of the term 'worldwide', no pre-modern political or economic system was ever globalized, because it did not have a network of linkages across the entire globe. Unless one wished to claim that the Romans, or for that matter Byzantines, ever reached America or Australia – and I for one would not – then no Roman, Late Antique or Byzantine political, cultural or economic context was ever globalised in this sense.

However, this depends upon what we mean by 'global'. If one conceptualises the world not in strictly geographical terms but as it is known at a given time to a particular people, then the world for the Romans, Persians, Indians and Chinese in this period could be understood in terms of the Eurasian continent and Africa. In this way, Roman and Byzantine political and economic systems *could* have been globalized, in that they had links to all parts of that 'world'. Other ways of conceptualising globalization also depend on beliefs not interaction. In what has been called the 'world polity' model it is the role of a shared culture that brings about globalization, while in the 'world culture' model, which is that used by Hingley, one needs just to view the globe

<sup>42</sup> Tadeusz Aleksandrowicz, 'The Roman Empire as a model of globalization', paper read at the conference 'Society as text – in the thought of Richard Harvey Brown' held on 31 May – 1 June 2003 at the University of Silesia, Katowice, Poland, <http://brownsym.cm.umk.pl/abstract.php?abstract=1> (accessed 10 February 2007); R. Hingley, *Globalizing Roman Culture. Unity, diversity and empire* (London and New York, Routledge, 2005). R.B. Hitchner is currently preparing a book: R.B. Hitchner, *The First Globalization: The Roman Empire and its Legacy in the Twenty-First Century*, forthcoming. Postcolonialism is explored in relation to the Roman world in J. Webster and N. Cooper (eds.), *Roman Imperialism: post-colonial perspectives* (Leicester, University of Leicester, 1996).

<sup>43</sup> On the processes of globalization in the post-medieval international system: I. Clark, *Globalization and Fragmentation* (Oxford, Oxford University Press, 1997); M.W. Zacher, 'The Decaying Pillars of the Westphalian Temple: Implications for International Order and Governance', in *Governance Without Government: order and change in world politics*, eds. J.N. Rosenau and E.-O. Czempiel (Cambridge, Cambridge University Press, 1992), pp. 58–101.

<sup>44</sup> A representation of the earth as a globe formed part of the imperial regalia of Maxentius found by Clementina Panella on the Palatine in Rome in 2007: N. S. Gill, 'Archaeologists in Rome uncover the only existing example of Maxentius' regalia', *The International Herald Tribune*, 3 December 2007, <http://ancienthistory.about.com/b/a/257931.htm> (accessed 29 May 2007). A photo of the globe is shown in R. Owen 'Emperor's treasures found', *The Times*, 31 January 2007, <http://www.timesonline.co.uk/tol/news/world/europe/article1303241.ece> (accessed 29 May 2007). For the only complete celestial globe of Roman date: E. Künzel, 'The globe in the Römisch-Germanisches Zentralmuseum Mainz' *Globusfreund* 45/6 (1997/1998): 81–153.

<sup>45</sup> For sceptical views: D. Held and A. McGrew, *Globalization/Anti-Globalization*, (Cambridge, Polity, 2002); P. Hirst and G. Thompson, *Globalization in Question* (2nd ed.) (Cambridge, Polity, 1999).

as one place and consider that there are global issues to be addressed.<sup>46</sup>

Alternatively, one could adopt a concept of globalization in which only political or economic interactions between states are considered only worthy of analysis, what IR theorists call a 'Realist' view of international politics. According to Realist IR theory the 'world' is the sum of interactions between states. At specific points in the history of the first millennium AD (prior to primary state-formation in the Americas) it could be claimed that there were no states outside of the network of interactions of which the Roman Empire was a part, and so the entire world really was globalized because every state was linked to each other at least indirectly. Of course this would also depend upon how one understands the state, which is another subject of mutual interest to IR theorists and archaeologists.<sup>47</sup>

This demonstrates how alternatives ranging from Roman-period globalization to no globalization at all, can be generated just by changing how the term globalization is understood. This may suggest that, if we use this term at all, we should be very careful to say what exactly we mean by it and to set out the relationship between our sense of the term and those used by other scholars. To explore the concept further one might consider two of the more detailed recent attempts to say precisely what is meant by globalization and then explore the term's applicability to the twenty-first century. Both attempts find the term useful, but both use globalization to mean somewhat different things.

In a recent book, *The Globalization of World Politics*, Anthony McGrew characterises globalization in terms of the following seven criteria. These are: *economic transformation* (especially transnational trade flows and interdependence), *communications* (especially the impact of this on the formation of social groups), *global culture* (in that urban centres increasingly resemble each other), *homogeneity* (diminishing intercultural differences), *fundamental changes in the perception of time and space* (changes in how communications undermine traditional perceptions of time and geographical distance), *the emergence of a global polity* with the transference of loyalty to new, higher level, political units, a culture in which people 'think globally and act locally', and – finally – a *risk*

*culture*, in which people realise that some problems are global and cannot be addressed at the state level.<sup>48</sup>

Seen in this way, the Roman Empire could be understood as showing globalization in several of its aspects. One can trace economic transformation and enhanced communications – by road and by ship – and perhaps the development of shared features of a Roman urban culture (however re-worked in local contexts). One might also argue that differences between elites decreased as a result of these interactions and that time and space were re-conceptualised. Finally, of course, the Roman state at least aspired to being a global polity, although not in the sense meant by McGrew.

So, in that sense one might argue that the Roman world was globalized, although there is no evidence of a risk culture in the Roman Empire. Not until the rise of Christianity, and the perception that there are worldwide moral and spiritual issues and identities, do we see a risk culture and the true sense of McGrew's global polity emerge – a global identity superseding that of any individual people or state with individuals thinking in global terms. This also transformed perceptions of time and space. That is, if the McGrew model fits the Roman world at all, it is not the empire of Augustus or Trajan that it fits but rather the Christian Roman empire of Late Antiquity.<sup>49</sup>

In his appropriately titled work *Globalization: a critical introduction*, Jan Aart Scholte uses the reconfiguration of social geography and inter-continental and supra-territorial connections between people that to characterise globalization. He emphasises the changes to these engendered by globalizing forces – political authority that is not dependent on the state, non-national identity and what he calls 'non-rationalist' (he means, in a non-pejorative sense, non-scientific) knowledge. Scholte stresses that the process has had positive and negative effects, even disregarding those directly derived from its economic consequences – effects such as the heightened insecurities as conflicts become more easily internationalised.<sup>50</sup>

Applying this to the world of Rome and the Byzantine Empire, one can see that the establishment of Roman rule and its consequences for the Empire was a fundamental shift in social geography – not least because government, military authority and the recipients of taxation were newly situated miles away rather than in the hands of

<sup>46</sup> J. Boli and G.M. Thomas, 'World Culture in the World Polity', *American Sociological Review*, 62.2 (1997): 171-190; J. Meyer, J. Boli, G. M. Thomas and F. O. Ramirez, 'World Society and the Nation-State', *American Journal of Sociology*, 103.1 (1997): 144-181; R. Robertson, *Globalization: Social Theory and Global Culture* (London, Sage, 1992).

<sup>47</sup> For IR theory and the state, see: Y.H. Ferguson and R.W. Mansbach, *Politics, Authority, Identities and Change* (Columbia, University of South Carolina Press, 1996); S.D. Krasner, 'Alternative Approaches to the State: Alternative Conceptions and Historical Dynamics', *Comparative Politics* 16.2 (1984): 223-46.

<sup>48</sup> A. McGrew, 'Globalization and Global Politics', in *The Globalization of World Politics*, eds. J. Bayliss and S. Smith (3<sup>rd</sup> ed) (Oxford, Oxford University Press, 2005), pp. 19-40 (22-38).

<sup>49</sup> The emergence of a shared Christian view of the global community is charted superbly in: J. Herrin, *The Formation of Christendom* (Oxford, Blackwell, 1987). For the reconfiguration of time: M.R. Salzman, *On Roman time The Codex Calendar of 354 and the Rhythms of Urban Life in Late Antiquity*, (Berkeley and Oxford, University of California Press, 1990).

<sup>50</sup> J.A. Scholte, *Globalization: a critical introduction* (2<sup>nd</sup> ed.) (Basingstoke, Palgrave Macmillan, 2005), esp. p. 8.



local elites. While the consequences in institutional terms may have been different, it would be hard to deny that both positive and negative impacts on local populations resulted from them. However, once again the best fit is not the early Roman period but rather Late Antiquity, when the spread of Christianity led to non-state governance (by the Church), non-national identity (as Christians) and what Scholte calls 'non-rationalist knowledge' (for example, in the Late Antique focus on saints and their relics).<sup>51</sup>

One might even see clear-cut non-state supra-territorial security threats in Late Antiquity. Hunnic raiders of the Roman, Persian and East Asian worlds alike, famine and plague all seem to be major factors in sixth-century politics and economics.<sup>52</sup>

## Conclusion

If the concept of globalization is relevant to the Roman world at all, it is most apposite to that world in Late

Antiquity, including the sixth century. This is not because external contacts were especially extensive then compared to the earlier Roman period (although they may not have been greatly reduced), but because globalization requires the existence of transnational links and identities that connect local behaviour with global norms, problems and aspirations, and governance. Such beliefs transcend political boundaries and longstanding allegiances. While the Roman world may satisfy those economic and even cultural criteria proposed as indicators of globalization, it is probably only with the rise of Christianity, and perhaps not until large parts of the system concerned have a truly Christianised population, that we can see the transnational governance, concerns and identities that globalization requires. This may be first apparent in the sixth century and, as such, one might consider a case for this being the first phase of globalization.

<sup>51</sup> P. Brown, *The Cult of the Saints: Its rise and function in Latin Christianity* (Chicago and London, SCM Press, 1981); E.D. Hunt, *Holy Land pilgrimage in the Later Roman Empire AD 312-460* (Oxford, Clarendon Press, 1982); Gillett; M. Dietz, *Wandering Monks, Virgins and Pilgrims: Ascetic Travel in the Mediterranean World AD 300-800* (Philadelphia, Pennsylvania State University Press, 2005); J. Wilkinson (ed. and trans.), *Egeria's Travels* (3<sup>rd</sup> ed.) (Warminster, Aris and Phillips, 1999). On the universalism of the Church: C. Buck, 'The Universality of the Church of the East: How Persian was Persian Christianity?' *Journal of the Assyrian Academic Society* X.1 (1996): 54-95. See also: O.R. Constable, *Housing the stranger in the Mediterranean World* (Cambridge, Cambridge University Press, 2003).

<sup>52</sup> P. Heather, 'The Huns and the end of the Roman Empire in western Europe', *English Historical Review* 110, (1995): 4-41; W. Pohl, 'The role of steppe peoples in eastern and central Europe in the first millennium A.D.', in *Origins of Central Europe*, ed. P. Urbanczyk (Warsaw, Scientific Society of Polish Archaeologists, 1997), pp. 65-78; E.A. Thompson (rev. by Peter Heather), *The Huns* (Oxford, Blackwell, 1996); T. Barfield, *The Perilous Frontier: Nomadic Empires and China, 221 BC to AD 1757* (Cambridge and Oxford, Blackwell, 1989); M. Todd, *Migrants and Invaders. The Movement of Peoples in the Ancient World* (Stroud, Tempus, 2001), pp. 61-2, 97-102. For a re-statement of the argument that these movements were a major threat to the Late Roman Empire: P. Heather, *The Fall of the Roman Empire. A New History* (London, Macmillan, 2005). For plague as a perceived 'transnational' threat in Late Antiquity: P. Sarris 2007 *Economy and Society in the Age of Justinian* (Cambridge University Press, Cambridge, 2006), pp. 217, 224; P. Horden 'Mediterranean Plague in the Age of Justinian' in *The Cambridge Companion to the Age of Justinian* ed. M. Maas (Cambridge University Press, Cambridge, 2005), pp. 134-160; D.C. Stathakopoulos, *Famine and Pestilence in the Late Roman and Early Byzantine Empire* (Aldershot, Ashgate, 2004); P. Allen, 'The Justinianic Plague', *Byzantion* 49 (1979): pp. 5-20; J. Durliat, 'La peste du VI<sup>e</sup> siècle. Pour un nouvel examen des sources byzantines', *Hommes et Richesses dans l'Empire byzantin. IV<sup>e</sup>-VII<sup>e</sup> siècle (Réalités Byzantines)* (Paris, Lethielleux, 1989), pp. 107-12; K.-H. Leven, 'Die "Justinianische" Pest', in *Jahrbuch des Instituts für Geschichte der Medizin der Robert Bosch Stiftung*, ed. W.F. Kümmel (Stuttgart, Hippokrates, 1989), pp. 137-161; R. Sallares, *Malaria and Rome: A History of malaria in Ancient Italy* (Oxford, Oxford University Press, 2002).