

Beyond the Silk Road Metaphor: Transregional Maritime Exchange and Social Transformation in Iron Age Southeast Asia

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Over the past 30 years, intense archaeological research has revealed a great increase in regional and transregional object mobility across the South China Sea during its Iron Age (500 BCE to 500 CE). Some objects had moved from a long distance: intaglios, seals, fine ceramic, glass containers, and gold coins of Mediterranean origin; and large bronzes, mirrors, and lacquerware connected to central East Asia. This evidence has given rise to larger-scale explanations, among which the most prominent has been the growth of (maritime) Silk Road trade. Scholars are divided as to whether the Silk Road is a suitable concept, with some emphasizing its orientalist overtones and colonial baggage and others finding it useful for the investigation of interregional networks trading in silk and other commodities. This paper explores how productive the Silk Road concept or metaphor really is for understanding transregional connectivity and social change in Iron Age Southeast Asia.

Keywords: Frontier zones, trade, trade networks, local elites, Silk Road, Iron Age, Southeast Asia

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Archaeology in Southeast Asia

The history of maritime trade and exchange in Southeast Asia during antiquity is based entirely on archaeological evidence (see Map 1 for sites mentioned in this article).¹ This region saw one of the earliest and geographically far-reaching maritime networks of early societies. Since the Neolithic, metals, prestige goods, and people had moved across very long distances both along the coasts from southern China to the shores of the Gulf of Thailand, and across the insular world of equatorial Asia.² From the beginning of the Iron Age, long-distance exchange increased. Bronze drums, bronze and glass vessels, mirrors, and nephrite jade jewelry spread in quantity from the southern Chinese-Vietnamese and Taiwanese borderlands to mainland and insular Southeast Asia. Large bronzes, lacquerware, and more ordinary pottery typical for Han China traveled to peninsular Thailand and beyond. Also, semi-precious stones beads, glass containers, fine ceramics, and pendants made from Mediterranean coins or their imitations arrived from South Asia.

The great connectivity of Southeast Asia has given rise to several grand narratives. The absence of writing and monumental building in Iron Age Southeast Asia prompted early twentieth-century scholars to suggest that contacts with India and Indian Buddhism from the mid-first century brought civilization to Southeast Asia: urbanism, writing, state structures, and a coherent set of normative ideas.³ Some considered that Indians even colonized Southeast Asia when Buddhism spread eastwards.⁴ Indocentric perspectives of this kind, often inspired by European colonialism and Indian nationalism, were gradually toned down and finally revised by more appropriate theories of transmaritime culture transfers according to which Southeast Asian polities appropriated foreign material culture over long periods of time, selectively, deliberately, and in their own local idioms.⁵ New archaeological finds revealed that socially differentiated polities grew along Southeast Asian coasts and inland several centuries before Indian influence becomes visible. O. W. Wolters suggested, moreover, that Buddhism and Buddhist religious and administrative practices did not take root in Southeast Asia because of their (assumed) cultural superiority but because they were actively received and transformed as suitable instruments for the self-aggrandization of

¹ An excellent tool for historical research on ancient Southeast Asia is Charles F. W. Higham and Nam C. Kim, eds., *The Oxford Handbook of Early Southeast Asia* (Oxford: Oxford University Press, 2022), to whose contributions this paper is much indebted.

² Bérénice Bellina and Ian Glover, "The Archaeology of Early Contact with India and the Mediterranean World, from the Fourth Century BC to the Fourth Century CE," *Southeast Asia: From Prehistory to History*, eds. Ian Glover and Peter Bellwood (London and New York: Routledge Curzon, 2004), 68.

³ Herrmann Kulke "Maritimer Kulturtransfer im Indischen Ozean: Theorien zur 'Indisierung' Südostasiens im 1. Jahrtausend n. Chr." *Saeculum* 56 (2005), S. 173-198; also Bellina and Glover, "Archaeology of Contact," 68-69; both with further literature.

⁴ Kulke, "Kulturtransfer," 176.

⁵ Peter Wheatley, *Nāgara and Commandery: Origins of the Southeast Asian Urban Traditions* (Chicago: University of Chicago, Department of Geography, 1983).

local chiefs in their competition for power.⁶ Kulke and others argued that religious practices, administrative structures, and forms of statehood spread toward Southeast Asia from the northern coasts of the Bay of Bengal and the polities of Sri Lanka that, for centuries, had been in contact with mainland and insular Southeast Asia. They spurred social, political, and economic change further east when they themselves experienced a spurt in urbanization and state formation.⁷



Map 1. South and Southeast Asia with sites mentioned in this article. Map © Peter Palm

A significant increase in archaeological data over the past 20 years together with new scientific analytical methods have yet improved our knowledge of social development in early Southeast Asia. The excavations of the Franco-Thai team in Khao Sam Kaeo and other projects in Thailand, Vietnam, as well as southern China have brought to light new archaeological material that allows us a far more nuanced understanding of social change

⁶ O. W. Wolters, *History, Culture, and Region in Southeast Asian Perspectives* (Singapore: Inst. of Southeast Asian Studies, 1982).

⁷ Kulke, "Kulturtransfer," 188-193.

happening in different regions for different reasons in Southeast Asia during the early Iron Age. Scholars are now able to attribute specific developments and functions of sites and different forms of their participation in exchange networks in the South China Sea and Bay of Bengal.⁸ A great degree of regional social change can now be attributed to local agricultural change, distribution of metals, the spread of metallurgy, population increase, and technology transfers during the late Bronze and early Iron Ages.⁹ There was a growth of moated settlements attributed to population growth and an intensification of rice cultivation in several regions of Southeast Asia, especially in mainland Thailand and the Mekong Delta.¹⁰ Higham observes a “proliferation of new sites” and “evidence of an agricultural revolution based on irrigation and ploughing in fixed rice fields.”¹¹ In many settlements, particular consumption patterns, craft specialization, and new manufacturing techniques can be observed as a consequence.¹² By the turn of the Common Era, the South China Sea coast from central Vietnam to the Thai-Malay Peninsula was dotted with settlements whose elites participated in transregional exchanges of stones, glass, bronze and gold vessels, and ornaments.¹³ In the Red River Delta, the reduction of sea levels over two millennia increased land suitable for agriculture and may have spurred land reclamation and demographic growth.¹⁴ These developments predate the upsurge of Hindu and Buddhist cultural influences in Southeast Asia and suggest that social change was a complex combination of agricultural and technological transformation, demographic growth, and long-distance maritime connectivity.¹⁵

Yet as maritime connectivity plays such a role in Southeast Asian development scenarios,

⁸ Bérénice Bellina, ed., *Khao Sam Kaeo: An Early Port-City between the Indian Ocean and the South China Sea* (Paris: Ecole Française d'Extrême-Orient, 2017); Bérénice Bellina, “Southeast Asian Evidence for Early Maritime Silk Road Exchange and Trade-Related Polities,” *Oxford Handbook*, eds. Higham and Kim, 459-460.

⁹ Charles F. W. Higham, “Social Change in Southeast Asia during the Iron Age,” *Oxford Handbook*, eds. Higham and Kim, 501-515; cf. Peter Bellwood, “From Prehistory to c. 1500 CE,” *The Cambridge History of Southeast Asia*, vol. 1, ed. Nicholas Tarling (Cambridge: Cambridge University Press, 1993) 56-136, esp. 115-126.

¹⁰ Bellwood, “Prehistory,” 120-125; Himanshu P. Ray, *The Archaeology of Seafaring in Ancient South Asia* (Cambridge: Cambridge University Press, 2003); Higham, “Social Change.”

¹¹ Higham, “Social Change,” 501.

¹² Bérénice Bellina, “The Maritime Silk Road’s Ornament Industry: Socio-Political and Cultural Transfers in the South China Seas,” *Cambridge Archaeological Journal* 24 (2014): 345-377; and below.

¹³ Maxim Korolkov, “Southern Sea Ports of the Han Empire: Urbanization and Trade in Coastal Lingnan,” *Handbook of Ancient Afro-Eurasian Economies*, vol. 3, edited by Sitta von Reden (Berlin and Boston: de Gruyter, 2023), 295-337.

¹⁴ Susumu Tanabe, Kazuaki Hori, Yoshiki Saito, Shigeku Haruyama, Vu Van Phai, and Akihisha Kitamura, “Song Hong (Red River) Delta Evolution Related to Millennium-Scale Holocene Sea-Level Changes,” *Quarterly Science Reviews* 22 (2003): 2345–2361; Charles F. Higham, *Early Cultures of Mainland Southeast Asia: From First Humans to Angkor* (Bangkok: River Books, 2002), 199, for the agrarian consequences; and Maxim Korolkov, “Lingnan,” 295-337, esp. 303 for the possible wider economic implications.

¹⁵ Higham, *Early Cultures*, 291; Philippe Beaujard, “Southeast Asia, an Interface between Two Oceans,” *The Worlds of the Indian Ocean: A Global History*, vol. 1, ed. Philippe Beaujard (Cambridge: Cambridge University Press, 2019), 484-520 esp. 484, from a world-systems-theory perspective. For a cross-cultural view on the interdependence of such factors, Colin Renfrew, *Archaeology: Theories, Methods and Practice* (London: Thames and Hudson, 1996), 465-470.

a new grand narrative has sneaked into the discourse: the Maritime Silk Road. As Bérénice Bellina explains:

From the early fourth century BC, several of these communities had integrated distinctive exotic elements originating from further west and east into their artefacts. These signal the region's incorporation in the aptly named "Maritime Silk Road," created by the completion of connections between a series of regional networks linking the classical Western [i.e. Mediterranean] world and Asia. This coincided with the political unification of the two major South Asian cultures; the Mauryan, including north India after 321 BC, and most of the subcontinent by 265 BC, and China under the Western Han (206 BC–AD 220).¹⁶

And Charles Higham writes in his otherwise extremely locally oriented survey of social change in Southeast Asia:

West of the Bay of Vung Tau, the valley of the Dong Nai River had a long period of prehistoric settlement during the Neolithic and Bronze Ages that progressed into a period of marked social change with the Iron Age establishment of what is known as the Maritime Silk Road. The sea lanes of Southeast Asia now stretched far to the west and north, and southern Vietnam, particularly where there was access to the Mekong River for its natural trade route into the interior, became a key participant.¹⁷

Brigitte Borell, who for decades has gathered evidence of Mediterranean and Mediterranean-style objects in Southeast Asia, also adopts the notion of a Maritime Silk Road in some of her papers, despite emphasizing the sporadic occurrence of such evidence.¹⁸ While these scholars have contributed invaluable to our understanding of Southeast Asian archaeology and history, they buy into a concept that not only attributes unnecessary power to globalization processes in antiquity but also encourages misrepresentations of historical facts.¹⁹

¹⁶ Bellina, "Early Maritime Silk Road," 459; cf. Bellina and Glover, "Archaeology of Early Contact," 70-72; Bellina, "Ornament Industry," esp. 345-346; also, Roderick Ptak, *Die Maritime Seidenstraße* (München: Beck, 2006); Ronald Bockius, "Rezeption oder Innovation? Archäologische Spuren hellenistischen Schiffbaus in Indochina," *Maritime Entdeckung und Expansion: Kontinuitäten, Parallelen und Brüche von der Antike bis in die Neuzeit*, ed. Raimund Schulz, Historische Zeitschrift-Beiheft 77 (Berlin: de Gruyter, 2019), 61-80.

¹⁷ Higham, "Social Change," 506.

¹⁸ E.g. Brigitte Borell, "Travels of Glass Vessels along the Maritime Silk Road," *Glass along the Silk Road: From 200 BC to AD 1000*, eds. Bettina Zorn and Alexandra Hilgner (Mainz: Verlag des Römisch-Germanischen Zentralmuseums, 2010), 43-71; see further, Ptak, *Maritime Seidenstraße*, 62-63, and below.

¹⁹ By way of example, Ye Yiliang, "Introductory Essay: Outline of the Political Relations between Iran and China," *Aspects of the Maritime Silk Road: From the Persian Gulf to the East China Sea*, ed. Ralph Kautz (Wiesbaden: Harrassowitz Verlag, 2010), 3-6, references the contention that "by the 4th or 3rd century BCE, China's silk products had already been introduced to West Asia and East Europe passing through Iran; and glass vessels and

What is Wrong with the Silk Road?

The political baggage of the Silk Road concept has been treated abundantly elsewhere.²⁰ Here I want to concentrate on historiographical issues.

(1) Agency and causation

In what ways did Silk Road exchange between the West and East contribute to “simultaneous political and economic developments”?²¹ Who were the actors of that change? Do we really believe that the interest in Roman coins and gemstones in India during the first and second centuries CE (see below) affected the growth of Khao Sam Kaeo, which is said to have grown into a major production center in the last centuries of the first millennium BCE? How regular and how intense does foreign exchange need to be in order to stimulate local production and exchange? What do we know about the exchange mechanisms that brought Mediterranean(-style) and Chinese artifacts to Thailand and Vietnam? Was it just trade and the free play of supply and demand? It is well known that foreign objects sustaining the prestige of elites tend to circulate in peer-polity networks (i.e. gift exchange, diplomacy, or controlled transactions that bypassed the open market). Many of these objects in Thailand were imitated or crafted locally by migrant craftsmen, as Bellina has shown.²² Yet what were the contexts of the local adoption of these goods, and how were migrant artisans,

art ornaments of the eastern part of the Mediterranean were introduced to China through Iran” with a passage from the second/first century BCE dynastic history *Shiji*, which describes the Han-Chinese mission of Zhang Qian to the Western Regions (just beyond the Tien Shan mountain range in eastern Central Asia) between 139 and BCE (*Shiji* 123; *Shiji* 史記 [*The Scribe's Records*]). Composed by Sima Qian 司馬遷 (145 or 135–ca. 87 BCE). Beijing: Zhonghua shuju, 1959. The first mention of silk in Roman texts dates to the Augustan period (e.g. Horace *Carmina* 1.12.52) though some Roman writers attributed its introduction into the Roman repertoire of luxuries to the time of Caesar (mid-first century BCE; Cassius Dio 30, 22-26; cf. 43.24. 2). Susan Whitfield *Silk, Slaves, and Stupas: Material Culture and the Silk Road* (Oakland, CA: University of California Press, 2018), fig. 1b suggests that three almost identical glass bowls found in tomb 2061 at Hengzhigang, Guangzhou (Guangdong Province), and dated to the middle Former Han period (c. 110–33 BCE), were of Hellenistic origin, but see Borell and Dussubieux’s comments to the contrary (Brigitte Borell and Laure Dussubieux, “Exceptional Potash Glass Artifacts Excavated at Tissamaharama (Sri Lanka),” *Journal of Glass Studies* 64 (2022): 33-58, esp. 50-51 with n. 78; and already Brigitte Borell, “Glass Vessels.”

²⁰ Khodadad Rhezakhani, “The Road That Never Was: The Silk Road and Trans-Eurasian Exchange,” *Comparative Studies of South Asia, Africa and the Middle East* 30 (2010): 420–443. Tim Winter, *The Silk Road: Connecting Histories and Futures* (Oxford: Oxford University Press, 2022); Sitta von Reden, “Beyond the Silk Road: Toward Alternative Models of Transimperial Exchange,” *Handbook of Ancient Afro-Eurasian Economies*, vol. 3, ed. Sitta von Reden (Berlin: de Gruyter, 2023): 7-42, esp. 7-21.

²¹ Bellina, “Early Maritime Silk Road,” 459.

²² Bellina, “Ornament Industry,” and below; see also Lauren Glover, “Stone and Metal Ornaments at Hepu in Southern China and their Relationship to Ornaments across Asia,” unpublished paper presented at the Ninth Worldwide Conference of the Society for East Asian Archaeology, Daegu, South Korea, referred to in Korolkov, “Lingnan,” 87.

their knowledge and skills, integrated into local social systems? What were the conditions that made the consumption of such goods more popular than in previous centuries? What created the social and economic capacities to acquire these high-value products within local social hierarchies? All these questions vanish from sight if Silk Road trade is made a major agent in Iron Age social change.

Already some time ago, Cambridge world archaeologist Colin Renfrew argued that trade and migration as explanations for culture change have become unsatisfactory. He caused a paradigm shift by insisting that we need

to isolate and study the different processes at work within a society, and between societies, placing emphasis on relations with the environment, on subsistence and the economy, on social relationships within the society, on the impact which the prevailing belief systems have on these things, and on the effects of the interactions taking place between the different social units.²³

The work of Bellina and others is highly informed by such approaches. The Silk Road concept is not.

(2) Chronology

Silk Road arguments are often based on incongruous chronology. Bellina, Higham, and others set out to demonstrate that important social changes in both mainland and insular Southeast Asia happened in the later centuries of the first millennium BCE. More specifically, Bellina claims that the city port of Khao Sam Kaeo, in the Isthmus of Kra, during the mid-first millennium BCE “integrated Southeast Asia into the Maritime Silk Roads,” when the “Indian Ocean and the South China Sea networks interlocked.”²⁴

There was no Maritime Silk Road trade in the Mediterranean West nor in the Han Chinese East Asia at that time. Maritime and overland networks of exchange in Asia under the Persian Empire (550–330 BCE) had not extend further than the Persian Gulf and Central Asia.²⁵ When Alexander conquered that empire in 323 BCE, he and his successors established garrison towns as far as present-day Uzbekistan and Afghanistan, and Greek immigrants and Greek material culture traveled as far as the Upper Nile valley and the Red Sea, a process that happened in the course of the third century BCE.²⁶ The Indian king Chandragupta

²³ Renfrew, *Archaeology*, 465.

²⁴ Bellina, “Ornament Industry,” 345, and *Early Maritime Silk Road*, 460, quoted above.

²⁵ See for this and the following, Sitta von Reden, “Frontiers in the Mediterranean-Indian Ocean Exchange Network: The Eastern Desert of Egypt and its Ports,” *Handbook*, vol. 3, ed. von Reden, 389-439.

²⁶ We are fortunate to have the archaeological remains of Ai Khanum, a Greek foundation of the third century BCE in Afghanistan that shows in what ways Mediterranean-style coinages and material culture were adopted; see Lauren Morris, “Central Asian Empires,” *Handbook*, vol. 1, ed. von Reden, 53-94.

Maurya assumed power over the Maghada kingdom along the Ganges valley late in the fourth century BCE. Yet the expansion of the Mauryan Empire did not set off before the mid-third century BCE when Ashoka made Pataliputra a royal city and spread the Buddhist faith across the subcontinent.²⁷ At that time, urbanization and connectivity along the eastern and northeastern coasts of subcontinental India increased and intensified exchange networks in the Bay of Bengal more widely (see above and below). Greek-style objects traveled further east, south, and southeast when the Central Asian dynasty of the Kushans expanded into Gandhara and northern India in the first and second centuries CE.²⁸

Connections between the Mediterranean, the Red Sea, and the western Indian Ocean intensified as early as Alexander's conquest of Egypt and had Pharaonic and Persian precedents.²⁹ Yet the growth of genuine trade between the Mediterranean and the Red Sea via Egypt developed later. Ports on the African coast of the Red Sea were built in the middle of the third century BCE.³⁰ Down to the mid-second century BCE, they served as relay stations for the import of elephants and spices from East Africa to the court in Alexandria. In the second century BCE, Ptolemaic exchange expanded further to the southern Arabian Peninsula and, under the growing influence of Roman merchants in the eastern Mediterranean at that time, began to transform into genuine commercial trade.³¹ It is also at this time that first contacts with the southern Malabar coast around Muziris are attested. Yet these still took the form of royally sponsored missions, to judge from literary memories of such incidences.³²

²⁷ The origin of Kautilya's *Arthashastra* is dated to this period, but the extant text is a fifth-century compilation of prescriptions dating to different historical periods (see Mamta Dwivedi, "Evidence for Early South Asia, Indic Sources," *Handbook*, vol. 1, ed. von Reden, 423-468). It is possible that core principles of the *Arthashastra* date to the Mauryan period; but it is a normative text of Buddhist state construction, and unlikely to have ever reflected an existing administrative system. It is also possible that the text, written in court circles, influenced administrative practices, or was influenced by them, in the northern core of the Mauryan Empire; but the tight control of administrative, economic, and moral practices that the provisions foresee were impossible to implement across the subcontinent. The question of whether urban development was stimulated by the Mauryan imperial system remains, of course, unaffected by these remarks.

²⁸ Finds of individual Hellenistic objects, like a single glass container dated to the late Hellenistic period in a grave of the Nanyue kingdom (see below), for which Whitfield, *Silk*, fig. 4, and more generally James W. Lankton, "From Regional to Global: Early Glass and the Development of the Maritime Silk Road," *The Maritime Silk Road: Global Connectivities, Regional Nodes, Localities*, eds. Frank Billé, Sanjot F. Mehendale, and James W. Lankton (Amsterdam: Amsterdam University Press, 2022), 71-94, cannot establish regular exchange with Central Asia at that time. Bellina is rightly hesitant about any stylistic connections between ceramic Greek *phialai* (low-rimmed drinking cups used for drinking wine, typical of convivial contexts) with a special type of high-tin bronze bowls with central cone, found in quantity in Ban Don Ta Phet cave in central Thailand, Bellina and Glover, "Archaeology of Early Contact," 75-77. Bockius' idea that Hellenistic shipbuilding techniques travelled across the Indian Ocean from the Red Sea coast to the Red River Delta as early as the late Hellenistic period, as possibly shown by a wooden ship used as a coffin, dated to the first/second century CE and excavated in 2005 in Hanoi, needs further archaeological research and confirmation; see Bockius, "Rezeption oder Innovation," 72-80.

²⁹ Joseph G. Manning, *The Open Sea* (Princeton: Princeton University Press, 2018).

³⁰ Von Reden, "Frontiers," for the gradual development of the Eastern Desert in Egypt; Bockius, "Innovation," emphasizes the role of the Ptolemies as initiators of long-distance exchange in the Indian Ocean.

³¹ Von Reden, "Frontiers," 416-430.

³² Von Reden, "Frontiers," 404-405 with Strabo 2. 3. 4-5; Matthew A. Cobb, *Rome and the Indian Ocean Trade from*

The growing acquaintance of Graeco-Egyptian traders with monsoon navigation also dates to that time.³³ However motivated and organized, journeys to India were still sporadic, to judge from the almost vanishing number of Hellenistic pottery sherds in Indian ports. Some scholars argue that this pottery did not arrive there in Greek boats, nor through Greek traders directly.³⁴ Ultimately, Indian Ocean trade took off in the late first century BCE and reached its zenith in the late first and mid-second centuries CE.³⁵ This is too late for having affected the development of Khao Sam Kaeo as an industrial center, known to have flourished from the fourth century BCE onward. It is also too late for having caused Iron Age social change in Southeast Asia, archaeologically visible from the fifth century BCE onward.

Later on, Roman trade with India exploded in the first and second centuries CE. Among the objects most highly appreciated in India were Roman gold and silver coins. Roughly 8000 specimens have been discovered in various parts of the subcontinent. This is a significant number of object-finds but a trifle if they were used as currency in India.³⁶ The silver coins found in India were predominantly issues of one emperor (Tiberius, r. 17–37 CE). Gold coins spread a little more evenly over the period from Tiberius to the later second century CE when imitations of Antonine *aurei* (gold coins) appear in small numbers in South Vietnamese and peninsular Thai sites.³⁷ These coins did not serve as a means of exchange in Indian Ocean trade, as in Roman Egypt, Roman *denarii* and *aurei* were not current. They were delivered to India in pre-packed and sealed pouches (*marsippia*) and were appreciated in India as prestige objects, even though we cannot exclude that they were also accepted as payment, given their precious-metal value and general esteem.³⁸ Many of these coins were subsequently imitated as cast gold pieces in India. It is these imitations, often with two holes pierced through them for use as pendants, that have been excavated in Southeast Asian sites.³⁹

To the time when Roman trade with India began to peak dates an anonymous

Augustus to the Early Third Century CE (Leiden: Brill, 2018), 41 for discussion.

³³ Cobb, *Rome and the Indian Ocean Trade*, 41.

³⁴ Peter Fraser, *Ptolemaic Alexandria*, vol.1 (Oxford: Oxford University Press, 1970), 148-188.

³⁵ Matthew A. Cobb, “The Chronology of Roman Trade in the Indian Ocean from Augustus to the Early Third Century CE,” *Journal of Economic and Social History of the Orient* 58 (2015): 362-418 for a discussion of peak and decline.

³⁶ Ariane de Saxcé, “Networks and Cultural Mapping of South Asian Maritime Trade,” *The Maritime Silk Road: Global Connectivities, Regional Nodes, Localities*, eds. Franck Billé, Sanjyot Mehendale, James W. Lankton (Amsterdam: Amsterdam University Press, 2022), 129-147; esp. 134.

³⁷ Dario Nappo, “Money and Flows of Coinage in the Red Sea Trade,” *Trade, Commerce, and the State in the Roman World*, eds. Andrew Wilson and Allan Bowman (Oxford: Oxford University Press, 2017), 557-578, esp. 568-569.

³⁸ Nappo, “Money,” 561-565, for Roman coinage being sent to India in consignments; Mamta Dwivedi, “Tools of Economic Connectivity in Early Historic South Asia,” *Handbook of Ancient Afro-Eurasian Economies*, vol. 2, ed. von Reden (Berlin and Boston: de Gruyter 2021), 491-531, esp. 500-506, for the use of Roman coins in India. Borell leaves the matter open: Brigitte Borell “Coins from Western Lands Found in Southeast Asia,” *From Constantinople to Chang’an: Byzantine Gold Coins in the World of Late Antiquity, Papers Read at the International Conference in Changchung, China 23-26 June 2017*, *Journal of Ancient Civilizations*, Suppl. 8, eds. Sven Günther, Li Qiang, Lin Ying, and Claudia Sode (Changchung: The Institute for the History of Ancient Civilizations, Northeast Normal University, 2021), 241-314.

³⁹ Borell, “Coins,” 286-267.

Graeco-Egyptian treatise *Periplus Maris Erythraei* (mid-first century CE), outlining trading opportunities in the Indian Ocean between the Red Sea and the Western Bay of Bengal. Very different trading conditions are described in the *Periplus*, including open market exchange, controlled markets, barter, export and import of coins, and direct shipment of ordered goods to local courts and chiefs. The author's knowledge of the western Indian coast is intimate and first-hand. That of eastern ports becomes vague beyond Arikamedu, where Roman presence is attested also by large amounts of pottery concentrating in one part of the port city. Roman knowledge of ports beyond Arikamedu was clearly derivative. Among the places where the author of the *Periplus* had not traveled himself was Thina:

Where the sea ends somewhere on the outer fringe, there is a very great inland city called Thina from which silk floss, yarn, and cloth are shipped by land via Bactria to Barygaza [Bharuch] and via the Ganges River back to Limyrike [the Malabar coast]. It is not easy to get to this Thina, for rarely do people come from it, and only very few.⁴⁰

Beyond this region, the author continues, there were very cold temperatures, extreme storms, difficult terrain, and divine powers, making this part of the world impossible to explore.⁴¹ One hundred years later, the Alexandrian geographer Claudius Ptolemy knew about regions further east. He mentions a place called Kattigara that is assumed to have been the then vibrant port of Óc Eo in the Mekong Delta.⁴² Óc Eo is famous for its finds of Indian Rouletted Ware and pendants made of imitated Roman coins of the later Antonine period (161-192 CE).⁴³ The Greek name of the city was likely a version of the Sanskrit *Kirti-nagara* or *Kotti-nagara*, meaning “strong city.”⁴⁴ Knowledge of these places had reached Ptolemy undoubtedly through the Indian Ocean trade networks along which, by then, extraordinary volumes of trade moved between Egypt and India.⁴⁵

In addition, East Asian presence in the South China Sea developed in similarly complex temporal patterns. The *Huainanzi* of the second century CE mentions that the first emperor

⁴⁰ Lionel Casson, *The Periplus Maris Erythraei: Text with Introduction, Translation, and Commentary* (Princeton University Press, 1989), 64.

⁴¹ *Ibid.* 66.

⁴² Lennart Berggren and Alexander Jones *Ptolemy's Geography: An Annotated Translation of the Theoretica Chapters* (Princeton: Princeton University Press, 2020), I 14.1. Gary K. Young, *Rome's Eastern Trade: International Commerce and Imperial Policy, 31 BC–AD 305* (London: Routledge, 2001), 31.

⁴³ Brigitte Borell, “The Power of Images – Coin Portraits of Roman Emperors on Jewellery Pendants in Early Southeast Asia,” *Zeitschrift für Archäologie Außereuropäischer Kulturen* 6 (2014), 7–43.

⁴⁴ Other scholars place the town even further east in the Gulf of Tonkin, which they identify with the *Sinôn kolpos*, Chinese Bay, which Ptolemy mentions in *Ptol. Geog.* I. 7. 3 (Berggren, “Annotated Translation”); see Borell, “Coins,” 283 with further literature.

⁴⁵ An Egyptian papyrus of the mid-second century CE attests to a loan contract for a journey from the Egyptian Red Sea port Berenike to Muziris on the Malabar coast. The trade volume involved totalled 28 million Egyptian drachms (= seven million Roman sesterces); see P. Vindob. G 40822, most recently discussed in book-length by Federico De Romanis, *The Indo-Roman Pepper Trade and the Muziris Papyrus* (Oxford: Oxford University Press, 2020).

of Qin (r. 221–210 BCE) craved southern exotica: rhinoceros horns, ivory, jade, and pearls acquired from the Yue, a non-Chinese people that had settled south of the Yangzi Delta.⁴⁶ According to other written records, the Qin established three commanderies in Lingnan, a region comprising present-day Guangdong Province and Guangxi Autonomous Region at the border between East and Southeast Asia (see Map 2 further below). Han presence in the Red River Basin intensified when the Jiaozhi commandery was founded in 111 BCE. Later Han tightened control of the region after the suppression of the Trung Sisters' revolt (40–43 CE), leading to a more intrusive administration and a crack-down on the local aristocratic leadership thereafter (see below).⁴⁷

A famous text preserved in the later-first century CE, *Hanshu*, describes a sea journey on command of emperor Wang Mang (r. 9–23 CE) that passed through Lingnan to distant lands. The emperor was determined to “dazzle the world with his awe-inspiring charisma” and, to do that, he enticed the king of Huangzhi (possibly a polity in control of Arikamedu) to submit a living rhinoceros as a tribute to Wang Mang's court. It was brought back by a royal mission, which is reported to have traveled even further south than Huangzhi, possibly to Sri Lanka, before returning back to the Han Empire by sea. The route seems to have followed the South China Sea coast from the ports of Hepu and Xuwen in Lingnan to peninsular Thailand, where it crossed the Isthmus of Kra, navigated through the Andaman Sea, and finally reached southern India and Sri Lanka.⁴⁸ The *Hanshu* reports that the route had been used since emperor Wu (r. 141–87 BCE) but also makes clear that this mission was extraordinary, undertaken to legitimize Wang Mang's usurpation of the Han Empire.⁴⁹ I will consider the nature and extent of Lingnan connections to the South China Sea below. Here, it needs emphasizing that, to judge from the archaeological record, trade and exchange passing through Southern Chinese/Vietnamese port towns were based above all on local, rather than imperial initiative—let alone any global market forces. As Korolkov writes:

Although written sources refer to growing trade in southern goods, such as pearls, rhinoceros horns, ivory, and fruit, archaeology suggests that the production and distribution systems of the southern port towns, as well as their specific consumption patterns, failed to make substantial inroads into the empire. The weak integration into

⁴⁶ Liu Wen 劉文(ed.). *Huainan honglie jijie* 淮南鴻烈集解 [Collected commentaries to the Huainanzi]. 2 vols. (Beijing: Zhonghua shuju, 1989), 18.617; Korolkov, “Lingnan,” 295, also for the following.

⁴⁷ Korolkov, “Lingnan,” 315. The common assumption that before 42 CE Jiaozhi was a Han Chinese protectorate, but a province thereafter (Bellwood, “Prehistory,” 121; Higham, “Social Change,” 505) is not quite correct; Korolkov personal comment.

⁴⁸ *Hanshu* 28B.1671. For English translation see Brigitte Borell, “Han period Glass Vessels in the Early Tongking Gulf Region,” *The Tongking Gulf through History*, eds. N. Cooke, Li Tana, and J. Anderson, Philadelphia, PA: University of Pennsylvania Press, 2011), 64.

⁴⁹ Korolkov, “Lingnan,” 319; the text itself does not refer to any particular journey, yet is immediately followed by the report on the Han mission to Huangzhi by Emperor Ping (r. 1 BCE–6 CE), when Wang Mang was in control. The same passage also mentions that since the times of Wudi, the kingdoms listed in this text sent tribute to the Han court and that there was an agency at the court that supervised trade relationships.

imperial markets may have been a factor in the volatility of the sea-oriented economy during the early imperial period.⁵⁰

Thus, Han Chinese and Roman Egyptian treatises of the early first century CE show that there was knowledge of southern India and Sri Lanka in Han China and of eastern ports up to the Bay of Bengal and the Mekong Delta in the Roman Empire. This might prove “the completion of connections between a series of regional networks linking the classical Western world and Asia,” as Bellina writes.⁵¹ Yet apart from the relatively late date of this “completion,” the exchange networks that led to the completion were not just local but of a very heterogeneous kind. Some sections were mostly regionally important, like those of port towns of Lingnan, or those of the Red Sea under the Ptolemies; some long-distance journeys were highly memorable, state-organized ventures sent from imperial courts as a matter of curiosity and legitimacy, as the missions from Alexandria under Ptolemy VIII and from Chang’an under Wang Mang; and there were some extremely ancient long-distance exchange networks that had existed for millennia before they increased in intensity, as those in the Bay of Bengal between South and Southeast Asia. There was, finally, for a relatively short period of time, extremely high-value, regular trade between the ports of Egypt and India. How can these different kinds, sizes, and periods of exchange link the dots of a Maritime Silk Road?

(3) What do we mean by the Maritime Silk Road?

Arguably, some of the great appeal of the Silk Road is its utter vagueness. Different academic communities associate very different ideas, very different dimensions of exchange, and very different periods with it. Most Western historians take the Silk Road as an umbrella term for the exchange of goods, technologies, religious practices, languages, ideas, and art forms across Eurasia from about the second century BCE onward.⁵² It was not a single road but a network of routes that linked China and the Mediterranean either by land or by sea. No single person ever traversed the entire distance until the early modern period, and trade was not the only reason why people braved deserts, mountains, and the open sea. Not just precious silks but many other goods such as foods, wine, unguents, medicines, spices, carpets, and ordinary textiles as well as captured humans and animals are believed to have been traded, or sent as tribute or gifts, across Eurasia. Apart from the journeys propelled by the monsoon winds over long distances directly, it was mostly small groups or ships covering short distances that interconnected exchange networks moving some goods over longer distances.⁵³

⁵⁰ Korolkov, “Lingnan,” 319; Borell (personnel comment) mentions a seal discovered at Khao Sam Kaeo, dated to the late Former Han period and likely belonging to a private merchant rather than a royal agent; its precise provenance is unclear.

⁵¹ Bellina, “Early Maritime Silk Road,” 460; cf. “Ornament Industry,” 346.

⁵² Von Reden, “Beyond the Silk Road,” 9-12.

⁵³ Von Reden, “Beyond the Silk Road,” 9-12 with references to these opinions. The beginning of overland Silk

Archaeologists use the Silk Road mostly as a metaphor for new forms of transnational, transregional, cross-cultural, and cross-disciplinary approaches that have stimulated world archaeology in recent years.⁵⁴ It stands for a new understanding of hybrid forms of material culture as developing through local appropriations of forms of expression and artistic styles that circulated across large spaces.⁵⁵ Silk Road archaeologists insist on the interdependence of local, regional, and transregional dimensions of exchange.⁵⁶ Silk Road thinking, in other words, relates local archaeology to global processes.⁵⁷ Yet while Silk Road thinking has added complexity and interdisciplinarity to archaeological research, the Silk Road as a historical reality continues to lurk in the background of archaeological arguments. As, for example, Susan Whitfield writes, the Silk Road stands for processes of exchange that are simply too complex to describe.⁵⁸

In Southeast Asian archaeology the Silk Road has taken on yet another meaning. As we just saw, it refers to interconnected networks of trade linking the Mediterranean via the Bay of Bengal with the South China Sea from the fourth century BCE onward.⁵⁹ Yet the notion of cross-cultural trade carries a heavy explanatory burden. Trade presupposes independent merchants or middlemen that on a regular basis sell goods to consumers, mostly for a profit.⁶⁰ Was all long-distance exchange between the Mediterranean and the South China Sea trade? There is no reason to dispute that there was trade in all these ocean spaces.⁶¹ Yet the assumption that a site like Khao Sam Kaeo thrived on Silk Road trade implies that there were interconnected markets along those routes to which the artisans in Khao Sam Kaeo responded. It implies that the manufactural activities attested in Khao Sam Kaeo since the fourth century BCE were spurred by interdependent supply and demand chains reaching from the Mediterranean to East Asia. Comparison with the early Iron Age Mediterranean world

Road exchange is dated either to the period when the Chinese expelled the mobile Xiongnu from the Ordos Loop in the Northern Regions, to late antiquity when Iranian and Byzantine coinage begins to appear in China, or very specifically to the time of Chinese western orientation beginning with the dispatch of Zhang Qian by the Han court in 138 BCE, or their conquests of these regions 10 years later.

⁵⁴ Frank Billé, Sanjyot F. Mehendale, and James W. Lankton, “The Maritime Silk Road: An Introduction,” *Maritime Silk Road: Global Connectivities, Regional Nodes, Localities*, edited by Frank Billé, Sanjyot F. Mehendale, and James W. Lankton (Amsterdam: Amsterdam University Press, 2022), 11-23, esp.12.

⁵⁵ Whitfield, *Silks*.

⁵⁶ Sara Ann Knutson, “Archaeology and the Silk-Road Model.” *World Archaeology* 52 (2021): 619-638.

⁵⁷ Milinda Hoo, “Globalization beyond the Silk Road: Writing Global History of Ancient Economies,” *Handbook*, vol. 2, ed. von Reden, 7-28.

⁵⁸ Whitfield, *Silks*, 4.

⁵⁹ Bellina, “Early Maritime Silk Road”; Brigitte Borell, Bérénice Bellina, and Boonyarit Chaisuwan, “Contacts between the Upper Thai-Malay Peninsula and the Mediterranean World,” *Before Siam was Born: New Insights on the Art and Archaeology of Pre-Modern Thailand and its Neighbouring Regions*, eds. Nicolas Revire and Stephen A. Murphy (Bangkok: River Books, 2014), 98-117, esp. 99.

⁶⁰ Thus also Bellina, “Ornament Trade,” 364, who rightly questions demands of trade behind the complex and diverse production scenarios attested in ornament production at Khao Sam Kaeo.

⁶¹ In the Mediterranean, the interest in the new superior metal clearly encouraged trade; see Cyprian Broodbank, *The Making of the Middle Sea* (Oxford: Oxford University Press, 2013), chap.10.

suggests that trade in metals, raw materials, and prestige goods, organized and controlled by local elites, did develop across the Mediterranean, just as it seems to have been the case in the Iron Age South China Sea. But in the Mediterranean, exchange was deeply connected to the formation of new local social hierarchies, population growth, and the attempt of local elites to expand their power over increasingly prosperous local household economies.⁶² Moreover, the earliest literary texts (Homer's epic) reveal that prestige goods were transacted both commercially and in forms of peer-polity interaction, thus moving in and out of commercial networks of exchange.⁶³

Alternatives to the Silk Road Metaphor in Iron Age Southeast Asia

In the following, I would like to suggest an alternative approach to the interdependence of exchange and social transformation in Southeast Asia. I do not introduce new archaeological material. As a historian of the Graeco-Roman Mediterranean, however, I feel uneasy about correlating Roman consumption of pepper and silk in imperial times with social change in Iron Age Southeast Asia. Rather than Mediterranean socio-economic developments, a particular combination of local, regional, and transregional activities of local elites seems to provide a better explanation for the transformation of Southeast Asian production, consumption, and material culture.

My approach, in fact, is not so much a model of explanation than a framework for analysis that might also map onto other connected exchange networks.⁶⁴ It involves (1) paying attention to wider historical contexts of imperial expansion and change; (2) approaching exchange in terms of network relationships, rather than trade, which had social, political, and economic dimensions; and (3) looking at frontier zones as key sites of social transformation. Recent research has established frontier zones as special places of encounter located at the interfaces of interaction zones. They were not just zones of transit, nor did they just respond to the requirements of trade. As places of problematic exchange situations of different social groups, they unleashed complex social, economic, and institutional processes with important consequences for the people and networks to which they were connected. It is these processes, rather than an unfathomable Silk Road, that (in combination with other factors mentioned above) contributed to the social transformation of Southeast Asia during the Iron Age.

⁶² Irene S. Lemos, "Early Iron Age Economies," *The Cambridge Companion to the Ancient Greek Economy*, ed. In Sitta von Reden (Cambridge: Cambridge University Press, 2022), 15-28.

⁶³ Lemos, "Early Iron Age"; Broodbank, *Middle Sea*, 506-523; Sitta von Reden, "Wirtschaft und Austausch im frühen Ostmittelmeerraum (1200-600 v. Chr.)," *Handbuch Antike Wirtschaft*, eds. Sitta von Redenid. and Kai Ruffing (Berlin and Boston: de Gruyter, 2023), 307-332.

⁶⁴ As demonstrated in the chapters collected in Von Reden, *Handbook*, vol. 3.

(1) Contexts

The time frame I suggest for analysis narrows down the Southeast Asian Iron Age—roughly from 500 BCE to 500 CE—to the transregional imperial timeframe of mid-third century BCE to mid-third century CE. This period saw the growth of the Mauryan Empire in South Asia, which in fact is nowadays understood as no more than imperial corridors that affected only some parts and some social groups across the subcontinent. Cohesive administrative structures around the imperial capital of Pataliputra seem to have affected the political organization of communities along the northeastern coast of the Bay of Bengal. There was increasing urbanization, increasing amounts of the local division of labor, greater social stratification, and a greater degree of exchange, visible in the spread of fine Rouletted Ware.⁶⁵

East Asia saw the rise of the Qin and Han Empires, which led to the introduction of an extensive tributary system and the establishment of garrison towns throughout the empire, including the southern regions beyond the Yangzi River. The bureaucratic Han-Chinese state achieved much greater administrative integration of its imperial realm than the Mauryans ever did. Yet its reach into the southern regions was still rather limited until the early first centuries CE. Under Later Han, there was a general shift in the distribution of taxable populations toward the southern provinces, particularly in the river valleys south of the Middle Yangzi. This increased the taxable population, which probably explains why the government started to pay more attention to these regions in the first centuries CE, including infrastructure building and more pro-active local administration.⁶⁶

Both South and East Asia were not socially stagnant over 600 years. In the middle of the second century BCE, the Mauryans were overturned by the Satavahanas who ruled from the Deccan plateau in Central India. The Satavahanas created greater connectivity between the northern and southern regions of the subcontinent, which several generations later must have contributed to a better supply of coastal harbors at the western coast of the subcontinent with tradeable goods (pepper, pearls, elephant products, textiles, etc.).⁶⁷ From the early first century CE, moreover, the north-western regions of India, now Pakistan, became part of the Kushan Empire of Central Asia, with important consequences for the connections between what were then the Western Regions of China in north-eastern Central Asia and the Ganges River Delta in the northern Bay of Bengal.⁶⁸ In China, the power of the Former Han dynasty was taken over and purportedly restored by Later Han after a brief

⁶⁵ Heidrun Schenk, “The Dating and Historical Value of Rouletted Ware,” *Zeitschrift für Archäologie Außereuropäischer Kulturen* 1 (2006): 123-152.

⁶⁶ Maxim Korolkov, *The Imperial Network in Ancient China: The Foundation of Sinitic Empire in Southern East Asia* (London: Routledge, 2022), 180-183, argues that tighter control affected mainly northern Vietnam and the Hanoi basin, while its impact on the rest of Lingnan was more limited. But there was a general shift in the distribution of taxable population toward the southern provinces, particularly in the river valleys south of the Middle Yangzi, during the Eastern Han period, which probably explains why the government was paying more attention to these regions in the first centuries CE. See also above n. 47, and below section 3.

⁶⁷ De Romanis, *Pepper Trade*.

⁶⁸ See above *Periplus Maris Erythraei* 61.

intermezzo of the emperor Wang Mang (45 BCE-23 CE) who made intense but eventually futile efforts to legitimize his power. The regime of the Later Han was less centralized, with the social power of local aristocracies (re)emerging, which led to some renegotiation of the relationship between the local aristocracies and the imperial government. In Lingnan, this was the time of important infrastructural projects and governors who worked hard to “Sinicize” the region. The period ends in the third century with the almost contemporary decline of Later Han imperial power in 220 CE, the decline of the Satavahana dynasty in the Deccan at around that time, and the decline of Roman power over Egypt and Red Sea harbors at the end of that century. Thereafter, new and highly vigorous networks emerged that included new polities and new social groups, often connected to religious institutions.

(2) Networks

Southeast Asian archaeologists have, for long, distinguished different interaction zones and exchange networks that existed over different dimensions of time and space. There was, on the one hand, the South China Sea Interaction Sphere (SCSIS) that went back at least to the second millennium BCE when shipbuilding techniques improved and language groups dispersed likely as a result of human migration. Such processes affected the directions and scale of later interaction as well as they spread behavioral patterns and cultural affinities that made populations and goods move with a certain ease.⁶⁹ From the mid-first millennium BCE onward, particular prestige goods and their production techniques traveled across Thailand, Vietnam, and the Philippines, including so-called lingling’o earrings, glass and double-headed ornaments, metallic vessels, and a specific type of carnelian and agate beads.⁷⁰ There was, on the other hand, the Bay of Bengal Interaction Sphere (BBIS), which is believed to be younger but came to exert a significant impact on Southeast Asian material culture and technology during the early Iron Age.⁷¹ Most famous for this interaction zone is Indian Rouletted Ware, which was produced in large quantities in the polities along the eastern and northeastern Indian coast from the third century BCE onward.⁷² Raw materials transacted in this interaction sphere typically were high-quality carnelian, agate, jasper, and amethyst together with the techniques of producing smooth-surface or ornamented beads from them.⁷³

Further networks of interaction emerged in the course of the adoption and use of iron and iron metallurgy. Metallurgical knowledge is believed to have been imported from either

⁶⁹ Bellina, “Early Maritime Silk Road,” 462-463.

⁷⁰ Bellina, “Ornament Trade,” 348.

⁷¹ Earlier scholarship assumed more ancient roots surviving in the form of Sanskrit terms for foods in Austroasiatic languages, the spread of cultivated plants across the Bay, and the dispersal of certain ceramic forms and decorations (Bellwood, “Prehistory”). Yet, such kinds of evidence are always tenuous and interaction in this sphere starts to become visible archaeologically not much before the onset of the Iron Age, Bellina, “Early Maritime Silk Road,” 464.

⁷² Schenk, “Rouletted Ware,” with distribution map; cf. Borell *et al.*, “Contacts,” 100.

⁷³ Bellina, “Ornament Trade,” 355.

Warring State China via northern Vietnam, or from South Asia via the Bay of Bengal.⁷⁴ However this may have been, the mining and use of iron in the form of iron tools, weapons, and jewelry show local and regional patterns. South Vietnam, Java, and Sulawesi have no iron, whereas peninsular and northern mainland Thailand, Laos, and northern Vietnam have excellent iron deposits.⁷⁵ North Thailand made a clear transition from copper-bronze to iron use in the Iron Age. A well-studied cluster of sites on the Khorat Plateau of central Thailand shows an abrupt transition to the use of iron objects around 300 BCE, with contemporary evidence for significant economic change.⁷⁶ In most parts of peninsular and island Southeast Asia, by contrast, the transition was far more gradual, or never complete. In Java and Bali, for example, objects of copper and iron metals were produced contemporaneously, and there were bi-metallic artifacts made of both copper and iron. Scientific metal analyses of objects found in Khao Sam Kaeo and Kao Sek, moreover, have revealed that imitation Dong Son drums (originating in the Bronze-Age Dong Son cultural network along the Red River) were produced there from Laotian copper with local production techniques and likely by local artisans. All this suggests that there were long-term transregional networks in which metallurgical knowledge, manufacturing skills, and artistic styles circulated, whereas the acquisition of metal happened within much more regional patterns.⁷⁷

A development scenario of this kind has been observed by B er enice Bellina at the site of Khao Sam Kaeo. She distinguishes four groups of objects whose production is concentrated in different parts of the four-hill-settlement. The largest, group 1, combined traditional Indian high-quality raw materials and highly-skilled Indian production techniques at every stage of their production. Style and design, by contrast, were close to those circulating in the SCSIS. A second group involved raw materials like nephrite and mica circulating in the SCSIS but finishing techniques followed East Asian practices. A third group included beads, intaglios, earrings, and pendants made of Indian raw materials but manufactured with high-skill technologies whose provenance is unclear. These objects bear religious and auspicious symbols and seem to have been used in particular ritual contexts. A fourth group, very limited in quantity due to looting immediately after their discovery, consists of medium-quality stone artifacts manufactured in low-skill mass-production of mediocre quality. They may have served some local purpose.

Looking at the social context of manufacture in Khao Sam Kaeo, Bellina suggests that beads and ornaments were produced in small households, specialized in particular types of production designed for particular use. Given the specialized nature of each artifact and the wide geographical range from which raw materials, production techniques, and styles were taken, it is most likely that the production units were not small independent artisan households. Rather, skilled artisans migrated from South Asia and their concentrated habitation and work

⁷⁴ Bellwood, "Prehistory," 125 for the former; Higham, "Social Change," 502 for the latter.

⁷⁵ Ray, *Archaeology of Seafaring*, 120-121.

⁷⁶ Bellwood, "Prehistory," 119.

⁷⁷ Nam C. Kim, *The Origins of Ancient Vietnam* (New York: Oxford University Press, 2015), 152-157; cf. Korolkov, "Lingnan," 303.

in one particular site suggest that they were recruited by, and integrated into, the new social environment through elite patronage and labor control. The control of the production and distribution of prestige goods not only enhanced the power and prestige of these elites but also made them brokers of social transformation. Some of their strategies had a local focus, vying for superiority in social, religious, or economic networks concentrating in Khao Sam Kaeo itself. Some were of more regional and transregional character and concerned the appropriation of raw materials from those controlling the forested region in mainland Thailand. A third dimension was created by the competition with other coastal polities. As all these polities were involved in the distribution of prestige goods of immense social value in the SCSIS, such competition must have pushed artistic expertise and technological skills to their limits. Elite competition, however, was not confined to the production and exchange of prestige goods but involved violence too. Contemporaneous was the greater production and use of weaponry, to the extent that they were increasingly standardized in appearance and workmanship.⁷⁸

Alas, where do the Mediterranean and Mediterranean-style objects fit in this multifaceted picture? First of all, it should be noted that their numbers are small. Between three and five Mediterranean cameos and intaglios made from Mediterranean semi-precious stones (carnelian and amethyst) and cut by Mediterranean stone cutters were found on each of four sites excavated close to, or not far away from, the Isthmus of Kra in peninsular Thailand.⁷⁹ Secondly, their first appearance in Southeast Asia was later than the boom in prestige good production that is attested in Khao Sam Kaeo from the fourth century BCE onward. Mediterranean items were produced and traded to India not much earlier than from the Augustan period (27 BCE to 14 CE) onward. At what time these goods reached, or were reproduced in, Thailand is not known, as the limited number of Western-style objects have been mostly found without archaeological context. The earliest fragments of Roman glass bowls date to the first century CE and were found in Phu Khao Thong, Tha Chana, as well as Khao Sam Kaeo, all located close to the Kra Isthmus.⁸⁰ Another body of Mediterranean-style objects, jewelry made from imitated Roman coins, was found in Óc Eo in the Mekong Delta and in Khlong Thom near the Kra Isthmus. Jewelry pendants made from imitated Roman coins were imports from South Asia in the first instance but the specimens found in Óc Eo and Khlong Thom show rather idiosyncratic execution, suggesting that they were local imitations. The find of a two-part mold for the reverse of such a coin pendant has confirmed this assumption.⁸¹

⁷⁸ The question whether these were produced at a large scale in some industrial production centers and then distributed further afield, as Bellina, “Early Maritime Silk Road,” 467 suggests, needs further investigation.

⁷⁹ The material is summarized in Borell *et al.*, “Contacts,” but see also her more systematic analyses of these materials in Borell, “Power of Images,” and “Coins.”

⁸⁰ Borell *et al.*, “Contacts”; Lankton, “From Regional to Global.”

⁸¹ Borell, “Power of Images,” 24 with fig. 16.



Imitated Roman coin pendants from Khlong Thom; diameter 19 mm, Suthiratana Foundation. Photo © Brigitte Borell with kind permission.

The most prevalent coin types used for these pendants were *aurei* (gold denominations) of the Antonine period, though tin imitations of a coin type issued by Emperor Tiberius were also found at Khlong Thom. There are a few chance finds of genuine Greek and Roman coins. Among these are an Alexander coin of the late fourth century BCE found during the construction of Pochentong airport in Phnom Penh, an *aureus* of Domitian (81-96 CE), coming to light in 1984 under an uprooted tree on the coast near Bang Kluai Nok/Phu Khao Thong, and a Roman bronze coin of Maximinus Thrax (235–238 CE) discovered in 1864 by the French military in the Mekong Delta.⁸² The best explanation for their appearance in Thailand is that they had been used in the Bay of Bengal Interaction Sphere just like other prestige objects of South Asian origin. Moreover, it should be emphasized, once again, that the Roman and Roman-style objects (small in number anyway) date to periods after Khao Sam Kaeo became an industrial city serving transregional connections. Although some Roman-style artifacts were also found in Khao Sam Kaeo, they belong to a time much after the site had begun to develop into a center of production and transregional exchange.⁸³

(3) Frontier Zones

The previous section has shown that local, regional, and transregional networks of particular kinds interacted intensely at particular sites. Within the Silk Road narrative, such sites can only be described as transit zones, or as zones that stimulated that transit. The concept of the frontier, in contrast, offers more nuanced approaches to the interdependence of long-distance connectivity and local social change. Frontier zones have been recognized as places of friction and incommensurability in the first instances.⁸⁴ Generally speaking, they are meeting

⁸² Borell, “Coins,” 277-278 and fig. 1.

⁸³ Borell *et al.*, “Contacts,” 100.

⁸⁴ Eli J. S. Weaverdyck and M. Dwivedi, “Introduction,” *Economies of the Edge: Frontier-Zone Processes at Regional*,

places of often ethnically different groups, different economic strategies, and different systems of knowledge. Yet as a result of their location and the emergence of communication and negotiation, they have been found as sites of particular innovation and social and economic opportunity.⁸⁵ Bellina's research on Khao Sam Kaeo clearly demonstrates this point.

Khao Sam Kaeo, and other sites in the vicinity, saw intense technological innovation as a result of their location between two interaction spheres and their successful negotiation of differences. They accommodated multi-ethnic populations, generated a variety of new technological skills, and contributed to the formation of new urban models.⁸⁶ The new forms of material expression spurred new identities among elite social groups that defined themselves increasingly through the possession and control over a transregional repertoire of materials, artistic styles, and skills. Bellina suggests that there was intense competition over the acquisition and distribution of prestige objects in the wider sphere of South-China-Sea elite interaction, which in turn pushed technological skills at Khao Sam Kaeo to new limits. If, moreover, Bellina's model of the social integration of itinerant migrants into elite personal networks is correct, that region was also crucial for institutional change that helped to integrate foreign populations and their skills into Southeast Asia, to the extent that their products formed new local social contexts. In this way, the frontier of the Thai Peninsula, rather than some vague Maritime Silk Road development, stimulated social, political, and economic developments in Southeast Asia.

In the final part of this article, let us turn our attention to the other edge of the South China Sea. Above, we have already mentioned the spread of Dong Son drums to insular Southeast Asia and peninsular Thailand from a region that is now northern Vietnam. The Lower Pearl and Red River valleys and their environs, for many centuries, formed a cohesive zone that is nowadays separated by the geographical division of East and Southeast Asia and the border between China and Vietnam (see Map 2).⁸⁷

This frontier zone was crucial for the development of contacts between China and the South China Sea whose western edges we discussed above. Maxim Korolkov has explored Lingnan as a frontier zone connecting the Qin/Han empire with regions further west and south. This frontier participated in several regional interaction spheres before it entered the SCSIS.⁸⁸ One such regional interaction sphere went back to the late Bronze Age and was formed by relationships across the southwestern highlands and the plains of northern Vietnam, stimulating connections along the Red River valley where also the Dong Son culture spread. It is possible that the highland interaction zone was centered especially around the

Imperial, and Global Scales (300 BCE-300 CE), eds. Lara Fabian, Kathrin Leese-Messing, Eli J. S. Weaverdyck, Lauren Morris, and Mamta Dwivedi (Heidelberg: HeiUP, forthcoming).

⁸⁵ Von Reden, "Beyond the Silk Road," 25-35 for the history of the concept.

⁸⁶ Bellina, "Early Maritime Silk Road," 469-470.

⁸⁷ For the regional cohesion of this zone Andrew Chittick, *The Jiankang Empire in World History* (Oxford: Oxford University Press, 2020).

⁸⁸ Korolkov, "Lingnan," where more detail and further literature for the following can be found; see also his fuller treatment of the region in Korolkov, "*The Imperial Network*."

circulation of metals, especially copper, tin, and lead ores that were needed for bronze casting. One of the most visible impacts of this profitable interaction zone was the growth of Cồ Loa on the Red River estuary, which grew into the largest settlement known in prehistoric Southeast Asia.⁸⁹



Map 2. Southern East Asia and Southeast Asia with sites mentioned in this article. Map © Peter Palm.

A second regional interaction sphere became important when the Chinese state of Chu expanded beyond the Yangzi River, henceforth holding power over the Yangzi River corridors and the Nanling mountains. Lingnan itself was not conquered but it was drawn into exchange relationships with the Chu, as reflected in finds of Chu-style bronze vessels, bells, and weapons in Lingnan burials from around 600 BCE onward. A third regional interaction zone, related to the second, included the Yue, the Chinese term for a non-Sinitic population living along the Middle and Lower Yangzi as well as along the coast between the Yangzi and

⁸⁹ Higham, "Social Change," 502-504.

Pearl River estuaries. When the Chu conquered the state of Yue, subjugating and expelling its indigenous communities and elites, contacts with Lingnan and the Yue intensified. Exchanges along the corridors of the river systems between Lingnan and the Middle Yangzi River remained active throughout the Qin and Han periods. The Yue people also brought a long sea-faring tradition to the cities of Lingnan.⁹⁰

A spurt in urbanization coincided with the conquest of Lingnan by the Qin in 214 BCE and again by the Han in 111 BCE. During the 100 years in between, the region was an independent kingdom calling itself Nanyue. As Korolkov argues, urban growth in Lingnan was a combination of external and local factors. Agricultural development, reclamation of cultivable land in the Red and Pearl River deltas, greater consumption capacity of elites, and inter-elite competition, combined with the excellent coastal river location of cities like Cồ Loa (later Jiaozhi) and Panyue were among the most important local factors of urban growth. Cồ Loa developed into a mega city and Panyue in the Pearl River became the multi-ethnic capital of Nanyue.⁹¹

There were external factors for urban development as well. With empire came garrison towns, protection of roads, organization of new industries like iron metallurgy, land reclamation projects, distribution of new metal, agricultural, and shipbuilding tools, and money.⁹² After the Qin conquest of Lingnan, hundreds of conscripts were stationed south of the Nanling Mountains. The Qin commander Zhao Tuo, who eventually established himself as king of Nanyue, is reported to have asked for 30,000 women as wives for his soldiers. By the end of the first century BCE, when the region was recovered by the Han, there were, according to official Han history, seven commanderies and 55 counties in Lingnan. This meant that there were at least 55 imperial towns in the region at that time. Those that have been excavated suggest many of them were strong but small fortresses with a walled area

⁹⁰ In Chinese texts, “Yue” is a generic term for southern non-Sinitic people, but they are hard to identify with any single ethnolinguistic group; Korolkov, “Lingnan,” 300, with Erica F. Brindley, *Ancient China and the Yue: Perceptions and Identities on the Southern Frontier, c. 400 BCE–50 CE* (Cambridge: Cambridge University Press, 2015).

⁹¹ The remains of a wooden dock, by some estimates spacious enough for a vessel 20 to 30 m long and 8 to 9 m wide, and a load-bearing capacity of 25 to 30 metric tons, were excavated in Panyu and date to the third/second century BCE. Several scholars suggest it served as a military base built by the Qin to support the conquest of the coastal Yue territories. Yet, according to the nineteenth-century Gazetteer of Lianzhou Prefecture, a dockyard of similar dimensions, dated to the Warring States period, was discovered on the Guangxi coast near the location of the Han-period Hepu County. This renders it, at least, possible that the sizable Panyu harbor might have served Nanyue’s interactions with sea-based peer polities during the period of independence, even though the Qin Empire may have been responsible for introducing iron shipbuilding tools previously unknown in Lingnan, see for this, and further literature, Korolkov, “Lingnan,” 304.

⁹² A small number of Qin coins were found at a site on the route from Ling Canal to the Pearl River valley. Around 300 *banliang* and *wuzu* coins from the Han period were discovered at the site of Nanyue royal palace, and many more in Nanyue-period tombs in Guangzhou. According to a rough estimate, the proportion of tombs containing coins increased from 26 percent in Former Han to 38 percent in the Later Han period; Korolkov, “Lingnan,” 312.

of no more than 4 ha.⁹³ Yet new port cities like Hepu, the seat of Hepu Commandery, and Xuwen located on the tip of the Leizhou Peninsula, grew into urban centers of considerable size: more than 10,000 graves are identified on the site of Coaxicum and 300 in Hepu directly.⁹⁴

Lingnan profited from all its networks, though in different ways. They also influenced forms and directions of exchange reaching into the South China Sea. In their everyday lives, the elites of Hepu and Panyu enjoyed consumption habits similar to those of other wealthy urban communities in more central parts of Han China, including high-fired glazed ceramics of near-porcelain quality, exquisite lacquers produced in state-managed workshops, and a variety of new styles of furniture and household utensils.⁹⁵ Cast-iron items, such as knives, axes, swords, vessels, and even coffin nails were likely imported from central China. Others were not just imported but imitated by local artisans, such as lacquer objects so typical for Han Chinese elite culture and exchange.⁹⁶ Closed-kiln firing that sustained firing for a period of time long enough for pottery glazing was also introduced to Lingnan under Han. Hepu Commandery became a center of pearl production, connected by post-Han sources to the imperial demand further north, but this might not tell the full story.

Furthermore, Panyu and Hepu became centers for the distribution of locally produced prestige objects. These include polyhedral gold beads (possibly a stylistic import from Bactria and Gandhara at the beginning of the first century CE), distinctive glass vessels (so-called Guanxi glass), incense burners, and Dong Son bronze drums. More mundane items include so-called “southern barbarian” pottery and bronze figurines often holding lamps. Each of them shows a different distribution pattern. Lingnan stone beads hardly traveled further than the Nanling Mountains, while the “southern barbarians” found their way into graves along the Lingnan-Yangzi corridor in Guangxi and Hunan. Polyhedral beads were also discovered in coastal Lingnan and northern Vietnam.⁹⁷ Many incense burners, likely transacted via Lingnan, were discovered in Changsha located on the northern riverine route from the Middle Yangzi to the Nanling Mountains. All this suggests continuous regional exchange activity across the Yangzi-Red River axis. Yet despite the intense maritime activities of Panyu, there is little evidence that communities on the shores of Guangdong, Guanxi, and northern Vietnam were active in the South China Sea Interaction Sphere. Then, in the final decades of the first century BCE, they suddenly joined in.⁹⁸

As such, large amounts of bronze vessels, seals, mirrors, and ceramic containers, mostly from Lingnan, spring up in the polities of the Thai-Malay Peninsula in the late first century

⁹³ Korolkov, “Lingnan,” 306.

⁹⁴ Korolkov, “Lingnan,” 308.

⁹⁵ Korolkov, “Lingnan,” 311, cf. Korolkov, *Imperial Network*, 191.

⁹⁶ See the excellent survey by Kathrin Leese-Messing, “Qin and Han Evidence – Material Evidence: Lacquerware,” in *Handbook*, vol. 1, ed. von Reden, 557-573.

⁹⁷ Korolkov, “Lingnan,” 329.

⁹⁸ Korolkov, “Lingnan,” 313-319, also for the following; quote from p. 313.

BCE.⁹⁹ Dong Son drums, glass and stone-bead decorations, and a bronze bowl with a lead isotope signature suggesting production in southern China appear in wealthy elite tombs of southeastern Cambodia in the late first and second centuries CE. A small number of Guanxi glass fragments, produced in a relatively narrow chronological corridor between 30 BCE and 70 CE, roughly when the stone and glass bead production peaked in Hepu and Panyu, were found in the Kra Isthmus. One glass fragment traveled as far as Arikamedu and another was found in Sri Lanka. While such evidence is hardly sufficient to suggest regular long-distance trade between Guanxi, Southern India, and Sri Lanka, it shows the degree to which the cities of the Pearl and Red River frontier zone came to participate in the South China Sea and Bay of Bengal interaction spheres that had been connected via the Kra Isthmus since the last centuries BCE.¹⁰⁰ The reasons for the relatively sudden onset of the participation of Lingnan in this macro zone is a problem that needs further interdisciplinary discussion. A better understanding of the socio-economic contexts of the relationships between Lingnan and the elites of the SCSIS is likely to offer some answers. However, against the background of Lingnan's development as a local center of production and exchange, the far-flung journeys of Chinese merchants and diplomats to Huangzhi referred to in the *Hanshu* becomes highly plausible. Nevertheless, neither did royal Han demand bring about Lingnan trade in the South China Sea nor did Roman trade in the western Indian Ocean stimulate exchange between Chinese merchants and South Asia.

The brief survey of Lingnan's development as a frontier zone aimed to draw attention to the local conditions that contributed to the formation of long-distance connections across the South China Sea and Bay of Bengal. A closer look at the local and regional exchange networks of Lingnan revealed that they were very different in kind, origin, and duration. The Yue network, linking Lingnan and the Middle Yangzi, was based on local inter-elite exchange and migration. Han imperial administration also extended into the south, affecting urbanization, production, consumption, and exchange in this region as well as its major port cities. Han Chinese raw materials, technologies, and finished products influenced, and virtually transformed, local production not only in terms of styles and objects that were manufactured locally but also in terms of production techniques and skills. Yet Xuwen and Hepu, which had been founded under Han, declined rapidly after the demise of Han imperial power in the third century CE, whereas Panyu and Jiaozhi, which were locked into much older regional networks, continued to prosper. The processes that these different networks unleashed were interdependent and together explain Lingnan's expansion into the South

⁹⁹ Korolkov, "Lingnan," 316 with Sophie Péronnet, "Overview of Han Artefacts in Southeast Asia with Special Reference to the Recently Excavated Materials from Khao Sam Kaeo in Southern Thailand," *Unearthing Southeast Asia's Past: Selected Papers from the 12th International Conference of the European Association of Southeast Asian Archaeologists*, vol. 1, eds. Marijke J. Klokke and Véonique Degroot (Singapore: National University of Singapore Press, 2013), 155-169; cf. Brigitte Borell, "Gemstones in Southeast Asia and Beyond: Trade Along the Maritime Networks," *Gemstones in the First Millennium AD: Mines, Trade, Workshops, and Symbolism*, eds. Alexandra Hilgner, Susanne Greiff, and Dieter Quast (Mainz: Verlag des Römisch-Germanischen Zentralmuseums, 2017), 21-44.

¹⁰⁰ Borell and Dussubieux, "Potash Glass Artifacts."

China Sea Interaction Sphere. Though less well studied than Khao Sam Kaeo, we can see in cities of Lingnan similar interlocking processes that not only pushed skills and technologies of production but also the radiuses of distribution and exchange to new extremes.¹⁰¹

Conclusion

In this article, I have raised doubts about the value of the Silk Road as a grand narrative for social, political, and economic transformation in Southeast Asia and the South China Sea. It is fraught with historiographical vagueness and chronological imprecision. It also gives agency to a romantic idea of global trade in ancient times, which prevents us from asking questions more appropriate for the socio-economic development of Southeast Asia during the Iron Age. I have suggested a different analytical framework, which does not deny the growth of long-distance exchange and trade across the South China Sea and Bay of Bengal nor their interdependence with local social change. Yet we need to disentangle local, regional, and transregional factors and their different temporal scales in order to understand change. Socio-economic development in Southeast Asia was affected by imperial developments in East Asia as well as subcontinental India from the third century BCE onward. These affected imperial edges (such as coastal India) and frontiers (such as the Pearl and Red River regions) in complex and not always continuous ways. There were also important social and economic transformations in mainland and maritime Southeast Asia during the early Iron Age: iron use, changes in agricultural patterns, and population growth. To these, the imperial developments of East and South Asia were at first exogenous factors. Over time, they became interrelated, as the industrial development of Khao Sam Kaeo and urbanization in Lingnan, and their expansion into the South China Sea Interaction Sphere, showed. We need to understand specific local developments and their interdependence at different temporal, spatial, and social levels and scales.

Within this framework of analysis, local elites were the most dynamic actors of social transformation in Southeast Asia. In their capacity to control resources, people, and exchange networks but also in their competition for local and regional social power, they—rather than the Silk Road—brought about change in the Southeast Asia region during the Iron Age.

¹⁰¹ Korolkov, “Lingnan,” 316, notes, however, that overall, the Han Chinese interactions with Southeast Asia during the Iron Age were far less intense than those between South Asia and Southeast Asia; see also Philippe Beaujard, ed., *The Worlds of the Indian Ocean: A Global History*, vol. 1 (Cambridge: Cambridge University Press, 2019), maps II.1 and II.12.

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