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Globalisation for Archaeologists

Communicated by Michael Meyer

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Accepting Globalisation means accepting diffusion, but globalisation has much to offer archaeologists, i.a. a monopoly on the sources of information for the early history and nature of globalisation. Beyond that, the elementary units of globalisation are not the states and boundaries we cannot find, but rather the cultures and civilisations we do and thus, there is less of a methodological confrontation with theory. Furthermore, globalisation offers a different approach to questions of economics which vex archaeological research. Approaching history from this vantage point allows a clearer means of structuring our understanding of history by combining cognitive, political, economic, social and cultural elements relating to identity and exchange to organise spatial and temporal groupings.

Globalisation; material culture; history; archaeology; socio-economic analysis; archaeological thought and praxis

Globalisierung anzunehmen bedeutet Diffusion anzuerkennen, aber Globalisierung bietet dem Archäologen vieles, u.a. ein Monopol für die Erfassung der frühen Geschichte und Natur der Globalisierung. Wichtig ist, dass die Elementareinheiten der Globalisierung nicht die Staaten und Grenzen sind, die wir nicht finden, sondern die Kulturen und Zivilisationen die wir gut erkennen können; daraus ergibt sich weniger Streit mit sozialer Theoriebildung. Weiterhin eröffnet die Globalisierung eine Möglichkeit der Wirtschaft näher zu kommen als es bisher der Fall war. Geschichte auf diese Weise aufzufassen bedeutet die Vereinheitlichung von kognitiven, politischen, wirtschaftlichen, sozialen und kulturellen Elementen, die mit Identität und Austausch verbunden sind, um letztere räumlich und zeitlich einzugrenzen.

Globalisierung; materielle Kultur; Geschichte; Archäologie; soziale und wirtschaftliche Analyse; archäologische Theorie und Praxis

1 Introduction

Globalisation is frequently viewed as a modern economic phenomenon determining human behaviour on a global scale. Since – individually – archaeologists generally avoid economic analysis, are generally experts in some particular region, and are rarely concerned about the modern world (except when selling their skills or saving heritage), globalisation would not appear to be terribly relevant or appealing to archaeologists.

Yet what archaeologists – collectively – uncover are the traces of human culture spreading across the surface of the earth. Having been created and put in motion by humans, material culture is dispersed through time, over land and by water. Thus, by retrieving and cataloguing these materials, archaeology is the means of access to the history of globalisation – and for most of human history archaeology is the only or best means.

I am thrilled to think that I can thank Prof. Dr. Michael Meyer for having given me this chance; however, I fear he may regret it. Because the request came from Michael, I have written "archaeologists" throughout, but the entire project is dependent upon close co-operation between the excavators, curators (of all kinds, including teachers and librarians) and philologists who deal with ancient materials. Thus, the term is used as intended in the 19th century: those involved in the study of the beginnings.

This was most assuredly in the minds of the earliest leading archaeologists of the Western world. By the end of the 19th century, their work joined (a) the results of observations following imperialistic collisions with primitive peoples to (b) the time depth offered through the material culture discovered by examining ruins and artefacts. Viewed objectively, globalisation lies at the very birth of archaeology – and archaeologists are the only ones who can uncover the early history of globalisation: globalisation is at once the origin and destiny of archaeology as it were.

2 The claims of this paper

Yet there are problems. For archaeologists to understand globalisation, they must come to terms with diffusion – since it is the evidence of diffusion which forms the skeleton of the evidence for globalisation in matters archaeological. Yet the concept of the spread of cultures and civilisations is opposed to the idea of the comparative approach that dictates that parallels are the result of independent parallel evolution. If Processual and Post-Processual archaeologists recognise the weaknesses of the concepts of (a) comparative approaches assuming parallel evolution and (b) independent invention and (c) adopt diffusion (which I do not anticipate they will), it would be a paradigm-change, promising a bright future which is accidentally in accord with contemporary thought in other domains (i.e., globalisation). The alternative for the traditional archaeologist to simply recognise that diffusion fell out of favour for a few decades but that it is now realised that this was one of those errors so typical of recent theoretical thought in archaeology, overcoming which allows one to return to the path begun in the 19th century. In effect, for archaeology, the adoption of globalisation is simply a matter of 'carrying on' after the unhappy theoretical experiments of the post-war era.

Thus, globalisation is not really a paradigm-change so much as a tweak returning archaeology to areas where archaeology was once leading and archaeology could still contribute significantly – but have been relegated to darkness and silence as a result of the assumptions of the New Archaeology and the practices of Post-Processual Archaeology. In this sense, the new approach of Post-Processual Archaeology has torn down some of the older barriers but maintained many of the older defences of the New Archaeology (such as steadfast opposition to diffusion and insistence on comparative approaches in certain quarters). Yet one could imagine that the field might be ready for a new approach within a new paradigm – one building on the strengths of archaeological methods and materials rather than the egos of archaeologists – but the field is not yet fully prepared. Nevertheless, in this case, globalisation might aid rather than being merely another approach or tool.

And thus to the question: "What could globalisation offer archaeologists?".

My answer is: "What can archaeologists offer to, and gain from, the globalisation debate?".

Firstly: Perspective. Globalisation is 'in' and archaeology fits it well: rather than taking foreign theories, we can work with our material to develop and modify theories. 'World Archaeology' is bandied about, but lacks a global perspective stretching back into prehistory and around the globe. There is much to do.

Secondly: Time-depth. In terms of the study of human history, we are the only ones whose time perspective knows no boundaries except those we choose. If the archaeologist chooses to be interested only in Medieval French architecture, Roman Swiss pottery, Classical Greek weapons, Iron-Age Celtic fibulae, Minoan IIIA pottery, third millennium Near Eastern housing, or the entire history of Hong Kong, then obviously s/he is making a wise decision professionally (in our world of specialisation), but is not necessarily prepared to enjoy the full scale of the time and space which is accessible to archaeology alone among the humanities and social sciences disciplines at the university. Yet this time depth

is ours. To grasp it, we need merely develop a sense of history: evolution, development, change, interaction, withdrawal, denial, etc. are all elements of the puzzle of long term history (not just the history of archaeological behaviour). The field of deep time is ours.

Thirdly: Economics. Globalisation is in many ways about the woes and advantages of understanding economics and exploiting business advantages. Economics has always been a difficult subject for archaeologists, and part of the problem might be that the archaeologists hold some of the keys to understanding long-term economic history in their hands, meaning that archaeology could give a clearer image of economics and economic history, but has never given an authoritative and convincing answer.

Ultimately, the most important evidence testifying to economic activity is material culture – and what archaeologists do is material culture. It is simply a matter of taking a broader view of civilisations, cultures and material. Simply based on an objective view of the material evidence of material culture, archaeology should be able to contribute to theory-building on economic organisations and growth – leading to new insights from that with which we are familiar. Economic evolution, convergence, networking, and World-Systems all have their adherents in archaeology: perhaps one could develop something based on the material which would aid us in understanding the history and recognizing the useful tools for understanding the systems. In economics, we can only gain – and we have more to offer than any other discipline.

Because of the failure of archaeology to confront the realities of early economic development, the field of economics has been free to twist history around for its own purposes. Were archaeology to approach economic history, archaeology could contribute not only to world economic history, but also to an understanding of the way economies function over the long term. Archaeology has been woefully unsuccessful in this domain where it has much to discover and offer.[1]

Fourthly: Discourse. We have more opportunities to exchange views about material than any generation of archaeologists has ever had. Not only do we meet each other regularly, but there is more material available for discussion, and more colleagues all around the world than ever before. This should not be exploited for comparative reasons alone: one can build ancient and modern networks with and on it. This is a chance for us to work together on an 'in'-project.

Fifthly: Inter-dependence. Globalisation is about 'connectedness' and archaeology is about identifying objects and their relationship to other objects through time and space. Thus the 'connected inter-dependence' which we find in materials is one of the building blocks of globalisation. More precisely, globalisation is theoretically a matter of rolling over traditional boundaries – and archaeology has never really encountered the modern nation-state so beloved of political scientists, so that our methods actually jive quite well with the premises of globalisation. In this way, the entire debate about networking, world-systems, and diffusion can be placed in a scientific perspective, allowing modelling. This offers us an analytical tool – and an incredible capacity to contribute, simply by analysing our material in perspective.

Sixthly: Confusion. Does globalisation work? And if so, how? Is globalisation good or bad?, old or new?, a pattern or an exception? There are real debates and not only can archaeology contribute to these debates, but it can also participate at the same level. Archaeologists rarely have the opportunity to participate in a debate where there is no consensus about the correct way of understanding an issue. Archaeologists are accustomed to reaching to the bookshelves where they find recognized authorities such as a Weber, Durkheim, Polanyi, Bourdieu, or Braudel upon whom they can rely for guidance. In the matter of globalisation, there is not only a wide variety of opinions, but

1 As most assuredly demonstrated by Hirth 2020, for which cf. Warburton 2021.

there is also a never-ending series of misunderstandings about the actual characteristics of globalisation. The input of the archaeologists may not be welcome, but it could offer professional competence combined with controversial theoretical interpretations that are not necessarily mistaken. I rather doubt that archaeologists are up to the task – but at least in the cacophony it will not be embarrassing.

In sum, globally speaking, opening up to globalisation is a win-win situation for archaeology. We can both gain and contribute a great deal, based on what we do: the analysis of the distribution of material culture through time and space. I cannot deal with every one of these claims and go into details, but I will try to cover some important issues.

3 Survey of archaeological thought

The early development of archaeology as a science took place in parallel with the emergence of both economics and economic history as serious disciplines. The era when archaeologists gradually produced evidence that the depth of human history was unimaginably long and complicated was also the time when conceptual systems of economic analysis were being developed. And beyond that, the tradition of world or universal history began to flourish, with thinkers like Ranke, Hegel, Marx, and Weber making incredible efforts to take account of what was known – and their thoughts flowed into the influences forming archaeological thought. Thus, together, the earliest serious, scientific ethnographers, archaeologists and historians created philosophical, technological, economic, social, ethnic and political history based on interaction read from mute artefacts, monuments, and texts found or deciphered by the earliest enthusiastic students of Antiquity.

By the close of the first half of the 20th century, this venture culminated in grasping the history of the evolution and distribution of culture. The archaeologist Gordon Childe had followed Near Eastern culture along the Danube into Europe, and by the time Claude F. A. Schaeffer had followed the influence of the Near East to the borders of China, the physician Elliot Smith and the ethnographer Kaj Birket-Smith had already followed the path of culture around the world.[2] Some of the more adventurous spirits were following intellectual and political history into what was the relatively distant past.[3]

However, economics and economic history went separate ways, with the economists largely turning to pure theory based on modern data and many economic historians disputing that the economies of Antiquity could be understood using the methods of modern economics. Yet, paradoxically, the assumptions of the economists are still frequently applied to ancient history, and technological history is still understood very much in this way even today. Thus there was a broad range of opinions and many new opportunities about which to reflect.

Unfortunately, however, the earliest states found by the archaeologists – in Egypt, Mesopotamia, the Indus and China – never really entered into the traditional domain of history with the result that history still generally begins with Israel, Greece, and Rome. Fitting into universal and economic history proved a challenge too large for archaeology.

The following generations of archaeologists favoured the concept of specialisation which perversely led to championing particular regions, tending to stress their greatness and originality by dismissing evidence of external influences. Specialisation was pushed by university programmes and faculties directed at training specialists: qualified as excavators, curators or regional authorities. Grants and jobs fell to authorities qualified as

2 Childe 1929; Birket-Smith 1946 (originally published in Danish, 1941–42); Schaeffer 1948; Smith 1933.
3 Frankfort 1948; Frankfort 1946.

specialists. Beyond that, regional specialisation was further pushed by the national character of salvage archaeology which grew in importance as economic progress threatened 'heritage' – assuring employment for graduates with skills rather than research agendas. This necessarily had an impact on teaching at universities, stressing specific skills and narrowly bounded knowledge based on the expectations of what regional archaeologists might find.

This specialisation was likewise extended to research departments dealing with more distant regions. And this tendency was further aided by a tendency to assign 'history' to departments which tended to exclude prehistoric and early historic archaeology. Another major problem was that many American archaeologists ended up in institutes related to classics, biblical studies or anthropology, and these disciplines had an impact on what theoretically oriented archaeologists thought (since it was the ones who had the jobs who could – and had to – publish). In Germany, despite a virtually worldwide network of highly competent and well-funded, qualified German and German-educated archaeologists, the stress on parochial issues, documentation and classification demanded increasing specialisation while frameworks were being erected as frames of reference without posing the types of questions historians might like to pose. In the course of this, archaeology forgot both time depth and global perspectives. Archaeology became scholarship without the deep-history and geographical breadth.

Thus – except for television programmes where archaeologists regularly air views about areas far beyond their competence – archaeology has rarely sought to sell itself as the window to global history. Yet, for a couple of decades now, 'globalisation' has become the rage – and evidently even archaeology has caught up (for otherwise you would not be reading these lines which are the result of having been invited to contribute something on this subject for a mainstream archaeological publication).

A delay of a couple of decades in catching up with fashions is typical of archaeological thought, and this could be construed as a part of the ordinary evolution of archaeological thought. Yet, in this case, the delay was exacerbated by the long dark age of 'isolated systems' and 'independent invention' associated with the New Archaeology. Obviously, globalisation was hardly compatible with the New Archaeological paradigm, which aimed at demonstrating a comparative programme presupposing and identifying the emergence, development and collapse of closed systems over time. Furthermore, this was largely high-jacked – most regrettably by Lord Colin Renfrew and Sir Moses Finley, with the former striving to argue against significant intercultural contacts and the latter opposed to rational economic analysis – in a fruitless effort to dispel the traditions of history, diffusion and interaction which had dominated most of archaeological thought for its first century as a recognized science.[4]

Haltingly, this era is now gradually coming to a close as archaeologists such as Kristiansen and Rahmstorf gradually dare to observe that the evident reality of processes of diffusion in the archaeological record is indisputable – and that it involves everything from religion to economics[5] (as would have been visible to anyone who had ever taken a look at the Silk Road). Yet understanding diffusion processes and combining these with networking, world systems, appropriation, etc. is a very large project. Furthermore, when introverted Post-Processualism replaced the New Archaeology, and its approach proclaimed freedom for archaeological thought, it opened the field to baseless speculation but otherwise left most of the shackles of earlier archaeological thought firmly in place. This latter trend had the advantage of leaving archaeologists free to speak their minds

4 Yet the criticism was half-hearted at best. Renfrew 1972 and Finley 1992 were insufficiently criticised in works such as Barrett and Halstead 2004 and Manning and Morris 2005, leaving the impression that the original ventures had some value.

5 E.g., Kristiansen and Larsson 2005 and Rahmstorf 2011.

while leaving blinders obscuring economic issues and diffusion on the margins of their field of vision. And diffusion was always viewed with considerable scepticism, with the result that there is mistrust of the word itself.

4 The modern history of globalisation

For decades now, globalisation has been an area of contention. In many respects it was once largely understood as an economic issue. More than a decade ago, the economist Joseph Stiglitz published a critical book on *Globalization and its Discontents* (drawing on the title of the English translation of Freud's *Das Unbehagen an der Kultur* [*Civilisation and its Discontents*] as well as a wordplay on "content").[6] The financial journalist Martin Wolf responded with *Why Globalization Works*, to which Stiglitz's riposte was *Making Globalization Work*, suggesting that globalisation could work, but did not.[7] Needless to say, the global economic and financial crisis which began in 2007 merely added to the strains of the argument. However, even before then the debate about globalisation had already gotten out of hand, stretching into not only financial regulation and industrial policy, but also to justice, democracy, terror, education, music, medicine, environmental protection, nation states, feminism, design, and war (etc.).

The dizzying speed of contemporary global interaction and the lack of perspective in the early 21st century render it easy to forget that already in the 1990s, books were being published *Against the Global Economy*[8] – let alone that Keynes had remarked that in 1914

> The inhabitant of London could order by telephone, sipping his morning tea in bed, the various products of the whole earth, in such quantity as he might see fit and reasonably expect their early delivery upon his doorstep [...].[9]

Thus, in the 19th century, globalisation became a recognized historical fact, supported by the British Empire, the Prussian challenge and the gold standard. The cataclysmic wars of the 20th century resulted in a slight decline of global interaction. But then the end of the Cold War – with the Soviet Union succumbing to bureaucratic ineptitude and the People's Republic of China opting for patriotic socialist capitalism – led to an unprecedented blossoming of global trade.

It is still largely assumed that globalisation was a unique modern phenomenon, unimaginable even in the early 19th century. At that time, 'international conflicts [...] had made a shambles of normal channels of trade, technological transfer, labor migration, and financial movements'.[10] According to the economists O'Rourke and Williamson, 'Britain and France' were fatigued by war 'for at least thirty-six of the sixty years between 1760 and 1820'.[11] This is a typically blind attitude since it is generally assumed that warfare itself frequently leads to massive investment and the competition pushes technological innovation. However this meant that for O'Rourke and Williamson, it was only in the second half of the 19th century that globalisation took off – and thus the contemporary concept of globalisation as a modern phenomenon requires only the slightest tweaking to accommodate a century and a half before 2000 AD. This is a typical example of the view that globalisation is a matter of economics alone.

6 Stiglitz 2002.
7 Wolf 2004; Stiglitz 2006.
8 Mander and Goldsmith 1996.
9 Keynes 1919, 6.
10 O'Rourke and Williamson 1999, 1.
11 O'Rourke and Williamson 1999, 1.

Yet reality offers a useful check. One might recall that a certain George Washington, at that time in the service of the British Crown, was involved in a skirmish in the Allegheny Mountains of North America on 28 May 1754. This specific incident resulted in the death of a French officer – 'and from this time forward the French and English were actually though not professedly at war.'[12] In 1755, British units were wiped out by the French in those same mountains; in 1756, Friedrich II of Prussia marched into Dresden. In 1757, Clive defeated the French at the Battle of Plassey on the Indian Subcontinent; in 1758, Senegal in Africa fell to the English; in 1759, Guadeloupe in the Caribbean; in 1760, Montréal in North America; in 1762, Manila in the Pacific, as well as Havana and Martinique in the Caribbean. What ensued from George Washington's encounter had become the Seven Years' War (1757-1763), during which the British came into direct conflict with the French in Europe, North America, India, Africa and the Caribbean (as well as Spain in the Pacific and the Caribbean). This all looks rather opportunistically global.

When the North American colonies came into conflict with Britain, the French realised that they now a chance to take their revenge on the British. Observing that the British appeared unable to defeat the American settlers (who had declared independence in 1776 after more than a year of intermittent battling), the French declared war on Britain in 1778. The French navy enabled the surrender of the British forces in 1781, by which time the Spanish and the Dutch had joined in the fray against the British.

After French policy had thus led to the loss of the North American colonies which became the USA, the British set about creating a second empire, based on other 18th century conquests. Tied together by a chain of forts – Gibraltar (taken 1704), Malta (1814); Aden (1839); Calcutta (fort erected 1712); Singapore (taken 1819) and Hong Kong (1842) – this was the Empire ruled by the fortuitously but appropriately named Queen Victoria. Yet, equally significantly, like Singapore and Hong Kong, even the first conquest of her reign – Aden – was not done at the bidding of her government, but rather in spite of it. Ambitious colonial officers out of touch with each other, and far beyond the control of London, took advantage of opportunities as they arose.

In contrast to the English, Commodore Perry's later visits to Japan (1853–54) were as organised as the French opening of the Suez Canal (1869). However, it should be evident that the seeds of the late 19th century economic globalisation were actually sown during the preceding military conflicts – and those conflicts were not only global in character, but also themselves related to commercial activity.

This was an opening and thus, when the British transformed rampant imperialism into systematic empire, Disraeli astutely exploited the chance to purchase a large proportion of the shares in the Suez Canal (1875). This put the British in a position to negotiate the conditions of use, and the canal became a link in the chain of the British Empire – and a new world economy emerged. The global stepping stones of the British Empire may have been laid haphazardly, but in the 19th century, these assorted tesserae became a string of pearls linking London with Tianjin and Nagasaki.

Yet obviously the English presence in Bombay goes back to 1687 – and the Portuguese had already been there for almost two centuries by then. And the original presence had been driven by economic policy and the pursuit of commercial wealth. Thus, if the conquests of the first half of the 19th century were military, their origins and nature were economic in character, aiming at dominating the trade routes. Thus – contra O'Rourke and Williamson – there were those who imagined a global economy well before the late 19th century: among them, the Portuguese who sailed cautiously around Africa to reach India before the end of the 15th century – in order to cut off the Italian domination of

12 Dorn 1940, 286.

the spice trade which had emerged after the crusades. And, of course, the Indian Ocean spice trade can be traced back to Roman times, as can the Silk Road in Central Asia. The incense route takes us back to the first cities in Egypt and Mesopotamia. In this sense, the commercial significance of trade can be traced back to the origins of history.

Yet globalisation is not a mere matter of commerce – but also one of warfare, for we have seen that the British conquests could be used to measure globalisation. Yet just as the Silk Road was also the means by which Buddhism spread from India to Japan, the Seven Years' War (one of the first truly global wars) can justly be traced back to the Wars of the Austrian and Spanish Successions rather than merely George Washington's misfortune in killing a French officer. On the other hand, however, neither the Vikings in North America nor the Hanseatic League were able to establish themselves any more than the Italian city states of the Middle Ages and Renaissance.

In the West, the origins of modern globalisation are closely linked to the industrial and financial states of northern Europe, rather than the mercantile traders of the Mediterranean and North Seas. Thus the actual history of the commercial links is a complicated matter of major state ventures, merchant venturers, and soldier-adventurers.

5 And the archaeology?

And this leads us to the question of how archaeology could complement this tale, a familiar tale known from the texts. Obviously, it would be useful if Prehistory could clarify how it began. And spectacularly interesting if archaeology could offer some information about the process that is not visible in the texts known from Classical Antiquity and more recent times.

Needless to say, I contend that archaeology can – but not as it is constituted today. And thus I will follow two different tales, one of what happened and what one can see – and one of how the archaeologists see it.

A couple of dozen years after the recent furore about Globalisation began, Parzinger's (2014) *Die Kinder des Prometheus: Geschichte der Menschheit vor der Erfindung der Schrift*[13] simply sliced the world into geographical regions and ploughed through the material excavated by the archaeologists more or less disregarding the historical sequences and relations between the various areas. Certainly no coherent history could be traced in Parzinger's volume (unless one counts Parzinger's disappointment at the reluctance of the world to adopt agriculture – let alone a Western lifestyle). One gained no impression of how the world was prepared for the transformation that began with history, i.e., from this book, one could not imagine that the world was posed to embark on a revolutionary process that would transform human lives more or less there where Parzinger breaks off his tale.

Yet the links in the chain that would alter the course of human history were being forged in that era which dominates the book. Parzinger stresses horses, but not the boats and the waggons, and certainly not how the metallurgy played any kind of role in the coming global tale. Above all, the whole basis of social hierarchies is completely absent from the book. There were various prehistoric tendencies which were rapidly changing around the era that writing was invented in Mesopotamia – and yet these get scant attention.

Yet, even so, one could wonder if Parzinger's approach does not really correspond to a reality. Is it in fact so, that virtually nothing happened before the end of the Neolithic – and that 'history' can be treated this way because there was no history? Is it possible that there was a fundamental social transformation around the time of the invention of

13 Parzinger 2014.

writing in Mesopotamia? Perhaps the innovative production economy of the Neolithic was not as important a change as the innovative commercial economy of the Bronze Age?

And this opens the way to a whole series of questions: questions that only the archaeologists can answer. Was there an economic change which separated the Neolithic from the Bronze Age, and how should we interpret it? Was the Neolithic economy more similar to the Palaeolithic economy than to the Bronze Age economies? Should we be more cautious in assuming that we understand how prehistoric economies functioned? Was there another economic change in recent times? What roles did exchange, technological innovation and social change play in determining developments? There are indeed many other questions – and all of them belong to the archaeologists. And all of them cluster around social and economic questions the answers to which can only be read in the material, but indirectly.

5.1 The Near Eastern Bronze Age: the origins of value and commerce

One crucial question concerns production as opposed to commerce. The Neolithic economy was a production economy rather than a collector economy – and to jaded eyes, even the Near Eastern urban Bronze Age agricultural economies do not look significantly different. In this sense, the Neolithic and Bronze Age can be thrown together. Yet the urban phenomenon of the Near Eastern Bronze Age is a clear contrast to what came before. In this sense, the Near Eastern Bronze Age represents a different world. Yet what makes it different? And why is the North European Bronze Age such a disappointment?

Certainly what we can see in the Near Eastern Bronze Age are established systems of value, and here we are in a paradoxical situation, for to understand value as we do, we can go back no further than the earliest texts. This runs the risk of purely circular logic: the lack of evidence of value before the texts cannot legitimately be read as confirming a lack of value. Yet, perhaps we can argue something a bit less flimsy. After looking at the relevant contents of these texts, we can see if the archaeological material has anything to offer.

But, before we look at the texts, we can go back to what the texts do not tell us: the earliest gold and silver came before the texts. In the familiar cemetery at Varna, we encounter the earliest objects of gold known to mankind, dating to sometime around the middle or second half of the fifth millennium. Yet these tombs of craftsmen or warriors are not linked to any known city. This was not the urban Bronze Age.

Yet gold as a prestige object is suddenly before our eyes – without any prehistory and without the urban civilisation that we would expect. And even more peculiar is the date: in the middle of the fifth millennium BC. This is extremely curious because of the recent discovery that tin-bronzes had been produced in Serbia in the first half of the fifth millennium BC – and these tin-bronzes (a) thus potentially antedate the gold of Varna, (b) are only decorative foil intended to shine (like gold?), and (c) are abandoned after a millennium of metallurgical work tending in the direction of decorative objects, seemingly aiming at a bright black and straight green, as well as the shiny tin bronze.[14]

To this must be added the bizarre tale of the European Neolithic jadeite axes. The European jadeite axes appear sometime early in the second half of the sixth millennium BC and fall out of use sometime around 3000 BC.[15] The green axes made of natural stone and highly treasured in Western Europe in the Neolithic were thus contemporary with the first attempts to make green copper. Faced with analysing the complexity of

14 For literature and some details of the story, cf. Radivojević 2015.

15 Klassen 2004; P. Pétrequin, Cassen, Errera, Klassen, and Sheridan 2012.

the phenomenon of the large jadeite axes used in Neolithic Europe, Pétrequin concludes that he could not 'reconcile [the distribution of these high value objects] with a purely mercantile model'.[16] I believe that Pétrequin's analysis and appraisal of the archaeological evidence is correct: it seems there is a precocious system involving trade and value which is not commercial or economic in character. It is understanding features like this that is the clue to unravelling the tale of human history, economic and social. Simply assuming or speculating is not the way. Analysis is.

In Middle Neolithic Europe, jade apparently enjoyed an overwhelmingly high prestige value for a couple of millennia, but in Europe the tradition seems to disappear ca. 3000 BC. This date is quite interesting as it corresponds roughly to the beginning of the Bronze Age and the era of the expansion of writing in the Near East – but neither to a particular break in the contemporary European Neolithic sequences, nor to the appearance of copper metallurgy in northern Europe; it was certainly not at the beginning of the Bronze Age in Europe. In fact, tin bronzes had been developed in the Balkans around the time that jades become prominent, but then fell out of use – only to be reintroduced again in the third millennium.

And thus we return to the earliest texts in the Near East. These are dated to sometime around 3500 BC, coming as discarded objects found in the foundations of temples. They belong to a very important era, one which changed the course of world history. All across the Near East – from the northern Levantine coast, across North Syria and Anatolia to Iran – there were incipient tendencies towards urbanism which began to appear with the end of the aceramic Neolithic around 6000 BC. Ultimately, the most important strand of this tradition was that coming from southern Mesopotamia. Massacres are documented in northern Mesopotamia, chronologically before and stratigraphically below material representing influences from the southern Mesopotamia Uruk culture in a wide arc stretching from southern Egypt to Afghanistan. The influence of the Uruk material of southern Mesopotamia is visibly present in Syria, southeastern Anatolia and Iran.[17] In the Near East, cultural interaction merges into conflict and trade: precisely during the era of the jade axes in Europe. The developments are quite different but reveal change – and also exchange.

Indeed, there is sufficient evidence of Uruk influence in Predynastic Egypt, to argue that the impulse for the state must have been based on the developments in southern Mesopotamia.[18] In Egypt, archaeologically, there is precious little trace of local evolution. The change was forced from outside. Uruk or Uruk- influenced materials have been found in the Gulf and even Afghanistan. In this sense, one can argue direct military conquest (as in northern Syria), trade contacts (as in Anatolia), direct influence (as in Egypt) and indirect influence (as in Afghanistan).[19]

Thus, the end of the fourth millennium takes us into a world of contacts, with writing emerging in conjunction with these contacts and at the centre of those contacts. The early third millennium brings a remarkable change. Firstly, there is a change in the direction: Mesopotamian attention shifts to the East and South, and abandons the advance into Syria and Anatolia. The Gulf emerges as a sea-lane linking Mesopotamia with Oman and the Indus. Gradually the volume of trade takes on very different – much larger – dimensions in both the Gulf and on the Levantine coast, where the city of Byblos (partner of the Egyptians) emerges as the counterpart to Dilmun/Bahrain in the Gulf, from around the middle of the third millennium.[20]

16 P. Pétrequin, Cassen, Errera, Klassen, A.-M. Pétrequin, et al. 2013, 78.
17 Algaze 2005.
18 Warburton 2016, 136–150.
19 Warburton 2003, Map 6.
20 Laursen and Steinkeller 2017, Steinkeller 2021

And all of this is related to a cognitive change. The earliest texts reveal the emergence of systems of measurement. It is not clear that there were earlier systems of measurement, but in Mesopotamia, we see the emergence of systems of measurement that had long term and far-reaching conceptual and practical impact.

Powell suggests that most of the earliest systems of measurement can be traced back to the earliest texts of the fourth millennium, and Englund confirms this observation.[21] What is significant is that hitherto the later – third millennium – systems of measuring weight are not known in the earliest texts from the fourth millennium BC.[22] Powell suggests that the system of weight measurement might go back to Early Dynastic II, which might mean somewhere around or after 2700 BC. This would seem to confirm – what other evidence supports – that weighing does not antedate the emergence of the other systems, and probably came later.[23] This is extremely important for the understanding of (a) the history of understanding value and (b) the actual means of estimating value.

In the Mesopotamian system as it existed from the end of the third millennium, weight was organized on the following principle: 180 grains = 1 *sheqel* (ca. 8.33 g); 60 *sheqels* = 1 *mina* (ca. 500 g); 60 *minas* = 1 *talant* (ca. 30 kg). The value of the grain was certainly arbitrary and merely introduced later to provide mathematical consistency in the system. The *talant* was understood as a 'burden' that could be 'carried' in both Sumerian and Akkadian, and thus older than the system; its precise weight value must have been specified once the system itself had been created. The Akkadian term for the *sheqel* is derived from the idea of a balance 'swinging' into place, and the Sumerian refers to a small axe; neither of these would suggest that as conceptual and real units of weight they antedated the mathematically precise system.[24]

It is thus probably the *mina* that lies at the base of the system. The Sumerian term MA.NA is derived from the Semitic *manû*(*m*), derived from the verb, 'to count', meaning that both the Sumerian MA.NA and the Greek μνᾶ/*mina* are derived from the Akkadian *manûm*. Akkadian-speaking Semites appear almost simultaneously with the Sumerians in southern Mesopotamia, but the Sumerians were the elder more highly developed civilisation. Yet this word relating to measuring weight arrived in the elder language from the younger – and at virtually the moment that balances began to be used. And the word *mina* did not come alone: it came with the DAM.GÀR, the Sumerian transcription of the Akkadian *tamkāru*(*m*), 'merchant'. The current writer is thus tempted to propose that these two words moved together into the Mesopotamian urban civilisation from somewhere outside civilisation, possibly from the North or West. I have noted elsewhere that this same word appears in Ancient Egyptian as *mn.w* 'wage rate' and Hebrew as *maneh* (probably meaning

21 Powell 1987; Englund 1998.

22 Englund 1998, 118, does note a system which may have been used for weight measurement, but in contrast to the other inconvenient sexagesimal systems (such as the 12-double hour day which is still used), it certainly had no influence on later developments – even if it could possibly be identified as a system of weight measurement.

23 A survey of the evidence for weighing confirms that there is no indication that recent excavations have provided evidence of the presence of any evidence of weighing technology much before the beginning of the third millennium BC. In Rahmstorf and Stratford 2019, 15–34, Hafford has shown that closer examination of earlier excavated material may hint at such – but obviously the dating of such projects is generally based on circular logic. Understanding the earlier material is obviously as important as the necessity of developing revised research designs based on more complex analytical approaches guiding future excavations related to economic issues as Kowalewski says in the same volume (Rahmstorf and Stratford 2019, 324 and passim).

24 Crucial for the history of money is that the later fictional introduction of the grain into the system of measurement means that grain was not at the origin of money, in contrast to the suggestions by economists. Later, grain was assigned a value in silver and could be used as a form of payment, but it was not the conceptual origin of money. Significantly, it is the 'unit of account' role of money which is at the origin of money.

generically 'rations' but treated by the translators of the Bible as being literally 'bread' of some kind, which it need not be). All of these would owe their origins to the Semitic word inserted into Sumerian.[25]

However, there is something even more remarkable about the concept of weight. Weights are universally measured in abstract numbers. The earliest counting systems in Mesopotamia were highly complex, and related to specific items: dead fish, beer, sheep, grain, etc.[26] Each category of object was counted in a specific fashion. When the Egyptians started counting, they used integers to define different orders of numbers as applied to many different categories of object. The Egyptians were the first to write a Semitic type language, yet when they adopted the idea from the Mesopotamians, they simplified the conceptual methods of counting from the diversity which had been the pride of the earliest bureaucrats to a simple system – and shifted to a decimal rather than simply using the sexagesimal system which prevailed in Mesopotamia (and thus the Egyptians borrowed 12-hour days and 30-day months, but counted these in decimal rather than sexagesimal units). Such a system of counting based on integers which could be applied randomly (i.e., to units of weight, head of cattle, dead soldiers, etc.) was ideal for the next step.

Thus, this specific concept of weighing as a means of comparing values has a single origin and it does not date back to the fourth millennium or earlier. Whatever – if any – system of measuring weight before the third millennium was different. Somehow, early in the third millennium, shortly after the development of weighing technology, it was realized that weights of silver could be used to estimate the value of a volume of grain or the surface area of a field, combining different conceptual systems of measurement to achieve something substantially different. Equivalencies gradually appear increasingly often from the middle of the third millennium onwards – from Egypt, Mesopotamia, the Aegean, – and much later, China and India.

With the exception of the late fourth millennium administrative texts, all later administrative texts incorporate this feature (of equivalencies based on values projected from weights in silver) in order to estimate value. At the end of the third millennium BC, the texts from the Ur III period are full of equivalencies based on weights in silver.[27] This was unknown in the earliest administrative texts, where equivalencies are as lacking as are weights – and the prevalence of the practice in the early second millennium indicates that this was one idea which caught on quickly. That this idea was ideal for facilitating trade need hardly be viewed as coincidental: evidently, the two went hand-in-hand, leading to the earliest small world-system in the area from the eastern Mediterranean to the Arabian Sea. Yet this idea was also naturally adopted in the administrative texts as well – where there would not be any compelling reason to find such ready acceptance, unless the administrative systems were themselves adapting to a growing commercial economy.

It follows that this was a new and revolutionary development, as administration and commerce adopted the same language. It was also based on exchanges of concepts, language, goods and technologies, for the conceptual framework of counting emerged in Mesopotamia, the terminology moved between languages as goods were traded – and the technology of weighing exploited throughout the region from the Levantine coast to the Indus civilisation. And this was the era of the urban revolution as cities spread with astronomical speed, both sprouting up and covering more land in the case of the larger ones in the Indus, Mesopotamia and Egypt.

25 And indeed I also contend that it is related to Latin *moneta* and thus English *money* – but this is probably too much 'globalisation' for anyone to swallow. For more discussions, cf. Warburton 2018; Warburton 2019.

26 Englund 1998.

27 Englund 1990.

And thus, once introduced, weighing to estimate value became a human universal (arriving in the Americas with the Spanish, it was adopted with alacrity). And grasping this is significant since it must be related to a difficulty in trying to understand human behaviour in the past which is extremely relevant to the question of 'prices' and 'values'. The evidence appears to confirm that these exchanges in the Early Bronze Age Near East led to a world which differed from the one it left behind by an order of magnitude. There is no trace of any kind of activity similar to what we see in the third millennium in the fifth millennium: at Varna, we have but grave goods, two millennia later in Ur, the cemetery lies on the edge of one of the wealthy cities of southern Mesopotamia. And equally significant: there was no change in Europe at this point. The urban era arrived much later. Something extraordinary had happened – but the effects were not uniform. The pioneering metal technology was not the cause of the change, but rather the system of weights in a specific urban context.

Today, it appears to be widely assumed (a) that people will somehow be able to judge the relative values of different types of things without recourse to standards and (b) that this capacity can be projected back into the darkness of prehistory. The extent and origins of this type of thinking are quite remarkable. For example, the cuneiformist Englund states

> It is clear enough that the mechanism of straightforward equivalencies, then of barter, and finally of money equivalencies, develop in a more or less linear fashion in history [...].[28]

One has the impression that this corresponds to what Englund himself investigated, but it is in fact a repetition of a mantra developed by economists which probably goes back to before Adam Smith who modified it from Aristotle. Yet there are some problems with this approach. Firstly, in historical terms, there does not appear to be any evidence of a system of barter before the documented invention of the systems of measurement in Mesopotamia. Most of the known cases of any kind of alleged barter come long after the initial developments in Mesopotamia – and there it is the measurements which precede (and create the preconditions for) the equivalencies, and people in Mesopotamia did not adopt coins when they appeared; instead they treated coins as weights in silver, so that monetization in the form of coins took place much later. Yet monetization in the form of values expressed in terms of silver had an impact around the world.[29]

And, of course, it is no accident that gold and silver are traded by weight even today, when paper has basically replaced weight (except for the etymologies of terms like 'pound sterling', *livre*, *lira*). Without weights, the concept of equivalency values could not have been established to facilitate a system of regular economic exchange. It was the concept of measurements and weights (with face value later, but developing from the concept of weight) which made the equivalencies possible – and it is thus that the equivalencies appear in the administrative documents around 2000 BC. There certainly does not seem to be any real context in which barter is recognizable (without money equivalents) as being documented anywhere as part of a linear development. Where documented, barter

28 Englund 2012, 428.

29 Obviously Graeber 2011 covers this same material, but his treatment of the data is slightly too anecdotal to my taste – and in my view, his argument about debt is not quite as strong as my arguments about finance as such, cf. Warburton 2016.

is either based on monetary units or clearly dates to a period after the use of money somewhere else.[30]

Ironically, Englund's own research contributed significantly to the narrative of the emergence of values via equivalencies (leading to trade) which I have just sketched. Englund was a member of the group (with Nissen and Damerow) who finally managed to make sense of the earliest texts of the fourth millennium BC administration where there are neither (a) traces of a significant system of weighing nor (b) significant traces of any kind of equivalencies.[31] And significantly, in a remark of great importance, England himself correctly suggested that there was not much being traded or moved around in the fourth millennium BC.[32] Englund himself elaborated on the history of the growth of the use of equivalencies in the third millennium.[33] And Englund himself documented the brutal exploitation of labour which was a consequence of the emerging commercial economy, where human lives were reduced to values calculated in grain and silver.[34] Thus, one can ascribe the explosive growth of exchange in the third millennium to the development of weights and equivalencies. Yet even those working with the material fail to recognize the trend and refer to tales repeated with variations since the days of Aristotle.[35]

Significantly, it is with the Early Bronze Age in Palestine that one can see a real transformation in the relationship between pastoral herders with large groups of sheep in the 'hills' and the villagers in the more accommodating terrain below.[36] The gradual appearance of pastoral communities was not merely a matter of a gradual increase during the Neolithic, but an explosion in the size of the herds in the Early Bronze Age. This created a division of labour linking pastoral, agricultural and urban groups. Amazingly enough, the phenomenon of professionals producing pre-formed cores (*livres de beurre de Grand Pressigny*) of flint in France appears at virtually the same time chronologically (in the middle of the third millennium BC). Estimates suggest that thousands of blades were produced annually – for centuries.[37] The fact that this development began only centuries after the beginning of the use of equivalencies in the Near East is not without interest. Examples of such rapid change – to the intensive herding of hundreds of sheep and the manufacture of thousands of blades – are unknown in the era before the invention

30 Graeber 2011 also makes this point, that there is no evidence of the sequence. My point is specifically that there is adequate evidence of the practice long after the development of equivalencies in Mesopotamia, and virtually no evidence of trade or barter techniques before. An excellent example of the confused thinking can be found in the *Cambridge Economic History of Europe* where there are references to 'pure barter' (e.g. V: 290) taking place in late medieval markets thousands of years after the introduction of money in the Near East and long after Arab coins, as well as Carolingian pennies, were circulating in Europe. It should be clear there were no real economically important markets in northern or central Europe existing in parallel with the Bronze Age Near Eastern markets; therefore, this 'pure barter' was not part of a linear development, but probably something that took place under the influence of what had happed earlier elsewhere. And, in principle, I suspect that what was done was not 'pure barter', but rather the exchange of products without money, but using conceptual units of account (i.e., 'money') to estimate the relative value of the products being exchanged. Thus was the usual method in, e.g., Ancient Egypt.

31 Englund 1998.

32 Englund 1998, 49.

33 Englund 1990.

34 Englund 1991.

35 It is important to note that although Pre-Aztec Mesoamerican markets go back at least to the Formative Maya era (apparently 300 BC), this is millennia after the Near Eastern monetary system based on silver. Although they did not have weights, the Maya clearly used the counting of units of articles as the means of estimating exchange prices in markets – which were not based on barter. Exactly how values were established in the early Maya system we cannot know (for an invaluable survey and summary, cf. Kowalewski in Rahmstorf and Stratford 2019, 323–338).

36 Rosen et al. 2005, 324; Rosen 2017

37 Pelegrin 2014, 199.

of equivalencies. Yet we have no trace of the equivalencies playing a role where the sheep herding and flint knapping are taking place – and little reason to suspect that these are direct consequences, and every reason to speculate that indirect influence must have played a crucial role. In this sense, the use of equivalencies in Mesopotamia and Egypt changed human behaviour elsewhere: a true case of 'globalisation,' demonstrated by archaeological evidence.

Beyond that, van der Spek et al. make a simple observation:

> It is fascinating to note how silver played the role of means of exchange from the third millennium BC in Mesopotamia until the end of the nineteenth century AD in the whole world.[38]

This is the globalisation of an idea connected to a material which was diffused gradually all around the world – from an easily locatable origin in Mesopotamia. Over the long-term, the development is clear. However, the evidence of the exact spread of the influence of the use of the metal and the idea may not be so obvious – and thus the actual impact may be difficult to recognise. I contend that in this case, one can actually follow the practices and the linguistic evidence in a fashion which is indisputable. And obviously such examples should therefore be taken as having some meaning, in the sense of comparing both before and after. Yet when looking for a local cause, one would be at a loss for there is very little local change – and thus causes from further afield would be of use. Yet these must be found, recognised and argued.

Yet without proof most scholars will dismiss any possible relation – until they realize that this is the era when first copper and then tin-bronze axes and blades began their gradual diffusion across Europe. The speed and extent of the distribution of these materials can hardly be disputed. Prices for copper are documented from Syria and Mesopotamia, copper was being produced and exported from Anatolia and Oman. In this sense, the trade networks of the Ancient Near East were brought into existence, and determined by prices – and seemingly had an impact on societies far from the Near Eastern core. The fact of the distribution of the technology in the third millennium cannot be denied – and in this sense, the concept of communication between groups can hardly be dismissed. Thus information and concepts were flying to regions far from the centres of social transformation – and this is incontestable.

I would thus argue that the creation of militarily powerful states in the fourth millennium BC Near East, followed by the creation of systems of equivalencies in the early third millennium BC set the basis for the networks of interlocking markets which began to dominate from the second millennium BC onwards. Once the prices were established in the Near East, the production began in Europe. This was not a question of technology and resources but rather the conceptual understanding of value. These concepts changed all societies with which they came into perceptible contact, to the degree that iron tools and weapons were appearing almost simultaneously in China and Europe by the mid first millennium BC. And it was around 600 BC that coins suddenly appeared in parallel in China (made of copper) and the Aegean region (made of precious metals). Ordinarily one would link technological change, trade and cognitive advances that appear in parallel.

Yet such connections are generally dismissed – despite the fact that the archaeological data actually supports the argument. The same trend in archaeological thought can, once again, be observed: the treatment of technology is drawn from economic thought rather than from the evidence, and the origins and development of exchange are likewise drawn from economic thought rather than the evidence; in the same way, the concept of religion is drawn from the study of religion and cognitive science rather than from the evidence.

38 Van der Spek, van Leeuwen, and van Zanden 2015, 12.

It would be useful if archaeologists would take a closer look at their sources rather than the library shelves (or platitudes).[39] It would change the history of globalisation – and also complement our understanding of economics and economic history.

5.2 The Early Neolithic: the origins of inequality expressed in material terms

Returning to the more important point, let us assume that in the early Near Eastern Neolithic, there were villages where most of the people were engaged in agriculture, with each household producing roughly the same things (wheat, barley, rye, goats, sheep, cattle, et cetera). In the data as available today, there is no indication of a division of labour whereby some families produced pulses and others goats. Indeed, it is after the beginning of the Bronze Age in Mesopotamia that pastoralism implying a division of labour appears in the southern Levant (and I obviously link these phenomena).

From the architecture of the Neolithic, there is a gradual accumulation of evidence hinting at the emergence of inegalitarian societies. However, there is little reason to believe that the wealthier households could have 'sold' excess production to the poorer households, as the poorer households would (by definition) not have had a great deal with which to pay, and in any case, with extra effort, the poorer households could manage to produce enough for their own needs, thus avoiding dependence (which would be better than producing something to offer in return for commodities which they could produce).

Obviously, in an inegalitarian society, the wealthier households might be able to reward craftsmen for products, for example, arm rings and arrowheads, but the demand for these products would probably not have been so great that many craftsmen could live off the proceeds, unless 'employed' as a dependent of a wealthy household, where they may have had other tasks as well. By contrast, it would have been possible for the wealthier households to transform wealth into power and demand payments from the poorer, which is what happened with the emergence of the state. Certainly the wealthy (or their minions) could have indulged in practicing archery while discouraging the less well-off from becoming proficient, possibly with lethal results for those who did not cooperate. This view would be substantially different to assuming that the wealthier generously sold a surplus on credit to the less well-off in hard times, in the hope that the debtors would fall permanently into debt (which would anyway be meaningless in a society without laws).

Thus, on the basis of pure socio-economic logic, it may be assumed that in the earliest farming communities there could not have been much of a basis for economically significant exchange. Beyond this supposition, there is, however, very little evidence of any kind of long distance trade – aside from the obsidian blades which are quite exceptional and do not necessarily amount to an industry. Furthermore, it is uncertain how any kind of system of values (let alone equivalencies) could have functioned.

At the beginning of history (in the literal sense of the word, meaning the era after the appearance of the first texts in Mesopotamia), there are certain articles that are viewed as having a high value: gold, lapis lazuli, jade, carnelian, silver, amethyst, turquoise, and amber. Significantly, virtually none of these items appears in the early Near Eastern Neolithic; most are still quite rare in any late Neolithic contexts.

In this context, there is a major detail of far-reaching significance in the history of prestige values, technology and exchange values. Thus one has the impression that the jade axes – which had some high but vague, indefinite, prestige value in the European

39 A case in point is Selz 2016 where a systematic study of the graphic evidence integrating the linguistic evidence allows one to draw conclusions about the nature of early gods, and human society. This is much more useful than looking at an encyclopaedia of religion or sociology.

Neolithic – were replaced by copper and later bronze axes, which probably had a clearly identified exchange value (i.e., a price). And the time of the transition to copper axes corresponds to the time when writing and equivalency values were gradually emerging in Mesopotamia, meaning that the Mesopotamian prices may have had an impact on European concepts of value – to the extent that the tin bronzes were once again a welcome addition to the European inventory, after having been abandoned a millennium earlier. This is not only an indication of the importance of diffusion, but also of the peculiar means by which technological developments penetrate into society – as it would seem here that the prices were understood as values and transformed concepts of prestige as well as exchange circuits, and even had an impact on the reception of technological advance which contrasted with the developments in Neolithic Europe. In this sense, our understanding of the importance of technological development seems to correspond to a market based system and this contrasts with the conceptual system of values prevailing in Neolithic Europe prior to the invention of equivalency values in early third millennium BC Mesopotamia.

Jade continued to be appreciated in China during the Bronze Age, but amber became the prestige good of the European Bronze Age. Although there are a few rare pieces of jade (such as those of probably Central Asian origin in the tomb of Tutankhamun), jade virtually never played an important role in the Near East. Lapis lazuli and carnelian were probably the most important semi-precious stones. After some of these stones gradually appeared in minuscule quantities during the Near Eastern Neolithic, lapis lazuli, carnelian, amethyst, and turquoise become more common in the urban centres of the great Bronze Age civilisations of the Near East. Thus, it is really only from the second half of the third millennium onwards that one can register a progressive increase in the importance and value of trade in the Near East.[40] This change coincided with the emergence of the Indus Civilisation to the east of Mesopotamia and was followed by the emergence of the Minoan Civilisation to the west. Most of these high-value items really make their appearance in large quantities well after the beginning of the Bronze Age.

Thus, at the moment when the Near East turned to precious materials as the means of the expression of prestige, Europe turned to bronze, which was hardly a precious metal. In Europe there are abrupt changes with regard to jade that correspond neither to our cultural understanding of the history of Prehistoric Europe, nor to traditions of the Orient, where the appreciation of precious stones took off with the appearance of the Bronze Age urban civilisations. Yet, ultimately, the Europeans adopted the Oriental traditions of measurement, prices, and payment – quite aside from the symbolism of the balances.

5.3 The Iron Age: coinage & money

We have seen that the invention of the system of equivalencies led to an economic transformation at the time of the formation of the first cities in the Near East. In this sense, we can see the origins of conceptual values in terms of weights in silver as a means of estimating the values of other categories of goods and services via equivalencies. And we can see that the impact of the equivalencies increased trade between the core region of the Near East and the periphery – but also had an impact on trading elsewhere.

In effect, as a result of these developments, silver performed the role of money as being a means of payment, means of storing value and means of facilitating exchange. Coins and notes are frequently confused with money, probably at least partially because they serve all these roles – and one more, that of being accepted to settle state debts. As a rule,

40 Cf. Warburton 2013; Warburton 2018; Wilkinson 2018.

coins are usually assumed to be issued by states. The states declare the value of the coins and allow them to be used. The first coins that we can certainly identify are the electrum coins of Lydia in Anatolia and the bronze tool monies of China – both of which appear to begin at the same time, around 600 BC, as observed by von Glahn.[41]

In this sense, it would appear to be the case that coins are a specific form of money recognized by the state. In Lydia, the stamped lumps of metal had an intrinsic value corresponding to their metal weight, as was the tradition in the Near East. In China, the coins later had a nominal value not necessarily compatible with the metal value of the bronze. Whether they ever had a value in terms of metal is not clear. In this sense, in China, it is as if the state is determining value. Although prices could necessarily fluctuate with respect to the currency, the use of the currency by the state in the markets would allow the state to determine both values and prices.

What is important is that among economists, it is generally assumed that coinage and money could have been invented by merchants – presumably to facilitate exchange which in the version of the economists would have been based on barter. Yet, here I am arguing that the use of silver as a means of establishing equivalencies was the decisive step – and that this was certainly developed by the states, although potentially influenced by Semitic speaking merchants. The historical evidence and experience suggest that coins and notes are almost universally issued by the state or under state supervision – and always have been, having started as a state invention. Thus, one sees a slight discrepancy between the historical evidence and the hypothetical suggestion.

Yet there may be an extremely significant detail in this history, one which is exclusively a matter of the archaeological record and archaeological interpretations. One of the most curious features of the European prehistoric development are the second millennium BC bronze sickles,[42] which seem to have functioned as a kind of coinage a millennium or so after the invention of silver money as a unit of account in the Near East – but around a millennium or so before the familiar Lydian 'invention' of coinage in Asia Minor.

Rather puzzling in this context are the earliest copper or bronze 'knife' coins in China, which date to the era of the Eastern Zhou Dynasty when the state was falling apart. The earliest may not have been inscribed but the conventional assumption is to take the date of the inscribed ones and conclude that they all collectively belong to the late Springs and Autumns era, i.e. 6th century BC (or even the later Warring States era).[43] Yet the earliest uninscribed examples of this type of Chinese coinage could potentially antedate the Lydian gold alloy coins, which are generally assumed to date to the end of the 7th century. Regardless, it is certainly tempting to suggest that the Chinese 'knife' coins might have been modelled on the still earlier European bronze sickle coins (to which they bear a vague resemblance). Significantly, from this time onwards, the Chinese would generally cast coins – like the sickles – rather than stamp them (as is normal in the West).

It is certain that before and around the middle of the first millennium BC, first the Lydians and then the Greeks were stamping precious metals, which were treated as coins; the earliest stamped lumps of gold in China come slightly later, in the middle of the second half of the first millennium BC (in Chu, about two centuries before the Han Dynasty campaigns which 'opened the silk road' in the 2nd half the 2nd century BC).

The later Greek stater (ca. 8.6 grams) was roughly equivalent in weight to the Semitic *sheqel* of 8.33 grams, and the Athenian tetradrachm was four drachms or two staters, according to one's understanding. It is true that 100 drachms formed a *mina*, but the *talant* was made of 60 *minas*, as in the east. In any case, both the Semitic *sheqel* and the Athenian drachm lead back to the Semitic *mina*/*manûm*. Clearly, the Greek idea of

41 Von Glahn 2016, 62.
42 Sommerfeld 1994.
43 E.g. Thierry 2001, 115.

stamping precious metals in defined units of weight was influenced by the Near Eastern tradition of weights.

It would be reasonable to propose that the Chinese stamping of lumps of gold was influenced by the practice in the West. It is rather improbable that these two ideas (cast bronze coinage in the form of tools and stamped lumps of precious metal, based on uniform weights) arose independently and spontaneously at roughly the same time in the middle of the first millennium BC. In any case, by the beginning of our era, both the Chinese and Romans were using circular bronze coins (with the Romans striking them like silver coins and the Chinese casting them like the European sickle and Chinese 'knife' coins). Two millennia later, virtually the entire world is using paper banknotes – which were invented a millennium ago in China.

And it is clear that virtually every transaction in every civilized society of the Old World was always summarized by the price expressed in monetary terms, whether weights of silver or the face value of paper notes – even when neither silver nor notes are either present or changing hands. Even more importantly, the actual nominal value of those units is impressed into our consciousness in a fashion which – for millennia – has overridden the knowledge that the coins and notes do not really have the nominal value we attribute to them. It is the authority behind them which assures (or fails to assure) their value – and this value dominates our way of calculating the world. This strange process of drawing on a fictional form of reference bears a striking similarity to religious thought – and it can hardly be inherently human in the sense of Prehistoric instinct, but it is a procedure to which the human mind seems to be particularly susceptible to believing that it is rational.

Thus, I argue a long history of the diffusion of monetary units across Eurasia and the Middle East during the historical period, since the invention of weights. Coins followed after the invention of the weights, and seemed to have followed a pattern. It is possible that these parallel developments are extremely relevant to the question of projecting the 'cognitive inherence' of the concept of value to the human brain, since the 'parallel developments' all follow one single evolutionary line, a line which seems to move by diffusion and innovation rather than independent invention. There does not seem to be much latitude for originality in the human brain with regard to the practical expression of cognitive reflections about economic value. All paths lead in the same direction, with each new innovation being adopted and adapted. And each progressive foreign improvement was apparently integrated without difficulties, as the improvement was evidently persuasive. It is as if this sequence – from silver weights to bronze circular coins and finally paper notes with credit cards, fictional bank balances, and the suchlike (which have been universally adopted) – was the only conceptual means of enabling equivalencies. The single evolutionary line hardly speaks in favour of a natural human tendency to understand values, since there is no endless variety.

And in this sense, one can probably usefully – if briefly – try to go back a bit further. The story of the early coins and weights can probably be projected back to the origins of value. Of interest in this context are some early weights. The Chinese ca. half-kg weight bears the name *jin*, which originally meant 'axe' and Sumerian GÍN, the word for the Semitic *sheqel*-weight, also originally meant 'axe'. The two weights are completely different (ca. 600 grams against ca. 8.33 grams), but the word and the concept of the weight was probably shared. The two words probably share the same lexical root, and this may take us back to the European jadeite axes of the fifth millennium BC, which probably antedate all systems of values based on measurement and thus lie in a world of undefined status and prestige.

For our purposes, it is extremely important that standardised systems of value based on weights offering the possibility of equivalency values probably did not exist before the emergence of the first states with their systems of administration. These early axes had

different shapes and sizes, and were made of different materials. Some of them offered some kind of prestige value and some were little more than vague imitations. There was no uniformity of agreement about their meaning, i.e. their 'value' was vague and indefinite in contrast to the systems of the historical period. As late as the early fourth millennium BC, there was still no real concept of measuring anything (except perhaps time and even something as elementary as the length of the year was left unsolved until Hellenistic times).

These equivalencies managed to regulate trade within the ancient civilisations – but also to have had an impact on regions far beyond their borders – and this is the true basis of any concept of globalisation, as globalisation reflects the suspension of boundaries and the identification of different actors.

5.4 The diffusion of ideas expressed in objects

In the context of this paper, I approach 'globalisation' and 'diffusion' in an exclusively 'didactic' or 'heuristic' fashion designed merely to point out some specific phenomena as examples of the type of thing that can and should be recognised and that methods can be developed and applied which systematically and analytically include such phenomena.

In the context of this specific argument, I consciously avoid polemic arguments about the degree of interconnections as such alone, and instead aim at issues where there can really be very little doubt about 'diffusion' and 'globalisation' defined as parts of interactive 'world-systems' type interaction, where the evidence can be analysed as demonstrating interaction demanding systematic analysis.

However, I will venture to observe that the phenomenon of these axes – used as items of value – seems to be linguistically evident in the domain of both Sumerian and Chinese traditions (as mentioned above), aside from having been observed as a physical object phenomenon of jade and bronze in Europe.[44] The Chinese began to make axes (and other objects) out of jade at roughly the same time as the phenomenon appeared in Europe – and the Chinese tradition continued, long after the tradition was abandoned in Europe. That the phenomenon was invented and spread can hardly be doubted.

In this context, I cannot therefore resist drawing attention to the 'little copper axes' recorded as tribute in the Aztec world,[45] implying that shape (axe), material (metal) and purpose (symbolic value) were united in the specific form of an axe. Beyond that, I also point out that the tradition can be traced back to 'celts' of jadeite assumed to be 'sacred objects' in the Olmec world two millennia earlier.[46] Indeed, even anti-diffusionists concede the reality of yet other and abundant strikingly 'apparent similarities' between the Mesoamerican Olmec and the Chinese Shang.[47] Obviously, to my mind, the independent invention and maintenance of a tradition which shared such features (jade/copper axes with symbolic 'value') evolving in parallel and independently over millennia in different civilisations around the globe must be excluded and cannot be purely accidental convergence.

However, decisive and systematic political and economic Pre-Colombian interaction between Eurasia and the Americas should probably be conceptually excluded (at least at the moment based on a survey of the evidence), as here the stress is on how interaction between cultures took place, and not substantial evidence of contact alone. In this sense, 'diffusion' must be separated from 'globalisation,' with the latter based on the types of

44 Klassen 2004, passim; P. Pétrequin, Cassen, Errera, Klassen, and Sheridan 2012, passim; e.g., Kristiansen and Larsson 2005, 94, 122–123.
45 E.g., Hirth 2020, 181.
46 Pohl and Nagy 2008, 229.
47 E.g., George Agogino in Mundkur 1978, 568.

interaction illustrated by phenomena such as mass-produced flint blades and coins. This is a matter of overcoming interdisciplinary boundaries in order to understand contacts – and not merely identifying traces of contact.

6 Boundaries, societies & civilisations (and material culture)

At the beginning, I made the point that 'globalisation' was closely connected to economics and that the global way of thinking effectively undermined the concept of boundaries – as exemplified in the so-called 'multi-national corporations'. On the other hand, however, globalisation is also largely about hegemonic systems of value and the preservation – or loss – of identity. This implies by definition the interaction of cultural units. This issue is extremely important as archaeologists are always suffering from the problem of defining and understanding the significance of the geographical extent of the distribution of the objects they are studying – because there are always marginal zones on the edges where cultures seem to overlap or dissolve (according to one's point of view).

The literature of recent decades has introduced two useful concepts in this domain. The first was Michael Mann's point that not even societies are real entities,[48] and the other was Samuel Huntington's view that 'civilisations' can be viewed as entities.[49] In this fashion, the archaeologist can actually come closer to her/his material since what we find are the material traces of 'cultures' or 'civilisations' and not specific 'societies' or 'states'. One of the most curious aspects of Huntington's *Clash of Civilizations* hypothesis is that it sets 'Western Civilization' against the others. Significantly, in Huntington's analysis, the basic units are neither states (as after Westphalia), nor ideologies (as in the Cold War), but rather civilisations. This is certainly the state of affairs dominating globalisation today, with civilisations as one of the basic units. Archaeologists will immediately recognize the validity of the idea and its relevance to our work.

However, there are several inter-related major problems in understanding how to approach this. On the one hand, there is the question of the identification of a civilisation. Beyond that, there is the geographical spread of civilisations. And on the other comes the makeup of a civilisation.

In the past, most civilisations were riveted to particular geographical areas: whether the Egyptians or the Romans and the Greeks, archaeologists could identify the rough geographical spread of a civilisation through its material culture. Huntington projects these territorial ideas onto his maps of civilizations, merely having to accept that the Indian subcontinent has two divided but overlapping communities (Islam and Hindu) and that somehow sub-Saharan Africa is assembled into some mythic African civilisation (and thus disregarding the differences between the East Coast, the Savannahs, the Jungles, and West Africa, as well as the societies in, north, south, west and east of the Sahara and Sahel zones – quite aside from the Afrikaners,). And then he has 'Western' culture (which somehow includes the Inuit in Alaska, Canada and Greenland, as well as the indigenous peoples of the American southwest and Papua New Guinea – but excludes the Afrikaners). This is a very strange way of making a mosaic of civilisations. And ironically, the key is to see that economic development has swept the people of Huntington's core Western civilisation into a materialistic nirvana devoid of values, leaving pockets of people living out their own culture under the radar.

Furthermore, there is the question of civilisation. Aside from Huntington's version, there is also Ferguson's version of *Civilization: The West and the Rest*.[50] What is Western

48 Mann 1986.
49 Huntington 1996.
50 Ferguson 2011.

civilisation? Christianity?; democracy?; freedom & liberty?; race?; truth, honesty, diligence & responsibility?; respect for individuals, others & laws?; transparency & equality?; logic & the scientific method?; critical thought?; individualism?; rights?; generosity?; expectations of solidarity? With the exception of appreciating prosperity in an open market economy, virtually none of the things actually associated with Western civilisation are actually shared by more than a minority of Europeans and North Americans. In contrast to Huntington, Ferguson's more pessimistic account simply assumes that Western Civilisation was six killer apps which made it succeed: competition in economics & politics, the work ethic, property rights, consumerism, science, and medicine. Ferguson thus dispenses with the concept of civilisation to identify Western values, reducing us to being mere selfish economic actors. And – of course – Ferguson has realised that the rest of the world now has easy access to these same values and thus we are lost. But the defeat is twofold: on the one hand we have reduced ourselves to economic actors and on the other we lost the advantages of having principles which far outweighed our economic advantages. The search for wealth has necessitated the sacrifice of other principles.

It is extremely important to note that Beard showed that one could interpret the American constitution as a document reflecting and protecting the economic interests of those who wrote it.[51] Although it is assumed that Beard's work has been refuted, this 'refutation' is more a matter of consensus that such an extreme interpretation is not the only legitimate interpretation of the document. It is, in fact, hardly possible to refute the data he presented (on the wealth of the individual signatories of the document – and how that wealth was protected and promised to increase in value by the document they were promulgating). And thus the alleged refutations are not a demonstration that what he found does not deserve consideration.

In this sense, it is not insignificant that the contemporary French philosopher Méda observes that the contemporary American philosopher Rawls's *Theory of Justice* excludes economic inequality from the domain of justice.[52] What Méda could not have noted was important is that at the outset of Rawls's chapter V – where Rawls specifically tries to separate economic interests from liberty and justice – Rawls actually refers to some ideal thinker who is supposed to 'take up the perspective of a constitutional convention' when approaching justice.[53] Of course, Méda and Rawls will have realised that Rawls was just using modern terminology to allude to Plato and his symposion companions thinking of the creation of a just society.

Yet the irony is that what Beard (in his study of the economic interests of the signatories of the American constitution) was writing about was specifically the personal wealth and economic interests of the first and most important 'constitutional convention' in Western history, that in Philadelphia of the summer of 1787 where the framers of the American constitution set about their work. Bailey, a glowing admirer of the Republic notes that when they were finished, 'The country was shocked by the new Constitution, so well had the secrets of the convention been kept.'[54]

Not only does that same admirer – a distinguished American historian and not a radical critic – stress that the work was done in secret behind closed doors, but he also specifically confirms

> The delegates [writing the document secretly in the name of the people, DAW] realized that while they themselves might profit personally from a sounder government, so would the nation as a whole. If every man who stood to gain financially

51 Beard 1913.
52 Méda 1995, 271–273.
53 Rawls 1999, 229.
54 Bailey 1961, 143.

> from a new constitution had bowed out of the picture, the country would have been robbed of its leadership [...].[55]

Thus Bailey (while citing 'blistering' criticism of Beard)[56] confirms the fundamental truth of Beard's claims – and adds that they knew what they were doing while they were doing it, and that they viewed material gain for all as an advantage favouring the new constitution. In fact, financial gains were thus a key aspect. Beard had stressed the personal financial wealth of the individuals. Bailey notes that during the early stage of independence, 'The states seized control of the former Crown lands;'[57] but that later 'The priceless public lands' were 'transferred to the central government' and this meant that those homesteaders who received lands from the new state 'learned to look to the national capital.'[58] Thus material wealth was fundamental not only as a reality of protecting the wealth of individual actors – but the hope of real material gains were viewed as a consideration adding value to the state being created.

Economic interests were thus a key factor in the creation of the American constitution and the bonding of the interests of the people with those of the financially wealthy – and not a peripheral aspect. And those interests – protected and expanded – by that specific 'constitutional convention' were responsible for the very fact that Rawls could write about liberty and justice while pretending to exclude economics. In this sense, material wealth could conceivably be a demonstrably important aspect of the conceptual basis of human civilisation, supporting the concept of justice. However, Ferguson narrows these material concerns to actually being the civilisation; yet Rawls argues that material wealth plays no role in justice, while understanding that the system of justice in the America protects individual wealth.

This means that there is a major tradition in American philosophical thought which (a) recognises that the law is designed to protect and enhance entrenched economic interests, (b) and realises that American historical and philosophical thought ascribes a good deal of privileged autonomy to economic interests, while implying (c) that economic interests exist independent of society, and (d) neglecting the fact that it is precisely the laws of the society which protect wealth and explicitly arguing (e) that justice and liberty cannot be legitimately related to economic interests.

Since economic interests are in this fashion 'protected' by neglect, it follows that the observations of Beard and Méda are well founded: society itself has solid economic foundations and society protects wealth. Thus it is hardly surprising that Ferguson has reduced Western values to economic issues – but curious that Rawls attempts to discretely set them aside. In this sense, one could understand Rawls as arguing that economic interests be disregarded, precisely because they are *the* fundamental rights which cannot be infringed (but only those of the elite).[59] In fact, if we follow Ferguson they are more fundamental than the justice Rawls is trying sell – unless of course, Rawls is simply using justice as a smokescreen for protecting wealth.

This is, of course, exactly what Beard demonstrated: that the American constitution was written to protect private wealth. And this is viewed as refuted – and this spirit reveals that 'protecting economic interests' lies at the heart of American philosophical thought as the expression of liberty and justice. Everyone who is economically well off has the right to participate in freedom and justice; if they are to enjoy liberty and justice, those who are not

55 Bailey 1961, 139–141. In contrast to the French philosopher Méda, many of the children of affluent America (like the author of this paper) will have met Bailey's book somewhere in the course of their early instruction in American history. Rawls should certainly know the story better than most.

56 Bailey 1961, 148.

57 Bailey 1961, 127.

58 Bailey 1961, 130.

59 Rawls 1999.

wealthy must strive for and acquire wealth (while competing against and with those who already enjoy wealth and are able to dictate the terms of access). In this sense, the *Leitkultur* of the West was formed by, and has succumbed to, a doctrine of invincible economic values, trumping all others. Ferguson's suggestions are correct. According to Méda, in Anglo-Saxon thought at least, the guiding light of Western civilisation is the protection of accumulated wealth by asserting liberty, while maintaining an empty concept of work as an absolute and obsolete value, disregarding the harm done to society. Ferguson confirms that all else has been lost. In the matter of values and principles, we are thus consigned to oblivion – by the very champions of the West, both Huntington and Ferguson.

Strangely – aside from a few souls such as Méda and Habermas who recognise a need to face the realities – the only optimistic approach comes from the Marxists. In Hardt's and Negri's *Empire*,[60] we find that the evil empire has taken over the entire world, subverting the nation-states and using its military and economic prowess to press forward. Writing before the war on terror, the rise of China and massive influxes of refugees, they assumed that the oppressed would rise up against Western economic oppression. Today, however, fear and mistrust lead people further and further away from whatever values the Western world once had – and allow their leaders to blunder on. All this has substantial implications for our own future in a globalised world, dominated by competing interests seeking attention and advantages.[61]

There are several lessons we can draw from this. Firstly, the issue of civilisations. Except where written records allow the identification of features such as the Great Wall of China or the Roman Limes, archaeologists have rarely been able to identify political units, whereas cultural units are foremost. In this sense, cultural concepts are easier for archaeologists to approach. Beyond that, we can see that civilisation and culture are led by elites. This should solve one of the problems archaeologists constantly face: it is the elites who guide society and thus archaeologists should acknowledge this reality rather than trying to deny it or justify their studying it. Logically, as Western society develops a decidedly popular materialistic touch as a consequence of the elites abdicating their role of dictating values (independent of flaunting wealth), Western society has ceased to represent a coherent system of principles and values, meaning that a Eurocentric approach is not a suitable means of understanding other civilisations. Other civilisations have never assigned mere wealth alone such a role, just as other civilisations have never assigned the individual such a priority.

The situation differs significantly from the worlds of the Chinese & Japanese, the Arabs & Africans, the Buddhists & Hindus. These groups can recognize the values they share (and which divide them): food, language, customs, dress-codes, writing systems, sacred texts, kinship, home, etc. We may not have much time for such beliefs, but this is not terribly relevant. For archaeologists, this is exactly the type of thing that we can find in the archaeological debris – art & architecture, animal bones & burial groupings, delimited distribution patterns of ornamentation (both geographically and on skeletons) – and thus relevant.

Archaeologically, the ideological values cannot really be found, but it is important to understand that this issue of civilisation is important – because the traces of the civilisations can be found. And the attitudes and methods differ. The Americans simply assume

60 Hardt and Negri 2000.

61 I hasten to add that this entire paper was written before the presidency of Donald Trump could even have been imagined (whereas the text miraculously reappeared for final corrections when the first stage of that nightmare was approaching its end). His act would, therefore, appear to have been predestined by what Huntington and Ferguson foresaw in (a) identifying a conflict between the leading power of Western civilisation and the rest of the world and (b) defining Western civilisation purely in terms of protecting the material interests of a single group united by fear, unprepared to deal with the reality they have created and from which they benefitted.

the superiority of their culture, and allow others to imbibe it while Islamic Jihadists are far more conscious of their identity and their goal of imposing their own social values on foreign peoples. The Chinese are far more concerned about maintaining the strength of their society than of imposing their values on others, which they view as their prerogative only within the circumference of their civilisation. Civilisations as a guideline are useful, and archaeologically recognizable in a way that nation states (and moral values) are not.

Thus, where Rawls follows the train of thought about justice from Plato to the contemporary world, Ferguson has reduced Western civilisation to a group of economically important uniquely applied killer apps that allegedly gave the West tremendous advantages.

The astute reader – oriented towards globalisation as a very long term phenomenon based on diffusion – will hopefully have gotten the message out of Ferguson's list above: economics, the state, laws, money, and science were all invented long before the West came into existence. Thus what Ferguson sees as the killer apps of the West are merely tweaked versions of value systems that the West appropriated and modified – from those created long before and elsewhere. Ferguson did also mention the special role of labour with its own value in the West, but already a century ago, Böhm-Bawerk had shown that this was incompatible with the market and decades ago Méda had confirmed that the value itself was disappearing; on this Ferguson may have been correct about the myth – but it was actually the first of his Western traits to fail. The globalisation of knowledge along with political and economic practices enabled the West to benefit from a new way of exploiting them.

Part of the key was, of course, the constitutional convention in Philadelphia which established the rule of law and enfranchised the landless whites as the inheritors of the earth. Decisive may, therefore, have been not justice and creative innovators, so much as the creation of a middle class empowered with wealth, which created wealth by pursuing interests and thereby changing their own society.

That transformation of wealth is visible in the material culture – and (if we follow Ferguson rather than Rawls) that material reality may actually betray the real values of society, rather than obscure them as many archaeologists hope or fear (when suspecting that they are missing something in their material). In fact, this is probably among the great contributions that archaeology could make: relating material culture to philosophical traditions and identities will probably reveal that the possession of the material and the study of its distribution are quite sufficient to understand how 'identities' work in the broader scale of long-term history.

7 Economics & economic development

Although globalisation could be a matter of civilisations, in certain circles 'globalisation' is primarily associated with economics – and thus it should force archaeologists to struggle with the unresolved economic issues of earlier ages. One significant aspect of the modern Western economic approach to globalisation is that it is routinely assumed to be completely new, and related to the low-cost labour, raw-material producing, periphery that was once called the 'under-developed' or 'Third' world.

For some reason, these assorted peripheral entities are now referred to as 'emerging markets' as if there had not been any shops there before the Portuguese discovered them. To understand this, we must understand something of economics and something of economic growth. Our current understanding – as outlined above – is that the use of silver began in Mesopotamia nearly 5000 years ago and silver bound the markets of the core region of Egypt, the Levant, Anatolia, Mesopotamia, the Gulf and the Indus in the third millennium; via the markets silver eventually encircled the world.

By contrast, the economic historian Allen decides that *Global Economic History* only began when economic growth in the West separated it from the rest of the world, ca. 1500 AD, and thus *Global Economic History* begins right after the Portuguese reached the markets of India – which had already existed and been trading with neighbours for 4000 years at that time (which one can hardly claim of the Portuguese or Dutch).

Earlier, economists had assumed that markets were a Mediterranean innovation, and thus recognised that markets spread gradually from the Mediterranean to northern Europe, becoming established by the 17th century.[62] Now, however, economists find it simpler to decide that globalisation is a European affair, and thus relate it only to the growth of the West (sic!).

The economist Edwards remarks that those who stress the accomplishments of the West should wait 'until the year 2069 to discover whether the Rise of the West will outlast Song China's three and a quarter centuries of Economic Revolution' a millennium ago.[63] The Song Dynasty (960-1279 AD) was probably one of the most successful productive economies of all time, producing not only porcelain and silk, but also iron using coke (allegedly an English invention), and Edwards argues that it contributed to a real industrial take-off. I argue that the Tang Dynasty (609-918 AD) was commercially successful in a way that Allen illegitimately rejects, but Edwards is right that the Song Dynasty approaches real economic growth as understood in the West. Yet it is largely forgotten.

However, most readers of this article will be conscious that by that date Edwards mentions (2069 AD) China will once again be the largest economy in the world, having been eclipsed by England around 1840 AD. The moment that China resumes its role as the largest economy in the world (presumably before 2040 AD), the importance of the West in global economic history will belong to the past. In that sense the dominance of the West will have been short-lived – and the idea of dismissing the Song Dynasty and all of the ancient world in order to claim that *Global Economic History* is a Western tale will appear to be the hubris of a doomed *Weltanschauung* as Ferguson has demonstrated.

Needless to say, archaeology has an immense amount of realism to contribute to this discussion. And there is even a real chance for archaeological discussion: Many – like Kristiansen – will doubtless insist that Western Europe was part of the Bronze Age while I will contend that it was not really. However, this internal discussion is of no significance in comparison with the idea of forcing economists to adopt an objective understanding – and their approach during the entire history of the development of Western economic thought has been sadly lacking in perspective. Today, the economists still have a chance to prepare for the coming jolt. And archaeology can come to the fore.

History has never been very important in the development of economic theory, and I have tried to point out that economics is not exactly very high on the archaeological agenda.[64] Thus – despite the fact that there is actually a good deal of work on ancient economics – there has been little conscious argument about how a consensus could be reached about what was actually being justifiably assumed about economic behaviour in the past. Economic thought about the past has thus developed in a kind of vacuum – where it plays a prominent role in assumptions about human behaviour, but the thinking and knowledge behind those assumptions is not profound. Beyond that, the issue of how ancient economies functioned is not a matter of general agreement. Nor is there any real accord about any potential evolution leading to the emergence of markets – let alone the economic and semantic roles of markets and technology.

Obviously, the concept of modern economists that markets are a relatively recent Western invention and the idea that globalisation is completely new fit in very well with

62 E.g., Hayek 2007, 69–70 (originally published 1944).
63 Edwards 2015.
64 E.g., Warburton 2011a, 233–268.

the ideas of those scholars who advocate a gradual evolution leading to markets. In this sense, we have two different problems: on the one hand is what globalisation entails and the other is how this relates to historical developments and archaeological paradigms. Needless to say, these issues must somehow be resolved, and the debate about globalisation can be used to force the issue, since it involves several assumptions about the antiquity of markets.

Suffice it to say that I am persuaded that the ancient evidence demonstrates that markets have existed for thousands of years and have increasingly influenced human behaviour since the third millennium BC. Those disputing this stress 'embeddedness', 'performance', 'institutions' and 'behavioural economics' and other aspects relating to the behaviour of individuals or those controlling institutions while neglecting the impact of their actions on the behaviour of prices, and the impact of prices on the behaviour of individuals. This intellectual denial is incomprehensible to me, but irrelevant – for it is part of the mystery surrounding economic thought.

It is not widely known that economic growth is one of the least well understood phenomena in the world. There is little doubt that in terms of per capita wealth the European economies were gradually separating themselves from the rest of the World since the Late Middle Ages, and that the explosive transformation took place in the 19th and 20th centuries. European economic growth and European science & technology began to take off at roughly the same time – in the late Middle Ages; however, scientific research related to the use of technology only became relevant relatively late in the 19th century, and the real economic growth did not come until later, after the Second World War. It is highly significant that – despite (a) the discordance of developments and (b) the importance of finance and services – the Industrial Revolution has generally been linked to science, technology and production.

It is difficult to grasp exactly what happened. For more than a decade, one subset of globalisation studies has been dedicated to the question of *The Great Divergence*[65] whereby England tore ahead and China fell behind. Historically, this only really began in the 19th century. There have been many explanations – ranging from parliamentary institutions to coal, but also including the traditional technology of the Industrial Revolution – but none of them seems to have convinced anyone (except the authors). Yet there is no doubt that the developments took their course.

Hitherto, the theory of long-term economic and social change and inter-dependency have been largely the preserve of Marxist economists, but in fact archaeologists could join mainstream economists in considering the importance of the various factors in core-periphery relations and economic growth.

To understand the whole history of these developments, we must quickly skip through a couple of millennia. During the early Near Eastern Neolithic (ca. from the tenth millennium), trade relations (revealed through obsidian) linked Anatolia and northern Mesopotamia as well as the southern Levant. However these earliest systems worked, we have no reason to believe in trade dependence, and Europe played no role.

At the time of the urban revolution in the Near East, the economy of Europe would seem to have separated itself from the rest of the world. The emergence of states in fourth millennium BC southern Iraq meant that a new development took the world in a different direction, whereas Europe would remain behind political developments elsewhere for what amounts to most of human history. However, while following its own story, one can see that that European story also begins in the East. Following on the Near Eastern Neolithic obsidian trade, during the seventh millennium, Melos in early Neolithic Greece seems to have been a centre for the distribution of obsidian in

65 The title of Pomeranz 2000.

the Aegean. Obsidian from Tokaj in Hungary was likewise used in the subsequent early Balkan Neolithic. The LBK migration into Europe during the following millennium seems to have been accompanied by the exploitation of flint quarries, each quarry being the centre of a region where the flint was used: the quarries at Abensberg-Arnhofen in Bavaria and Rijkholt in Belgium produced and distributed flint since the LBK era. In the following millennia, there were several flint producers at work, and there is some overlap – both temporally and spatially. However, in general the distribution of the flint is not characterised by overlap so much as by concentrations in those particular regions where it was produced.[66]

One of the most important developments in European history becomes visible at this point: the distribution of the mid-3rd millennium BC long blades of flint from Le Grand Pressigny. The source of the flint appears to have been one single deposit in western central France. From here, the blades spread across Europe. The distribution was not quite as impressive as with the jade axes, but nevertheless significant. Above all, however, we can see (a) that the prestige level was not as high as jade, but certainly more than ordinary flint and (b) that it would appear that the craftsmen came to Grand-Pressigny to pick up the flint.[67]

Thus, thousands of kilometres away from the Near Eastern city-states a distribution network emerged which was a faint reflection of ongoing developments in the Near East. It is important to note that nothing remotely similar had occurred in Europe prior to this. By contrast, one can follow the gradual progression across Europe from the Near East, with Grand-Pressigny the end of the development (with the appearance of copper). It is highly improbable that the network was created completely independent of developments in the Near East – and yet there is no overlap. Contemporary with the distribution of Alpine jadeite axes and the production at Grand-Pressigny was the lapis lazuli trade which linked Egypt with Afghanistan.

Only in the late second millennium BC do the amber trade routes from the Baltic transect the lapis lazuli routes in the Aegean. The Mycenaeans also imported considerable quantities of amethyst from Egypt.[68] Thus, with the Minoans and Mycenaeans in the second millennium, the Aegean had begun to awaken, and joined world history. But only briefly, for marauding Europeans from further north spilled into the Mediterranean, plundering and destroying. During the Halstatt and La Tène periods Europe came close to being a peripheral part, but Western Europe was hardly integrated into the system because some European princes acquired a taste for Mediterranean wine.

After having been partially integrated into the Roman Empire, Europe fell apart again and maintained an isolated existence on the edge of civilisation until the Vikings resumed where the earlier marauders had left off. Once baptised, the Christian Vikings and their southern neighbours then set about subduing the world, establishing colonies and creating markets which could be served with the products of the Industrial Revolution.

Thus Western Europe has been only rarely and intermittently linked to the major trends of world history. From the European perspective, the decisive development was the most recent when the Europeans set out to discover and conquer the world. The culmination of this was the era of the Industrial Revolution and Imperialism. Colonialism began to decline after the Second World War, but the post-war brought the West its most glorious era and thus the loss of the colonies was not so distinct – and the West remained financially pre-eminent until well into the 21st century. And, in terms of standards of living, the West was far ahead of the civilisations that had led the world until the middle of the second millennium AD.

66 For discussions, cf. von Schnurbein 2009; Roth 2008.
67 For a recent discussion, cf. Louboutin and Verjux 2014.
68 Phillips 2015.

Once freed, the former colonies were called the 'developing countries' and are now termed 'emerging markets'. Thus first-world investments in this peripheral region of 'emerging markets' are one aspect, and another is, of course, the emergence of powerful firms in China and India – firms which are now competing with Western firms, both in the 'Third World' and in the 'West'. But the idea is that the 'developed markets' are in the West and the 'emerging markets' are elsewhere, consciously reducing all countries to an economic category.

Yet during those long centuries when Europe declined under the shade of Christianity, the Silk Road was firmly established and trade flowed from China to Japan and the Mediterranean. Cities flourished in the deserts and ports along the coasts of the Indian Ocean where the Romans had been and Vasco da Gama was to return.

Obviously, a conceptual understanding assuming that capitalism and markets emerged in Europe completely independent of the long history which had preceded the Renaissance is hardly persuasive. The reality is that Western markets emerged in the Middle Ages and that during the Voyages of Discovery the West discovered the flourishing markets of the East which Marco Polo had described. Yet somehow the West seems unable to adjust to accepting that this is the reality. Thus, we evidently have something to learn.

In this sense, what I am arguing is that modern globalisation is a surprising development for the West, but actually one which ironically brings the West into the mainstream of World History. It should come as no surprise that we Westerners have difficulties grasping this. It is assumed that we live in an era of 'globalisation' as if this were something new – but the reality is that the rest of the world has been 'globalised' for millennia. Only for the West is it new – and Western 'globalisation' is truly global, in contrast to the earlier permutations.

However, the tale of western economic history is important, for the Western economy had a very different approach to economics than did the traditional markets of the world. Merchants made a living by money-lending, or foreign trade with high profits (as were usual forms of profitable investment in Classical Athens).

Yet when Dutch merchants arrived in southern Arabia with their armed merchantmen, they traded according to European standards. The local Indian traders reported their activities to the local Ottoman authorities, claiming that the Dutch were not behaving like merchants. Brouwer describes that the Dutch

> Trade was conducted with due diligence. [...] The profit gained was about 200%. In the eyes of the Dutch this was not unreasonable, but in the opinion of the Ottoman authorities and the Indian merchants, the profit was almost nil. For them [the armed Dutch trading vessel, DAW] the *Nassau* [...] was nothing more than a warship.[69]

Among the evidence the Indian merchants presented to the Ottoman authorities to prove that the Dutch were not merchants was the fact that they sought profits of only 200% (or so) when trading. These low margins could be explained by the cannon on the Dutch vessels which demonstrated that they were not merchants but rather pirates or invaders who should be chased off. Obviously, the Indian merchants will have been very worried that the Dutch would rapidly undermine their market share but felt that the Ottoman officials would respond to the argument that the Dutch were not really traders.

This tale tells us two things. Firstly, that when the Portuguese arrived, they must have sought the same margins as the Indian traders and thus not aroused attention when building forts as the Genoese, Pisans and Venetians had done in the Mediterranean before them. And, secondly, also that traditional trading patterns as we know them from the Ancient

69 Brouwer 1988, 30.

Near East (where mark-ups of 200% on textiles and 100% on tin were routine among the early second millennium BC Assyrian traders in Anatolia)[70] had been maintained. Thus, this was the way of the Ancient and Medieval economies: markets where high margins were expected on goods imported from abroad (at high risk). A good part of the trade was typically intermediary trade where the merchants were retailing state-produced products, acting as independent intermediaries serving themselves and the states (and to some degree the consumers).

By contrast, during that brief era of European dominance, the West created a different type of economy, one where private investment flowed into private (or state chartered) production and trade, with lower rates of profit, based on lower interest rates. This created an industrial proletariat and a services economy dealing with both the demands of the workers and those of the growing middle classes in the professions, government service and engaged in entrepreneurial activities. Somehow, conflicts over wages and legal protection of capital and workers gave rise to a concept of labour which was unknown in history elsewhere.[71]

I argue that the traditional European perspective is to think that what the Europeans do is an ideal, creating standards which others must recognise and which can be used to measure others. Thus, as the European nation-states formed the template for the European understanding of the world, and the private or semi-private European industrialised production economy formed the template for analysing all economic systems. It will be noted that when disputing that the economies of Antiquity were market economies, it is claimed that they did not follow the same mechanisms as modern Western economies. In the same sense, it is asserted that the money-lending practices of Antiquity were not true banking in the sense of 'modern [Western] banking.' Thus, the tendency is to take the Western understanding of the Western standard practices and dispute that other economies meet this standard – without endeavouring to understand how those economies functioned.

Obviously, the European system in the 19th century was based upon industrial production. Industrialists could borrow fiat money at 5% interest, invest in factories and pay labourers in fiat money to produce goods which could be sold in volume for fiat money with low margins. Banks served as intermediaries linking workers, manufacturers, retailers and states. At some point, wages rose and households consumed more manufactured goods, pushing industrial production and market retailing. Prosperity was related to employment, and thus people flowed into the market economy, becoming wage-earners and consumers (as well as tax-payers and contributors to pensions schemes). This allowed the idea of 'labour' to emerge as a 'sacred value' in 19th century thought – yet the very concept contrasts with the world of Antiquity where labour was not esteemed and the existence of 'leisure' and 'work' as a contrasting pair did not exist.

Instead of thinking historically, it was assumed that this was the standard of the way economics functioned – or at a minimum to maintain that this was the 'ideal' fashion in which economics as such functioned. Yet paper fiat money was a relatively new invention (having been introduced in China a millennium ago) and until Roman times interest rates had rarely fallen below 10%, whereas they fell to 2% in 17th century northern Europe. Most significantly, wages had basically not changed significantly until the In-

70 Barjamovic 2018.

71 I should add that Méda 1995 was actually aimed at demonstrating that this labour concept is obsolete and that the whole idea must be made socially compatible. As far as I can tell, she has basically had no influence and has unfortunately abandoned what should be a central social issue. My own personal disappointment rests with those job-seekers who think that Rawls was correct to let them understand 'justice' and 'liberty' as condoning inherited material inequality and endowing competition in the labour market with some righteous understanding of society.

dustrial Revolution, and thus the idea of consumer households or even a 'labour theory of value' was inconceivable before the creation of the modern Western economy. Full employment could not exist in an economy where demand was relatively limited, and thus the exceptional nature of the Western economy went unremarked.

This led to enormous confusion about understanding other and earlier economies, since the European understanding of the European economy was assumed to correspond to the ideal reality of an economy. And European leadership must be viewed as being the dominant feature of any truly historical tendency.

Thus in the issue of economics, because technology was assumed to have been central to the Industrial Revolution which was happening and unfolding as archaeology was born, (1) technology was usually associated with economics in archaeology – and associated with economic development. Because Western economic thought was dominated by production, (2) production – rather than distribution – became a key issue in archaeological thought about economics. Because productivity growth was associated with economic development, (3) productivity was assumed to be important in archaeology. Because investment is related to increased capacity in economic thought, (4) students of the ancient world seek to demonstrate either that productive investment existed or it did not, rather than recognising that this is just one major detail of the enormous differences between our economies and theirs. Just how far labour has been inaccurately understood in Antiquity is a question about which many of my most esteemed colleagues oppose my interpretation – but I claim that consistently low wages demonstrate that labour as such was not that important. Regardless, altogether, it would be useful to understand how the ancient economies functioned based on their own documentation – and not to assume that we can use models offered by the modern world (whether Polanyi or Adam Smith) in order to understand a different world. The ancient economies were different.

In the same way, there is a peculiar tendency for many European based scholars to think that the Roman Empire is the classic example of an empire, allowing an impression to prevail that the Chinese, Mongol and Ancient Near Eastern empires are exceptions.[72] Practically speaking, for archaeologists working in Europe this is logical enough – but it should by no means be assumed that this is a logical and historically coherent mindset.

This means that we – as archaeologists – must reassess our concepts of political entities, markets and economic behaviour to come closer into accord with the reality of the ancient world.

8 Summary thus far – and some rebuttals

Hitherto, I have proposed (a) in principle that archaeology could have a great deal to offer to the discussion of globalisation, and (b) in detail, followed the history of value from equivalencies to circular coins as an example of a process which had economic effects. At the same time this process reveals something about the cognitive structure of the human mind. Whereas 'independent invention' is frequently adduced to explain similarities, this interpretation of the process presupposes not only the diffusion of knowledge and materials – but also proposes that social changes centring on value and exchange result from the adjustment. The story implies some kind of gradual awakening to the possibilities of exchange mechanisms, which can be related to the actual evidence of exchange. This suggests that one can actually use the archaeological evidence to identify the moment when globalisation began – and we can also use archaeological evidence to suggest that the limits of the human mind are visible in the eventual long-term linear development

72 E.g., Alcock et al. 2009.

from weights to paper notes. This procedure thus presupposes a kind of diffusion of ideas with a social impact.

In one of the first serious efforts at taking account of diffusion after the Dark Age conjured up and diffused by Lord Renfrew, Kristian Kristiansen and Thomas Larsson argued that the European Bronze Age could only be understood with

> a new book spanning the Bronze Age world in its entirety, from Mesopotamia to Scandinavia. We wished to approach the Bronze Age as an historical epoch, going beyond a world system approach, by reconstructing travels and the transmission of knowledge that took place between the Near East, the Mediterranean and Europe.[73]

In this fashion, the book discarded the agenda of the New Archaeology, placing cognition and social contact at centre-stage. Their approach was representative of traditional attitudes to diffusion before Renfrew had tried to transform the meaning of 'diffusion' into a narrowed scheme, and fit his methods into the conceptual framework of the New Archaeology. In effect, Kristiansen and Larsson were making a more positive contribution to the archaeological agenda than was Ian Hodder. In his review of that book and a recent article on world systems analysis in archaeology, Harding has recognized as much.[74] While dismissing Kristiansen and Larsson's documentation, Harding recognizes the validity of the view, pushing in favour of 'networking' rather than 'world-systems' or 'diffusion.'

It is thus hardly surprising that Anthony Harding has chosen to take the current writer[75] to task, remarking that

> In European Bronze Age terms, nothing is said to justify the notion of Europe as a periphery to the Aegean.[76]

To which the attached footnote states:

> This author's [i.e., the author of both this current paper and the one criticised by Harding, DAW] lack of familiarity with the European scene is evident from his mention of 'massive importations of amber into the Mycenaean area' (Warburton 2011: 129, Fig. 10:8), and his equation of jadeite axes in the western Europe Neolithic with jade in China.[77]

Harding is absolutely correct that I would not view Europe as peripheral to the Aegean. I stated that integrating Europe into any system was difficult. In fact, I view Bronze Age Europe as marginal to the world and thus of no importance. However, European archaeologists can hardly share such an attitude.[78] And furthermore, one will have to concede that Europe was on the edge of the Near Eastern system and thus must be accepted as a part of the world, particularly since exports – in the form of amber – from the region did enter the ancient civilisations of the Aegean and Near East.

To dismiss the approach, Harding thus suggested that I was unfamiliar with the material, and this was relatively simple since I had seemingly overestimated the quantities of Baltic amber imported into the Mycenaean world and I allegedly do not understand the European jade axes. Given such fundamental errors, it would not be unreasonable

73 Kristiansen and Larsson 2005, XIII.
74 Harding 2008; Harding 2013.
75 Warburton 2011b.
76 Harding 2013, 385.
77 Harding 2013, 385 n4.
78 Again – this was written Pre-Brexit, when Stonehenge, Avebury and Silbury Hill were still counted among the most impressive prehistoric monuments in Europe.

to suggest that I fail to understand anything. Thus, we would have a typical example of an amateur (here Warburton) drawing conclusions about material which are easily and justly dismissed by an authority (here Harding) on the matter in question.

Yet, strangely, Harding himself stresses that amber is present in Mycenae 'in huge quantities, particularly in the Shaft Graves'.[79] Harding suggests 'that all the amber in Greece arrived there in a very few consignments or phases of trade'.[80] I myself was merely stressing that there was virtually no Baltic amber in the Ancient Near East and thus the large quantities in the Mycenaean Aegean were late second millennium BC imports which differed in magnitude from the importance of amber in Crete and the Near Eastern world. And thus this interpretation corresponds to that of Harding himself, who refers to 'huge quantities' possibly arriving in a couple of 'phases of trade' (including an interruption between LH I-II and LH IIIC).

Thus, the claim Harding ascribes to me as being an error can be taken as corresponding to Harding's own claims. It is certainly not erroneous: neither inaccurate, nor mistaken. In this case, we will accept Harding's view that 'huge quantities' of amber reached Mycenae – but wonder why my repeating of this revealed such overwhelming unfamiliarity with the material that the approach was to be dismissed.[81] The reality is

79 Harding, Hughes-Brock, and Beck 1974, 152.

80 Harding, Hughes-Brock, and Beck 1974, 153.

81 Harding's case – of my saying virtually the same thing that a critic had published and being criticised for it – should be exceptional. Bizarre is that in this specific case, the quote from my work is used to claim that this (repeating exactly what the critic had himself written) reveals a substantial lack of knowledge by the very person who made the statement. This should presumably be an extremely aberrational and unparalleled exception. Strangely enough, in another critical assault against me personally (Hudson 2005, 120), a critic included a reference with the specific object of demonstrating my complete incompetence, whereby the critic (Hudson in this case), was actually directly criticising me for stating what was a direct quote from one of his own works (Hudson 2000, 132), and not what was actually written by me on the page cited – and accusing me of having made an error by having claimed what he himself had. It can hardly be an accident this this identical practice – based on the self-assurance of an authority – has happened twice to one single author. The dishonestly intended devastating impact on science (quite aside from that aimed at disqualifying the victim) should be transparently clear. It seems that authorities are conscious that they are allowed to do anything reprehensible with impunity in archaeology. To me – as an objective observer – it suggests that one would have good reasons for believing that one could legitimately conclude that one cannot trust anything that authors who practice this say. However, such suspicion does not seem to arise because authorities are entrenched – presumably taking advantage of the liberty Rawls awards them. However, superficially at least, it would also seem rather obvious that those opposing truth (in this case indisputably supported by Warburton, Hudson and Harding – and disputed by Hudson and Harding only in their attacks on me) in the academic world have no sense of either decency or truth. Given the fact that truth is the only possible relevant criterion in the academic world, the practice and tolerance of such behaviour in the academic world indicates that there is a problem demanding a wide-scale psychological investigation to see how widespread the problem is – and what it means for academic behaviour. One – probably unanswerable – question is whether such practices are limited to archaeology, or whether it is simply inevitable in any discipline where (a) authorities are allowed to play a disproportionately important role and (b) scientific rigour in ordinary practice is lacking, at least partially due to the practices of certain individuals. Certainly these two features are characteristic of archaeology. To my mind, Michael Coe (Coe 1992) clearly demonstrates that no single person deciphered Maya – but that Eric Thompson certainly did his best to prevent it being accomplished. Thompson used his authority on a spellbound community, neglecting, dismissing, suppressing and discouraging precisely those systematic, structural, analytical, linguistic and ethnographic methodologies which ultimately triumphed. The persistence of clear-thinking individuals prevailed – shortly after Thompson's death terminated his unhealthy influence. It would seem that this use of seeming authority and claims to specialist knowledge in a bizarre fashion is a weapon of choice when attempting to dismiss the competence of potential menaces to professional authority. The specific cases of the audacity of Harding and Hudson indicate that they will stop at nothing. I assume that this rarely happens in print, but I suspect that such general arrogant and untruthful dismissals – suggesting incompetence and a comprehensive lack of knowledge based on untruthful claims – are far more effective, useful and common in (a) recruitment procedures, (b) grant awards, and (c) anonymous peer-reviewing when integrity, absolute honesty and trust are assumed. It will, of course, be far more

that amber was far more common in Mycenae than in the Near East, and this was my point (which seems to have entirely escaped Harding in his passion to banish my logic).

The issue of the jade axes is slightly more complicated. Here, in my arguments, it was not a question of exchange, but the shared prestige value of the jade axes in China and in Europe. As it happens, the Chinese jade probably comes from sources in southern China, Southeast Asia, and Central Asia, whereas (probably most of) the jade axes in Europe are of alpine origin. These are sources which are separated by thousands of kilometres, and evidently most of the artefacts are not items of trade. However, I suggested that (as with the amber), the jade was used as indicating a symbolic value, revealing an underlying social system, but in this case, a very concrete and complicated idea, namely that a jade axe played a special social role.

Few will have great difficulties in concluding that the Chinese jade axes are more symbolic than practical, since most jade in China is ceremonial. By contrast, one could contend that the European jade axes were practical and thus not similar to the Chinese axes. Yet, the authority on the European axes refers to the 'circulation of alpine jade axes and the values attributed to these exceptional objects, which are dominated by religious concepts and social functions'.[82]

Renfrew's view of the European jade axes is hardly different:

> The point about the jade axes is that they must have had minimal 'use value': the blade would shatter easily if one were employed to try to fell a tree. Their only function and value must have been symbolic, even if we do not understand their significance today.[83]

Fortunately, admittedly inadvertently, Renfrew also remarks that 'in early China [...] the symbolism seen in the decorated jades in the Late Neolithic suggests some [cosmic] aspiration', and thus also almost makes the leap to concur with Meggers who observes that

> Rare and exotic raw materials were required to please the increasingly powerful gods [of Formative Period Mesoamerica, DAW], and their acquisition led to the development of trade relations between regions with different natural resources. Fine-grained, greenish stones were particularly coveted and beautifully carved and polished "jades" remained objects of special value in Mesoamerica until the Spanish Conquest.[84]

Thus, in fact, in the eyes of the authorities both the Bronze Age and Neolithic Chinese and Neolithic European jadeite axes serve the same purpose as do those of Mesoamerica: both the elites of Prehistory and the modern students understood these axes as being ceremonial. My claims that these jade axes served the same purpose of displaying prestige are entirely justified and accurate – and corresponds to the views of the authorities. And those same authorities know that the appreciation of polished greenstone axes extends to New Guinea – and that it began during the Neolithic. In other words, this is not some in-born feature of the human being, but one born of Neolithic culture.

And it need hardly be pointed out that the human race is hundreds of thousands years old and that within a couple of centuries in the second half of the sixth millennium BC,

effective where no names and references are required, and the authority of the one making the claims cannot be doubted (for otherwise, they would not be chosen). Regardless of any claims by a hopeful author, editors will naturally accept at face-value the invalid claims of a peer-reviewer whom they have selected precisely because of his or her alleged competence. Obviously, anyone arguing diffusion should likewise be conscious of the methods employed by the dominant ideology in archaeology.

82 P. Pétrequin 2012, 91.

83 Renfrew 2007, 164.

84 Meggers 1979, 47.

jade objects appear suddenly as prestige objects in Europe and in China. Others may view that as a coincidence.

Regardless of Harding's claims, jadeite axes with a fundamentally symbolic and prestige-laden rôle appeared virtually simultaneously in China and Europe some 7000 years ago. And they also became prominent in Mesoamerica, albeit much later. And in fact, a New Caledonian Neolithic greenstone (nephrite) axe from Tasmania[85] suggests that the various parts of the world were not as 'cut off' from one another as tends to be assumed. Thus, the ceremonial use of jade axes actually encircles the world. And in that sense, the beginnings of globalisation could be dated to what would be the late Neolithic in Near Eastern terms, some 5300 BC when the distribution and use of jade axes began.

Thus we see that Harding deviously specifically exploited my alleged lack of familiarity with Europe to dismiss my work, whereas there is no difference between my understanding and that of the authorities (in this case including both Harding himself and Renfrew). The only difference is that very few of the experts are willing to make the leap to link the phenomenon – although Renfrew does, surprisingly enough. The diffusion of the idea of 'green' in the form of a stone axe related to social value is the first evidence we have of real globalisation and should be taken seriously.[86]

Furthermore, one must understand that Europe was certainly as peripheral to World History as to my argument, and that lack of familiarity with Europe could hardly be used to dismiss my work. In fact, the only relevant point is that with the abandonment of the jade axes, Europe took leave of its links with the great civilisations and followed its own marginal route. Harding alleges that my work 'reiterates a [World System] view [...consisting] largely of assertions about important trade goods (amber, lapis lazuli, and jade)':[87]

In fact, however, the distribution of these items at different stages in time merely illustrated regions, and these object categories were not the subject matter of the article, which was about politics and economics (but evidently included culture). My approach dealt with markets, warfare, diffusion, ideological states, commercial states and various other features centring on the major civilisations of the Near East. But I did use lapis lazuli, jade and amber as a means of demarcation, and thus they played a rôle in my presentation – but the argument was not about the objects, but rather about the societies behind them. Thus, Harding misrepresented the article and used illegitimate means to dismiss the contribution.

Thus, my fundamental argument is that one of the crucial means of understanding the first few millennia of human history is to recognise that warfare, commercial and financial activities were decisive for forming that distant world. Here I stress that Harding disregarded the main argument about world-systems by inaccurately stressing minor

85 Skinner 1936.

86 Important here is that when a phenomenon appears to be widely shared, it is assumed that the phenomenon is actually a matter of independent invention and not a matter of diffusion (as assumed by Agogino in the quote adduced, attached to footnote 47, above). As this would undermine his entire argument against diffusion in the Mediterranean (where I do indeed profoundly disagree with Renfrew), I personally can hardly believe that Lord Renfrew would conclude that there is a link between greenstone axes in different regions – as I do. I believe that each individual presentation of such phenomena is (a) first used, as by Harding against me, to deny the validity of the actual evidence and undermine the credibility of the author in question, (b) secondly used to claim that independent invention is a wide-spread phenomenon – and (c) thirdly to claim that diffusion is not the explanation. In my view, the actual evidence of archaeological material suggests – on the contrary – that diffusion is common and independent invention is either exceptional or non-existent. I personally suspect that denying diffusion is most frequently used to uphold disciplinary boundaries and justify 'comparative' approaches in 'interdisciplinary' projects as a means of denying 'diffusion' and 'globalisation' as phenomena clearly confirmed in the archaeological evidence.

87 Harding 2013, 385.

details about the objects I had used simply in order to illustrate historical patterns. In this fashion he was able to avoid the core argument of the contribution about warfare and economics.

Curiously, decades ago, Rainey also criticised a series of details in my account of ancient Near Eastern military history, in order to dismiss the theoretical interpretations. By suggesting that I failed to understand the developments because of inattention to numerous details, he sought to demonstrate that the book was a "curiosity" rather than "a ground breaking monograph".[88] It is possible (but improbable) that Rainey was correct about all of the critical details I allegedly missed and misunderstood. However, as he was disputing my interpretations of the details of campaigns and battles about which we are therefore in full agreement that they did take place, Rainey could not fundamentally disagree with the fact that these events actually took place and are familiar to most – and debated by many – scholars of Ancient Near Eastern history.

And that was the purpose of putting the account together: to offer a basis for the interpretation of the long-term theoretical importance of the development of warfare over thousands of years, demonstrating that warfare was central to understanding Near Eastern political history. By disagreeing about my mastery of the details (where there is scholarly disagreement and Rainey's interpretation is not the only one), Rainey then suggested that "one must be leery of Warburton's deductions" on a theoretical level.[89]

However, not one single one of Rainey's critical remarks could alter the fundamental reality of the events – and it was the long-term historical and theoretical importance of these events which demonstrated the importance of warfare in early history. And here the criticism is very different: "Many of his points may be well taken, but he utilises theory and comparative material from a wide range, world wide in scope".[90] And seemingly that alone is probably suspect in the eyes of many of the authorities: that we can draw theoretical conclusions of wide-ranging importance by amassing data and trying to interpret the data in an historically meaningful fashion.

Yet it is only by recognising the military and commercial relations in the ancient world for what they were that we can grasp the history. In the discussion of the Seven Years' War above, I stressed that this was an era of truly global military conflict, meaning an era of globalisation before the 19th century economic globalisation celebrated by O'Rourke & Williamson. There was significant interaction – and indeed the story went back further, namely to this era at the dawn of history, as was my central argument in the book Rainey dismissed because he disagreed about details. And obviously, if archaeological argument remains centred on details – and the big picture is avoided, then the political scientists will certainly not look at ancient history where the story is obscured by disputes about details. Yet without the details, the narrative is pointless, for one cannot discern the main lines.

And this is crucial in a two-fold fashion. Firstly, a proper study of the past would reveal what interaction was taking place, and which entities were interacting with one another in a meaningful fashion, so that warfare in the Ancient Near East can be understood politically. And that political interaction can be directly related to the growing economies and their interaction.

And secondly, such attention to detail could confirm that Bronze Age Europe was not interacting meaningfully with an Ancient Near East which was – and this would allow us to re-write history and Prehistory since the absence of a European narrative is as important as confirming military and commercial activity in the third millennium. It is the only means of recognising the irrelevance of the European Bronze Age to world

88 Rainey 2004, 558; Warburton 2001.
89 Rainey 2004, 557.
90 Rainey 2004, 557.

history – and thus the early history of globalisation – since Europe was not participating in these developments until long after the first steps were taken in the Near East. Thus, the theoretical analysis of developments must begin with – and take account of all of the details (as Rainey correctly stresses) – of what we can identify as historical.

Archaeology is – for a good part of this early history – the only means by which we can try to recognise the nature of the interaction, by attaching the details to any historical narratives that can be exploited to offer a perspective. And there is no theoretical guidance available from any other discipline to aid us in interpreting what the archaeological data means. Rainey's criticism confirms that no political scientist, sociologist or economist can even begin to unravel what the actual evidence is and what it can mean without the archaeologists. The archaeologists alone have the data: the archaeologists must analyse what is excavated and must interpret the texts as only they are able to do. And the world will have to rely on the archaeologists to be diligent and reliable at every step of their interpretations, in detail, narrative and theory.

As noted, Harding was arguing 'networking' as opposed to world-systems. In my contribution I had stressed that it was difficult to integrate Europe into the tale – and here I have repeated that Europe was basically peripheral or marginal to World History throughout most of the historical era. As I noted, real commercial globalisation of the world did not begin until after 3000 BC – at that time when the Mesopotamians began to use commercial values and the Europeans gradually abandoned their jade axes – going for metal instead. If one accepts that history started with urbanism and writing some 5000 years ago, and concedes that parts of Europe were briefly integrated into the Roman empire for a couple of centuries, and recognizes that Europe transformed itself into a core in the last five centuries, northern Europe plays some kind of role for less than 10% of human history. And since this era is drawing to a close, one can also concede that China has had a pivotal role for almost 50% of human history – and looks likely to recover that. And this is particularly important, for the Near East which dominated more than 50% of human history does not seem to be poised for a re-launch any time soon.

Obviously, this can be debated – but it can hardly be dismissed with arrogant disdain for the facts. Thus, I would argue that globalisation is relevant to archaeology – and we must merely agree on how and why and what it means to us. And here, I believe that we archaeologists have a great deal to gain, but also something to offer. However, using 'networking' as a means of papering over Europe's marginal role in human history is merely an anachronistic disregard for historical developments, and archaeologists may not be capable of overcoming their parochial attitudes. Yet, even here, globalisation can offer a tad of comfort.

Beyond that, it should be important to note that this last bit of text began by introducing the recognition of the necessity of recognising 'diffusion' in a vast area, namely 'the Bronze Age world in its entirety, from Mesopotamia to Scandinavia', advocated by Kristiansen & Larsson. I hope that all readers will now grasp that it really should not be necessary to cite the Sinologist Richard von Glahn to confirm that

> If any civilization merits the appellation "Bronze Age" it is surely ancient China. Bronze ritual vessels occupied the central place in the political, social, and cultural order of the earliest Chinese states. The sheer quantity of surviving bronze artefacts from China's Bronze Age is without peer among ancient civilizations: more than 12,000 Zhou bronze ritual vessels exist today, and no doubt many yet remain undiscovered in tombs and caches. The scale of these artifacts also is enormous: one bronze cauldron from c. 1200 BCE weighs 875 kg., and archaeologists

recovered more than 10 tons of bronze vessels from a single cache buried in the fifth century BCE.[91]

Viewed in this fashion, the idea of 'the Bronze Age world in its entirety' including Mesopotamia and Europe (as suggested by Kristiansen, Larsson and endorsed by Cambridge University Press) – and thus excluding China – appears to be as erroneous as Harding's claims that Europe was not peripheral to the Bronze Age.

If we take Ferguson's approach that Western civilisation consists of nothing but economic advantages, and that immaterial values are of no importance then the material value seen in the archaeological remains would allow archaeologists to identify and distinguish civilisations. By any objective standards there is probably little evidence in the archaeological record for Western superiority at any time in history until the second half of the second millennium AD. And needless to say, that exceptional superiority is not going to last long.

Viewed in a World History perspective, the entire Eurocentric conceptual agenda concerning such issues as the Bronze Age, empire and economics as practiced in Western, Europe-oriented, archaeology is fundamentally wrong. It is probably too much to hope that it can be reformed, but it could be partially rectified by simply taking a more accurate – global – view, and then setting Europe in its proper place, with a correct perspective.

However, 'global' views are not all 'correct' simply because 'politically correct.'

9 Debate

At the outset of the paper, I mentioned one final point about the current globalisation debate: confusion. Archaeologists have a tendency to fail to communicate among themselves and with other disciplines. This is easily accomplished by oversimplifying the nature and significance of the finds. It is also done (likewise presumably inadvertently) by stressing one's own site or material at the expense of a broader perspective. Common dangers are misusing terminology, misinterpreting material and general ignorance. It all leads to confusion and disagreement about the most elementary matters (as will be familiar to all in the fundamental matters of stratigraphy, typology and chronology – quite aside from the study of societies). The most common error familiar to me is the abuse of authority to advance dubious personal preferences – as illustrated here with the case of Harding, who is hardly an exception in our specific disciplinary community where 'authority' is rarely associated with responsibility, and frequently substitutes for discerning intelligence and comprehensive knowledge, meaning that wide-spread assumptions are frequently weakly founded, but easily accepted.

However here – in the matter of globalisation (in contrast to other fields) – the collective archaeological failings are actually in excellent company. There is virtually no consistency in the globalisation debate: for some it is indisputably good, for others it is uncontestably bad, etc. These are just opinions, and there is also no coherence in the arguments. Classic examples of such misuse will be found among the collections of papers on globalisation, assembled by authorities.

9.1 Globalisation and "protectionism"

One of the key issues in globalisation is always the matter of using a policy of protectionist trade policies to protect local incomes and jobs.

One case is that of Ladakh discussed by Norberg-Hodge who has witnessed the impact of foreign people and money on what was until recently a relatively isolated community.

91 Von Glahn 2016, 11.

Norberg-Hodge suggests that the imposition of market rules and subsidized support for transport, etc. by the modern Indian state on the region of Ladakh leads to a distortion of prices in local markets which damages the local farmers by making their products locally uncompetitive – and thus ruining their livelihood.[92] It is true that this is a typical example of the consequences of globalisation, where, e.g., Europe and America export surplus agricultural goods to Third World countries with the result that the dumped products cost a fraction of the price local farmers demand (and must necessarily receive in order to run viable businesses). Those opposed to globalisation argue that local agriculture should be exempted from international market forces so that farmers can continue to nourish their communities as they have for centuries and land tenure can remain as it has always been.

However, in this case the protectionist policies under which the Ladakhis suffer are those of the Indian state. These very policies that wreak havoc in Ladakh were created by the Indian state to protect its own farmers and industries against the pressures of globalisation. Thus, Norberg-Hodge is throwing together common complaints against globalisation without recognising that this particular example is the result of precisely those policies which other authors in the same volume (in which she published) support as a defence against globalisation. This is simply an example, unwittingly fully misinterpreted by a knowledgeable and competent professional, but representative of the contradictions inherent in the arguments of those opposed to globalisation.

9.2 Wages, labour and markets

More remarkable is the case of *The Economist* which has opposed protectionism and favoured free trade since before its foundation – in 1843 AD, to fight the Corn Laws – and has since then maintained the line steadfastly, with the position to be found weekly, as well as in a separate one-volume publication of their own,[93] along with excerpts in the literature.[94] For more than a century, *The Economist* has opposed government interference in the markets and insisted that (a) technological progress, economic growth, open markets and trade create (b) jobs and raise the standard of living. After decades of insisting that growth of markets would lead to increased prosperity, they now matter-of-factly refer to the fact that opening markets put such strong downward pressure on wages that managers must reduce labour costs when seeking to improve efficiency – meaning that over the long-term, Western Europeans will have to accept lower wages and/or unemployment.

This is exactly what Méda – mentioned above – was arguing philosophically more than 20 years before *The Economist* actually faced the problem directly: that with unemployment and falling wages, the value of labour in Western society was disappearing, and with it, what was assumed to be a cornerstone of Western society and philosophy, identifying the working individual as a proud member of Western society. Her point was that part of our philosophical world was being threatened by the relentless pursuit of individual liberty without taking account of the social fabric.

In effect, *The Economist* recognised the symptom of social decay, but assumed that declining wage income was the problem. However, there is a clear explanation for the situation. Already in the 1940s, von Hayek stressed that the condition of the workers in the West had improved far beyond what anyone could have expected – and attributed this

92 In Mander and Goldsmith 1996, 39.
93 Cox 1999.
94 E.g., in O'Meara, Mehlinger, and Krain 2000, 454–460.

exclusively to markets.[95] The rise of wages continued at an even faster pace in the post-war era. Thus markets and growing wages seemed to be historically compatible. However, Scheidel had shown that for most of history wages had been low and constant.[96] Given the realisation that markets are older than people like von Hayek thought, it is clear that markets are compatible with low wages.

Significantly, before the First World War, the Austrian economist Böhm-Bawerk had realised that left to itself, the market would drive wages below the subsistence minimum – but assumed that such a situation was untenable, partially because workers would seek work elsewhere and employers would lose the trust of their workers.[97] Therefore, Böhm-Bawerk realised the tendency of the market to drive wages down below subsistence, but assumed it was not really probable that it would happen. Obviously outsourcing is one means of avoiding responsibility for low wages – but simply shifting production overseas (as is inherent to globalisation) is another means of lowering wage costs. In this sense, markets and globalisation will inevitably drive wages down – and the only reason it did not happen earlier is that outsourcing was not widespread since labour costs were accepted. However, as competition in the markets increased (as is the case today), cutting labour costs was the only option. That this was theoretically inevitable was realised by Böhm-Bawerk, and that it was historically demonstrable was shown by Scheidel. The rising wages of the Capitalistic West were an exception – and *The Economist* realised that they were on their way out – but had no inkling of the overall implications.

The Economist did not recognise that (a) falling employment and wages were merely symptoms of their own overly optimistic overarching policy-related philosophical and social problem created by (b) treating wage labour exclusively as a market-related labour cost and (c) not realising that gainful employment for all is a foundation of liberty in Western democratic societies. Failing to recognise that the problem was the actual position of labour in globalised market societies, where wages were bound to fall (as markets will inevitably dictate – and von Hayek supported this to encourage discipline, not liberty), *The Economist* simply recognised the reality that finance and technology were going to make many people unemployable – abandoning the assumption that the markets will offer a reasonable solution guaranteeing a high and growing standard of living for all.

The Economist was unconscious that this undermined their own ideological justification of markets, but their 'progressive' orientation leads them to conclude that 'progress' is more important than 'justice' in the sense of fair wages (which could be achieved in a fiscally responsible and market-compatible fashion by changing labour laws). *The Economist* thus proposes that the inevitable low wages be topped off 'with public money', so as not to interfere with technological progress.[98] This realistic appraisal contradicts what *The Economist* has assumed and argued for more than a century: that the state should not interfere in the market.

The Economist is fully aware that using public funding to raise the incomes of those earning low wages would mean that (a) employers seeking profits would cut wages to

95 Hayek 2007, 70.

96 Scheidel 2010. Scheidel argued that wages remained steady from the early second millennium BC to the early second millennium AD. The evidence suggests that wages remained at a consistently low level from the early third millennium BC to the late second millennium AD (cf. Warburton 2016, 100 and Warburton 2003, 293, citing Keynes, who saw the phenomenon – but not in its entire temporal dimensions – earlier than Scheidel). Either way, it is true for most of history.

97 Böhm-Bawerk 1914, 244.

98 "The Economist", 18 January 2014 (https://www.economist.com/leaders/2014/01/18/coming-to-an-office-near-you, last accessed 11.11.2020), also 4 October 2014 (https://www.economist.com/special-report/2014/10/02/technology-isnt-working, last accessed 11.11.2020), also 26 September 2015 (https://www.economist.com/finance-and-economics/2015/09/26/greys-elegy, last accessed 11.11.2020).

throw more of the burden onto the state, (b) the low-paid do not pay taxes because they are not obliged to, (c) the high earning do not pay taxes because they can afford not to, and (d) politicians will gladly pander to populist expectations. And thus they realise that such a policy could only lead to an explosion of unsustainable liabilities. Using public funding to level-up wages would institutionalise state intervention in the market as a permanent aspect of an unsustainable fiscal policy, up-ending the idea of the value of free markets and responsible governance. This policy recommendation is thus absurd as these new obligations must be added to the state guaranteed pensions which are already threatening to destabilize the governments of the rich world.

In this sense, *The Economist* faces the reality that their philosophy involves inherent contradictions: free markets are assumed to lead to rising wages, but economists realise that competition compels cutting labour costs.

However, allowing (a) wages to fall below subsistence is the logical consequence of Rawls's understanding of justice, as observed by Méda,[99] and yet (b) institutionalising poverty in democracies is (c) as much of an assault on Western philosophy as (d) interfering in the market. Economic globalisation based on Western market principles leads to contradictions in philosophy which are expressed in the form of unsustainable social and fiscal policies. Aside from being a financial and ideological contradiction, this policy recommendation of *The Economist* is incompatible with their own firmly held views, irresponsible and unrealistic – and thus but another example of the confusion that the globalisation debate has caused.

Thus, in joining the globalisation debate, archaeologists will merely be joining the confused in a confused debate. Aside from their own absurd arrogance (as visible in the case of Harding criticising me for knowing the same thing he did) and negligence (as highlighted with Kristiansen & Larsson's omission of Bronze Age China) archaeologists are particularly prone to errors of the kind mentioned in these last paragraphs precisely because the theories we use are never really suitable for our purpose, and certainly inadequate to deal with a phenomenon as complicated as globalisation.

One can note, however, that it happens to others in this complex field. We should try to learn from this and avoid avoidable errors. While we might inevitably make some errors, it is highly probable that we can profit from the exposure and absolutely certain that we could make some fundamental contributions to the understanding of both ancient history and the process of globalisation. Among those contributions could be major advances in archaeological theory which would aid us in throwing light on human history.

Above all else, archaeology could make major contributions to economic theory as no other discipline can. We have no need to take it for granted that the theories on offer are compatible with history – and intellectually an obligation to contribute some history to the theoretical debate.

10 Conclusions

To my mind, there are effectively five possible ways of thinking about the historical growth of globalisation. The most extreme form on the one hand is to go back to the wanderings of our own ancestors which eventually took them 'out of Africa' to Tasmania and Tierra del Fuego and follow the story from there. The most extreme form at the other end is to assume that modern contemporary globalisation is so singular that one can single it out as a unique development. A third possible alternative is to follow the development and adoption of agriculture around the world as this inexorable process seems to be reaching

99 Méda 1995; Rawls 1999.

its end, in eliminating the hunter-gatherer physically or co-opting him into the modern services economy. And the jadeite axes belong to this process – but even in the most advanced Neolithic societies, we are still far from the modern concept of globalisation.

A fourth, more forward-looking venture would be to historically trace modern urban development back to the expansion of the Mesopotamian Uruk civilisation in the fourth millennium BC, as our current Western commercial civilisation can be traced back in a continuous series of steps to this one change.

And finally, one could try to isolate what the contemporary understanding of globalisation is about and see how this might be relevant to archaeologists. Only one of these alternatives would allow prehistoric archaeology to be excluded, yet hardly Industrial Archaeology. And in any case, arguing that the current phase is unique is not really possible. Arguing when it began and how it developed can now be put on the table – and it is for the archaeologists to answer.

And from there, we could go on to show what deep history means for theory about civilisation, economics and society.

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