

Network Power

Intensification and Innovation in Western Afro-Eurasia during the Hellenistic–Roman Era

Miguel John Versluys

“(…) the socio-material networks humans establish in the release from proximity are far from stable and under their control.”¹

Introduction: Beyond Centers and Peripheries

Historical and archaeological narratives traditionally locate the emergence of Chinese civilization, dated roughly to the second part of the second millennium BCE, in the area of the lower reaches of the Yellow River, namely, the so-called Central Plains. This would be the heartland from which Chinese (Han) civilization eventually sprang. The *periphery* implied by the identification of this *center* was mainly imagined to be in the north, the steppe zones of inner Asia. Accompanying this opposition, as ever, was the dichotomy of the civilized center versus the barbarian periphery. Recent discoveries at a site called Shimao, located in the highlands near the steppe and far away

- 1 Knappett 2011, 12. I am grateful to Sitta von Reden and her team for the invitation to Freiburg. This paper has profited from the critical feedback of Lara Fabian and Eli Weaverdyck (Freiburg); Rebecca Henzel, Lennart Kruijjer, and Suzan van de Velde (Leiden); as well as Anna Collar (Southampton), Vito Messina (Turin), Martin Pitts (Exeter), and Astrid van Oyen (then Cornell). It has been written in the framework of the NWO VICI project *Innovating Objects: The Impact of Global Connections and the Formation of the Roman Empire*, which I coordinated at Leiden University during the period of 2016–2022, as well as the Anchoring Innovation Gravitation Grant research agenda of OIKOS, the National Research School in Classical Studies, supported by the Dutch Ministry of Education, Culture, and Science (OCW) through the Dutch Research Council (NWO). Marike van Aerde kindly corrected the English text.

from the Central Plains, should be regarded as groundbreaking in this respect.² At Shimao, archaeologists unearthed a very large settlement of about 400 ha with walls and gates built of stone. From the palatial center, characterized by a large stepped pyramid of seventy meters' height, not only elite mansions have been preserved but also traces of industrial craft production. According to the most recent interpretations, we deal here with the capital of China's most important transregional polity at the time, characterized by a careful civic planning that combined political, religious, and military functions in relation to each other. Shimao was the economic center of an immense Chinese exchange system that also tapped into the existing Afro-Eurasian trade networks. The site is dated to the centuries around 2000 BCE; more than half a millennium before developments in the Central Plains gained momentum. This is especially remarkable because it seems as though a series of core symbols for the "birth" of Chinese civilization, such as the jade scepter, was already present here. Most scholarship has regarded it as merely a "zone of contact" between the Central Plains and the steppe so far, but it looks like it was here, in fact, that the symbolism for what would much later develop as "classical" Chinese was already developed. Instead of *peripheral*, therefore, Shimao might in fact have been *central* to innovations within Chinese culture by laying the foundation for the Yellow River traditions of the Central Plains half a millennium later.

This example illustrates the methodological and theoretical problems that come with the notion of center–periphery, at a glance. While they are intended and used as defining characteristics, in fact they are *relative* terms. This has been acknowledged for a long time already.³ Peripheries can be centers and centers can be peripheries; this is a matter of development throughout time, as the example above has illustrated, and it is likewise a matter of perspective. To evoke yet another historical example to illustrate the latter point, one can picture "the Roman world" as an entity in itself, with the Italic peninsula and the city of Rome at the center and, hence, peripheries located along the borders of the map—as our traditional maps of the Roman Empire still look. One can also, quite literally, turn around the perspective by 90 degrees and picture "the Roman world" as a polycentric periphery, that is, with "Europe as a

2 See Jaang et al. 2018, on which this section is based. The title of their article is "When Peripheries Were Centres."

3 Dietler 2005, 59: "[...] the very use of the analytical concepts of 'center' and 'periphery' poses some alarming dangers in that it all too easily melds the physical and the metaphysical into a reified landscape of hierarchical binary difference. In other words, it risks reproducing a set of linkages among binary oppositions (center/periphery; civilization/barbarism; dynamic/static; modern/premodern) that were fundamental to colonialist ideology and then smuggling them into a stable geography of power that cartographically inscribes and naturalizes these metaphysical constructs." See also Fabian 2021.

small cape of Asia,” to use the famous phrase by Paul Valéry.⁴ (Fig. 1) This difference is significant for our historical and archaeological interpretations.

All across western Afro-Eurasia, the Hellenistic–Roman era has been pivotal in terms of expanding geographies and heightened cultural interconnectedness.⁵ These are accompanied by dramatic changes as well as enduring innovations in all domains of society. One can think here about breakthroughs in medicine (the development of the idea of humorism); geometry and mathematics (the invention of the number 0); technology (the invention of wind mills and water-clocks); economy (full monetary consolidation and new accounting machines); architecture (the application of concrete and the use of aqueducts); religion (the coming into being of monotheism); literature (the establishment of the literary genres we still have today); and philosophy and the arts. This essay explores how to account for all this intensification and innovation in western Afro-Eurasia historically and, moreover, how to investigate it methodologically.⁶ Following from the above observations, I first pay attention to chronological developments, the *longue durée*, in this respect. The analysis also tries to shift the topographical perspective by not focusing on a single site or region but, rather, by regarding western Afro-Eurasia in the Hellenistic–Roman period as one world, stretching from the Atlantic in the west to the landmass between the Caspian Sea and the Persian Gulf in the east, and by discussing how we can study that network on such a (transregional or global) scale.

To investigate the relation between intensification on the one hand and innovation, which I understand as a change in behavior or interactions brought about by the emergence of something new, on the other, I will draw on the concept of network power.⁷ I define this, after David Singh Grewal (2008), as the power of the network to generate innovations that subsequently become novel standards, enabling further cooperation among the members of that network. The novel standards for large parts of western Afro-Eurasia in this period are traditionally labelled as “Hellenistic” and “Roman.” By using these terms, it is (implicitly) assumed that the innovative power of these new standards has something to do with their being “Hellenistic” or “Roman” in

4 For a brief characterization of the Roman world as a polycentric periphery of Afro-Eurasia, see Nederveen-Pieterse 2015. For Valéry’s concept, see Wesseling 2011.

5 By “western Afro-Eurasia” I mean (in the context of this article) the wider Mediterranean, North Africa, and the Near East. For the concept of Afro-Eurasia itself and the importance of using it, see Dunn 2010.

6 “Intensification” I define as a process of increase, of stepping up, of drawing more things together with a more extreme result. For my definition of “innovation,” see below.

7 There is an important difference between invention, the creation of something new, and innovation, which is a change in behavior or interactions brought about by the invention or, in other words, its societal impact. See also the conclusion to this essay. I will not deal with the (difficult) difference between change and innovation. As can be deduced from my definitions, in this essay, the terms are used in a rather overlapping way.



Fig. 1 Rotated map of (central and western) Afro-Eurasia.

the first place; hence an interpretation of change and innovation in society in terms of “Hellenization” or “Romanization.” This essay uses the idea of network power to try and locate that agency elsewhere. Its main methodological point, therefore, focuses on the premise that the network itself is responsible for change, innovation, and the emergence of new standards in the first place. The network is, thus, the prerequisite and backdrop across which innovations happen and the force that propagates them as new standards—and this is a recursive process. This is possible, I will argue, because networks overcome distance and establish new relations by drawing things together.⁸ Innovation is created out of the novel combinations that networks are able to provide. Some of these innovations develop into new standards that become instruments in overcoming distance and drawing things together in their turn. Often, this is a process of unintended consequences.⁹

A network is a system of connections that consists of entities (nodes) and the links between them. These links can be particularly close (strong ties) or less so (weak ties).¹⁰ Developing a “network perspective” on western Afro-Eurasia during the Hellenistic–Roman era, as this essay sets out to do, is appropriate for two reasons, one historical and the other methodological. The historical justification lies in the fact that the region is characterized by an ever-increasing intensification, present already in the previous millennium—a process that I will summarize in the next section, entitled *Histories of Encounters*. The methodological importance is evident from the large amount of scholarly attention for networks and (social) network analysis in our field as well as related concepts such as connectivity and globalization, especially in the last decade or so. Those ideas I will discuss in a subsequent section, in relation to each other. With these two important considerations in place, I will present the concept of network power in greater depth, drawing on both a modern and a historical example to illustrate its ability for sociocultural analysis. This potential will also be illustrated by discussing several different examples of intensification and innovation in western Afro-Eurasia during the Hellenistic–Roman era in the next section, concerning the Kharga oasis in Egypt, the city of Gordion in Asia Minor, the Palmyrene and Indian Ocean trade networks in Asia, the region of Commagene at the Euphrates, and the city of Seleucia-at-the-Tigris in present-day Iraq (Fig. 2). All these examples I only present as short “vignettes” on the basis of the research of others, and only as generalized illustrations of how relations between intensification and innovation might look

8 Following Latour 1986 and, more generally, Latour 2005 with Ahrweiler and Keane 2013 for innovation networks as methodology. For innovation understood as such a process of bricolage, see Versluys and Sluiter 2023.

9 For this notion that purposive social action (always) has unanticipated consequences, see (already!) Merton 1936.

10 Definitions after Collar 2021, a recent, concise overview of networks as a methodological tool (with a focus on material culture) with all previous bibliography.

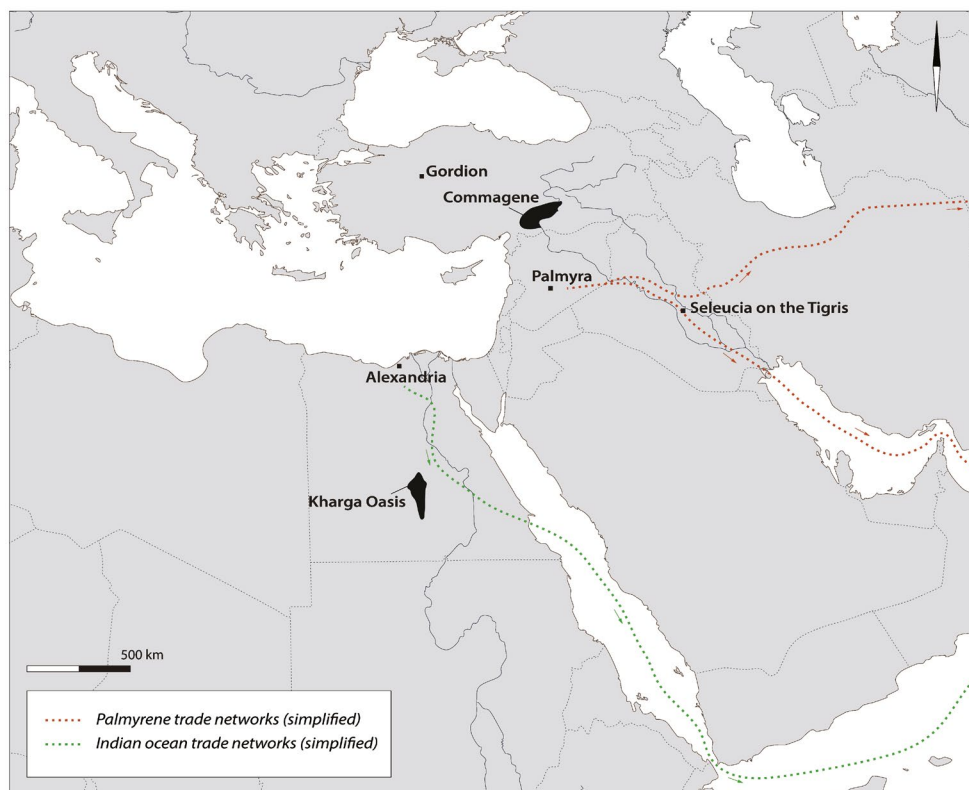


Fig. 2 The various sites and regions discussed in the text together with the Palmyrene and Indian Ocean trade networks.

in this period. The conclusion will return to the notion of center–periphery, but now from a *longue durée* and network perspective, and ask why innovation often can be found in those places in the network that are characterized by what were traditionally called peripheries or borderlands, those enigmatic places “in between.”

Histories of Encounters

The Shimao example briefly discussed above illustrates the importance of looking at long-term developments when trying to understand innovation and the role of certain sites or regions within that process. What seem to be distinct and independent, local or regional developments in topographical units X or Y often, from a *longue durée*

perspective, turn out to be histories of encounters instead. This is often observed across western Afro-Eurasia during the Hellenistic–Roman era as well. The economic and cultural explosion that started in the third century BCE was part of an intensification of connectivity that had at least started out in the Bronze Age, a millennium earlier.¹¹ It is, therefore, important to briefly summarize this development. To that end, I focus on the interplay between local, regional, and global as well as the *awareness* of that process, as both will prove to be important to understand the intensification and innovation characterizing western Afro-Eurasia in the Hellenistic–Roman period.¹²

The period around 1500 BCE witnessed a proliferation of networks (systems of connections), all across Afro-Eurasia.¹³ The direct linkage between and among regions became so frequent that many scholars consider the middle of the second millennium BCE to be a turning point in terms of increasing connectivity.¹⁴ For instance, in Egypt, the main political power in this period for western Afro-Eurasia, the Delta breaks away from the Nile Valley and becomes part of the interplay between the Near East, the Mediterranean, and North Africa much more intensively than ever before. This resulted in more maritime contacts and increased interaction in the eastern part of the Mediterranean in particular. Silver and copper were the main commodities in this period, and we witness a growing social complexity in exactly those sites and regions that functioned as nodal positions in this network, such as Crete and Cyprus. The trade of metals and other raw materials was supplemented by manufactured objects, such as metalwork and textiles, but also perfumed oils and their containers. The (local) styles in which these objects were made soon started influencing each other. As a result, we now see the development of a transregional (global) style in luxury goods that brings together a wide variety of stylistic elements, perhaps even boasting its cosmopolitanism.¹⁵ Mental maps seem to have been changing as a result of increasing connectivity, as might be deduced from Egyptian literature of the period that shows that conceptions of the *kosmos* begin to move beyond the horizon of the Nile valley for the first time in Egypt's cultural history.¹⁶ The collapse of this highly connected world towards the end of the second millennium BCE shows that interconnections had reached the level

11 For this “explosion” of the Hellenistic–Roman era (and its qualification as such), see Purcell 2014, 72.

12 For a comparable perspective, see Altaweel and Squitieri 2018, a volume that extensively draws on globalization theory by putting the notion of universalism at the core of its analysis. The remainder of this section summarizes and rephrases a more extensive paragraph on the issue published as part of Versluys 2022.

13 For transregional routes and material flows in the period before (c. 3000–1500 BCE), see Wilkinson 2014.

14 As Broodbank 2013, a history of the Mediterranean up to the emergence of the classical world in terms of globalization.

15 As Feldman 2006.

16 Assmann 2010, Chapter 1 for changes in Egyptian conceptions of the world from this perspective.

at which trouble could spread with alarming speed.¹⁷ Centralized palace economies made way for more volatile, maritime trading practices, a process accompanied by a surge of innovations in maritime technology. The content and character of the network changed, and there certainly was political fragmentation and economic recession in some regions—though high mobility continued to play a role as well. This circulation of goods characteristic of the Bronze Age is followed by an ever-more-intense circulation of goods and people in the Iron Age. These people established permanent and culturally distinct settlements in distant regions. In particular, what scholars call the Phoenician and Greek “colonizations” stand out in this respect.¹⁸ First Phoenician and subsequently Greek maritime entrepreneurs and fortune seekers soon connected almost the entire Mediterranean, thus tapping into comparable Atlantic and Central Asian circuits of exchange along the way. They developed new homes away from home to maintain and articulate new nodes in the network or to safeguard their commodities. Not only did this bring the “global” to a “local” level—think about the foundation of Carthage on the coast of North Africa by already cosmopolitan Phoenicians from the Levant around 800 BCE—but, simultaneously, ever more localities were making up the global network as a result.

One of the impacts of these processes was the emergence of something resembling a pan-western Afro-Eurasian cosmogony.¹⁹ As with many other innovations from this period, including such crucial developments as urbanization and writing, this process can only be properly understood in terms of the interplay between the local, the regional and the global—or, in other words, as the impact of globalization.²⁰ The emergence of “universal” empires—perhaps the neo-Assyrian Empire can already be characterized as such, and certainly the Achaemenid Commonwealth—increased connectivity again further and in different ways, in several respects.²¹ In a general way, empires facilitate exchange and, thus, increase connectivity. Moreover, imperialism forced the authorities to map their empire in order to administer it. Production of knowledge about the world, the space inhabited and ruled, moved center-stage as a result. Through its infrastructure and collection of geographical data, the Persian court probably had a better overview of what the world looked like than anyone ever

17 Phrasing and analysis after Broodbank 2013, Chapter 9.

18 There were, of course, (forced) movements of people in previous periods as well, but not as frequent and intense. For the many important differences between the ancient phenomenon and our modern understanding of the concept of colonization, see Hurst and Owen 2005. Note that also other communities, for instance, the Etruscans, were highly mobile.

19 See Bonnet and Bricault 2016, an important analysis of first-millennium-BCE religions from the Mediterranean, the Near East and Egypt from the perspective of interaction and connectivity.

20 For an analysis of the Iron Age Mediterranean in these terms, see Hodos 2020.

21 For universal empire as idea and reality in Eurasian antiquity and beyond, see Bang and Kolodziejczyk 2012.

had before. It seems that, around the middle of the first millennium BCE, a decisive breakthrough in geographical knowledge materialized exactly there. Comparative history projects, such as those by Herodotos, are part of this emergence of a global consciousness.²² Herodotos' world encompassed Mesopotamia as well as North Africa; Spain as well as the steppes of southern Russia; Egypt and Aethiopia as well as the Danube region and the Celts.

The conquests of Alexander the Great, heir of the Achaemenids, brought nothing new structurally, yet they enhanced and intensified globalization processes and their impact even more. The perspective of the world as a single entity was further refined: Persian documentation provided Alexander with vital information, to which he, in turn, added by means of the *bematisteis* (land surveyors) in his consortium.²³ The conquests of Alexander, therefore, were as much the reflection of Afro-Eurasian connectivity as they constituted yet another catalyst for its intensification. Myth slowly began to give way to ethnography in order to explain world history and would, in the Hellenistic period, develop into something resembling a comparative scientific project, as exemplified by the library of Alexandria and many other centers of knowledge.²⁴ As a result, mapping culture and defining cultural identity in terms of the new, global network can be seen everywhere. It is at the heart of the cultural formation of, for instance, the Seleucid Empire, in which the unique and unprecedented decision is taken to introduce a linear and transcendent concept of (global) time.²⁵ Such a strategy is testament to the impact of globalization processes. The same seems to be true for all the major third-century-BCE cultural canonizations that were written to define what exactly constitutes local in this globalizing world.²⁶ These histories were an attempt

22 Pradeau 2015 for the concept of “mondialisation” in antiquity. For Herodotos as world historian representing the anthropological turn, see Stuurman 2008.

23 See Gehrke 2016, who talks about the “revolution” of Alexander the Great, rightly underlining its Achaemenid foundation as well as the importance of the period around 500 BCE, for this conceptual change.

24 This was, of course, never a process of replacing but rather of subjoining. Apollonius of Rhodes' *Argonautica*, written around 270 BCE, is an illustrative example, as it brings together myth, ethnography, and the knowledge of the Alexandrian library and *mouseion*. Its goal is, as Thalmann 2011 has argued, to create a set of traditions in order to explore the *oikumene* and understand it in terms of Hellenism.

25 As demonstrated in Kosmin 2018.

26 These “national histories” were compiled for Egypt by a priest from Heliopolis called Manetho; for central Asia by the Chaldean astronomer-priest Berossos; and for Phoenicia by the Hellenistic source of Philo of Byblos, while the Hebrew canonization of the Torah in this period represents the canonization of the history of the land Israel. Cf. Quinn 2018, 145, who understands these as attempts to impress the new Hellenistic overlords; I see this somewhat more broadly as a form of *glocalization*, the refractions of the global through the local and the resulting ability of individuals to operate across different scales, from the local to the regional to the global. Globalization is always glocalization, see Versluys 2025b.

to redefine and bring forward the local in what was becoming a truly global world, and, hence, they were all were dealing with the same intellectual project: mapping their own (local and regional) place within what had become a global space. All this resulted, towards ca. 200 BCE, in what we might call a global cultural horizon. When, in 154 BCE, Celtic tribes from the Iberian Peninsula negotiated with the Romans as part of a long series of hostile conflicts, their spokesman argued that the fact that the inhabitants of Segeda had fortified their city in defence of Roman aggression was not contrary to earlier treaties signed nor, he adds, “the common practice of mankind.”²⁷ Such a formulation and its use in this context clearly show the awareness of being part of the global network of the *oikumene*.

Western Afro-Eurasia during the Hellenistic–Roman era, therefore, is the outcome, or formative effect, of a history of encounters. The intensification and innovation characterizing the period can, therefore, only be properly understood against this background.²⁸ The early Hellenistic period seems to be the “experimental” phase in which most of the real inventions take place. Through the relative stability brought about by huge empires that would slowly come to dominate the largest part of Afro-Eurasia in, first, the later Hellenistic period (from the Zhou and Qin dynasties in China via the Maurya and Seleucid Empires to the Ptolemaic eastern Mediterranean) and then the Roman era (from Han China via the Kushan and Parthian Empires to the *Imperium Romanum*), these inventions were distributed as innovations across the entire *oikumene* on an unprecedented scale, thereby, in turn, strengthening intensification once more.

Connectivity, Networks, and Globalization: Some Methodological Considerations

Analytical tools for thinking about the kind of “emergence of the global” as was briefly described and characterized above are still rudimentary.²⁹ We are used to studying cultures in a specific, local context and subsequently analyzing how they dealt with what comes from the outside. This being the case, we immediately evoke a distinction between the local, the regional, and the global—and between Self and Other. In this way, the history and archaeology of western Afro-Eurasia during the Hellenistic–Roman

27 Diodorus 31.39.

28 As so compellingly and convincingly illustrated for late Republican Rome by Moatti 1997.

29 For the utmost importance of having the proper conceptual resources to understand the present and past in truly cosmopolitan terms, see the essay by P. Mishra entitled “Grand Illusions” in *The New York Review* LXVII/18 (2020), 31–32, in which he argues that simply broadening the picture and adding a few unfamiliar names to the analysis is not enough.

era has often become one of dichotomies, for instance, between Greek and non-Greek or Oriental; between Egyptian and (non-Egyptian) Mediterranean or Near Eastern; between Roman and Native; et cetera.³⁰ It is still heavily debated, for instance, whether the city of Susa remained Persian or became Hellenistic; whether the Seleucid Empire was Greek or Oriental; to what extent Palmyra and its religions were Roman or, rather, Parthian; et cetera. As a result, we have created a picture of western Afro-Eurasia during the Hellenistic–Roman era that is hyphenated at best, with Susa being Greco-Persian, the Seleucid Empire being Greco-Oriental, and Palmyra being Romano-Parthian. But how to investigate western Afro-Eurasia in the Hellenistic and Roman period on local, regional, and global scales simultaneously and as the outcome of previous connectivity processes that developed over time?³¹ How to make room in our analyses for something like included alterity in order to move beyond the Self–Other dichotomy?³² How to arrive, in other words, at a de-hyphenated view for western Afro-Eurasia in the Hellenistic–Roman era?³³

A first step in that direction is to regard the concept of connectivity as central to historical analysis. For the Mediterranean, this was exemplified by Horden and Purcell's *Corrupting Sea*, a holistic and long-term history of the Mediterranean that envisions connections and investigates the many regions not only in their own right but also as quintessentially part of the same cultural ecology.³⁴ Although less ambitious and detailed, Altaweel and Squitieri now provide a similar overview and perspective for the Near East.³⁵ Because of this focus, the history of the ancient world becomes less a history of separate containers (Greeks, Romans, Syrians, Phoenicians, Babylonians, Persians, Egyptians, etc.) and more a history of a single reservoir that is variously characterized by flows and blockages integral to the movement of people, ideas, and objects. As a result, concepts such as “crossroads,” “middle ground,” and “hybridity” then start to replace these earlier, separate containers. This is a gain. It is important to realize, however, that every geographical unit or culture is, in one way or another, at

30 See Versluys 2025a for more background and detail.

31 These two questions are equally central to Ma 2015: an exploration of continuity and change at Hellenistic Priene in terms of cultural interaction and conflict, pointing out both the long-term and global nature of these issues.

32 For included alterity, see Dupont 2002.

33 This is something as important for the past as it is for the present; see, for instance, Pitts' *Afro-pean* project (Pitts 2019), which tries to make sense of black identity and experience in Europe from the idea that Africa has, in fact, always been a part of Europe. Instead of the hyphenated Afro-European, therefore, we should talk about *Afropean*, as Pitts proposes.

34 Horden and Purcell 2000, now with Horden and Purcell 2020. See Broodbank 2013 and Hodos 2020 for specific periods of Mediterranean history understood from this perspective as well as Manning 2018 for a focus on its economy.

35 Altaweel and Squitieri 2018, moving towards the impact of connectivity by stressing the notion of universalism.

a crossroads, part of the middle ground, or hybrid, especially in western Afro-Eurasia in the Hellenistic–Roman period. The explanatory power of these terms, therefore, remains limited. A critique on the concept of “middle ground” might illustrate this observation in greater depth. Famously coined by Richard White in his analysis of the Great Lake region between 1650 and 1815, it is now used for antiquity by many scholars, for instance, by Corinne Bonnet in her important studies of Hellenistic Phoenicia and its “multicultural” (religious) character.³⁶ The notion of middle ground moves us towards thinking in terms of interaction and cultural formation *between* distinctly separate regions or cultures. It underlines that cultural formation is a two-way process by definition, in which all involved play a role, and analyzes the essentially negotiated cultural forms that emerge “when two cultures meet.” Its focus on how cultures produce something new together is an important step forward in conceptualizing how culture contact actually works.³⁷ At the same time, however, it could be argued that the concept is limited to the investigation of a context like western Afro-Eurasia during the Hellenistic–Roman era, as contact between many regions and cultures had already been going on rather intensively for a millennium at least, as was illustrated above. Treading the middle ground thus (implicitly) leads us back to think in terms of cultures x and y and the linear relations between them—in other words, the question of what happens “when two cultures meet.” However, in the Hellenistic–Roman era, these cultures had already met a (very) long time before and had started to influence each other from that moment onwards. We do not, therefore, deal so much with the logic of distinct cultures and cultural flows between them but, rather, with the logic of a circular network that had functioned as such for some time already.³⁸ For the Hellenistic–Roman period, therefore, everything is middle ground—and that should be the point of departure for our analyses. Exactly the same critique applies to concepts such as crossroads or hybridity.³⁹ What, in Hellenistic–Roman Afro-Eurasia, is not at the crossroads or hybrid, in one way or another?⁴⁰

36 White 1991; Bonnet 2013; 2015. See also Antonaccio 2013.

37 As can be deduced from the rich analyses in Bonnet 2015.

38 See (already) Andrade 2013, 11–14 for a similar critique. Instead of history, therefore, we rather deal with mnemohistory in this period; see Versluys 2022.

39 Cf. Hoo 2021, 561: “Thus, whereas many research agendas have adopted global mind-sets, expanding in geographical scale to look for connections, their analytical prisms have not.” See Fabian 2021 for the same argument. I argue that “middle ground,” “crossroads,” and “hybridity” are such prisms: they are one step in the right direction but ultimately unsatisfactory, as they continue thinking in terms of cultural containers.

40 The term hybridity is steering interpretations in the wrong direction (that is, back to container thinking) even more strongly because of its biological overtones. As Palmié 2013, 464 rightly remarked: “the question is not *what* is a hybrid, but *when* is a hybrid.” For more critique on hybridity as an interpretative concept, see Versluys 2017, 204–205 and Versluys 2025a.

A second important step, therefore, is to move from connectivity, in general and rather descriptive terms, towards its analysis in terms of networks.⁴¹ We can investigate and specify connectivity by focusing on hubs and their specific place in the network, or we can try and investigate the strength, frequency, content, and directionality of the ties that hold the network together.⁴² Networks allow you to model and better understand complex systems, which can even be explored for temporal networks through time-ordered sequences of graphs over a set of nodes.⁴³ Another form of network analysis is to look at the development of standardized, shared visual languages and other forms of *habitus* along the network and understand ancient societies in terms of such communities of style and practice.⁴⁴ Network analysis, in other words, has the potential to make the notion of connectivity both more specific and explanatory.⁴⁵ Networks are also important when we wish to better understand the spread of innovations. For the Roman period, for instance, Anna Collar has analyzed the spread of the North Syrian storm god Jupiter Dolichenus, named after the site of Doliche in Commagene, in these terms.⁴⁶ On the basis of some 430 inscriptions, scholars are able to document the swift and wide spread of this novel religious phenomenon, from Syria all the way to Scotland. This was traditionally understood in terms of the diffusion of a distinctly Eastern element to the West. Collar, however, convincingly links the success of this innovation to the highly mobile and communicative military network formed by (ethnically very diverse) officers within the Roman army, who took Jupiter Dolichenus all around the Roman world with them. The coming into being of the god itself, moreover, can only be understood as a history of earlier encounters. Jupiter Dolichenus is not a genuine and “authentic” god from the locality of Doliche but, rather, the invention of a tradition based on a variety of translocal, networked developments.⁴⁷ A network approach adds to earlier interpretations the ability to locate the success of this innovation not exclusively in its intrinsic qualities but also, if not mainly, in the social connections between the adherents. The spread of Jupiter Dolichenus is, therefore, not a linear process of diffusion of an original, Oriental element from northern Syria to temperate Europe; it is the western Afro-Eurasian network that is responsible for the “invention” of Jupiter Dolichenus in this particular form, while

41 For network analysis and the ancient world, see Knappett 2011; 2013; 2017; Collar 2013; 2021; Brughmans et al. 2016, all with rich bibliography.

42 Knappett 2017 for the identification of these parameters.

43 Holme and Saramäki 2013. Cf. Ahrweiler and Keane 2013 for innovation networks.

44 Feldman 2014 for communities of style and practice. Cf. Hoo 2021, 562: “[...] instead of tracing foreign sameness [...] against the backdrop of political networks and trade relations between societies and peoples, we should shift our units of analysis to translocal *contexts, situations* and *practices* across Eurasia.”

45 As illustrated by van Oyen 2016b through the concept of relational constellations.

46 Collar 2013, whose conclusions I follow here. Cf. Blömer 2017.

47 For this complicated and fascinating story, see extensively Blömer 2017.

it is network power that makes the god into a new standard in (large) parts of that world. Both the emergence and the spread of this religious innovation can, therefore, only be understood in terms of network circularity. Exactly the same argument has been made for the Egyptian–Hellenistic–Roman goddess Isis.⁴⁸

Globalization, lastly, focuses on the impact of all this (intense) connectivity and circularity.⁴⁹ The concept is, therefore, eminently suited for studying and gaining a better understanding of a quintessentially cosmopolitan world like western Afro-Eurasia in the Hellenistic–Roman period, as well as its cultural products.⁵⁰ It is a fruitful methodology because it invites us to take intense connectivity and multiculturalism as points of departure for our analyses. Our interpretations thus shift from *inter*-cultural connectivity, with related acculturation questions of who influences whom and to what extent, towards *intra*-cultural connectivity, which regards all these cultural traditions as relative and fluid while simultaneously and fundamentally being integrally part of a single, Afro-Eurasian container.⁵¹ Intra-cultural connectivity still asks questions of connectivity and networks, but it focuses on their inherent functioning and impact. In addition to documenting the network and the functioning of its connectivity, therefore, the intra-cultural connectivity central to globalization focuses on how and why, in what particular way, people, groups, or cultures *embed* the global diversity that they were confronted with. Subsequently, it studies the impact of their engagement with this global diversity in the short and the long run by inquiring what new cultural constellations and innovations it resulted in.⁵² Globalization, therefore, has ample attention for local and regional differences regarding connectedness as well as the fact that networks are (always) manipulated to create or reinforce power relations.⁵³ Departing from the idea of intense connectivity within a global network, it investigates a specific and finite number of connections that make up the regional or local constellation. Indeed, everything is global, but in very different and differing ways.

48 See Versluys 2015, now with the important essay by Mazurek 2020, tellingly entitled “Fashioning a Global Goddess.”

49 Globalization is not a concept exclusively tied up with modernity and is now much used to analyze the connected past as well; see Jennings 2011, Pitts and Versluys 2015, Hodos et. al. 2017, Boivin and Frachetti 2018, and Versluys 2021 and 2025b for this and theoretical background.

50 For globalization as a framework to understand Afro-Eurasia in the Hellenistic–Roman period specifically, see, for instance, Brosseder and Miller 2018, who talk about “[...] a motley matrix of distinct local cultures that are interconnected through their differential engagements with components of a ‘global’ vocabulary of culture” as well as Hoo 2021, who defines it as “a multi-dimensional and *trans-scalar* set of processes of ever-increasing connectivities between different localities.”

51 For intra-cultural connectivity, see Versluys 2017 and Pitts 2019.

52 This argument is further developed and illustrated in Versluys 2025a.

53 As the “vignettes” discussed below will illustrate. For globalization theory being strong in analyzing the local as well as dealing with asymmetric power relations, see Versluys 2021 and 2025b.

In summary, connectivity—the release from proximity—is a crucially important point of departure in understanding what drives world history.⁵⁴ It often is used, however, as a rather general and descriptive term alone. Network analysis, in whatever form, adds a methodology to connectivity. Globalization, on the other hand, adds a focus on increase, impact and experience to both connectivity and networks. It has, therefore, not been the intention of this section to describe and understand the notions of connectivity, networks, and globalization as separate methodologies. On the contrary, although they are often used for a different focus in practice, they are, in my view, overlapping, as they all aim for the same goal: to understand how “the career of [...] webs of communication and interaction constitutes the overarching structure of human history”⁵⁵ and, thus, to arrive at a de-hyphenated reconstruction of the (ancient) world.⁵⁶ This overlap is illustrated by the notion of network power, in which all these characteristics come together. It is to network power, therefore, that we will now turn.

What Is Network Power?

In this essay, the notion of network power is generally used in accordance with D. S. Grewal’s 2008 book entitled *Network Power: The Social Dynamics of Globalization*.⁵⁷ Here, I briefly summarize the main elements of his ideas concerning what he calls “the social dynamics of Globalization processes” and discuss two examples of it. Grewal follows sociologists such as Anthony Giddens and Roland Robertson by putting “time–space compression” at the heart of his understanding of globalization.⁵⁸ That

54 The notion “release from proximity” I borrow from Knappett 2011, who borrowed it from the prehistoric archaeologist Clive Gamble (see most extensively Gamble 2007, now with Gamble et al. 2014), who borrowed it from evolutionary anthropology. The term is meant to indicate that the ability to transcend the face-to-face and to interact across distances, to think and act across spatial scales, is what makes the human species distinctly human.

55 To use the point of departure of the bird’s-eye view of world history presented by McNeill and McNeill 2003, who argue that such a perspective forces the researcher to consider archaeological, genetic, linguistic, biological, environmental, medical, and documentary evidence in relation, as already illustrated in McNeill 1992.

56 Within our field, therefore, the three discussions could profit more from one another (and in terms of methodology as well), as their common goal is to arrive at an understanding of the connected past with all its local, regional, and global complexity; cf. Brughmans et al. 2016. Giessmann 2014 is an original cultural history of networks and network thinking that had already started in antiquity.

57 Grewal 2008.

58 Giddens 1990, 64 sees globalization as a dialectical process and says that it can be defined as “the intensification of worldwide social relations which link distant localities in such a way that

term is meant to indicate that processes of globalization are about changes in global geography and the experience (or awareness) thereof in the first place.⁵⁹ This time–space compression enables, but does not provide, new methods of social coordination. That coordination, Grewal argues, “is achieved in the adoption of shared standards that allow global social networks to emerge following the technological changes that bring people in contact with one another.”⁶⁰ Propelled by people’s desire for access to (members of) a network, these standards tend to spread. Their distribution, made possible by innovation, often results in more innovation—for the contexts in which they are applied and, as a result, also for the standards themselves. The greater the number of people using a standard, the more valuable it becomes for others to do the same. Standards thus “[...] have a power that grows in proportion to the size of the network they unite.”⁶¹ Therefore, the idea of network power can explain the coming together of elements as innovation as well as its success: network power understands innovation as the outcome of increasingly shared practices.⁶² Standards often come into being as an unintended consequence, out of a combination of intrinsic and extrinsic reasons. As the network power of a standard grows, however, “the intrinsic reasons why it should be adopted become less important relative to the extrinsic benefits of coordination that the standard can provide: the conventional value of a standard will come to outweigh any intrinsic merits or demerits.”⁶³ Thus new standards are inherently universalizing, not because of what they originally stood for but for what they are able to achieve for new users. The example of Jupiter Dolichenus, briefly mentioned above, is a fine illustration of this for our period; Roman *terra sigillata* is another.⁶⁴ Important properties of the network that make it function as a successful, universalizing new standard include, according to Grewal, availability, compatibility, and what he calls malleability.

local happenings are shaped by events many miles away and vice versa.” Local transformation, therefore, is as much part of globalization as is the extension of connections across time and space. Globalization, in other words, is always *glocalization*. Robertson 1992 stresses the mental processes involved by underlining that globalization is about the intensification of consciousness of the world as a whole. Cf. Pitts and Versluys 2015, 11 also for other definitions in this vein.

59 The latter aspect is important, and it is for that reason that I paid a relatively large amount of attention to it when dealing with the long-term description of increasing connectivity in western Afro-Eurasia up to the period of 200 BCE above. It is clear that conceptions of the globe changed a lot in the centuries around 500 BCE in particular.

60 Grewal 2008, 20.

61 Grewal 2008, 27.

62 See Versluys and Sluiter 2023 for innovation as just such a socially embedded action, a practice, characterized by creative improvisation while being always and inherently inclusive in the geographic, cultural, social, and economic sense of the word.

63 Grewal 2008, 34.

64 For an illuminating analysis of *terra sigillata* in these terms, see van Oyen 2016a.

To provide an example of network power in our present-day world, Grewal discusses the emergence of the global dominance of English.⁶⁵ How is it possible that a single language emerged as an almost universal standard of, in particular, global commerce, governance, and technology? To start with, this has nothing to do with the intrinsic or unique qualities of English. English is an Indo-European language, developed from the patois of Germanic immigrants, fused with Latin and French, using Phoenician letters and Indian numbers, and originally printed and diffused in books produced by moveable type invented in China.⁶⁶ The English language, in other words, is a history of encounters, as all historical phenomena are. There is nothing that makes English inherently better or more efficient as a system of (global) communication—having easier and more logical grammars, other languages might even be more suitable for that purpose. Moreover, English is not the language with the largest population of speakers in absolute numbers worldwide: Mandarin and Spanish can both claim more. While the emergence of English itself was, thus, already a history of various encounters, this also counts for its trajectory towards becoming a universal standard. In that trajectory, many different forms of agency play equal and alternating roles. There is, for instance, force involved with the spread of English within, first, the British Isles and Ireland and, then, the British (English-speaking) colonies around the globe. In colonial India, the English language pushed native education in this particular way in order to create an intermediary (ruling) class. But during the postcolonial period, the spread of English continued, not due to direct (colonial) force but for other reasons. Herewith, another form of power played an important role: the rise of the United States of America as the world's major economy as well as the American origin of many (global) communication technologies. That the United States happened to take over from Britain as a global power, however, was chance: the English language just happened to be at the right place at the right time.⁶⁷ With the current desire of millions of (young) people worldwide to speak English, reason and force seem to coincide. It stands to reason because of the fact that joining this language standard will provide them with more opportunities for global coordination: learning English is investing in your future. English has surpassed “the threshold of inevitability,” however, and therefore represents the force of unification at the very same time—at the expense of other standards.⁶⁸ The most important quality that English nowadays possesses, therefore, is that it is *the* foreign language to learn for a young person looking for “release from proximity” and being ambitious to mark the

65 Grewal 2008, Chapter 3, strongly relying on Crystal 2003.

66 Robertson 2017.

67 If France had been the dominating global power of the second half of the twentieth century, in other words, the global dominance of English would be very different today.

68 Grewal 2008, 78.

future. This has resulted in the circumstance that, worldwide, English is now mostly taught by non-native speakers to other non-native speakers in order to communicate with what are mainly non-native speakers as well. The defining quality of the English language, then, is that it is able to regulate access to a significant and growing network that promises global coordination. Many young people in present day India learn English, a process that includes both reason and force (and tradition). But this force is very different from the one that made (elite) children in India learn English a century ago. A final point of network power, as underlined by Grewal on the basis of this example, is that it is a complex phenomenon and never a zero-sum game. While English is emerging as a global standard in particular spheres, regional languages gain importance at the same time. While some local languages die off because of the power of a global standard, others are strengthened or revived out of the assertion of local identities. Moreover, the network power of English is mirrored by the rise of network power of regional languages such as Hindi, Indonesian, or Arabic, at a different scale and for different audiences. What network power dynamics bring to all of them is change from the outside through the experiences of all the new users.

Although Grewal is clearly (and laudably) aware of the fact that globalization, as a process, is not unique to modernity, his analyses and examples deal with our modern world alone.⁶⁹ For that reason, it is interesting to end this section with a historical case study of what network power entails. This example is based on an article by John Law that deals with the Portuguese conquests of large parts of the world in the sixteenth century.⁷⁰ Law tries to explain the reasons behind Portuguese imperialism, and he does so by means of the *longue durée* network perspective argued for above. He therefore focuses not on individual explorers or conquests, as is traditionally done, but rather on how and why the network changed in relation to what came before—and what those changes resulted in. I also advance this particular example because, in his analysis, Law focuses on how the new phenomenon called Portuguese imperialism came about in the first place, prior to the moment it was up and running as the new standard. As has been described in the introduction of this essay, the network is both: the backdrop through and across which innovations happen as well as the force that propagates them as new standards. Grewal analyzes the second aspect of this recursive process in particular; Law has more attention for the first, and he thereby stresses the key role of long-distance control. Let us, therefore, briefly follow his argument.

69 Which is only logical given his scholarly background and career. Note, however, his explicit remark at the outset of his work (Grewal 2008, 17): “The failure to grasp the long history of globalization epitomizes an ongoing failure to understand its real significance today.”

70 Law 1984. Where the emergence of the global dominance of English as analyzed by Grewal and briefly summarized above might be usefully compared to the functioning of Greek and of Latin in western Afro-Eurasia in the Hellenistic–Roman period, Law’s analysis of Portuguese imperialism might be instructive for discussions on the nature of Hellenistic and Roman forms of imperialism.

The Portuguese vessel called the *carreira* (carrack) played an important role in the emergence of Portuguese imperialism. *Carreira* were bulky ships with large castles and several sails, able to carry a large amount of cargo. These vessels were able to do many new things in what quickly became a larger world. What kind of affordances enabled them to play such an important role in long-distance control? Law distinguishes several: 1. they could not easily be taken by smaller boats, which was the traditional mode of attack in Asia; 2. they did not have to make many stops during their voyages, which enabled them to cover vast distances relatively quickly; 3. their different and differing sails enabled them to navigate a wide range of different conditions, which allowed the Portuguese to handle all kinds of winds; 4. they needed relatively small crews but these men had to work together intensively, which made each ship independent and self-containing; and lastly, 5. they were able to return, more or less according to schedule, to their point of origin, which enabled Europe and Asia to become part of a single system in a structured way. It is only in combination with all the other elements in the network, human and non-human, that the carracks were able to play their part in Portuguese long-distance control, Law maintains. Examples of the human sort include, of course, the crews sailing the ships, but also Portuguese bureaucrats managing the trade system. An example of the non-human is provided by the cannons that the carracks were able to transport to Asia and use themselves. Law rightly underlines that what he calls *compliance*, the way in which all elements fit together, is essential to the functioning of Portuguese long-distance control. It is only through the compliance of these human and non-human elements that all the preconditions for long-distance control on a global level—such as mobility, durability, the capacity to exercise force, and the ability to return—are achieved. Innovations are often the result of attempts at compliance, this important process of coming together.⁷¹ Take sixteenth-century navigation. A century earlier, there were two different systems of navigation in Europe: a Mediterranean one and a north-western European one. These were dissimilar, as they were characterized by different instruments and practices, developed according to different environmental circumstances. To make long-distance control possible, the Portuguese had to leave their European comfort zone and develop a method of navigation fit for their new, global context. They did so by making the determination of latitude dependent on solar and stellar observations. This was not something new in itself, but it had never been applied in this particular way before. The success of this novel, globally applicable method relied, Law maintains, on its simplicity. It assumed that most navigators had little grasp of the principles of astronomy. The method thus concerned simple rules, simple data, and simple instruments that could be handled through training. It was, in other words, innovation, not invention; capitalizing on the work of previous generations while bringing those elements together and using

71 What we now probably would call entanglement; see Hodder 2012.

them in a different way. This, then, enabled the development of other new elements for the network, such as written or printed texts and handbooks with instructions for navigation. It is important to realize that the power of the Portuguese mariners depended entirely on this.⁷² In this way, both the structure and the mariner were the embodiment of numerous previous efforts. Portuguese imperialism, Law concludes, therefore relied on the bringing together of the right documents, the right devices, and (drilled) people in order to maintain long-distance control. Portuguese power was the ability to bring all these elements together in the right place, as allies to each other, in a manner of speaking. Portuguese imperialism, in this view, is an example of sixteenth-century globalization as a constantly improvising attempt to overcome and control distance. The continuation and increase of globalization processes implies that there is ever more distance to be controlled. This presupposes ever more and diverse allies as part of an ever-more-complicated network.⁷³ It also implies ever more innovations, understood as the coming together of already existing elements in new combinations.⁷⁴

Law's methodological conclusion of his analysis of Portuguese imperialism is as follows:

Of course kings and merchants appear in the story. But so too do sailors and astronomers, navigators and soldiers of fortune, astrolabes and astronomical tables, vessels and ports of call and last but not least, the winds and currents that lay between Lisbon and Calicut. [...] if these attempts at long-distance control are to be understood then it is not only necessary to develop a form of analysis handling the social, the technological, the natural and the rest with equal facility, though this is essential. It is also necessary that the approach should be capable of making sense of the way in which these are fitted together.⁷⁵

It is exactly these kinds of analyses, I argue, that we now should try and develop for (western) Afro-Eurasia in the Hellenistic–Roman era. Above, it has been argued that the first millennium BCE is characterized by an ever-increasing proliferation of

72 Law 1984, 253: “The structure of which they formed a part was, of course, all important. The Portuguese mariner, on a vessel with a canon, was indeed powerful. The same mariner, shipwrecked on a beach, was pathetically weak.”

73 Law 1984, 235: “[...] it is not possible to understand this expansion unless the technological, the economic, the political, the social and the natural are all seen as interrelated,” as the Portuguese effort “involved the mobilization and combination of elements from each of these categories.”

74 For such a view on innovation as a continuous process of bricolage, see Versluys and Sluiter 2023 and below.

75 Law 1984, 235.

networks through which emerges, in the period around 200 BCE, something of a global cultural horizon. New ways of accumulating time and space, of drawing things together, of compliance, are the outcome of all this globalization—and are responsible for many of the innovations of the Hellenistic–Roman period. The processes we traditionally call “Hellenization” and “Romanization,” therefore, are successful and innovative, as they provide new standards and new methods of social coordination for all involved. Their power is located in the network that they represent—a network that apparently performs well in terms of availability, compatibility, and malleability. Their emergence itself also emanated from that network, as a novel drawing together and mobilization of (a selection of) its various elements. The case studies in the section that follows, which are all attempts at long-distance control and the results thereof in terms of compliance, aim to illustrate this perspective.

The Innovation of Network Power in Ancient Western Afro-Eurasia

This section briefly presents, as short “vignettes” and on the basis of research by other scholars, several examples of intensification and innovation in Hellenistic Afro-Eurasia in terms of network power, as outlined above. In line with the *longue durée* perspective argued for in this essay, the first examples, dealing with Kharga and Gordion, already start in the Achaemenid period, during which similar developments had already been initiated.

What happens to the Kharga oasis in Egypt when it comes under Persian rule? A recent analysis by Henry Colburn demonstrates that the Achaemenid Empire had a profound impact on the landscapes and societies of the Kharga Oasis, though not in the way we usually imagine imperialism to work.⁷⁶ Many things in Kharga were transformed by the introduction of novel agricultural economies, namely, qanat structures and irrigation technology from Iran. This resulted in unprecedented levels of agricultural production, the successful introduction of new crops such as olives and castor beans, and population growth. The enduring success of this new agricultural economy, way into the Hellenistic period, was possible because the oasis was better connected than ever before. Through its inclusion in the Achaemenid Empire, it became connected with a larger network in both a metaphorical and a literal sense, for instance, through the Persian road system and the fact that a lingua franca (Aramaic) had now come into being to facilitate (trade) communication. Colburn, therefore,

76 Colburn 2018; now with Colburn 2019.

rightly talks about the many unintended consequences of the globalizing strategies of the Persians. Another example of this is the use of Greek silver coins as a novelty to the oasis and its economy—and a testimony to the role it now plays in larger networks of trade. Power relations between the new Persian overlords and the local population were certainly asymmetric. At the same time, there seems to have been little tension between these global aspects from a wider, Achaemenid world and local traditions. Although there undoubtedly will have been cultural conflicts, this should probably not be our primary point of departure in understanding the somewhat-longer-term impact of Achaemenid imperialism.⁷⁷ This is underlined by the fact that the Persians actively made use of many local strategies, native to the region for a long time already, such as the building of temples with the intention of linking the Oasis to the Nile valley. In terms of the intensification of production, mobility, and exchange, Achaemenid imperialism in Kharga was all about new connections and the possibilities these connections provided in the first place. It was also about Persian power, of course, but that power does not seem to have functioned as a stagnant factor for Kharga but, rather, as a catalyst, at least in terms of intensification and innovation. Networks are always manipulated, so it seems, to create or reinforce power relations, from which some profit and (many) others not. What is telling about this case study, then, is that the Achaemenid “center” is not profiting at the expense of the Kharga “periphery.” Network power, Grewal says, “emerges with the possibility of social coordination via new global standards, made possible by the compression of space and imagination that technological advances have brought”—and that is exactly what we seem to be witnessing in Kharga.⁷⁸

It is important to realize that globalization always implies (the possibility of) de-globalization. Although the overall trend of the first millennium BCE is one of increasing connectivity, this is certainly not a linear process that effects all localities in the same way. Network power, in other words, can result in both intensification and innovation, as well as stagnation and decline. The latter is what we seem to be witnessing in Hellenistic Gordion.⁷⁹ The network of the Achaemenid Empire initially provided Gordion with levels of intensification and innovation comparable to the

77 It thus seems useful to understand and study imperialism as a form of globalization as well. Although not dealing with networks and globalization explicitly, this is implied by a recent volume on imperial landscapes, deconstructing earlier notions of empire and imperialism in its conclusion (Düring and Stek 2018). Using the concept of empire as an interpretative tool only works, it is maintained, when you acknowledge “their intrinsic heterogeneity and dynamic nature” (351) and “the large diversity of trajectories and developments” characterizing them. As a result, “the idea of imperial power as it is often understood must be modified” (354). For Roman imperialism as globalization, see Versluys 2021.

78 Grewal 2008, 4.

79 Dusinger 2019, on which this part of the section is based.

Kharga oasis because of the development of its sheep and goat husbandry that it enabled. The long-term impact of that network power, however, was very different than in Kharga. This is due to the fact that the conquests of Alexander the Great changed the strength, frequency, content, and directionality of the ties that held the Persian period network together.⁸⁰ Through Alexander's conquests, the Persian (road) infrastructure in Asia Minor collapsed, and for Gordion, this had many unintended consequences. As a result, for instance, imports from Egypt, Mesopotamia, Iran, and Afghanistan ceased completely. Even the very popular Greek-style vessels in Gordion were no longer imported from the Greek mainland but had to be locally produced. Overall, we see a decrease in population and a less intensive use of the surrounding landscape in Hellenistic Gordion when compared to the Achaemenid period: sheep and goat husbandry might have declined by sixty to seventy percent. This must have played a role in the demise of administrative practices and the political–military significance of the site, which was furthermore affected by the arrival of Galatians around the 260s BCE. After its conquest by the Roman consul Gnaeus Manlius Vulso in 189 BCE, Gordion was abandoned. It seems, therefore, that network power miserly took from Gordion what it had generously granted earlier. As analyzed by Elspeth Dusinberre:

Thus it seems that Gordion telescoped as a site almost as soon as Alexander left and the imperial infrastructure collapsed. Its population plummeted. The administrative structure of the site altered drastically. Major changes in land use were accompanied by major changes in domestic and public architecture. Large-scale public or administrative buildings fell out of use entirely, as did various industrial areas, to be replaced by simple domestic structures with no evidence for larger scale urban planning. People moved up onto the Citadel Mound and traded along the local river rather than traversing the elaborate Achaemenid-era road system. [...] The archaeological record at Gordion combines with other historical and archaeological evidence to demonstrate the local response to the breakdown of infrastructure after the end of the Achaemenid Empire. The imperial collapse had a major impact on people's lives at this site.⁸¹

Although not addressing the concept explicitly, the work by Eivind Heldaas Seland has already strongly illustrated the potential of network analysis in terms of network power, for instance, when he contrasts the network of the Indian Ocean trade with

80 See Knappett 2017 and above for the identification of these parameters.

81 Dusinberre 2019, 127. To put it, with Grewal 2008, 72, in somewhat more general terms: "The force of unification varies across time based on contingent historical factors."

that of Palmyra.⁸² Where the examples of Kharga and Gordion illustrate the (possible) effects of network power in a very general way, Seland is able to specify the nature of this power. The western Indian Ocean was, he underlines, “the central hub of ancient world trade. Chinese silk, Indian spices and textiles, African ivory, Arabian aromatics, Afghan gems, Egyptian glass, Syrian wine and Spanish silver were among the many commodities that crossed the ocean in the hold of ships from all coasts of the Arabian Sea, Persian/Arabian Gulf, and Red Sea.”⁸³ This was made possible by the monsoon winds and resulted in trading diasporas, whose members were experts on home and host cultures and could provide infrastructure. Trust was an important factor in this. On the basis of the *Periplus of the Erythraean Sea*, a report on Indian Ocean trade and navigation written by a merchant from Egypt in the middle of the first century CE in *koine* Greek, Seland is able to outline this trade network and to identify the nodes, what he calls clusters (groups of nodes), and the links connecting the nodes. The existence of a *lingua franca* was a *conditio sine qua non* for a proper functioning of these networks; this was Greek for the Egyptian network, Greek or Aramaic in the case of the Mesopotamian network, South Arabian in the case of Yemen, and Sanskrit and two other languages for India. As such, these networks were relatively weak; but this weakness explains also their flexibility and, hence, their success.⁸⁴ Seland contrasts this with the Palmyrene network in the first three centuries CE. This is rather different because institutions such as kinship, citizenship, and tribal affiliation were of great importance, both abroad and at home. This was, therefore, an ethnically based network of closed access and strong cohesion—thus illustrative of what you could call “the strength of strong ties.” This did not prevent the Palmyrenes from developing strong cross-cultural skills, of course, but in character, their network was a very different one. Their strong ties and their dependence on a single, Syrian hub made them vulnerable, however: after the sack of the city by Aurelian in 272–273 CE, their network did not recover. This must be understood in terms of the degree of integration into the global network and the nature of that integration. Important properties of a network to make it successful, according to Grewal, are availability, compatibility, and malleability. The weak ties of the network of the Indian Ocean trade performed these tasks better, apparently, than the strong ties of the Palmyran trade network, at least in the long run.

Next, we turn from the effects of networks and their nature towards the question of innovation more specifically by briefly looking at Hellenistic–Roman Commagene

82 Seland 2013, basing himself on textual sources in the first place. Note that in reality these networks were (partly) overlapping, both being part of the terrestrial and maritime trading routes from China to the Mediterranean we call the Silk Roads (cf. Burgersdijk 2019).

83 Seland 2013, 373.

84 What is called, after Granovetter 1973, the strength of weak ties.

and the changes created by new standards and new ways of social coordination there. If there is one region traditionally considered to be peripheral, it certainly is Commagene, at the Euphrates in northern Syria. This qualification was never meant in a positive way, and this specific (de)valuation of the region was seen as related to (the lack of) processes of intensification and innovation.⁸⁵ Recent research on Hellenistic Commagene, however, now comes to an almost opposite conclusion and understands the area as one of those nodes in the Hellenistic world where new and original sociocultural phenomena were created.⁸⁶ The dynastic project of Antiochos I, well known from Nemrud Dağ and other monuments, is a prime example of this. None of the elements that make up Antiochos I's project and its visual language is unique, novel, or even original. They were taken from a standard, almost Afro-Eurasian-wide repertoire—and in terms of Hellenistic dynastic representation, many of these elements already had crossed “the threshold of inevitability” in the period before. The only thing that can be described as unique is the way they were put together within the Commagenean context.⁸⁷ By virtue of doing so, Antiochos I's project, a local *cq.* regional constellation emerging from a global network, was highly innovative in many respects.⁸⁸ The original juxtaposing and blending of Hellenism and Persianism in a novel visual language, for instance, can be regarded as such. However, it did not develop into a new standard; the Commagenean innovation brought about by Antiochos I by bringing together different elements from large parts of Afro-Eurasia was not taken up throughout the network from which it was created. Was it not available, compatible, or malleable enough? It is interesting to note that other Commagenean inventions, however, were successfully perceived and taken up in the network. It has been argued, for instance, that the program of Agrippa's Pantheon in Rome was inspired and influenced by the religious innovations of the Antiochan project. The cult of Mithras, which, with its distinctive mix of Persian and Greco-Roman aspects, perhaps came into being in first-century-BCE Commagene, might also be an example of a successful Commagenean innovation. Another case in point is the cult of Jupiter Dolichenus, already mentioned above. In this case, too, elements suggestive of various cultural traditions were made into a composite novel, and this innovation successfully developed into imperial religion through network power. In a similar vein, the emergence of the *dexiosis* reliefs—with the heads of the figures in profile while the torsos are displayed frontally—has been suggested to be a first step towards the “hieratic frontality” that would characterize later developments

85 Hellenistic–Roman Commagene can often be seen characterized as “at the periphery of the Hellenistic world” or “a small state lost in the hinterland”; see Versluys 2017, Chapter 1.

86 Versluys 2017, on which this part of the section is based, now with Blömer et al. 2021.

87 We deal, in other words, with innovation, not invention.

88 It is striking that the outcome of this strategy of eclecticism has no real parallels at the time. It is possible, therefore, that Antiochos I purposefully sought to create a result that was unique. If that is the case, this strategy could be described as innovative eclecticism.



Fig. 3 Nemrud Dağ, West Terrace, dexiosis stele showing the king with Apollo-Mithras, current state (left) and as originally preserved (right).

in Syrian sculpture.⁸⁹ If we can really characterize the Antiochan idea of a pantheon, Mithras, Iupiter Dolichenus, and the semi-frontal *dexiosis* reliefs as Commagenean novelties and catalysts for further developments, this would indeed suggest that the area was a privileged place for successful innovation through network power. Before trying to account for the “centrality” of this “periphery” in this respect, however, let us finally move to what undoubtedly was a major center of Afro-Eurasia: the city of Seleucia on the Tigris (Fig. 3).

Seleucia was located on the western bank of the Tigris, around 500 kilometers from the Persian Gulf, at a point where the Tigris and Euphrates almost meet. It was one of the true *cosmopoleis* of the ancient world. Founded by Seleukos I in the fourth century BCE, on the principal road that led from Babylon into Iran, it flourished early and became a royal residence as well as an administrative center. Conquered by the Parthians in 129 BCE, the city continued to flourish into the second century CE. Its position was first taken over by the nearby city of Ctesiphon, which had already

89 For all these examples and their bibliography, see Versluys 2017, 249–254.

been founded by the Parthians and later became the capital of the Sassanians, and subsequently Bagdad.⁹⁰ Seleucia was strategically located in terms of connectivity. The city was difficult to defend because it was located in between everything—the north–south routes and the east–west connections, as well as being positioned along the Euphrates. It was a hub that relied on the network and its power more than a position that was strategic in military terms. In that respect, the *Naarmalcha* plays an important role: this is a large canal or system of canals linking the Euphrates with the Tigris. It seems that only in the Hellenistic period were all kinds of different methods of water management that had developed over the course of the first millennium really made into a system. The success of Seleucia-on-the-Tigris depended on this innovation.⁹¹ The foundation of Seleucia by Seleukos I thus well fitted ongoing long-term developments in the region. He was keen to follow the network and its presumed power and, of course, increasingly developed it in doing so. Seleucia probably also lost its function as central hub because the network changed.⁹² After the Roman conquest and the Roman consolidation of the borders of the empire, Seleucia was suddenly no longer strategically situated “in between” everything but, instead, at the outskirts of the Parthian Empire. What the unintended consequences of the globalizing strategies of the Hellenistic and Parthian Empires had first brought to Seleucia was now taken from the city; comparable to what happened in Gordion and in the case of the Palmyrene network.⁹³

Moving from the network itself to network power in terms of innovation, we could briefly look at what is probably the most famous object from Seleucia: a bronze statue, smaller than life-size, portraying a “Weary Herakles” (Fig. 4).⁹⁴ At first glance, it clearly reproduces a well-known Lysippan prototype, the so-called Herakles Farnese, which was very popular throughout the Hellenistic world. As such, the Herakles from Seleucia has traditionally been understood as a token of the “Greekness” of the city. When observed carefully, however, processes of local appropriation are clearly visible: the Greek hero, resting on his club, reveals peculiar features that testify to creative appropriation and transformation in the local context. A bilingual inscription in Greek and Parthian incised on the statue’s thighs tells us that the statue was transported to

90 This seems to be related to a shift in gravity from the Euphrates to the Tigris for reasons of water management; a development that is, in fact, comparable to how Seleucia itself had taken over its strategic position from Babylon.

91 It might be possible that the invention, in the Hellenistic period, of hydraulic machines like the *noria* enabled Seleukos I to shift the point of gravity from the Euphrates to the Tigris, where there were more options for agriculture.

92 I follow the analysis of Weyland 2019, on which this idea is based.

93 Additionally, it seems that the Tigris changed its course and irrigation had to shift eastwards. As a result, Seleucia was suddenly located on the wrong side of the river.

94 For this object and the analysis below, see Messina and Versluys 2021, on which this part of the section is based.

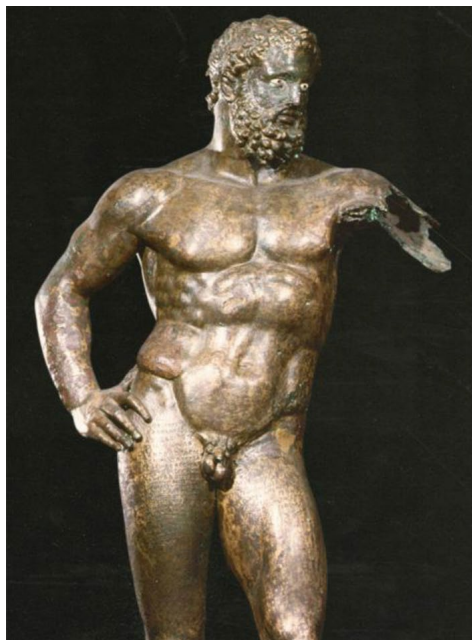


Fig. 4 “Weary Herakles” from Seleucia, also known as the Herakles of Mesene.

Seleucia from the region of Mesene (on the Persian Gulf) as spoils of war by the Arsacid King Volagases IV. In this remarkable inscription, dated to the second half of the second century CE, the statue is identified as both Herakles (in Greek) and Verethraghna (in Parthian). Terracotta figurines found at Seleucia and dated to the final centuries BCE already include smaller-sized reproductions of the “Weary Herakles,” however, and we may therefore conclude that the Lysippan prototype was known and used at that time. Besides the religious appropriation of the Herakles Farnese as the Parthian Verethraghna in the second century CE as attested by the epigraphic record, there are more creative appropriations that make our Herakles into a Mesopotamian object rather than “a Greek statue in Seleucia.” The second is the fact that the Herakles from Seleucia

is rather smaller than bronze statues from the Mediterranean usually are. This ties in with the local tradition of placing statues of this height in the niches of temples. Local *habitus* also becomes clear, thirdly, from *how* the Lysippan model is reworked: Herakles places his hand on his side and not behind his back—where his hand usually is, as Herakles is supposed to be hiding the apples of the Hesperides. Moreover, instead of looking down, as the Herakles Farnese does, the Seleucia Herakles looks around and seems, in fact, not weary at all. The statue thus seems to be made for a local way of viewing, so to speak, to be placed in a niche in a temple and not to be appreciated in the round, as the Herakles Farnese explicitly was. The fourth and final indication concerns the materiality of the object: comparable statues from the Mediterranean are, in this period, usually made of an alloy, with lead being added to the bronze. Here, no lead is used but, rather, a small amount of silver. The ivory inlay of the eyes, moreover, points in the direction of local, Near Eastern traditions as well. We thus seem to deal here with network circularity instead of the “Hellenization” or “Romanization” of Seleucia: the bronze statue is a specifically Mesopotamian reworking that is global and local at the same time. It is the result of intense connectivity within a global network and the local constellation that testifies to a specific and finite number of connections within that network. As innovation, it also profited from the power of

the network: these types of Herakles were made in terracotta soon after and developed into something of a new standard.

Conclusion: One World Is Not Enough

Decades ago, world historian William McNeill was already arguing that regions “on the edge” were not peripheral, in the literal sense of that word, at all but, instead, constituted the world’s most dynamic and innovative factors.⁹⁵ The example of the site of Shimao at the start of this essay effectively illustrated that point. We have seen, however, that notions such as center and periphery, edge, crossroads, or middle ground are, in fact, *relative* terms that depend on developments throughout time as well as on the topographical perspectives used. As such, their explanatory value is limited, especially for the period from the middle of the first millennium BCE onwards. Instead, I have argued, we should approach connectivity as a point of departure for our historical analyses of that global world and add networks and globalization as methodologies, with the intent of understanding their impact in terms of network power. From this perspective, we can rephrase the observation by McNeill through the following questions: what is the relation between networks and innovation in terms of network power? How to explain the relation between the intensification brought about by globalization and innovation? Why are certain nodes more important than others in terms of innovation?

This essay has discussed, in a very general way, some examples of intensification and innovation in western Afro-Eurasia in the Hellenistic–Roman period from a long-term perspective. It has simultaneously explored the related notions of connectivity, networks, and globalization as methodological tools to investigate such changes. To better understand the relation between intensification and innovation, the idea of networks and network power has proved to be most useful. Networks overcome distance, forge new relations, and draw things together. Change and innovation is created out of the elements that networks draw together and the novel combinations they allow for, as (in particular) the examples concerning Kharga, Commagene, and Seleucia have illustrated.⁹⁶ Some of these develop into new standards that, in their turn, both strengthen and widen the network further. The many changes in western Afro-Eurasia in the Hellenistic–Roman era, traditionally described in terms of “Hellenization” and “Romanization,” can usefully be redefined in such terms of network

95 McNeill 1992.

96 Already Law 1984 and Latour 1986. This is also the conclusion of Ahrweiler and Keane 2013.

power.⁹⁷ The network is, thus, the prerequisite for these innovations to happen as well as the force that propagates them as new standards. As this is a recursive process, the intensification characterizing the first millennium BCE saw ever more space being overcome; ever more things were drawn together, which resulted in ever more new combinations that ultimately led to ever more change and innovations. This is how, in very general terms, the relation between intensification, globalization, and innovation can be explained, with innovation distinctly being understood from what is called a use-centered perspective.⁹⁸ But why, then, are certain nodes more important than others in terms of innovation?

In his brilliant book on the patterns of history (*Why the West Rules—For Now*), Ian Morris has proposed that, while geography drives social development and explains the cultural differences in the world—biology and sociology explaining all the global similarities—it is social development that determines what geography means.⁹⁹ This point of departure equally demands investigation of the relative importance and success of certain localities, or nodes, in relation to one another and as part of a global network. Morris remarks that successes in terms of innovation are contingent and often happen when, as a result of the intensification of connectivity, things do not go as planned.¹⁰⁰

As social development rises, cores expand, sometimes through migration and sometimes through copying or independent innovation by neighbors. Techniques that worked well in an older core [...] spread into new societies and new environments. Sometimes such techniques flourished in the new settings; sometimes they just muddled along; and sometimes they needed huge modifications to work at all. Odd as it may seem, the biggest advances in social development often come in places where methods imported or copied from a more developed core do not work very well. Sometimes this is because the struggle to adapt old methods to new environments forces people to make breakthroughs; sometimes it is because geographical factors that do not matter much at one stage of social development matter much more at another.¹⁰¹

The various historical examples discussed in this article—ranging from prehistoric China via the case-studies concerning western Afro-Eurasia in the Achaemenid,

97 Larger and larger networks are beneficial, as they increase the possibilities for the identification of new functionalities and new problem-solving capacities; see Lane et al. 2009.

98 For such a perspective, which focuses not on the newness of inventions but on their impact as innovations, as this essay has done, see Edgerton 2006; Lane et al. 2009; and Versluys and Sluiter 2023 (all with abundant bibliography).

99 Morris 2010, Introduction.

100 What has been defined as “unintended consequences” above.

101 Morris 2010, 33.

Hellenistic, and Roman era to sixteenth-century Portuguese imperialism and the emergence of English as a global language in our present-day world—underline his observation that innovations are often the (unintended) result of things coming together. Those places in the network where many *different* things come together, therefore, potentially have the widest range of possibilities for innovation through compliance. This might explain why being “on the edge” or “in between” could be fruitful for innovation as a more (culturally) diverse range of elements can be expected to be available in those nodes of the network in particular, with strategies of compliance necessarily developing into a prominent part of the local *habitus*. Within ecological studies, this idea of innovative liminality is addressed through the concept of the *ecotone*, which is the interface region between two different ecosystems, for instance, a forest and a grassland. Such ecotones were traditionally considered marginal areas, in the sense that they would be about the meeting of the two neighboring ecosystems alone. There are interesting parallels here with the way in which regions “in between” were traditionally considered in our field as well.¹⁰² Ecotones turn out to be very interesting in terms of innovation, however. Not only are they characterized by a greater quantity and density of species, they also contain elements of both the bordering ecosystems as well as organisms that are typical for and restricted to the ecotone. They are biodiversity hotspots. Ecotones are, thus, more than the sum of their parts and characterized by what you could call a surplus effect, being more diverse and sophisticated than their neighboring ecosystems.¹⁰³

This essay has argued that the human drive to be released from proximity is crucial in understanding what makes world history and has illustrated that for western Afro-Eurasia in the Hellenistic–Roman era in particular. Let us finally and briefly look at why this might be the case. Why is it that “the career of [...] webs of communication and interaction constitutes the overarching structure of human history” in the first place?¹⁰⁴ Why, in other words, is it that the process of globalization seems to drive and shape human evolution from its earliest beginnings? This might be related to the hardware that makes us human: the human species is a runaway species.¹⁰⁵ When your brain gets used to something, it displays less and less response each time it encounters this particular

102 Cf. Fabian 2021 and above.

103 The idea of ecotones dates back to the beginnings of the nineteenth century, when Frederic Clements first described ecotones as zones of tension with greater productivity. On ecotones with this emphasis, see Kark 2013 with earlier literature. On the idea of ecotones as historical methodology, see Gillis 2014.

104 McNeill and McNeill 2003 and above.

105 For this brief afterthought, I will solely base myself on Brandt and Eagleman 2017 and not go into the debate. For the same story but from a different perspective, see Gamble et al. 2014, who maintain that it was the need for humans to live in ever-larger groups and to maintain social relationships over ever-greater distances that drove the enlargement of the human brain and the development of the human mind. Creating larger social networks would imply bigger

element. The more familiar something is, the less neural energy we spend on it; this is beneficial for humans as an energy-saving strategy. At the very same time, however, the brain strives to incorporate new facts to update its model of the world and gets excited by these updates. The brain, in other words, seeks novelty and has a constant thirst for the new—something that can be demonstrated through our neurotransmitter systems, where those involved with “reward” are tied to the level of “surprise.” This is why we talk about “the shock of the new”; and who, indeed, does not know the satisfaction of engaging with objects, ideas, or people they had never encountered before?¹⁰⁶ Repetition is needed to save energy but does not lead to invention; for invention and innovation, we have to engage with the new. Human evolution seems to be a trade-off between these two fundamentals: too much predictability and we tune out; too much surprise and we become disoriented. Successful innovation, therefore, is a form of mediated behavior that lives between the two—and is, therefore, always what you could call anchored innovation.¹⁰⁷ Innovation occurs when forces align and things converge.¹⁰⁸ It is, therefore, plain wrong to associate innovation with originality, as we often do in our modern culture, with its idea of the “genius inventor” who creates from scratch.¹⁰⁹ The originality of innovation lies in the bringing together of elements and making these work for your own purposes. Innovation, therefore, is the absorbing of the new into your nervous system and manipulate it to create possible futures. As Brandt and Eagleman put it: “[...] we are food processors into which the world is fed, and out of which something new emerges.”¹¹⁰ Human evolution, therefore, is a story of the continuous processing of the new for which we have the cognitive software available, in terms of our capacity to bend, break, or blend the new. These mental processes, enabled by our brain capacities in a variety of ways, as Brandt and Eagleman illustrate, allow us to change the new from Other into Self and make it predictable.¹¹¹ “Bending” concerns the makeover or remodeling of an existing prototype; “breaking” is the creation of something new that is assembled out of the fragments of something that was taken apart; “blending” concerns the combination of two or more sources in novel ways. All three strategies are modes of compliance. Humans are continuously creative and innovative. The intensification of connectivity (globalization) has, over time, resulted in ever more

brains and the development of new socializing abilities; a relation between intensification and change or innovation they define as “thinking big.”

106 Though see Edgerton 2006.

107 See Versluys and Sluiter 2023 for the notion of anchoring innovation. The fact that designers always try to make distinctly new products look “strangely familiar” (both new and old at the same time) is an example hereof; see Brandt and Eagleman 2017, 23.

108 Innovation only occurs in networks, as Ahrweiler and Keane 2013 write. Steve Jobs underlined this by maintaining that “creativity is just connecting things,” cf. Brandt and Eagleman 2017, 25.

109 Edgerton 2016 for this critique in particular.

110 Brandt and Eagleman 2017, 46.

111 Brandt and Eagleman 2017, 55–104.

newness for our brains to digest. This has produced increasingly faster innovations. It is often maintained that it took humans eleven millennia to get from the agricultural revolution to the industrial revolution and that, from that moment onwards, the time between major innovations shrank dramatically. First-millennium-BCE western Afro-Eurasia, and its Hellenistic–Roman period in particular, holds a remarkable and, in this respect, underexplored place as part of that development.

Figure Credits

- Fig. 1, 2 Figures by the author
 Fig. 3 Photo: Forschungsstelle Asia Minor, Münster, with permission
 Fig. 4 Photo: © Archive of the CRAFT (picture by H. Stierlin), with permission

References

- Ahrweiler, P. and M. Keane. 2013. "Innovation Networks." *Mind & Society* 12: 73–90.
- Altaweel, M. and A. Squitieri. 2018. *Revolutionizing a World: From Small States to Universalism in the Pre-Islamic Near East*. London: University College of London Press.
- Andrade, N.J. 2013. *Syrian Identity in the Greco-Roman World*. Cambridge, UK: Cambridge University Press.
- Antonaccio, C.M. 2013. "Networking the Middle Ground? The Greek Diaspora, Tenth to Fifth Century BC." *Archaeological Review from Cambridge* 28 (1): 237–251.
- Assmann, J. 2010. *Religio Duplex. Ägyptische Mysterien und europäische Aufklärung*. Berlin: Verlag der Weltreligionen.
- Bang, P. and D. Kolodziejczyk, eds. 2012. *Universal Empire: A Comparative Approach to Imperial Culture and Representation in Eurasian History*. Cambridge, UK: Cambridge University Press.
- Belvedere, O. and J. Bergemann. 2021. *Romanisation between Colonization and Globalisation*. Palermo: Palermo University Press.
- Bianchetti, S., M.R. Cataudelly, and H.-J. Gehrke. 2016. *Brill's Companion to Ancient Geography*. Leiden: Brill.
- Blömer, M. 2017. "Revival or Reinvention? Local Cults and Their Iconographies in Roman Syria." *Religion in the Roman Empire* 3: 344–365.
- Blömer, M., S. Riedel, M.J. Versluys, and E. Winter, eds. 2020. *Common Dwelling Place of All the Gods: Hellenistic Commagene in its Local, Regional and Global Eurasian Context*. Stuttgart: Franz Steiner Verlag.
- Boivin, N. and M.D. Frachetti, eds. 2018. *Globalization in Prehistory: Contact, Exchange and 'People without History'*. Cambridge, UK: Cambridge University Press.
- Bonnet, C. 2013. "The Religious Life in Hellenistic Phoenicia: 'Middle Ground' and New Agencies." In *The Individual in the Religions of the Ancient Mediterranean*, edited by J. Rüpke, 41–57. Oxford: Oxford University Press.
- . 2015. *Les enfants de Cadmos: le paysage religieux de la Phénicie hellénistique*. Paris: De Boccard.

- Bonnet, C. and L. Bricault. 2016. *Quand les dieux voyagent. Cultes et mythes en ovement dans l'espace méditerranéen antique*. Geneva: Labor et Fides.
- Brandt, A. and D. Eagleman. 2017. *The Runaway Species: How Human Creativity Remakes the World*. Edinburgh: Canongate Books.
- Broodbank, C. 2013. *The Making of the Middle Sea: A History of the Mediterranean from the Beginning to the Emergence of the Classical World*. London: Thames & Hudson.
- Brosseder, U. and B. K. Miller. 2018. "Global Networks and Local Agents in the Iron Age Eurasian Steppe." In *Globalization in Prehistory: Contact, Exchange and 'People without History'*, edited by N. Boivin and M. D. Frachetti, 162–183. Cambridge, UK: Cambridge University Press.
- Brughmans, T., Collar, A., and F. Coward. 2016. *The Connected Past: Challenges to Network Studies in Archaeology and History*. Oxford: Oxford University Press.
- Burgersdijk, D. 2019. "Palmyra on the Silk Road: Terrestrial and Maritime Trading Routes from China to the Mediterranean." *Talanta* 51: 246–257.
- Chandrasekaran, S. and A. Kouremenos. 2015. *Continuity and Destruction in the Greek East: The Transformation of Monumental Space from the Hellenistic Period to Late Antiquity*. Oxford: BAR Publishing.
- Colburn, H. 2018. "Pioneers of the Western Desert: The Kharga Oasis in the Achaemenid Empire." In *The Archaeology of Imperial Landscapes: A Comparative Study of Empires in the Ancient Near East and Mediterranean World*, edited by B. S. Düring and T. D. Stek, 86–114. Cambridge, UK: Cambridge University Press.
- Colburn, H. 2019. *Archaeology of Empire in Achaemenid Egypt*. Edinburgh: Edinburgh University Press.
- Collar, A. 2013. *Religious Networks in the Roman Empire: The Spread of New Ideas*. Cambridge: Cambridge University Press.
- . 2021. "Networks, Connectivity and Material Culture." In *New Approaches to Ancient Material Culture in the Greek & Roman World*, edited by C. Cooper, 47–62. Leiden: Brill.
- Cooper, C. 2021. *New Approaches to Ancient Material Culture in the Greek & Roman World*. Leiden: Brill.
- Crystal, D. 2003. *English as a Global Language*. Cambridge, UK: Cambridge University Press.
- Dietler, M. 2005. "The Archaeology of Colonization and the Colonization of Archaeology: Theoretical Challenges from an Ancient Mediterranean Encounter." In *The Archaeology of Colonial Encounters: Comparative Perspectives*, edited by G. Stein, 33–68. Santa Fe, NM: School of American Research Press.
- Dunn, R. 2010. "Afro-Eurasia." In *Berkshire Encyclopedia of World History*, edited by W. H. McNeill, sv. Great Barrington, MA: Berkshire Publishing Group.
- Dupont, F. 2002. "Rome ou l'altérité incluse." *Rue Descartes* 37: 41–54.
- Düring, B. S. and T. D. Stek. 2018. *The Archaeology of Imperial Landscapes: A Comparative Study of Empires in the Ancient Near East and Mediterranean World*. Cambridge, UK: Cambridge University Press.
- Dusinberre, E. 2019. "The Collapse of Empire at Gordion in the Transition from the Achaemenid to the Hellenistic World." *Anatolian Studies* 69: 109–132.
- Edgerton, D. 2006. *The Shock of the Old: Technology and Global History since 1900*. London: Profile Books.
- Fabian, L. 2021. "Beyond and Yet In-between: The Caucasus and the Hellenistic *Oikumene*." In *Common Dwelling Place of All the Gods: Hellenistic Commagene in its Local, Regional and Global Eurasian Context*, edited by M. Blömer, S. Riedel, M. J. Versluys, and E. Winter, 357–380. Stuttgart: Franz Steiner Verlag.
- Feldman, M. 2006. *Diplomacy by Design: Luxury Arts and an "International Style" in the Ancient Near East, 1400–1200 BCE*. Chicago, IL: University of Chicago Press.
- . 2014. *Communities of Style: Portable Luxury Arts, Identity, and Collective Memory in*

- the Iron Age Levant*. Chicago, IL: University of Chicago Press.
- Gamble, C. 2007. *Origins and Revolutions: Human Identity in Earliest Prehistory*. Cambridge, UK: Cambridge University Press.
- Gamble, C., J. Gowlett, and R. Dunbar. 2014. *Thinking Big: How the Evolution of Social Life Shaped the Human Mind*. London: Thames & Hudson.
- Gehrke, H.-J. 2016. "The 'Revolution' of Alexander the Great: Old and New in the World's View." In *Brill's Companion to Ancient Geography*, edited by S. Bianchetti, M. R. Cataudelly, and H.-J. Gehrke, 78–97. Leiden: Brill.
- Giddens, A. 1990. *The Consequences of Modernity*. Stanford, CA: Stanford University Press.
- Giessmann, S. 2014. *Die Verbundenheit der Dinge. Eine Kulturgeschichte der Netze und Netzwerke*. Berlin: Kadmos.
- Gillis, J. R. 2014. "Not Continents in Miniature: Islands as Ecotones." *Island Studies Journal* 9 (1): 155–166.
- Granovetter, M. S. 1973. "The Strength of Weak Ties." *American Journal of Sociology* 78 (6): 1360–1380.
- Grewal, D. S. 2008. *Network Power: The Social Dynamics of Globalization*. New Haven, CT: Yale University Press.
- Hodder, I. 2012. *Entangled: An Archaeology of the Relationships between Humans and Things*. Malden, MA: Wiley-Blackwell.
- Hodos, T. 2020. *The Archaeology of the Mediterranean Iron Age*. Cambridge, UK: Cambridge University Press.
- Hodos, T., A. Geurds, P. Lane, I. Lilley, M. Pitts, G. Shelach, M. Stark, and M. J. Versluys. 2017. *The Routledge Handbook of Archaeology and Globalisation*. London: Routledge.
- Holme, P. and J. Saramäki. 2013. *Temporal Networks: Understanding Complex Systems*. Berlin: Springer.
- Hoo, M. 2021. "Globalization and Interpreting Visual Culture." In *The Graeco-Bactrian and Indo-Greek World*, edited by R. Mairs, 553–569. London: Routledge.
- Horden, N. and P. Purcell. 2000. *The Corrupting Sea: A Study of Mediterranean History*. Malden, MA: Blackwell.
- . 2020. *The Boundless Sea: Writing Mediterranean History*. London: Routledge.
- Hursts, H. and S. Owen, eds. 2005. *Ancient Colonizations: Analogy, Similarity, Difference*. London: Duckworth.
- Jaang, L., Z. Sun, J. Shao, and M. Li. 2018. "When Peripheries Were Centers: A Preliminary Study of the Shimaocentered Polity in the Loess Highland, China." *Antiquity* 92 (364): 1008–1022.
- Jennings, J. 2011. *Globalizations and the Ancient World*. Cambridge, UK: Cambridge University Press.
- Kark, S. 2013. "Effects of Ecotones on Biodiversity." In *Encyclopedia of Biodiversity*, vol. 3, edited by S. A. Levin, 142–148. Waltham.
- Knappett, C. 2011. *An Archaeology of Interaction: Network Perspectives on Material Culture and Society*. Oxford: Oxford University Press.
- . 2013. *Network Analysis in Archaeology: New Approaches to Regional Interaction*. Oxford: Oxford University Press.
- . 2017. "Globalization, Connectivities and Networks: An Archaeological Perspective." In *The Routledge Handbook of Globalisation and Archaeology*, edited by T. Hodos, with A. Geurds, P. Lane, I. Lilley, M. Pitts, G. Shelach, M. Stark, and M. J. Versluys, 29–41. London: Routledge.
- Kosmin, P. J. 2018. *Time and its Adversaries in the Seleucid Empire*. Cambridge, MA: Harvard University Press.
- Kouremenos, A. and J. M. Gordon. 2020. *Mediterranean Archaeologies of Insularity in an Age of Globalization*. Oxford: Oxbow Books.
- Kuklick, H. 1986. *Knowledge and Society: Studies in the Sociology of Culture Past and Present*. Greenwich: JAI Press.
- Lane, D., D. Pumain, S. Van der Leeuw, and G. West. 2009. *Complexity Perspectives on Innovation and Social Change*. Berlin: Springer.

- Latour, B. 1986. "Visualization and Cognition: Drawing Things Together." In *Knowledge and Society: Studies in the Sociology of Culture Past and Present*, edited by H. Kuklick, 1–40. Greenwich: JAI Press.
- . 2005. *Reassembling the Social: An Introduction to Actor-Network-Theory*. Oxford: Oxford University Press.
- Law, J. 1984. "On the Methods of Long-Distance Control: Vessels, Navigation and the Portuguese Route to India." *The Sociological Review* 32 (1): 234–263.
- Ma, J. 2015. "Space and/as Conflict in the Hellenistic Period." In *Continuity and Destruction in the Greek East: The Transformation of Monumental Space from the Hellenistic Period to Late Antiquity*, edited by S. Chandrasekaran and A. Kouremenos, 13–25. Oxford: BAR Publishing.
- Mairs, R. 2021. *The Graeco-Bactrian and Indo-Greek World*. London: Routledge.
- Manning, J. G. 2018. *The Open Sea: The Economic Life of the Ancient Mediterranean World from the Iron Age to the Rise of Rome*. Princeton, NJ: Princeton University Press.
- Mazurek, L. 2020. "Fashioning a Global Goddess: The Representation of Isis Across Hellenistic Seascapes." In *Mediterranean Archaeologies of Insularity in an Age of Globalization*, edited by A. Kouremenos and J. M. Gordon, 179–207. Oxford: Oxbow Books.
- McNeill, W. H. 1992. *The Global Condition: Conquerors, Catastrophes and Community*. Princeton, NJ: Princeton University Press.
- McNeill, J. R. and W. H. 2003. *The Human Web: A Bird's-eye View of World History*. New York, NY: W. W. Norton.
- Merton, R. K. 1936. "The Unanticipated Consequences of Purposive Social Action." *American Sociological Review* 1: 894–904.
- Messina, V. and M. J. Versluys. 2021. "Greek in Asia: Understanding Hellenism in Susa and Seleucia on the Tigris." In *Persia: Ancient Iran and the Classical World*, edited by J. Spier, T. Potts, and S. E. Cole, 191–197. Los Angeles, CA: J. Paul Getty Museum.
- Moatti, C. 1997. *La raison de Rome. Naissance de l'esprit critique à la fin de la République*. Paris: Seuil.
- Morris, I. 2010. *Why the West Rules—For Now: The Patterns of History and What They Reveal about the Future*. London: Profile books.
- Nederveen-Pieterse, J. 2015. "Ancient Rome and Globalization: Decentring Rome." In *Globalisation and the Roman World: World History, Connectivity and Material Culture*, edited by M. Pitts and M. J. Versluys, 225–239. Cambridge, UK: Cambridge University Press.
- Oyen, A. van. 2016a. *How Things Make History: The Roman Empire and its Terra Sigillata Pottery*. Amsterdam: Amsterdam University Press.
- . 2016b. "Historicizing Material Agency: From Relations to Relational Constellations." *Journal of Archaeological Method & Theory* 23: 354–378.
- Palmié, S. 2013. "Mixed Blessings and Sorrowful Mysteries: Second Thoughts about 'Hybridity'." *Current Anthropology* 54 (4): 463–474.
- Pitts, M. and M. J. Versluys. 2015. *Globalisation and the Roman World: World History, Connectivity and Material Culture*. Cambridge, UK: Cambridge University Press.
- Pradeau, J.-F. 2015. *Gouverner avec le monde: réflexions antiques sur la mondialisation*. Paris: Les Belles Lettres.
- Purcell, N. 2014. "The Ancient Mediterranean." In *A Companion to Mediterranean History*, edited by N. Purcell and S. Kinoshita, 59–76. Malden, MA: Wiley-Blackwell.
- Purcell, N. and S. Kinoshita. 2014. *A Companion to Mediterranean History*. Malden, MA: Wiley-Blackwell.
- Quinn, J. 2018. *In Search of the Phoenicians*. Princeton, NJ: Princeton University Press.
- Raja, R. Forthcoming. *The Oxford Handbook of Syria and the Near East*. Oxford: Oxford University Press.
- Robertson, R. 1992. *Globalization: Social Theory and Global Culture*. London: Sage.
- . 2017. "Globalization Thinking and the Past." In *The Routledge Handbook of*

- Globalisation and Archaeology*, edited by T. Hodos with A. Geurds, P. Lane, I. Lilley, M. Pitts, G. Shelach, M. Stark, and M. J. Versluys, 54–65. London: Routledge.
- Rüpke, J. 2013. *The Individual in the Religions of the Ancient Mediterranean*. Oxford: Oxford University Press.
- Seland, E. H. 2013. “Networks and Social Cohesion in Ancient Indian Ocean Trade: Geography, Ethnicity, Religion.” *Journal of Global History* 8 (3): 373–390.
- Spier, J., T. Potts, and S. E. Cole. 2021. *Persia: Ancient Iran and the Classical World*. Los Angeles, CA: J. Paul Getty Museum.
- Stein, G. 2005. *The Archaeology of Colonial Encounters: Comparative Perspectives*. Santa Fe, NM: School of American Research Press.
- Stuurman, S. 2008. “Herodotus and Sima Qian: History and the Anthropological Turn in Ancient Greece and Han China.” *Journal of World History* 19: 1–40.
- Thalmann, W. G. 2011. *Apollonius of Rhodes and the Spaces of Hellenism*. Oxford: Oxford University Press.
- Versluys, M. J. 2015. “Roman Visual Material Culture as Globalising Koine.” In *Globalisation and the Roman World: World History, Connectivity and Material Culture*, edited by M. Pitts and M. J. Versluys, 141–174. Cambridge: Cambridge University Press.
- . 2017. *Visual Style and Constructing Identity in the Hellenistic World. Nemrud Dağ and Commagene under Antiochos I*. Cambridge, UK: Cambridge University Press.
- . 2021. “Romanisation as a Theory of Friction.” In *Romanisation between Colonization and Globalisation*, edited by O. Belvedere and J. Bergemann, 33–48. Palermo: Palermo University Press.
- . 2022. “Mémoire volontaire? Canonisation as Cultural Innovation in Antiquity.” In *Canonisation as Innovation: Anchoring Cultural Formation in the First Millennium BC*, edited by D. Agut-Labordère and M. J. Versluys, 34–79. Brill: Leiden.
- . 2025a. “Embedding Global Diversity in the Hellenistic and Roman Near East: Setting the Agenda.” In *The Oxford Handbook of the Hellenistic & Roman Near East*, edited by R. Raja, 29–49. Oxford: Oxford University Press.
- . 2025b. “Glocalization, Embedding, Anchoring: on the Cognitive Impact and Experience of Globalization.” *Glocalism. Journal of Culture, Politics and Innovation*. <https://doi.org/10.54103/gjcpi.2025.28513>
- Versluys, M. J. and I. Sluiter. 2023. “Anchoring: A Historical Perspective on Frugal Innovation.” In *Handbook of Frugal Innovation*, edited by A. Leliveld, S. Bhaduri, P. Knorringa, and C. van Beers. London: Edward Elgar Publishers.
- Wesseling, H. 2011. *A Cape of Asia: Essays on European History*. Leiden: Leiden University Press.
- Weyland, R. 2019. *La cité de Séleucie-sur-le-Tigre aux époques séleucide et arsacide*. PhD diss., University of Montreal.
- White, R. 1991. *The Middle Ground: Indians, Empires, and Republics in the Great Lakes Region, 1650–1815*. Cambridge, UK: Cambridge University Press.
- Wilkinson, T. C. 2014. *Tying the Threads of Eurasia: Trans-Regional Routes and Material Flows in Transcaucasia, Eastern Anatolia and Western Central Asia, c. 3000–1500 BC*. Leiden: Sidestone.