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## Introduction: Interaction on the Edge of the Earliest Empires

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David A. Warburton

## Introduction: Interaction on the Edge of the Earliest Empires

This volume includes (a) papers dealing with theoretical and realistic frameworks helpful to understanding interaction in Antiquity and (b) papers elaborating on the history and nature of interaction or evidence of interaction in the East Mediterranean/Levantine/Egyptian region, taking account of most of the history from the early 2nd millennium BC to the 1st millennium AD. In the choice of papers, one aim was to offer input into a growing discussion about theoretical approaches taking account of different kinds of exchange and contact in Antiquity. Another aim was to include material which offers actual evidence (of prices and materials) demonstrating the parameters of exchange – without constraining the presentation by a theoretical approach, while offering stimulus to such.

diffusion; ancient history; empires; networking; boundaries; world-systems; economics

Dieser Sammelband enthält (a) Beiträge, die sich mit theoretischen und realistischen Modellen befassen, die hilfreich sind, um Interaktionen in der Antike zu verstehen, und (b) Beiträge, die sich mit der Geschichte und der Art der Interaktion in den Regionen östliches Mittelmeer/Levante/Ägypten befassen und dabei den Zeitraum frühes 2. Jt. v. Chr. bis 1. Jt. n. Chr. betrachten. Bei der Auswahl der Beiträge ging es darum, zur Diskussion über theoretische Zugänge beizutragen und dabei verschiedene Arten von Austausch und Kontakt in der Antike zu berücksichtigen. Außerdem sollte Material eingebracht werden, das Evidenz (der Preise und Materialien) und Austausch demonstriert – ohne dabei die Darstellung mit einer theoretischen Annäherung zu begrenzen, diese jedoch zu stimulieren.

Diffusion; Alte Geschichte; Reiche; Netzwerke; Grenzen; Weltsysteme; Wirtschaft

### I Cultural evolution: diffusion & closed systems in archaeological thought

Today, in the age of ‘Archaeological Post-Processualism’, the study of contact between cultures is beginning to make a comeback. However, this recent tendency is also the revival of an older tradition, namely that of ‘diffusion’, which had been eclipsed in the decades of the ‘New Archaeology’. In order to grasp how the idea of inter-cultural contact came into disrepute and came to be revived – and why one should try it, we must take a look at the reality of what archaeologists have always found, and how archaeological theory developed. And thus here I will try to contextualise the workshop we held – and express what I hope can be done in the future by others, and why.

Originally, the concept driving the ‘New Archaeology’ was (a) to transform archaeology from a romantic positivist discipline (documenting what the Victorians understood as ‘progress’, and exploring what they understood as ‘barbarous’) into (b) a scientific ‘explanatory’ discipline, aimed at devising a means of charting and explaining ‘cultural progress’ (as this was the 1950s and 1960s, and many of those involved were Americans, who subconsciously viewed ‘progress’ as ‘technical’, ‘inevitable’ and ‘good’ – and understood ar-

chaeology as the ideal means of discovering this world).<sup>1</sup> Traditionally in archaeology, this progress in the past was understood as a project whereby societies were gradually developing, adopting, or appropriating innovations, enabling a culture to ‘advance.’ It was perfectly obvious to the Victorians that they lived in an age of progress – and it was logical that in their imperial possessions, they could actually see the living remnants of those who had not (yet) become Victorians. The project of the archaeologist was to trace, follow, and chronicle this epic of human history. Since they saw themselves as crusaders bringing civilisation to the world, external impulses were viewed as essential mechanisms of change, especially for educating barbarians. Archaeologists and Anthropologists alike therefore initially assumed that exchange and diffusion were typical features which could be related to progress<sup>2</sup> – and, of course, for those experiencing the Industrial Revolution at first hand, it was obvious that technical progress was the same as social progress. However – with decolonisation after the Second World War – the ‘New Archaeology’ was guided by a spirit of universalism, respecting ‘primitive’ peoples, and assuming that they had their own ways of reaching their ends. In the end, one trend in the ‘New Archaeology’ was oriented towards identifying and explaining change in local developments, rather than actually tracing all of the possible systems of connections. However, this universalism was still rather teleological, as it seemed to suppose that progress was unavoidable.<sup>3</sup>

Yet, as it developed – partially propelled by Colin Renfrew’s firm dismissal of ‘diffusion’ in the Prehistoric Aegean – one trend in the ‘New Archaeology’ became increasingly concerned with stressing internal ‘processual’ developments in ‘closed systems’ as ‘diffusion’ was increasingly explicitly or implicitly dismissed.<sup>4</sup> Since that time, in Archaeology, ‘diffusion and diffusionism’ – a once widely shared, but quite vague conceptual system whereby ideas and objects gradually spread from culture to culture – have enjoyed a very bad reputation to a large extent because the concept was incompatible with the types of systems advocated by the ‘New Archaeology,’ as it developed.<sup>5</sup> But this was because of the dogma, and not because the conceptual framework of ‘diffusion’ was incompatible with the data recovered by archaeologists, as is becoming increasingly clear with the concept of ‘diffusion’ gradually (and hesitantly) being revived in archaeology.<sup>6</sup>

The methodology of understanding ‘diffusion’ and interaction should thus be a major issue in archaeological theory where one of the central problems is understanding cultural

1 This is my impression of the situation, based on (a) my understanding of what was expressed by Taylor 1984, one of those who contributed to the conscious expression of the programme, and (b) the way that archaeology developed.

2 E.g., Birket-Smith 1946; Childe 1929; Smith 1933.

3 It is significant that German archaeology – which has generally been immune to infection by theory – still (possibly unsuspectingly and unconsciously) seems to cling to the framework of the New Archaeology, so that German archaeologists consistently expect technical innovations to be almost synonymous with the causes of improvement and social progress, whereby the innovations push social developments (cf. Johannes Müller in von Schnurbein 2009, 60–105; Andreas Zimmermann in Jockenhövel 2009, 95–127).

4 As, e.g., originally formulated by Renfrew 1972, 444, 476–486, when opposing those who claimed that civilisation came to Crete from abroad. His concern seemed to be an insistence that the essential cultural innovations had to be local – and should not be attributed to foreign influence. In a fashion influenced by Renfrew and an example of the impact of his thought, see the same tone adopted more recently in an exemplary article by Colburn 2008. There, ‘diffusionism’ (in the sense of socially important interregional contact and trade) was fundamental not only (a) to the phenomena she presented but also (b) to archaeological thought in general (cf. the following pages) – but is expressly repudiated: Colburn 2008, 205. Her motivation was presumably to avoid conflict with Renfrew, and thus she accepted his definition of ‘diffusionism’ as relating to the origins of Aegean palatial civilisation. However, Renfrew’s strong form of ‘diffusionism’ was not necessarily the only form of ‘diffusionism’ and thus a confused interpretation of contact emerged as ‘diffusion’ became a code-word for opposing schools of thought.

5 This was Bruce Trigger’s interpretation until the end of his life (Trigger 2010, 542–543).

6 Cf., e.g., Rahmstorf 2011, and many other contributions in the same volume (Wilkinson, Sherratt, and Bennet 2011), but also, e.g., Kristiansen and Larsson 2007, for which latter see Warburton 2008.

evolution and the exchange of ideas between cultures. There are several problems, but among the most important issues is the role of the Ancient Near East and its impact on neighbouring civilisations – and even more important the way that any impact actually takes place. Does impact come exclusively from more advanced cultures – or can input come from other regions? How does the impact work and effect cultures? Does the impact invariably have political, economic and cultural aspects, or can the results of exchange be harmless? How does interaction work? All of these issues come together in the heartlands of the two great western cultural traditions: the Aegean and the Ancient Near East, i.e., in the area around the eastern Mediterranean.

The importance of Near Eastern influence on Aegean History and Prehistory was assumed long before Renfrew's claims dismissed it,<sup>7</sup> and its importance for the Early Neolithic and Bronze Age in Greece is still maintained, recognised and assumed although his claims had allegedly dismissed it.<sup>8</sup> The Aegean was in fact one of those regions where Ancient Near Eastern contacts were most obvious and important in late European prehistory, as is fundamental to the approach adopted by Kristiansen and Larsson.<sup>9</sup>

As can be easily deduced, in light of the evidence with which I was familiar, I remained sceptical of any approach denying the impact of diffusion, concluding that in effect, understanding the history of the Aegean demanded that 'cultural evolution' depended upon outside stimulus, as, e.g., Cynthia Colburn confirmed that Prehistoric elite burial practices in Crete shared the same types of foreign artefacts – e.g., lapis lazuli and carnelian – as those used in contemporary south Mesopotamian elite burials (where the articles were likewise foreign imports from even further East; Afghanistan and the Indus in the case of the examples of lapis lazuli and carnelian).<sup>10</sup>

Such evidence can only be recognised if looking beyond artificial disciplinary boundaries – and thus dismissing diffusion amounted to obstructing access to one of the keys to understanding 'cultural evolution' – as burial practices are one of the most important cases where archaeologists can recognise 'rituals.' 'Rituals' are, of course, an elementary part of culture (as students of religion have long appreciated) – but largely inaccessible to archaeologists. Significantly, Oskar Kaelin has argued that the 'cult of the dead' in ancient Mesopotamia was adopted from Egyptian practices,<sup>11</sup> with lapis lazuli and carnelian likewise used in Egypt – and thus the material from Crete represents part of a cultural trend, which should be highly important for understanding the development of local culture through external influences. Examples such as that presented by Colburn should therefore be viewed as exemplary to the understanding of 'cultural evolution' and not treated in isolation – and certainly not understood without 'diffusion.' The specific archaeological evidence – precious imported objects deposited in elite burials – is in this

7 E.g., in his classic, *The Danube in Prehistory*, Childe 1929, v, lumped "the Ancient Near East, the Aegean, and Italy" together and the book was dedicated to linking Europe with the Mediterranean and the Near East – whereas the impact of Renfrew's approach was to encourage a separation of the study of Aegean Prehistory from both Classical Archaeology and Near Eastern Archaeology, creating an artificially devised spatially and temporally 'closed system' within the discipline of archaeology – and not only that 'closed system' in the ancient world to which he aspired. For Renfrew contacts with the Near East were anathema, but his closed system stressed that "Contacts within the Aegean are not strictly relevant to the theory since they do not document the receipt of new ideas or processes from outside the Aegean, the fundamental issue for this theory" (Renfrew 1972, 477–478 and 486, Fig. 21.1).

8 E.g., Perlès 2001, 62, stresses that the Near East was decisive for the Early Neolithic in Greece, and that there is "no indication that the contribution of Anatolia would have been more important than that of the Levant". This means that from the very beginning of sedentism in Greece, Near Eastern influences were clear and paramount. For the Bronze Age, cf. Kristiansen and Larsson 2007, and also Kristiansen in Kristiansen, Lindkvist, and Myrdal 2018, 87–112.

9 Kristiansen and Larsson 2007, 49, Fig. 14.

10 Colburn 2008, 209; Aruz 2003, 103, 112; Moorey 1999, 86, 98.

11 Kaelin 2006.

case part of the stuff of culture, and the adoption of foreign customs by internalising them in one's own culture is symptomatic of both 'diffusion' and 'cultural evolution'.

In this sense, Renfrew's argument was certainly indefensible for the very time and region upon which he based the original argument – and thus it is highly improbable that it could be usefully applied elsewhere. Since then, Early Bronze Troy has been shown to have had links not only with Mesopotamia, but also with the worlds of the Aegean and Indus civilisations<sup>12</sup> – and thus even if Renfrew wanted to detach the Aegean from the larger world system, he would be unable to legitimately detach the partners of the Aegean which enjoyed contacts with it. Yet, in some circles, opposition to diffusion based on the assumption of the validity of 'universalism' – and under the pretext of an alleged caution about using disputed ideas – still maintained.<sup>13</sup>

Thus 'diffusion' was edged out of the agenda of the 'New Archaeology', justified by what I view as having been errors of interpretation and unjustified assumptions – with results that in my view were not helpful to the project of understanding human history. I remember that relatively late in his life, I once had the chance and asked Lewis Binford – one of the founders of the New Archaeology<sup>14</sup> – about how he viewed 'cultural evolution'. His response was that "cultural evolution was a fact" – and that it had to be explained. However, to my mind, whatever it might have accomplished, his own exhaustive and rigorously scientific approach had not been fruitful in this respect. It must be admitted that Binford's original model had been far more open than what later developed into a

12 Ludvik et al. 2015.

13 Among archaeologists, doubts are routinely expressed in discussions, but the opposition is also particularly evident in anonymous peer-reviewing done against interpretations suggesting diffusion in ancient times by those on the fringe of archaeology (e.g., historians and anthropologists). Anecdotally, I should mention that in a discussion, the anthropologist Robert MacLaury (personal comment in the early 2000s) conceded that he realised that decades earlier, in the preparation of his thesis on colour words, he consciously, deliberately and systematically filtered out 'loan-words' (specifying, e.g., words relating to 'coffee' and 'coffee beans') encountered in his field work in the languages of Meso-America and disregarded them. That his thesis supervisors and mentors and later colleagues did not point out this error is more important than his original procedure. In fact, in 1969 in another context, people who were associated with his supervisors bluntly stated that "Recent foreign loan words may be suspect" (Berlin and Kay 1999, 6), thus confirming the bounds of their approach to colour terminology (which subsequently became a dogma among linguists, archaeologists and anthropologists). This is hardly accidental as it reflected the spirit of that age. This creates unexpected problems, however. Obviously, what was 'recent' to the Mycenaeans would be ancient today and thus the procedure itself involves the exclusion of foreign influences with what I hope are unintended consequences. An interesting case is that of the Classical Greek Word κύανος, *kúanos*, which, i.a., indisputably means 'lapis lazuli' and its adjectival form κύανεος, *kúaneos* means 'blue' (Liddel, R. Scott, and Jones 1958, q.v.), known in Mycenaean Linear B in the term ku-wa-no-wo-ko, 'a worker of blue glass paste', and easily related to Akkadian *uḡnû*, 'lapis lazuli'; 'blue glass'; etc. (Oppenheim et al. 1956, q.v.). However, in professional discussions I have heard colleagues suggesting there is some doubt about the linguistic relationship. I can only conclude that doubts arise because foreign words are excluded – and therefore the linguistically and archaeologically compelling link (as lapis lazuli can be found in third millennium BC Crete and blue glass in Linear B texts) is thrown into doubt. In this fashion, the exclusion of foreign influences effectively becomes part of a paradigm – and can be traced back to the universalism of the 1960s, when it was assumed that all societies would evolve in the same sequence to the same goal, independent of foreign influence. This was the context in which Colin Renfrew executed 'diffusion' and 'diffusionism' (leading to Colburn 2008). At a time when universalism was assumed, his argument made perfect sense. Obviously, in an age of 'globalisation' the argument makes less sense (and thus Colburn 2008 makes less sense) – but the claims of the age of 'universal independent development' remain in the scholarly world because of the strength of the tradition. It is clear that diffusionism was a vague system, and justly criticised – but this does not mean that many of the details upon which it was founded were not facts. Dismissing the concept also legitimised dismissing the facts. This is probably an important point and one – ironically in the age of 'globalisation' – hardly digested among archaeologists, anthropologists and historians. Ironically, this allows economists, historians and archaeologists to assume that modern globalism is a new phenomenon, without ancient precursors – because the 'New Archaeology' dismissed connections.

14 E.g., Binford 1988.

more ‘functional’ approach aimed at answering simple questions – but Binford persevered with his own methodology, relatively oblivious to what had happened to his own ideas in the course of an archaeology increasingly dominated by endeavouring to answer questions without resorting to a larger research agenda. I was amazed to find that coincidentally, but actually much earlier than I, Andrew Sherratt, the open-minded archaeologist with an eye for the ‘Grand Narrative’, had posed a quite similar question about ‘cultural evolution’ to Kent Flannery, another of the early great New Archaeologists.<sup>15</sup> According to Sherratt, Flannery’s response was “What else d’ya call it?”. This was more poetic than Binford’s response to me – but as with Binford, Flannery’s own admirable approaches to solving archaeological issues did not show the way of how we are to understand the phenomenon of ‘cultural evolution’.

In this sense, it is no surprise that the New Archaeology was so easily overtaken by the ‘Post-Processual Archaeology’ pruned by Ian Hodder and now widely accepted in numerous variations. I have never been inclined to believe that such an open-ended theoretical system is conducive to developing a research agenda and thus have remained sceptical to the value of the approaches, methods and conclusions of the ‘Post-Processual’ Revolution in archaeological thought, specifying in the case of religion – which has become a central field for Hodder – that Hodder’s approach “certainly does not answer the question”.<sup>16</sup> In this sense, it remains for us find the way in a different scholarly atmosphere than that in which Binford, Flannery, Renfrew, Hodder and Sherratt grew up.

## 2 Methods & terminology

In contrast to Renfrew, I am persuaded that contacts have a great deal to do with the process of ‘cultural evolution’ – but how the contacts work and the way the evolution moves forward remains a bit of a mystery. In the first half of the 20th century, contacts were collectively treated as aspects of an ill-defined ‘diffusion’.<sup>17</sup> However, ‘diffusion’ fell victim to the conflict unleashed by Renfrew (and alluded to in the text and footnotes above). Yet, what was once treated broadly as ‘diffusionism’ has now only been partially resurrected, while much of what it once was is now treated more specifically, subsumed under more modern appellations such as ‘globalisation’, ‘networking’, ‘world-systems analysis’, ‘processual developments’, ‘markets’, etc., and related to ‘empires’ and their ‘limits’ – yet the way in which any one of these concepts is applied is itself inevitably a complicated process, as there are many different aspects which must be taken into consideration. This is because every analytical approach recognising contact must define a ‘system’ of some type and specify the ‘relations’ which are decisive for that system – and provide some means of recognising it as a convincing entity. In effect this really means ‘model-building’ as is routine for economists and political scientists when defining the parameters they consider relevant to developing what Max Weber might have called an ‘ideal’ or ‘prototype’ – from which one can gain an idea of the system one is analysing, and explain it to others. This is very complicated because there are different approaches to, e.g., ‘networking’ and ‘world-systems’ which demand nuances to define what one is doing – and there is no reason why, e.g., ‘networks’ cannot be understood as parts of a ‘world-system’. Thus, the procedures which can promise ‘explanatory results’ in terms of a ‘system’ require an understanding of several different issues, issues which have nothing to do with the actual archaeological material with which one is working. Choosing one particular approach may appear easier, but perhaps mixing approaches is the only way forwards, as social and political problems

15 E.g., Flannery 1973.

16 Cf. Bredholt Christensen and Warburton 2013, 52.

17 E.g., Birket-Smith 1946; Childe 1929; Smith 1933.

grow together (so that, e.g., recognising world systems and markets together in the same analysis could reveal that common and different trends are simultaneously having different influences on different societies – some of which may not themselves even be in direct contact at all, and yet sharing the same influences).<sup>18</sup> The application of these methods to archaeological problems is even more challenging since the material itself must be analysed in its own terms. As can be seen in the table of contents, this volume is itself an attempt at displaying how one can deal with some aspects of these problems in the Mediterranean area (and I will return to this below).

### 3 Approaching long-term global history around the Eastern Mediterranean

The editor and authors together aim at attracting attention to aspects in the early history of economic and social exchange, as a potential point of departure. At the workshop from which these papers came, geographically we largely confined ourselves to the lands around the Eastern Mediterranean, while allowing time for methodological discussions beyond the ordinary concerns of students of Antiquity. Chronologically, we basically discussed what had happened from the end of the Neolithic through the end of Antiquity, centring on different types of interaction within, between and around the political, social and ethnic groups which were gradually being pulled together by trade relations. In the contributions to this volume, we have individually and collectively tried to focus on some aspects which could help others in understanding what we think was going on in the course of ‘cultural evolution’, a process which involves empires & boundaries, geography & resources, traders & armies, etc. Obviously, this volume does no more than offer titbits allowing readers to draw their own conclusions and use new methods in their own work. There are at least three sides to developing a comprehensive account of human history using a rational and systematic means of exploiting textual and archaeological sources: (1) working out what kind of methods and evidence can be used, (2) arguing for some kind of relationships (e.g., between artefacts themselves and between artefacts and methods), and (3) defining the system which one proposes theoretically and historically.<sup>19</sup>

Traditionally, in conceptual systems of economic analysis, trade is almost as closely related to modern economic growth as productivity. This is one of the reasons why the New Institutional Economics stresses low transactions costs – as incoherently parroted by those ancient historians trying to clarify the efficiency of ancient economies. Rather than repeating claims by the theoreticians, it is necessary to systematically relate those claims to (a) the evidence one is presenting from ancient sources and (b) also some logically per-

18 For a remarkable investigation of one specific feature of the diffusion and development of metallurgy illustrating misunderstood, unintended and unanticipated consequences of (a) diffusion itself in Antiquity, and (b) the ‘diffusion of ideas’ in contemporary archaeology, see White and Hamilton 2018 and my review Warburton 2019a.

19 In this paragraph in particular (but also in general), I use ‘artefact’ in the sense of meaning an object, building, or text, etc.; i.e., what becomes a source that can be analytically analysed and compared to other sources. Under ‘system’, I understand that ‘model’ of the relations one posits between people and artefacts. Under ‘methodology’, I understand the ‘analytical approach’ adopted by the observer. One can speak of ‘analytical systems’, but this is different from ‘system analysis’, as the former refers to the methodology and the latter to the process of analysing a ‘system’ (in this case, what one posits was happening in Antiquity). One should make a conscious distinction between ‘methodology’ (the application of an analytical method to sources) and ‘terminology’ (which is merely a shorthand for writing about ‘artefacts’ and ‘methods’).



suasive historical narrative – and here students of the ancient world face methodological difficulties.<sup>20</sup>

During the Near Eastern Neolithic (ca. 12 000–3 500 BC) mankind began the creation of a production economy with sedentary villages where goods could be stored. During the preceding Palaeolithic, there was not much possibility of storing anything, and not much evidence of the exchange of goods – even if people themselves wandered all over the globe (taking their tools with them, and making more *en route*). Nevertheless, although the exchange of goods began during the Neolithic, it was during the Near Eastern Bronze Age (ca. 3 500–1 200 BC) that international trade really took off – and thereby set the course for the flourishing of Mediterranean trade that would characterise Classical Antiquity.<sup>21</sup>

Ever since the appearance of that first state in the ancient Near East, states and empires have attracted attention while the peripheral regions have remained peripheral. Most attention to the development of trade has thus concentrated on various familiar phenomena from the central areas of this world – whether Mesopotamia or the Greek City States. European Prehistorians have indeed delved into trade in Europe, but their interest has been directed at their prehistoric world, more than its connections. Yet some of the materials that arrived in the Mediterranean in Classical and Late Antiquity and the Ancient Near East came from far beyond the edges of the more civilized corners of the world.

Obviously, one of the most important points for scholars unfamiliar with the approach is the evidence presented here – by Rahul Oka, Chapurukha M. Kusimba, Deniz Enverova, Viswas D. Gogte, Abhijit Dandekar et al. – that Oka and his colleagues can recognize a crucial change in the network patterns in the trade in the Indian Ocean around the time that the Europeans began to penetrate deeply into the markets of the Indian Ocean. In this sense, the change had systemic effects – which underscores that a system existed beforehand (as Guillermo Algaze, André Gunder Frank and others have long contended).<sup>22</sup> Yet that is skipping ahead.

## 4 This publication

This volume begins with John Bintliff’s account of Mediterranean history from an archaeological perspective, stressing empires. This is followed by a chapter by Manuel Fernández-Götz and Christian Langer on boundaries, and this survey is followed by a brief discussion

20 E.g., Ober 2015; Muhs 2016. Presumably drawing on the concepts of the New Institutional Economics systems, Ober constantly refers to the disadvantages of high transaction costs (e.g., Ober 2015, 116), and stresses that in the Bronze Age, the elite absorbed a great deal of the surplus wealth generated (Ober 2015, 124–125), implying that extracting wealth resulted in high transaction costs. Yet – although he seems to advocate contrasts over the course of history and between East and West – Ober seems to imply that this was also the case with the Hellenistic Greek Ptolemies (Ober 2015, 123), and also seems to view it as positive that in Classical times “With the growth of trade, there was more surplus available to be extracted as rents” (Ober 2015, 135). These amount to contradictions in that Ober somehow (a) makes Hellenistic policies identical to allegedly contradictory Near Eastern Bronze Age policies and (b) allows rents to be simultaneously corrosive and constructive, depending on the historical context rather than on the phenomenon itself. As Ober basically neglects silver – which was crucial to both Athenian and Ptolemaic trade – it is thus difficult to believe that there is any logic in what Ober actually thinks about the selected ‘facts’ he discusses while repeating irrelevant claims about the theoretical importance of lower transaction costs. Muhs is hesitant, as he only mentions ‘transaction costs’ in the introduction (Muhs 2016, 2–3, paying respect to the idea that this approach is widely used) and conclusion (Muhs 2016, 253) of his book, without specifying any cases in his (incomplete) presentation of the material which makes up the greatest part of the book.

21 For some more details relating to these general claims, the reader can find summaries of developments in Jockenhövel 2009; Kristiansen, Lindkvist, and Myrdal 2018 and Warburton 2016c.

22 E.g., Algaze 1993; Frank 1993.

of geographical aspects of interaction by Daniel Knitter. Together, these three pieces offer a context for comprehending what is involved in interaction and in imperial development.

In the following chapters, Roxana Flammini and Helen Dawson offer analytical accounts of two complementary frameworks of how archaeologists can use contemporary theory to deal with their material. Flammini presents an account of the way some of the relevant thought about world-systems has developed over the last half century; Dawson takes us into how thought about networking has developed and been applied in archaeology.

A chapter by Michaela Weszeli takes us in a very different direction as she goes into extraordinarily valuable detail about transport costs in the Mesopotamian world. This issue is extremely important since trade is dependent upon moving goods efficiently. In Mesopotamia, students of the ancient world have both artefacts from distant lands and also the prices for transporting them once they came into the Mesopotamian world. Weszeli's stress on water-ways is fundamental since the Mediterranean and Nile systems likewise relied on water transport. In this sense, transportation costs were more important than transaction costs. Obviously, there will have been enormous differences between the costs of transport in the relatively law-abiding world of the Near East and more distant lawless peripheral regions – but these costs played a role in the distribution of that archaeological material which is found. Those crossing the boundaries were necessarily moving in a very different world: even if the rewards were potentially greater, the risks were likewise greater (as we learn from even the relatively tame world of Classical Antiquity). All of this provides us with a context.

From there, we move on to the grander narratives exploring the political history of the south-western part of this system as a self-contained unit with interaction changing over time as the political units compete and influence economic behaviour. Flammini presents complex political history as we understand it. We can grasp the interaction as the archaeological sources are complemented with written sources.

Thus without texts, we learn little – and by contrast from the texts we can gain unimagined insights when realising what they betray when associated with the finds we know. Thus virtually illegible Minoan seal impressions from Samothrace are as useful as the description of Gothic swords which have themselves not been preserved. The former tell us that Minoan traders were dealing at the northern fringe of the Aegean, where their trade probably passed on to the personal and family networks described for the eastern central Mediterranean by Helen Dawson and Irene Nikolakopoulou in this volume. David A. Warburton himself offers a piece about the distribution of Bronze Age Mediterranean Stone Anchors intended as food for thought, indicating that archaeological material can itself provide an indication of how a system which goes far beyond any political boundaries can be identified. Kai Grundmann's translation of Theoderic's description of the swords he had received as gifts betrays the lost secrets of the skills of Gothic smiths – and how these two passed back and forth across the 'edges' of the historically known. And we close with the survey by Oka and his colleagues, taking us from the Hellenistic period to the modern.

As remarked above, this final piece demonstrates that – using advanced methods relating to the contemporary world and combining this with the other pieces of the puzzle presented in other contributions here – one can legitimately claim that there was a series of systems which were transformed in the course of history: rather than excluding contact as irrelevant to the cultural process, we can aim at understanding how contact performs a role in the cultural process – and perhaps come to appreciate what role that is. In this sense, we can try to go back to the origins of trade – and thus better understand the history of empires. This is a domain accessible exclusively to archaeologists and philologists – and one where we can be certain that the growth of trade was very slow and complicated.

It surely involved industrial activities and transport, but also political connections and family networks. Unravelling this tale will be a long and difficult road.

Thanks to the willingness of some authors, the contributions to this volume offer an excellent image of what was happening in the conceptual domain termed by Warburton “on the edge of the empires” – a concept to which some take issue, but few could actually dispute when the materials are presented as they are here. And we have a range of different approaches. And thus we not only gain insights into what was going on, but also about the different and nuanced ways in which scholars view their material and relate it to both their own theoretical models, but also to other parts of the world and other theoretical approaches. The result is necessarily enriching, as it takes us far beyond the conceptual dictates of a single author while also encompassing a variety beyond anyone’s range, culturally and chronologically. Yet, all have buckled under to adjust to the theme as they understood it.

## 5 The evolving narrative of ‘cultural evolution’

The tale of the history of civilisation was once quite simple: *ex oriente lux* – and then the Europeans took over, allowing the world to flourish. In the meantime, understanding the Neolithic Revolution and the settling of the Mediterranean islands has become at once more complicated and more accessible. The increasing data means that we know more – but understand less. Yet, somehow, out of gradually more complicated societies one single society in southern Mesopotamia managed to literally ‘start history’ by (a) creating the preconditions for political society and (b) inventing writing which centuries later would be used to ‘invent history’. For most of the fourth millennium, this ‘Uruk’ society had an asymmetrical military and economic influence on all of its neighbours (in Iran, Syria and Anatolia). Yet its collapse ended its pre-eminence and this type of incomparable unilateral hegemony disappeared for all time, leaving a power vacuum – but having established the platform from which increasingly symmetrical trading systems sprang up. But polities also adapted and the political gap was filled by many different types of entities, ranging from the first territorial nation state in world history (in Egypt) to commercial states.<sup>23</sup> It was in the periphery that independent metallurgists dispersed themselves and technology across the Middle East, Asia, and Europe. New city-states emerged and the stage was set for an exchange which was not dictated by any one actor – or even any one category of actors (political, military or commercial). The concept of a ‘multi-polar world’ can be traced back to the demise of Uruk civilisation, some 5000 years ago.

## 6 Current research and projects for the future

This is a relatively slim volume which treats some subjects lightly and some in detail, but leaves out many others which would be essential to offering a real survey. Thus, one cannot claim that our offerings are in any way comprehensive.

As readers will learn, in this volume Flammini develops an account involving the Levant, Egypt and Nubia in the early second millennium BC. A similar project is required as the same type of analysis could be usefully applied to the other end of the Near Eastern system at the same time, when Shamshi-Adad and Hammurabi were building up their empires in Mesopotamia.<sup>24</sup> In the early second millennium BC, there was a region in the Syria and Mesopotamia separating the Egyptian and Mesopotamian spheres, and one

23 E.g., Warburton 2001; Warburton 2011.

24 Part of the story has been told in Charpin, Edzard, and Stol 2004 and Veenhof and Eidem 2008 and this could be organised into a model – but there remains a great deal to do in terms of integrating

could also fill in the political and economic history of this region – between the two cores – as well, using textual and archaeological data.<sup>25</sup> Another project could deal with the evolution of the systems, as from the second half of the second millennium onwards, the destinies of Egypt and Mesopotamia became intertwined as the seemingly separate systems developed into a single larger system.<sup>26</sup> This is an illustration of what could be done with building blocks offered here.

From the economic standpoint, the most important matter – from the standpoint of archaeological documentation – not discussed here is the issue of weighing technology. From my perspective – as one of those involved in the on-going exploration of the matter<sup>27</sup> – this issue is closely related to understanding the emergence of value. Weighing seems to be instrumental for the emergence of the idea of those values and equivalencies which eventually gave rise to ‘prices’ – and this idea originated in the ancient Near East around the time of the emergence of the first states.<sup>28</sup> The concept of value then emerged and spread across the world, generally with the use of weights and balances. Without this conceptual approach, the understanding of value would not have crystallized. As many will dispute my interpretation, it is a hint that there remains a great deal to do in this domain. Consulting the website of Lorenz Rahmstorf’s project will probably guide the reader to the most relevant and recent publications and projects.<sup>29</sup>

Along the same lines, textiles only appear very marginally in the discussions presented here – but they form an essential link between the core areas and the periphery. The Mesopotamians initially began the industrial production of textiles for export – and this continued through the Silk Road and hints at why the Industrial Revolution really took off in Lancaster. There remains much to be done. The Excellence Cluster Topoi had its own project on the textile revolution, aiming at understanding origins.<sup>30</sup> These and many other aspects of textiles and the textile trade have been treated elsewhere: a glimpse at the website of Marie-Louise Nosch’s Copenhagen Centre for Textile Research will lead further into this world.<sup>31</sup>

The same is true for work on metallurgy and wool-sheep: untangling the actual tales of the spread of many phenomena – ranging from balances, through swords and wool (which are all interrelated) – would offer hitherto unimaginable insights into contacts and behaviour.

One example of a highly relevant means of approaching the field of contact is the modestly named Old Assyrian Text Project, which delves into the endless details of one single example of the phenomenon investigated here.<sup>32</sup>

But, from the theoretical standpoint, the most important aspect of economics which must be introduced into the discussion is that of ‘markets.’ Just as Renfrew dismissed ‘diffusion’ in the early 1970s, Moses Finley rejected the concept of interlocking markets

politics, warfare and economics; and it would be essential to include Anatolia, Iran and Oman to have a comprehensive image of the sub-system.

25 The Middle Bronze in Palestine has been exhaustively studied and this could be related to states like Middle Bronze Ebla, Emar and Qatna and their relations to the two more important systems in the West and East.

26 Here one is extremely fortunate in having actual diplomatic correspondence in the form of the archives found at some capital cities a (e.g., Beckman, Bryce, and Cline 2011; Bryce 2003; Edel 1994; Moran 2000) and these sources take us to the edge of the Aegean as well, so that a perusal of archaeological and philological material would be a promising basis for developing a model.

27 <http://www.topoi.org/publication/42252/> (visited on 24/05/2019).

28 Cf. Warburton 2018; Warburton 2019b.

29 <https://www.uni-goettingen.de/de/about+the+projekt+%22weight+and+value%22/572018.html> (visited on 24/05/2019).

30 <https://www.topoi.org/group/a-4/> (visited on 24/05/2019).

31 <http://ctr.hum.ku.dk/about/> (visited on 24/05/2019).

32 <http://oatp.ku.dk/> (visited on 24/05/2019).

in the ancient world.<sup>33</sup> And in the same way that diffusion is gradually recovering from Renfrew's onslaught, ancient history is reviving the ancient markets<sup>34</sup> (which had never ceased to exist, but were merely neglected). Archaeologists will have difficulty actually being certain that they can find and excavate early markets – but they should be conscious that the influence of markets might aid their understanding value. While I argue that market forces are important and that prices illuminate,<sup>35</sup> Christopher Monroe noted that taking account of the ways in which entrepreneurs think really aids in understanding ancient behaviour as visible in the text.<sup>36</sup>

Another issue is one I only have hinted at in my own remarks about 'diffusion.' This is that of how knowledge – from craftsmanship to philosophy – was transferred in Prehistory and Antiquity. Among the Bronze Age states of the Near East, Egypt was celebrated for its easy access to gold; ca. 1350 BC, an Assyrian king wrote to the Egyptian king: "Gold in your country is dirt; one simply gathers it up."<sup>37</sup> Among the most striking things in human history is therefore that the first gold in human history appears on the shores of the Black Sea in Varna in the first half of the fifth millennium BC.<sup>38</sup> This is long before the emergence of the first states in Egypt and the Near East; Egypt itself only started working gold long after it was used at Varna,<sup>39</sup> although gold was common in places close to the Nile. Thus, the presence of gold did not alone lead to its exploitation. Even more significant than gold is tin-bronze: bronze is not common in Egypt until the second millennium BC, and thus some two and a half millennia after the first Balkan tin-bronze.<sup>40</sup> Ironically, Egypt was in the social Bronze Age for a millennium before bronze became common there, whereas the Balkans never celebrated such an illustrious Bronze Age – although they developed the technology which was eventually transferred to Egypt. Significantly, the political transformation in Egypt took place nearly two millennia after the first use of copper (which in Egypt preceded that of gold, but here was likewise later than the first exploitation in the Balkans). Easy access to materials is evidently in itself insufficient to guarantee the emergence of technological skills – but the adoption of technology (whether from abroad or locally) does not imply that radical social change will quickly follow. Nor does mastery of the metal lead to political change. This means that neither metallurgical innovation nor adoption of foreign innovations necessarily leads to social change: technology and social development are two different issues, as stressed at length by White and Hamilton.<sup>41</sup>

I have tried to demonstrate the importance of the diffusion of ideas for understanding the early history of science,<sup>42</sup> the early development of colour terminology,<sup>43</sup> and the early history of cartography (which is part of a very complicated tale of exchange).<sup>44</sup> I am persuaded that systematic studies of languages (words, writing, grammar, etc.) themselves could reveal a great deal about thought and exchange – in the fashion that Marian Feldman has shown for art.<sup>45</sup> Art, communication, property relations and technology come

33 Finley 1985.

34 E.g., Harris, Lewis, and Woolmer 2016.

35 E.g., Warburton 2016d.

36 Monroe 2009.

37 Moran 2000, 39.

38 Fol and Lichardus 1988.

39 Hartung 2001, 313, indicates that gold was not present in Egyptian tombs before the Nagada IIc stage, which is not early in the fourth millennium BC, and therefore around a millennium after the gold at Varna (where the oldest pieces may be 4800 BC).

40 Radivojević et al. 2013.

41 White and Hamilton 2018; Warburton 2019a.

42 Warburton 2016a.

43 Warburton 2016b.

44 Warburton 2017.

45 Feldman 2006.

together in the domain of seals, sealing and keys. Sealing practices literally spread around the Old World – and the traditions are maintained very seriously in Asia today. And Rahmstorf has charted the early development and spread of seals, locating the origin of the practice in northern Mesopotamia in the 7th millennium BC.<sup>46</sup> Seals communicated subtle messages which could only be understood by members of a society. Sealing also had an impact on cognitive understanding and moulded society as seal-bearers played an important social role. The invention and development of keys partially circumvented the cognitive advantages of seals in guiding social behaviour – and it also changed concepts of security in a fashion which changed society. Guards and loyalty were no longer necessary when locked doors promised a kind of security. The impact of keys in changing the ways houses and offices were organised must have been substantial. Many details are known about seals and keys, but their role in exchange and social transformation remains to be fully explored. Kaelin has argued that kingship – in its complex form – was developed in Egypt and spread, initially, to Mesopotamia.<sup>47</sup>

Like art, a systematic exploration of architecture could reveal a great deal more about exchange.<sup>48</sup> Skills and people are central to diffusion, as these lie behind the artefacts and technologies. The role of artefacts themselves in untangling the archaeological evidence risks being neglected in our concentration on peoples,<sup>49</sup> but one should think of artefacts as testimony to human thought (rather than merely aspects of social life, as is one of the leading tendencies in the Post-Processual approach, exemplified by *Entangled*).<sup>50</sup> One of the major areas where these skills, technology and artefacts come together is the matter of navigation, which is tangentially touched upon in several contributions in this volume. It should be evident that we take navigation for granted – and yet seem to neglect an understanding of how it actually worked for the humans involved, for it demands not only sailing and shipwrighting skills,<sup>51</sup> but also port infrastructure and knowledge of what can be usefully transported.<sup>52</sup> The scope is certainly global as can be seen from its role in binding cities together, and also going beyond the edges, as can be gauged from a contribution (by Warburton on anchors in this volume).

One important technological domain – which is definitely spread by diffusion, but must be actually charted – is the tale of what I call ‘pyrotechnologies’: pottery, plaster, tin-bronze, glass and iron all depended upon the use of heat to transform materials.<sup>53</sup> As mentioned, heat also played a role in the creation of ‘red’ carnelian from quartzite, and heat also played a decisive role in refining silver – and this last material became the key to exchange processes. Once money had been invented as an accounting trick, silver played an increasingly important role as medium of exchange and also as the fundamental means of estimating value. But bronze and iron swords, as well as humble plaster all likewise played fundamental roles – and all spread across the Old World, changing the way people behaved in ways large and small.

46 Rahmstorf 2011.

47 Kaelin 2006.

48 For an example cf., e.g., Warburton 2007, and for some source material, cf. Renn, Osthues, and Schlimme 2014.

49 This item is so high on the archaeological agenda that one hardly requires any imagination to think about how to work this into a coherent form of analysis. Finding the material and approaches is easy, finding one’s way will be more difficult.

50 Hodder 2012.

51 As a hint of what can be done, with references and discussions, cf., e.g., Knapp and Demesticha 2017.

52 Models of what must be done for early history can be found in Chankowski, Lafont, and Virlovet 2018.

53 There is a growing literature on the details of the individual technologies (and one could begin by checking the relevant entries in e.g., Moorey 1999; Nicholson and Shaw 2000; Oleson 2008 and continue by exploring the growing literature on ‘innovations’, where Topoi itself had a project, <https://www.topoi.org/group/innovations/> (visited on 10/08/2019).

Among the other major issues missing from this account is the analysis of the empires themselves. What was the cultural role of the empires such that they were able to influence the surrounding lands? Why are the myths of the Babylonians so decisive for the formulations of the identities of the nations on their periphery as can be seen in the tale of the flood, which is found in the Hebrew Old Testament – but certainly began in Sumerian and Akkadian literary traditions?<sup>54</sup> What was the decisive economic role of the empires: to suck in imports from the surrounding lands?, or to send out their traders? Did empires stabilise the periphery or lull opponents into a false sense of security? Many of these themes can be explored based on some of the books about states and empires, ranging from Scott's *Against the Grain*<sup>55</sup> to surveys of empires.<sup>56</sup>

Related to empires is the simple matter of political power – especially as opposed to the power of market forces as playing decisive roles in the way that individuals and groups interacted. Understanding the importance of market forces is an essential aspect of understanding entrepreneurial behaviour – but also the way that the states themselves participated in the markets and what role they played in the economies.<sup>57</sup>

In the opposite sense, one really must enquire how the city-states of Greece managed to create a sense of communal existence although strewn along an almost infinite coastline and without a shared dialect. The question of whether 'cultural connectivity' or 'ethnic identification' (as mentioned by Dawson in discussing non-analytical versions of networking) play such a fundamental role is crucial here – for it had an extraordinary impact on economic and political development in the Mediterranean region.<sup>58</sup>

One issue which I really did want to have treated at the workshop and present in the publication was that of ethnic trade diasporas. The existence of the phenomenon cannot be disputed, as the ancient Sogdians, Medieval Jews, the contemporary overseas Chinese communities and the more independent Lebanese and Hadhrami traders (to take but four examples) testify to a phenomenon that may be far older – as is contended by Gil Stein who did not deliver his paper in written form.<sup>59</sup> Trying to find such groups in the archaeological record might be difficult. However, the seemingly unexpected diversity of ethnicities dating to the second millennium BC apparently found in the Tarim Basin of China<sup>60</sup> suggests that such methods of analysis might explode some of our preconceptions about 'ethnic identities' when investigating such phenomena as trade diasporas assumed to be ethnically integrated.

Although the matter of grasping how the Judeo-Christian traditions derived from Roman Palestine has such an extraordinary hold on Western thought may be slightly off-subject, the paradoxical importance of Buddhism – the world's great atheistic religion,

54 This example was presented long ago by Heidegger 1946 – but the phenomenon is so widespread that it deserves a fundamental re-examination, not from the standpoint of the Study of Religion, but from the standpoint of the transfer of knowledge, stressing what it reveals about the lack of human originality and the degree to which the diffusion of knowledge can be documented as a common phenomenon (where the lesson should be instructive and sobering).

55 To my mind, J. C. Scott 2017 fails to understand the degree to which the formations he highlights are actually parasitic formations dependent upon the legal and financial frameworks set up by states and empires; beyond that, his assumptions about the origins of the system in Mesopotamia reflect an outdated New Archaeology type understanding of how economies originated, function and grow. Yet a great deal about local core-periphery relations can be learnt from this – and deserves exploration.

56 E.g., Alcock et al. 2001 offers a selection of views about the matter.

57 I have explored aspects of this in Warburton 2001; Warburton 2011; Warburton 2016c.

58 Ober 2015 does not really touch this central issue since he assumes that the Greek world is a unity and fails to understand the significance of how co-operation worked because he neglects this, simply assuming that the template of Athens explains everything. However, he doubtless offers an excellent bibliographical review.

59 But, see Stein 1999.

60 Mallory and Mair 2000.

celebrating asceticism but spread by merchants – really demands investigation as an economic and social phenomenon.<sup>61</sup>

Thoughts like “trade follows the flag” or *vice versa* rather fail to respect the communities whose trading depends on the flags of others. The reality of this peripheral history is probably so much more complex that unravelling the story through dispassionate historical and archaeological investigations would probably generate more questions than answers. One aspect of this matter of human behaviour in guiding movement is that highlighted in Grundmann’s paper is that of ‘loyalty’ – but this is not much explored earlier. Obviously, ‘loyalty’ is part of networking and state systems – but this essential part of human society is not really highlighted in social analyses of the earliest societies. Obviously, our concern with elites stresses the matter of legitimacy (quite aside from reflecting what can be done with our data), but how loyalty functioned among those lower down.

## 7 Recognising the phenomena of historical cultural change

And this brings up a matter which interested readers must tackle: that of debating the points argued or assumed here. One fundamental problem that we have is understanding how the actors identified themselves, as only thus could we manage to grasp whether Oka *et alii* is right that ‘state capture’ by mercantile elites is a recent phenomenon, or whether Bronze Age Ugarit and Dilmun were actually early examples of a very different manifestation of the same phenomenon.

Far more important is that fact that the origins of many practices familiar in Classical Antiquity and the contemporary world can be followed back to developments in the final millennia of the Near Eastern Neolithic and Bronze Age. Thus, one side of the coin is tracing the origins and original spread – and the other side is recognising that a diversity of cultures sprang up around the world, regardless of the external origins. In this sense, I contend that ‘cultural evolution’ is very much a part of diffusion.

Obviously many of the relevant questions have been explored – but not with the goal of understanding just how trade and exchange function in the context of understanding global cultural evolution.

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61 Sifting through the extensive literature is the major challenge here, but cf., e.g., Schoepen 1997; Liu 1999; Batchelor 1994.



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