Journal of Southeast Asian Studies, 50(4), pp 476–488 December 2019.
 doi:10.1017/S0022463420000016

Regional influences, economic adaptation and cultural articulation: Diversity and cosmopolitanism in fourteenth-century Singapore

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Studies on the international history of fourteenth-century Singapore have been hitherto limited to external trade conducted by local inhabitants, and material consumption patterns that this trade enabled them to develop. Broader regional cultural influences have been postulated though not clearly demonstrated, given scant textual records and limited material culture remains. This article seeks to examine the external influences, adaptation and assimilation in the production and consumption of fourteenth-century Singapore. In particular, it looks at three aspects of Singapore's pre-colonial existence — modes of economic production, patterns of consumption of international products, and the articulation of high culture vis-à-vis external entities. By examining available archaeological, epigraphic, art historical and cartographic data from the fourteenth through the nineteenth centuries, this article postulates how distinct consumption patterns may have developed among different riverside populations living north of the Singapore River. This study also questions the common view that Singapore developed as a cosmopolitan port-city only after the advent of British colonialism, demonstrating that its diversity and openness was likely a feature centuries before.

Research on the history of Singapore in the fourteenth century, when the first documented settlement on the island came into existence, is very rich. Since the arrival of Sir Stamford Raffles in 1819, there have been persistent efforts to shed light on the pre-colonial history of Singapore through textual research, art historical discourse, and more recently, through archaeological research.[1] The result has been that we have a rich depiction of the fourteenth-century world of Singapore, which provides the backdrop for Malay traditional stories, such as those recounted in the *Sejarah Melayu* ('Malay Annals'), as well as Chinese accounts that we now know so well.[2]

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1 For a brief overview of the historiography and research on pre-colonial Singapore history, see Kwa Chong Guan, Derek Heng, Peter Borschberg and Tan Tai Yong, *Seven hundred years: A history of Singapore* (Singapore: National Library Board, 2019), pp. 1–17.

2 C.C. Brown, *Malay annals* (Kuala Lumpur: Malaysian Branch of the Royal Asiatic Society, 2009 [1953]); Su Jiqing, *Daoyi zhilue xiaoju* [Treatise on the island barbarians] (Bejing: Zhonghua shuju, 1991).

Indeed, the late Paul Wheatley (1921–99), an eminent historical geographer and scholar of pre-modern Southeast Asian urbanism, noted in the 1960s that Temasik, the fourteenth-century settlement located at the mouth of the Singapore River, was perhaps one of the port-cities in the Melaka Straits region with the richest historical textual information.[3] From an urban historical point of view, there has been a combination of information on the inhabitants' ethnic backgrounds, the nature of the trade that took place, the nature of its politics, and descriptions of the built features of the settlement. All these point to Temasik as a thriving urban centre that was engaged with the external world, both regionally as well as further afield.

Over the last thirty years, archaeological research has demonstrated that the settlement was prolific, maintaining a fairly high level of material cultural consumption and economic production. The broad range of imported and locally produced items, including ceramics, metalware, foodstuffs, and even coins, to name but a few types of artefacts recovered, along with the different values that were inherent in these finds, indicate that the consumption patterns of the inhabitants of Singapore in the fourteenth century were varied and complex.[4] Taken together, the historical and archaeological records to date provide glimpses of what must have been a cosmopolitan society, if not in terms of its ethnic composition, at least in terms of its tastes, activities and customs.

Temasik, from this perspective, appears to have been a well-connected urban centre. Yet consumption patterns alone can be a fairly superficial means of determining and characterising cosmopolitanism. The outward display of a cosmopolitan culture is made apparent by such visible attributes as items of daily usage, and even such tangible practices as food consumption. Nonetheless, such displays constitute only one aspect of what could be a broader and deeper diversity that may be also reflected in how the settlement functioned, how it subsisted and survived, and how it saw itself as a cultural entity.

This cosmopolitanism, drawing from traits evident in the Gulf of Siam, Sumatra and Java, as well as material consumption patterns supported by economic output from polities in the region and further afield, including China and India, enables a perspective towards Singapore's sociocultural history as one that predates 1819. Accordingly, this article first questions the notion that Singapore's founding in that year by the English East India Company was the beginning of its cosmopolitan society. Second, the article aims to reinforce the notion that the cultural traits of Singapore settlements, extending back into the fourteenth century, may be tied to interactions with the region and Maritime Asia over the longue durée. Both historiographical questions will be explored through three aspects of Temasik's society — its trade

3 Paul Wheatley, *The Golden Khersonese: Studies in the historical geography of the Malay Peninsula before A.D. 1500* (Westport: Greenwood, 1961), pp. 84–5.

4 For an overview of the archaeological research on Singapore, see John N. Miksic, *Singapore and the Silk Road of the Sea, 1300–1800* (Singapore: NUS Press, 2013); Lim Tse Siang, '14th century Singapore: The Temasek paradigm' (MA diss., National University of Singapore, 2012); Lim Chen Sian, 'Preliminary report on the archaeological investigations at the National Gallery Singapore', Nalanda–Sriwijaya Centre Archaeology Unit, Archaeology Report Series No. 5 (Singapore: Institute of Southeast Asian Studies [ISEAS], 2017).

and consumption patterns; possible agricultural practices and activities; and aesthetics and religious practices.

Consumption patterns as expressions of demographic diversity

Through the fourteenth century, Temasik maintained a small but vibrant trade with the external world. The archaeological recoveries from more than ten excavations in the area north of the Singapore River, including those at Empress Place, the Padang, the former Supreme Court building (now the National Gallery), and the old Parliament House, have produced a material cultural record that demonstrates that Temasik imported a wide variety of products from many places, especially India, China, and Southeast Asia (Sumatra, North Borneo, the Gulf of Siam). While India and China were the source of manufactured products such as ceramics, textiles, metalware and processed foodstuffs, Southeast Asia was a source of raw materials, including tin, gold, incense woods, fauna products and food.

This variety of imports resulted in Temasik's inhabitants being able to express and develop demographic diversity through the acquiring and use of these products. The diversity, or social differentiation, was reinforced by affordability and exclusiveness, as well as the reinforcing of differing tastes and consumption preferences, even as it would appear that all these products were available to all inhabitants of Temasik.[5]

As an example, ceramics imported by Temasik's inhabitants, which were primarily high-fired types made in China, ranged from cheaper examples made in provincial kilns located around the port cities of Guangzhou and Quanzhou, to rarer examples from kilns located further north along the Chinese coastline, such as at Jiangxi and Jiangsu. There were also expensive ceramics from such national kilns as Jingdezhen (Jiangxi), Dehua (Fujian province) and Longquan (Zhejiang province).[6]

The different sources of Chinese ceramics at Temasik reflected the settlement's aesthetic diversity at a number of levels. On the one hand, the aesthetic experience of an end-user, when he or she handled a ceramic, would have differed significantly depending on the type of material used. Ceramic bodies were of varied types, resulting in different weights or densities. The colour, degree of transparency or opacity, as well as tactile characteristics such as the smoothness or roughness of glazes, all contributed to the different aesthetic experience of the use of these ceramics.

Ceramics also reflected the different values that the inhabitants of Temasik were able to support and appreciate. While bowls and plates were the predominant forms of imported ceramics, other more unique forms were also brought in. The latter included large celadon (grey-green glazed) platters that were exported to the Middle East, small figurines such as Bodhisattvas in Qingbai (blue-white) glaze, and white-glazed figurines of a couple copulating, on the inside of a small ceramic box.[7] This range of artefacts reflect the diversity of consumer preferences and usage that were present in Temasik, which included utilitarian, religious, ceremonial and even entertainment purposes. The values and religious outlook of the inhabitants would have

5 On the correlation between items of different levels of economic accessibility and subgroups within a social organisation, see Marshall Sahlins, *Stone Age economics* (London: Routledge, 2017), pp. 168–258.
6 Derek Heng, *Sino-Malay trade and diplomacy from the tenth through the fourteenth century* (Singapore: ISEAS, 2012), pp. 149–90.
7 Kwa et al., *Seven hundred years*, pp. 35–6.

https://doi.org/10.1017/S0022463420000016 Published online by Cambridge University Press

been fairly diverse to have made the importation of such a range of forms and items possible.

Within the settlement site, however, there appears to have been distinct differences in the pattern of consumption of Chinese ceramics that would make sub-areas distinguishable from each other. Amongst the excavated sites on the north bank of the Singapore River Basin, the proportion of celadon, white ware, and blue-and-white ceramics differs significantly. Blue-and-white porcelain sherds, for example, occur at twice the density on Fort Canning Hill as compared to those of other sites below the hill. White ware ceramics, on the other hand, have been excavated at similar proportions on Fort Canning and at the St. Andrew's Cathedral site, while more of these ceramics have been recovered at sites located along the riverbank. For celadon, sites located further upstream along the riverbank had the highest density of these sherds while those at the lower reaches of the riverbank had the lowest density, with sites on Fort Canning Hill and St. Andrew's Cathedral ranging in between these two extremes.[8] These preliminary observations suggest that the groups located along the four key locations of Temasik — on the lower and upper reaches of the riverbank, at the area around St. Andrew's Cathedral, and on Fort Canning Hill, had different ceramic consumption patterns, possibly governed by taste, including such factors as glaze, colour, texture, form, and cost. While the entire settlement's ceramic consumption was influenced by the availability of Chinese ceramics, how each sub-group, distinguished by the locality of their activities, capitalised on that supply differed significantly.

Other than reflecting the tastes and consumption patterns of imported ceramics, ceramic finds also provide a glimpse of the possible culinary practices of Temasik's inhabitants. Storage jars, both earthenware and high-fired stoneware, have been recovered from all excavated sites. While earthenware jars come from neighbouring areas, including North Sumatra, Borneo and South Thailand,[9] the high-fired stoneware jars come from further afield, primarily the south Chinese coastal provinces.[10] Such jars were often not exported on their own, but were used as containers to ship smaller ceramics as well as foodstuffs.

None of the storage jars recovered from Singapore have any of the original food remains in them. However, shipwrecks from the region, including the Belitung wreck (ninth century), Pulau Buaya wreck (early twelfth century), and Turiang wreck (late fourteenth century), contain storage jars filled with foodstuffs.[11] These finds

8 Heng, *Sino-Malay trade and diplomacy*, p. 223, tables B.1 and B.2; Lim, *14th century Singapore*, pp. 65, 66, tables 3, 4; John N. Miksic, 'Beyond the grave: Excavations north of the Kramat Iskandar Shah, 1988', *Heritage* 10 (1989): 38–9, table 1.

9 John N. Miksic and C.T. Yap, 'Fine-bodied white earthenwares of South East Asia: Some X-ray florescence tests', *Asian Perspectives* 31, 1 (1992): 57–76; Omar Chen, 'An investigation into the occurrence of earthenware artefacts at the Parliament House Complex site' (MA thesis, National University of Singapore, 2001).

10 Derek Heng, 'Economic exchanges and linkages between the Malay region and the hinterland of China's coastal ports during the 10th to 14th centuries', in *Early Singapore, 1300s–1819: Evidence in maps, texts and artefacts*, ed. John N. Miksic and Cheryl-Ann Low (Singapore: Singapore History Museum, 2004), pp. 73–85.

11 Michael Flecker, 'A 9th century Arab or Indian shipwreck in Indonesian waters', *International Journal of Nautical Archaeology* 29, 2 (2000): 199–217; Abu Ridho and E. Edwards McKinnon, *The Pulau Buaya wreck: Finds from the Song period* (Jakarta: Ceramic Society of Indonesia, 1998);

from shipwrecks suggest that similar culinary ingredients were imported by Temasik's inhabitants during the fourteenth century. The types of storage jars recovered in Singapore are similar to those recovered from these shipwrecks.

As an example, two types of storage jar sherds found in abundance in Singapore — those of small-mouth jars (round-bodied jars with narrow bases and small mouths that were used to store dense liquids such as rice wine) and Jiangxi purple-clay jars — were likely to have been containers that originally contained glutinous rice wine produced in South Fujian and sauces from Jiangxi, respectively, in the fourteenth century. Larger jars, such as those produced in the vicinity of the Chinese port cities of Guangzhou and Quanzhou, would have contained preserved foods, including fish and vegetables, which were known to have been produced in the immediate agricultural hinterlands of these port cities.[12]

It has to be understood that all of these postulations are based on the archaeological record of storage ceramics. Nonetheless, it is likely that the population of Temasik used substantial quantities and varieties of imported foodstuffs to complement local food production. The use of imported ingredients hint at their culinary familiarity, which in turn would suggest that a variety of foreign influences were present in Temasik and affected its inhabitants' eating patterns. This situation possibly led to either a diversification of foodways, or a hybridised food culture that adopted aspects of the various culinary cultures that found their way to the settlement.

Similar to the ceramic consumption patterns, there were substantial differences between the sub-areas within the settlement itself. Small-mouth jar sherds, for example, occur at three times the density at Fort Canning Hill sites than at the site below the hill. The links between these jars and their association with glutinous rice wine suggest that this alcohol was likely to have been consumed at much higher rates on Fort Canning Hill than anywhere else in the settlement, even though consumption did take place everywhere. Were there activities associated with alcohol that took place primarily on the hill? Or was this a manifestation of the drink being costly, and therefore the level of consumption between the inhabitants who were resident or active on the hill was higher than the level maintained by the inhabitants who lived just north of the Singapore River?

Similarly, brittle-type storage jar sherds, where the jars were thin-bodied but also very large, were likely used to carry and store low density items, including dried goods, dehydrated vegetables and dried spices. The density of such sherds at Fort Canning is more than twice that of the lower reaches of the riverbank, six times that of its upper reaches, and more than twelve times that of the St. Andrew's Cathedral area. If indeed brittle-type storage jars were used to contain low-density foodstuffs, then their usage was highest on Fort Canning Hill, and lowest at

Roxanna M. Brown and Sten Sjostrand, *Turiang: A fourteenth-century shipwreck in Southeast Asian waters* (Pasadena, CA: Pacific Asia Museum, 2000).

12 Sharon Wai-Yee Wong, 'A case report on the function(s) of the "mercury jar": Fort Canning, Singapore, in the 14th century', *Archaeological Research in Asia* 7 (2016): 10–17; Alasdair Chi, 'A framework for the study of 'mercury jars' and other stoneware from the Temasek period of Singapore, alongside 12th–14th century stoneware from Kota Cina, Sumatra' (M.Sc. diss., University of Oxford, 2017); Heng, *Sino-Malay trade and diplomacy*, pp. 186–90.

St. Andrew's Cathedral. This may reflect constraints pertaining to the usage of these ingredients, including cost, social exclusivity and taste.

The differences in the level of demand for various products, evident in the remains found at the different locations, provide a picture of distinct groups within Temasik itself. While ethnically demarcated quarters have been associated with colonial port-city planning in Singapore, this urban characteristic of Temasik suggests that such a segregated living pattern may have already manifested itself as early as the fourteenth century.

Primary economic production and regional influences

Because Temasik has traditionally been studied in the framework of a Malay port city, it has always been assumed that the bulk of its food supplies was imported.[13] The Melaka and Johor Sultanates have frequently served as the model of urban sustainability in the Malay region. While the hinterland of the port city of Melaka yielded produce such as fruits and possibly some cereals, the supply was clearly insufficient to sustain approximately ten to thirty thousand people, which was the size of Melaka's population at its fifteenth-century peak, during the high trading seasons of the year.[14] Instead, staples like rice were imported from such places as Ayutthaya in Thailand and Majapahit in Java. Melaka's role as a Malay regional trade hub enabled it to import such staples for its own needs, as well as to redistribute the surplus to other port cities in the region.

Temasik was not necessarily in the same league as the Melaka Sultanate. There were a few possible sources of cereal staples that Singapore could have tapped into. Java would have been one, as would have been the Gulf of Siam littoral, including Sukhothai in the early fourteenth century and Ayutthaya in the later part of the century. However, trade in the Malay world in the fourteenth century was a lot more dispersed than it would be in the fifteenth century, and while it is possible that cereals such as rice could have been supplied to Temasik on a consistent basis, the ability of the port-settlement to attract regular supplies of rice may have been lower than in later periods. The absence of larger ports in the Malay region with connections to the major rice-producing states of Southeast Asia also suggests that Temasik may not have had a network of nearby ports that it could tap into for supplies of cereal staples as did Malay ports of the pre-fourteenth and post-fourteenth century eras. Importantly, the *Sejarah Melayu* does not contain information indicative of the importation of such staples as rice into Temasik, and associated economic practices that were clearly noted in the same text with regards to the Melaka Sultanate and Johor. While it is possible, and indeed likely, that Temasik had some of its food needs met from abroad, it is also likely that a large part of the settlement's food

13 Bennet Bronson and Jan Wisseman, 'Palembang as Srivijaya: The lateness of early cities in Southern Southeast Asia', *Asian Perspectives* 19 (1976): 220–39; Paul Wheatley, *Nagara and commandery: Origins of the Southeast Asian urban traditions* (Chicago: University of Chicago, Dept. of Geography, 1983); Pierre-Yves Manguin, 'City-states and city-state cultures in pre-15th century Southeast Asia', in *A comparative study of thirty city-state cultures: An investigation*, ed. Mogens Herman Hansen (Copenhagen: Kongelige Danske Videnskabernes Selskab, 2000), pp. 409–514; Kenneth R. Hall, *Maritime trade and state development in early Southeast Asia* (Honolulu: University of Hawai'i Press, 1986), p. 19.

14 Armando Cortesão, *The Suma Oriental of Tome Pires and the Book of Francisco Rodrigues*, 2 vols. (London: Hakluyt Society, 1944), p. 238.

https://doi.org/10.1017/S0022463420000016 Published online by Cambridge University Press

supplies were produced locally. This would have included rice cultivation, sago production, and the gathering and hunting of fauna both on land as well as at sea.[15]

At the same time, Temasik's population was likely much smaller than Melaka's. In a previous study on the reconstruction of Temasik, it has been proposed that the inhabited land area north of the Singapore River was approximately 54 hectares. This excluded the land area of Fort Canning Hill, which was also occupied during that time. Utilising Melaka's land population density in its first ten years of inception as a reference point, such an occupied land area would have seen around 500 to 2,000 as a plausible population base.[16]

The ability to ensure a sustainable food supply would have been important to the survival and well-being of the inhabitants of ancient Singapore. The absence of a broad range or volume of local products that could be traded externally, coupled with the relatively high material cultural standard of living exhibited by the archaeological record, suggests that the population was able to sustain itself to some extent, without having to divert all of its trade earnings towards purchasing food from abroad.

Could Temasik have had agricultural lands? One of the most important built features of that time was the moat, or freshwater rivulet, that stretched for approximately one kilometre from the shoreline (which then lapped the eastern fringe of the Padang) towards the eastern foot of Fort Canning Hill in a southeast to northwest direction, corresponding closely to the course of Stamford Road up until the 1990s, when the road was redirected. Early 1820s maps of Singapore town show that the moat would have served as a catchment, drawing water from Fort Canning Hill and several other hills in the vicinity, including Mount Sophia, Selegie Hill and the hills which today form the grounds of the Istana.[17]

Similar to the moated irrigation systems built in the Gulf of Siam and Central Thailand during the first and second millennia, such as at Satingpra, Nakhon Si Thamarat, U Thong and Nakhon Pathom,[18] water from nearby hills could have been used to develop agriculture in the northern vicinity of the moat in Temasik. The irrigation would have enabled its inhabitants to develop rice or other cereal agriculture in the area bound by present-day Stamford and Bras Basah roads.[19] Research

15 Muriel Charras, 'Feeding an ancient harbour-city: Sago and rice in the Palembang hinterland', *Bulletin de l'École Française d'Extrême Orient* (*BEFEO*) 102 (2016): 97–123; R.D. Hill, *Rice in Malaya: A study in historical geography* (Singapore: NUS Press, 2012).

16 Derek Heng, 'Temasik as an international and regional trading port in the thirteenth and fourteenth centuries', *Journal of the Malaysian Branch of the Royal Asiatic Society* (*JMBRAS*) 72, 1 (1999): 122.

17 Built in 1869 as Government House, the Istana (palace, in Malay) was originally the residence of the British governor. When Singapore gained internal self-rule in 1959, the building was renamed and housed Singapore's then head of state, the Yang di-Pertuan Negara. Since independence in 1965, the Istana has been the official residence of the president.

18 Wheatley, *Nagara and commandery*, pp. 199–230; Karen M. Mudar, 'How many Dvaravati kingdoms? Locational analysis of first millennium A.D. moated settlements in central Thailand', *Journal of Anthropological Archaeology* 18 (1999): 1–28; Janice Stargardt, *Satingpra I, the environmental and economic archaeology of South Thailand* (Oxford: British Archaeological Reports, International Series 158, 1983).

19 For cultivation studies, refer to Akom Sowana, Rajendra P. Shrestha, Preeda Parkpian and Soparth Pongquan, 'Influence of coastal land use on soil heavy-metal contamination in Pattani Bay, Thailand', *Journal of Coastal Research* 27, 2 (2011): 252–62; I. Roslan, J. Shamshuddin, C.I. Fauziah and A.R.

into the paleo-geology of this area indicates that the soil structure in this area was comprised of clay with substantial organic material,[20] and thus ideal for rice cultivation.[21] In fact, cereal production at Temasik was alluded to by such visitors as Wang Dayuan, who noted in the *Daoyi zhilue* (*c.*1349) that agriculture took place in the settlement, even though the fields were not fertile, and yields were low.[22] Studies conducted on the cultivation of rice in Thailand suggests that the area bounded by the freshwater rivulet and present-day Bras Basah Road, approximately 13.35 hectares, could conceivably produce approximately 27,200 kilograms of rice per growing season. This volume of rice could support 150 adults or 30 families. Given the possibility of at least three growing seasons, the number of people the land could support would be approximately 450 adults per year.[23]

However, sago cultivation on the same land would have been able to produce up to five times the amount of calories compared to rice cultivation. Added to this would have been the relative ease at which sago could traditionally be cultivated in the coastal and riparian zones of Island Southeast Asia, as compared to rice, which required significant land and labour management.[24] If sago was indeed cultivated in the area bound by Stamford and Bras Basah roads, the estimated population it could support would increase to approximately 2,250 adults. This estimate would fall well in line with the population estimate earlier in this article, before Melaka's population expanded dramatically on the back of Ming imperial patronage and the conversion of its rulership to Islam during the reign of Megat Iskandar Shah (1414–24).

Other built structures point to a concerted effort at developing and maintaining agricultural lands in Singapore. An earth rampart, named 'the Old Malay Lines' by the British in the 1820s before it was demolished, predates the nineteenth century. Built along the northwestern to eastern foothills of Fort Canning, it would have had the effect of stemming soil erosion and enhancing ground moisture retention on the northeastern slope, corresponding to where the National Museum is located today. Such soil retention would have supported agriculture on the northeastern slope of the hill. This is similar to the soil retention techniques utilised at settlements such as Khao Sam Kheo and Si Pamutung.[25] The northeastern slope of the hill would have been suitable for sustained agriculture, as well as the construction of buildings,

Anuar, 'Fertility and suitability of the spodosols formed on sandy beach ridges interspersed with swales in the Kelantan-Terengganu plains of Malaysia for kenaf production', *Malaysian Journal of Soil Science* 15 (2011): 1–24.

20 M.I. Bird, L.K. Fifield, T.S. Teh, C.H. Chang, N. Shirlaw, K. Lambeck, 'An inflection in the rate of early mid-Holocene eustatic sea-level rise: A new sea-level curve from Singapore', *Estuarine, Coastal and Shelf Science* 71 (2007): 523–36.

21 S. Paramananthan, 'A comparative study of the mineralogy of rice soils of the Kedah and Kelantan coastal plains of peninsular Malaysia', *Geological Society Malaysia Bulletin* 23 (Aug. 1989): 41–57.

22 Su, *Daoyi zhiliue*, p. 196.

23 Lucien M. Hanks, *Rice and man: Agricultural ecology in Southeast Asia* (Honolulu: University of Hawai'i Press, 1972), p. 48, table 4.2.

24 Muriel Charras, 'Feeding an ancient habour-city: Sago and rice in the Palembang hinterland', *BEFEO* 102 (2016): 97–123.

25 Berenice Bellina et al., 'The early development of coastal polities in the upper Thai-Malay peninsula', in *Before Siam: Essays in art and archaeology*, ed. Nicolas Revire and Stephen Murphy (Bangkok: River Books; Siam Society, 2014), pp. 72–4; Heddy Surachman et al., 'Structures, features and stratigraphies of

https://doi.org/10.1017/S0022463420000016 Published online by Cambridge University Press

evidenced by the presence of brick foundations witnessed by John Crawfurd (1783–1868), Singapore's second British Resident, in 1822.[26]

The soil retention and moated irrigation works, and the possibility of rice and sago cultivation, suggest that the agricultural practices at Temasik may have originated from the Gulf of Siam region, possibly alluding to either a sustained exchange between the settlement and the Gulf of Siam littoral, and Sumatra, which has traditionally been regarded in historical scholarship as the source of culture for Temasik. The settlement was likely an extension of the Gulf of Siam cultural sphere on the one hand, and the Malay cultural sphere centred in Sumatra and Borneo on the other.

Aesthetics and religion

As a cultural centre, Temasik's population would have produced, imported and appropriated, and exhibited its own characteristics, which changed over time to reflect its population base, and the interaction that this population would have had with the external world. Unfortunately, there is a paucity of material that could provide an impression of the aesthetics of Temasik.

The archaeological remains unearthed so far do not provide evidence that specific tastes were articulated to the producers and procurers of the imported material culture, with a corresponding manifestation of unique tastes being reflected in the visual and physical attributes of the objects that were then brought into Singapore. Similarly, it is difficult, in the absence of a more secure and detailed framework of analysis, to develop a sense of aesthetic productions by the inhabitants of Temasik. In other words, we may be able to elucidate aesthetic consumption as a reactive activity, but not aesthetic production as an active aspect of Temasik culture.

As a case in point, it may be possible to develop a taxonomy of the decorative motifs seen on the earthenware sherds recovered. Nonetheless, these motifs were reflective more of Island Southeast Asian, and specifically Melaka Straits littoral, aesthetics that accompanied the production of such ceramic wares, than necessarily of local aesthetics or even a taste for particular imported craft.

At the same time, several archaeological remains do provide a glimpse of the possible production of artefacts and architecture carried out by the inhabitants of Singapore. To begin with, in Crawfurd's account of Fort Canning Hill, he noted that the eastern and northern slopes of the hill were dotted with brick platforms that did not have any superstructures over them.[27] There was apparently no spatial order or logic to the location of these built forms. This suggests that Crawfurd likely saw the remains of the culmination of a series of building projects that took place organically, and over a long period of time.

Two points could be elucidated from Crawfurd's observation. First, the brick foundation tradition is primarily located in the Melaka Straits and Isthmus of Kra regions. Sites that have such remains include Si Pamutung (North Sumatra), South Kedah (Peninsular Malaysia), Takuapa (South Thailand), and the east coast of the

the Si Pamutung excavations', in *History of Padang Lawas I: The site of Si Pamutung (9th century–13th century AD)*, ed. Daniel Perret and Heddy Surachman (Paris: Cahiers d'Archipel, 2014), pp. 80–82.

26 Wheatley, *Golden Khersonese*, pp. 120–22.

27 Ibid., p. 121.

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Isthmus of Kra in Thailand.[28] This regional pattern suggests that the inhabitants of Singapore who built the brick platforms on Fort Canning Hill were likely inspired by similar architectural practices evident in the northern Melaka Straits and Isthmus of Kra, or involved builders who hailed from these places.

Second, the practice of building individual religious structures over a long period of time, likely a collective act of merit-making, stands in contrast to a singular building project to create a cosmological setting, which would have been a political project. The former practice has similarities with cultural traditions in Southeast Asia that adhered to Buddhism, including Bagan (in Burma), sites of the Dvaravati tradition in Central Thailand, sites along the Isthmus of Kra belonging to the first half of the second millennium CE, and at South Kedah on the upper reaches of the Sungei Bujang dating to the second half of the first millennium CE.

Other evidence, however, point to aesthetic production that may have been influenced by other cultural spheres. The Singapore Stone, which was discovered on the southern tip of the south bank of the Singapore River in June 1819, was a 10-foot high sandstone boulder split in half, containing writing on the inside surface of the split. A surviving fragment of this stone, which was blown up into smaller pieces in 1843 when the British sought to widen the river mouth, can be seen at the National Museum of Singapore.

J.G. de Casparis (1916–2002), a philologist of ancient Southeast Asian languages, suggested that the language on the stone appears to have been a variant of Old Javanese, with a possible date of around the tenth to twelfth centuries.[29] Boechari (1927–91), an eminent Indonesian epigraphist and historian, has suggested that the language was possibly Sanskrit, a language used in Sumatra, with a date of no later than the twelfth century.[30] Whatever written linguistic influence that Temasik may have come under, however minimally, appears to have been from the western Indonesian Archipelago, and more specifically either Sumatra or Java.

The cultural influence of Java may also be seen in a number of metal objects recovered from Temasik-period sites, in particular the cache of gold jewellery that was recovered from Fort Canning Hill in the 1920s. The use of the goose motif on one of the rings is reminiscent of Javanese decorative arts up to the fifteenth century. Along the same lines, the use of the *kala* (a lion-headed Javanese demon) head on the gold wristband is reminiscent of the kala head that is well-known in contemporaneous Javanese decorative arts. Archaeologist Pieter V. van Stein Callenfels (1883–1938) has suggested that the decorative icons on the jewellery, in particular the kala head motif, mirrors the best in fourteenth-century Javanese gold craftsmanship.[31] Finally, a lead figurine of a male rider on a horse was recovered from Empress Place near the mouth

28 S.J. Allen, *Trade, transportation and tributaries: Exchange, agriculture, and settlement distribution in early historic-period Kedah, Malaysia* (Ann Arbor, MI: UMI, 1988); Michel Jacq-Hergoualc'h, *The Malay Peninsula: Crossroads of the Maritime Silk Road (100 BC–1300 AD)* (Leiden: Brill, 2002), pp. 308–10.
29 J.G. de Casparis, *Indonesian paleography* (Leiden: Brill, 1975), p. 45.
30 John Miksic, *Archaeological research on the 'Forbidden Hill' of Singapore: Excavations at Fort Canning, 1984* (Singapore: National Museum, 1985), p. 13.
31 Richard O. Winstedt, 'Gold ornaments dug up at Fort Canning, Singapore', *JMBRAS* 42, 1 (1969): 49–52.

of the Singapore River in 1998. The figurine is similar to ones that have been recovered from Majapahit sites in East Java.[32]

The above aspects of consumption and production are only a glimpse into the possible ways of life in Singapore in the fourteenth century. Foreigners traversing the Melaka Straits region have, through the centuries, been fascinated by the ways of life maintained by the region's inhabitants. In the case of Temasik, such descriptions have been noted in the account of Wang Dayuan, a Chinese merchant who travelled in this region during the first decades of the fourteenth century.

Wang's account mentions three groups of people resident in Singapore during that time — Orang Laut or 'Sea Peoples', land-based natives, and a group of South Chinese who were resident at the settlement at Keppel Straits[33] (the narrow channel between Telok Blangah and present-day Sentosa Island). The presence of Chinese at Keppel Straits has often been cited by scholars of Temasik as a sign of cultural diversity, and possibly the first Chinese record of an overseas Chinese population in Southeast Asia.[34]

Notwithstanding the merits of such arguments, two issues pertaining to ethnic diversity and the notion of cosmopolitanism of an urban centre come to mind. First, while ethnic diversity can be gauged from the number of groups of people resident in a settlement, sojourning alone does not in and of itself contribute to the benefits that diversity could bring to a place and its people. In other words, the mere presence of non-locals amongst the native population does not imply that the local culture — and its attendant practices and traditions, methods of survival, as well as its behaviours and responses that foreigners may note as differences — would be influenced or fundamentally affected and changed. The notion of equating ethnic group identity with population diversity has its roots in colonialism and port-city management, in earlier eras of the coastal Chinese port cities of Guangzhou and Quanzhou, during the early period of European incursion into Asian port cities such as Nagasaki and Macau, and in European colonial cities and territorial holdings from the sixteenth through the twentieth centuries.[35]

Instead, diversity may be elucidated in terms of the specificity of consumption patterns, and of the key practices and activities of the population. In terms of consumption, one would expect that the diversity would be evident from the range of foreign products imported by the settlement. Herein, specific tastes, including aesthetic as well as tactile preferences, would be exhibited by the degree of consistency in the range of products demanded over a significant period.

32 Kwa et al., *Seven hundred years*, p. 43.
33 Su, *Daoyi zhilue*, p. 213.
34 Miksic, *Singapore and the Silk Road of the Sea*, p. 23.
35 Hugh R. Clark, *Community, trade and networks: Southern Fujian province from the third to the thirteenth century* (Cambridge: Cambridge University Press, 1991); Derek Heng, 'Shipping, customs procedures and the foreign community: The *Pingzhou ketan* on three aspects of Guangzhou's maritime economy in the late eleventh century AD', *Journal of Song-Yuan Studies* 38 (2008): 1–38; Roderich Ptak, 'China's medieval *fanfang* — a model for Macau under the Ming?', *AHAM* 2 (2001): 47–71; A. J. Christopher, 'The quest for a census of the British Empire c.1840–1940', *Journal of Historical Geography* 34, 2 (2008): 268–85; Charles Hirschman, 'The meaning and measurement of ethnicity in Malaysia: An analysis of census classifications', *Journal of Asian Studies* 46, 3 (1987): 555–82.

For example, where the range of ceramics imported from China remained fairly consistent over the course of the fourteenth century, the archaeological record would suggest that a taste for such Chinese ceramic tastes was quickly acquired by the population of Temasik and remained a part of their ceramic consumption taste for around a century. Similarly, the consistency of the range of storage jars recovered suggests that the Chinese products stored in these jars, including foodstuffs and liquids such as wine and sauces, were very quickly incorporated into the culinary palate of the people of Temasik, and thence consistently demanded and imported over the course of the fourteenth century.

Herein, cultural absorption and hybridisation would have been the outcome of a diversity borne out of interaction between the local population of Temasik and those who brought novel consumption patterns and tastes into the settlement. However, it is not possible to extrapolate the ethnic backgrounds involved as represented by the material cultural remains that have thus far been recovered. One can only assume that ethnic diversity was inherent in the initial interactions between the local population and the foreign groups that brought these materials, which eventually led to the development of a hybrid culture.

Cultural absorption and hybridisation were not the only dynamics at play. There is no other evidence of writing apart from the inscription on the Singapore Stone, and no gold jewellery other than the cache recovered from Fort Canning Hill in the 1920s. This suggests that certain cultural elements, such as writing and craftsmanship of high-value metalwork, all of which have social-elite connotations, were extremely limited in terms of how widely they were practised by the population. One could argue that these examples highlight the regional cultural sphere within which Temasik found itself and therefore was a part of. But a counter-argument could in fact be made that the exclusivity of these cultural elements, coupled with their extremely limited occurrence in Temasik, precludes them primarily as elements of external articulation to a specific external audience, as opposed to being elements of internal articulation and discourse.

In other words, in the absence of any correlation with elements of internal social dialogue — such as building structures and layout of built forms, local written traditions or ritual practices, or even the adoption of similar craftsmanship in the production of lower-value articles made of different materials — these specific elements of high culture, having originated from a specific external culture (in this case, the western Java Sea cultural sphere), would have only been understood by, and relevant to, that specific foreign culture at the appropriately high sociopolitical level there. Rather than internalisation and hybridisation, the writing on the Singapore Stone and the gold jewellery from Fort Canning Hill would represent high cultural distinction and interaction with the outside world.

The vital practices maintained by the general population of Temasik would have denoted ethnicity. The construction of brick foundations (possibly religious buildings) occurring in an unplanned manner over a long period of time, as well as the building of the freshwater moat and earth rampart possibly for agricultural purposes, strongly hint to the possibility that for the population of Temasik, religious practices and urban survival strategies were more closely aligned with settlements in the Gulf of Siam and the Isthmus of Kra.

It is not possible to determine if this alignment was the result of the movement and settling of people from the Gulf of Siam southwards to Temasik, or if it represented transfers of cultural knowledge from one group to another. However, the fundamental importance of the built structures to the population of Temasik, given the scale of these structures in relation to the size of the settlement, suggests that unlike language or the aesthetics of precious metal objects, these civil engineering practices were likely shared and undertaken by the whole of the settlement's population. The common culture, at least in this important regard, would have been Tai rather than Malay. Again, though, this may not be synonymous with Singapore's inhabitants being ethnically Tai, but rather, that the practices evident suggest the possibility of an internalised and hybridised culture comprising traits from abroad.

Conclusion: Cosmopolitanism and diversity in Singapore historiography

This article has sought to demonstrate that Singapore's key settlement in the fourteenth century — Temasik — was likely a diverse and cosmopolitan community. Bound within a physically constrained space, and coupled with opportunities for interaction with the external world, the resulting adoption of external cultural traits in the areas of material consumption, agricultural practices, aesthetics and religious practices enabled the population to develop a hybridised culture of its own. The absence of similar settlement patterns and built remains suggests that Temasik was possibly distinct from the ethnic groups that were present in the area around Singapore at that time.

At least in the case of Temasik, diversity did not necessarily contribute to its liveability as a value-added aspect or an enhancement in the intangible quality of life, along the lines of how the liveability of world cities has been defined by urban geographers and sociologists over the last four decades.[36] Instead, diversity was likely to have been one factor that contributed to the mosaic mix of strategies that enabled the settlement to become liveable, and therefore to remain viable for a significant period of time.

In this regard, and taking a broader historiographical perspective, this article calls into question the notion that cosmopolitanism and ethnic diversity in Singapore's history was the result of the establishment of an English East India Company port-city in Singapore, facilitated by the regional and international links that the British Empire and Asian commercial networks provided in the nineteenth and early twentieth centuries. Cosmopolitanism and diversity appear to have had a deeper chronological pedigree than previously established by historians of Singapore.

36 Carlos J. L. Balsas, 'Measuring the livability of an urban centre: An exploratory study of key performance indicators', *Planning Practice and Research* 19, 1 (2004): 101–10; Michael Southworth, 'Measuring the liveable city', *Built Environment* 29, 4 (2003): 343–54.