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**Infrastructures for the Spice Trade: Factories and Fortified Enclaves on the Shores of the Indian Ocean and Far East**

By the 16th century the Indian Ocean had long provided routes for peaceful trade between cosmopolitan coastal settlements where merchants, investors and sea captains assembled, traded and forwarded cargoes to markets both near and far-flung. Prosperity of these settlements depended on many factors including unobstructed links to productive hinterlands, connections with overland caravan routes and accommodating local rulers. Seasonal winds regulated the rhythm of trade and helped favour ports that allowed voyagers to return to their point of origin with profitable cargoes within a year.

European traders established themselves variously, in settlements ranging from modest ‘factories’ or warehouses in ports where they enjoyed the protection of local rulers, to self-contained fortified enclaves complete with naval arsenals and other transplanted urban institutions. Most buildings borrowed from local traditions of construction and planning but fortifications followed the latest European innovations, at first to counter local and Ottoman opposition in the Indian Ocean and, later, to defend valued strongholds from rival European powers and trading companies.

The paper examines widely distributed trading buildings that share recognizable characteristics and that were erected by Europeans. It will explore the morphologies of defended settlements with their carefully graded systems of exclusion and cohabitation with local populations and foreign merchants. Threads linking sixteenth century approaches to those that persisted into the mid-nineteenth century will be unravelled, demonstrating how many forms survived until they were superseded by ideas that shifted the emphasis from trading enclaves to colonial administrations focused on control of territory. In addition to documentation from existing buildings and settlements, the paper draws on contemporary archival material from Portuguese, Dutch and British sources.
In 1603, Admiral Jacob van Heemskerk returned to the Netherlands with fabulous treasures captured from the Portuguese galleon Santa Catarina, after its surrender off Singapore. The ship had been on its way from Macau to Goa with a cargo of luxuries: silks, damasks and spices as well as seventy tons of gold and 100,000 pieces of porcelain. This fabulous booty amounted in value to more than half the Dutch East India Company’s (VOC – Vereenigde Oostindische Compagnie), original subscription capital. This had not been the first ‘incident’ of armed conflict between Europeans seeking to enter into the lucrative Asian trade, but it challenged Portugal’s right to treat the Indian Ocean and the China Sea as Mare Clausum, celebrated in the title of its monarchs, who styled themselves, with Papal blessing: “Lords of Navigation and Commerce in Ethiopia, Arabia, Persia and India.” They had succeeded in this ambition for over a century.

When they arrived on the Malabar coast of India, they had discovered that Europe could offer very little to excite the sophisticated markets of Asia with established systems for trading in spices, aromatics, manufactured goods such as silk and cotton textiles, porcelain, and other high-value goods. The Portuguese did, however, find that after some misunderstandings with local rulers, fanned by intrigues against them by Muslim traders, that their ships, with superior naval guns capable of devastating bombardments and as well as their capacity to mount coordinated amphibious operations, gave them strong military advantages in conflicts at sea or against coastal defences. By the 1620s, they had established a network of fortified footholds capable of dominating or at least harassing shipping along the East coast of Africa, across the Arabian Sea and the entrances to the Red Sea and Persian Gulf. To this they added a number of strategic locations on the west coast of India including Goa, which became Vice-Regal capital of the “Estado da India”, Malacca controlling seaways between the Malay Peninsula and Sumatra and many other more or less precarious outposts throughout the Southeast-Asian archipelago. This enabled them to trade locally, making profits from the carrying trade of the region. They treated the sea as their territory, eventually setting up system of customs-houses and safe conduct passes cartazes to tax and “control shipping to divert trade to them.”

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1 Robert Finlay, The pilgrim art: Cultures of porcelain in world history (Berkley: University of California Press, 2010), 253-54.
3 Monica Viera, “Mare Liberum vs Mare Clausum: Grotius, Freitas, and Selden’s Debate on Dominion over the Seas,” Journal of the History of Ideas 64 (2003), 376.
7 Andre Frank, “India in the World Economy,” Economic and Political Weekly 31 (1996); PE50-PE64.
Strategic locations for new settlements, established by treaty with local rulers or through conquest were chosen on the basis of military value or because they were important trans-shipment or collection points for merchandise, in tune with established trading patterns. Asian and Southeast Asian maritime trade was broken up into three interlocking and overlapping zones, comprising the China Sea and the Southeast-Asian archipelago, the area to the north of the straits of Malacca, stretching to the Bay of Bengal, the Coromandel Coast of India and the vast area of the Western Indian Ocean, taking in the Malabar Coast, the shores of Arabia and East Africa.9

Settlements, administered under the Portuguese Crown were numerous. Phillip III of Portugal (IV of Spain) ordered a survey of “all the coasts, ports and fortresses in Africa, Arabia and the East”, which was carried out in Goa and sent to Lisbon in 1635.10

The coloured drawings in this series are clearly not accurate geometric surveys but give an idea of the relative importance of each outpost and the enormous investment in fortifications that must have been made in the first 125 years of Portuguese presence, at the very apogee of the formal empire in the East. The united kingdoms of Spain and Portugal (1580-1640) could boast an integrated commercial network that stretched from the Indian Ocean, through the Southeast-Asian archipelago to the China Sea, Japan, via the Philippines to Mexico and Peru, whose mines supplied much of the silver that lubricated this commerce.11

Whenever possible, Portuguese settlements were fortified, with defences being updated from medieval type towers in the early 1500s to the most advanced Renaissance fortifications, the first to be built outside Europe (Diu 1546, Mozambique 1558), in sharp contrast to most coastal trading cities of Asia, whose defences were seldom extensive and equipped for modern warfare.12 The model for these fortified outposts was the Castle of São Jorge da Mina, (Elmina) built by the Portuguese in West Africa in 1482, in what is now Ghana. It was the first permanent structure erected by Europeans

9 Stewart Gordon, When Asia was the World: Travelling Merchants, Scholars, Warriors, and Monks who created the ‘Riches of the East’ (New Haven: Yale University Press, 2008), 75–95.
10 Antonio Bocarro, Livro das Plantas de todas as Fortalezas, Cidades, e Povoações do Estado da Índia Oriental, com as descrições da altura... c1635. Biblioteca Publica de Evora, Portugal. Mss: CIM - Cod. CXV/2-1. 48 plans and views of settlements from the East African coasts, Arabia, India, Ceylon, Malaya and Macau.
in a tropical climate, with some of the key masonry components imported ready-made. Maintaining and improving defences throughout the Asian Empire was a major drain on resources, but they resisted nearly all attempts by local adversaries to overwhelm them even when supported by Ottoman fleets and Venetian military advisors. They were, nevertheless, no match for the VOC which reduced many of them to submission after extended sieges in the mid-17th century. The fortresses housed the garrison and the depository (Factory) of Royal merchandise. Many of the larger settlements had additional defensive town walls, within which, in addition to the houses of trusted residents, normally of Portuguese descent or Christian converts, were accommodated institutions like the Camara (Municipality), Misericordia (Charitable institution), Alfandega (Customs House), and a hospital, as well as churches, monasteries and other religious institutions. There were very few Portuguese women in the East, with most residents taking local wives, who would adopt Catholicism and raise Eurasian families extending the Lusitanian influence through kinship widely throughout Asia.

In Portuguese settlements, masonry buildings were preferred, even where timber construction was traditional. Outside the town walls, as can be seen on the Bocarro plans, there were villages, suburbs or kampongs of local populations as well as merchant communities of foreigners established for trade. In many cases, markets and fairs took place outside the walls. Portuguese settlement had seemingly haphazard layouts with narrow streets relieved by important public spaces associated with major churches and civic buildings. Many were purposefully located on hilly ground, taking advantage of breezes and gaining military vantage.

Malacca, a key centre of commerce, gathered cargoes of spices from the Moluccas to be sent to Goa for onward shipment to Portugal.\textsuperscript{17} It was also a port where Chinese goods, silk, porcelain and other luxuries were brought by Portuguese or foreign traders for sale and trans-shipment.\textsuperscript{18} Tomé Pires, an important official in the \textit{factory}, summed up Malacca’s value as a strategically placed emporium in 1515 with these words: “Whoever is Lord of Malacca has his hand on the throat of Venice.”\textsuperscript{19}

Several early drawings of Malacca survive prior to Bocarro’s 1635 report. One of the earliest, drawn before 1556, depicts the state of the town shortly after its conquest. Its central feature is a relatively small mediaeval style fortress with vertical crenelated walls and low-level gun ports, with a tall keep.\textsuperscript{20} Afonso de Albuquerque had erected this structure shortly after the conquest of the city in 1511, building it close to the shoreline so that in the event of a siege, it could be resupplied.\textsuperscript{21} “The fort within this town where the Captain resides is five stories high; the captain lives on the second storey, which is square like the tower [...] The other apartments are set aside for the Captain’s guests...”\textsuperscript{22} Within the fort, there were also storerooms for the King’s merchandise under the care of the ‘factor’, armouries for weapons and powder as well as emergency supplies of grain.

In the drawing, the surrounding buildings within the town are single and double storied with many having roof forms suggesting thatch or palm frond coverings, corroborating later accounts where this is mentioned as an on-going fire-hazard.\textsuperscript{23} Panels that appear to be hinged along their top edges...
protection openings in the walls, suggesting some form of flap to keep out inclement weather and to
offer some sun protection. A more detailed and reliable drawing from 1568, shows the city under
siege from the Acehenese with the settlement and suburbs under intense artillery bombardment.24

Masonry walls, still incomplete and with improvised merlons of wicker hurdles, now surround
the town. This is a clear advance on the state shown in the earlier drawing, where the town was
surrounded by seemingly flimsy palisades. Several sturdy modern bastions protect the landward
side, but the old mediaeval fort with its keep still dominates the town as its citadel. Ordinary
domestic buildings, many double-storeyed are grouped together to form continuous street
frontages, with archways between buildings giving access to garden areas behind. Some houses
appear to have upper floors of timber construction. All roofs have steep pitches and many are
hipped, giving each dwelling a separate identity. In many aspects, the buildings are similar to those
depicted in von Linschoten’s well-known engraving of the Leilão in Goa.25

Quite a few of the buildings have external staircases, similar to surviving examples in Goa (the
archbishop’s palace) and in Cochin, where these may date from the Portuguese period.26 This feature
made it possible to have a secure space (go-down) for storage of goods for private trade.

The Dutch, allied to the Sultan of Johor, captured Malacca after a protracted siege in 1641. Like most
European outposts in Asia as well as other coastal centres, there was a sizeable Chinese community
of traders and commercial intermediaries. They easily adapted to whatever temporal power was
in control.27 The Portuguese and their Eurasian descendants (Kristangs in Malaya) also became a
sizeable minority working as merchants and in skilled crafts to the extent that a Portuguese patois
became a lingua-franca of littoral Asia.28

25 Jan Huygen van Linschoten, Itinerario, voyage otfe schipvaert, van ian Huygen van Linschoten naer Oost otfe Portugaels Indien
(Amsterdam, 1596).
26 The drawing is held by Biblioteca Nacional, Rio de Janeiro, Brasil. Malaca [Cartografico] cart 531967.
159-78.
28 Brian O’Neil, and Jehanne Féblot-Augustins, “La triple identité des créoles portugais de Malacca,” Ethnologie française 29
In many settlements taken by the VOC from the Portuguese, the Dutch continued to build ordinary buildings similar to those that they had found. In Cochin, which they captured in 1663 several buildings in the old fort area have volumetric arrangements similar to those in the 1568 Malacca drawing. Common features include tall tiled roofs and upper-stories in timber with large areas of opening under generous eaves. Where the VOC set up settlements from scratch such as at Batavia and Cape Town, these outposts were thoroughly planned from every point of view, with advanced defensive works ideally suited to the low-lying terrain upon which they preferred to found their settlements, reminiscent of the Netherlands where they had developed sophisticated fortifications with earth ramparts and wet moats.

The VOC’s principal ambition was to gain complete monopoly of the spice trade, which they achieved over the cloves, nutmeg and mace markets by a ruthless programme of concentrating production on islands they controlled, systematically uprooting and prohibiting cultivation with severe penalties elsewhere. In Ceylon (Sri Lanka), they applied similar draconian methods in relation to cinnamon and attempted to control the pepper trade on the Malabar Coast of India. Centralization of collection points led to the Company building large storehouses such as those in Galle, Sri Lanka, which were far larger than any such buildings by the Portuguese.

Fortified enclaves became part of the interlocking trade networks built by foreigners in the “Indies”. Unlike Portuguese and Spanish enterprise overseas, the Dutch, English, French, Danish and others, were far more focused. They were strictly commercial enterprises trading through companies with shareholders with little interest in missionary work. Because their principal outposts were also fortified and their shipping was armed, most of these companies had ‘sovereign’ rights allowing them to enter into treaties and wage war. Larger outposts had all the elements of military, civil and commercial administrations, with Governors, Military Commanders and Factors in charge of their warehouses and trade. Some became large prosperous cities with citadels, town walls protecting trusted citizens and traders, with villages of local inhabitants servicing the settlement living beyond the walls. Such arrangements could be seen in Batavia of the Dutch, Madras of the British East India Company (EIC) and Pondicherry (French). Like Malacca, these enclaves often had very little hinterland and depended on shipping and local trade for many of the consumable supplies.

Smaller fortified outposts, particularly those on islands in the Indonesian archipelago, were on a much smaller scale, consisting of a fort, housing for the garrison and storerooms for merchandise. Many of these and occasionally the larger enclaves were besieged, overrun or ceded to rival European powers as a result of local commercial disputes, extensions of warfare waged in Europe or the results of treaties entered into overseas. Because of this fluidity, and the mobility of intermediaries in trade like Peranakans of Chinese descent and increasing numbers of mobile Eurasians, experiences gained in the enclaves of one group of Europeans were communicated and implemented elsewhere, not only in aspects of trade, but also in military and civil architecture.33

Style lagged, but followed European fashions, but measures taken to create comfortable conditions in tropical climates spread regionally. Examples of such diffusion include glazing methods using translucent shells, found from Goa to the Philippines, waterproofing techniques for flat roofs, terraces and cisterns and possibly the use of galleryed verandas in military barracks and hospitals initiated by the Dutch as exemplified in the hospital in Galle, Sri Lanka, which, after the Napoleonic wars became the preferred British model for the Caribbean and later in India. Internally, latticed partitions and ceilings to facilitated ventilation etc., all adapted to increasingly Asian lifestyles.

Where merchandise had to be traded and bought outside areas where the Portuguese, Dutch and other European traders had fortified settlements under their jurisdiction, they set up undefended factory compounds under the protection of local rulers, to whom they paid tribute, customs dues and other taxes, just as other traders, but with the most favourable terms agreed through diplomacy. Early examples of such European establishments can be seen in drawings of “factories” such as those occupied by the English (1609) and Dutch (1616) at Surat in Gujarat shortly after its annexation by the Moghul Empire in 1572, when it became its major seaport on the Arabian Sea (fig. 5).34

Here a self-contained compound within the city, enclosed on four sides by high walls, with a single entrance onto the street, housed all merchandise in large storerooms as well as all the Company’s servants, president, factor, clerks and some guards. They all lived on the premises, along with their

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stabled animals – horses and bullocks with their carts for transport, mostly textiles in Surat, from markets to the company’s boats. The same engraving was used to represent the English factory in the same city, so its features can be taken to be very generic.\(^{35}\)

On the eastern side of the subcontinent the Mughal Empire allowed a community of Portuguese traders and missionaries to set up a settlement at Hooghly on a branch of the Ganges in 1536. The township grew into the largest port and first European settlement in Bengal. The Portuguese in Bengal were totally outside the formal “Estado da India” at Goa. They had broken out of the Empire and were making their way in Asia. For many years the town benefitted the Mughal Empire as much as it did its citizens, but eventually, abuses in aggressive missionary work as well as collaborating in the slaving activities of “informal” Portuguese pirate communities in alliance with the Kingdom of Arakan, led to tensions that brought war and the eventual annihilation of the city in 1632.\(^{36}\)

The British East India Company (EIC) was invited by the Mughal Emperor to trade in Bengal in 1634, but it was some time before they set up their base in Calcutta a short distance downstream from the ruins of Hooghly.\(^{37}\) The VOC though, established a trading factory at Chinsurah, in 1656 in the same area. It did have a rudimentary fort, but the factory was a very large version of the Surat establishment, as can be seen from the painting by Schuylenburgh of 1665. The establishment was composed of a rectangular compound surrounded by buildings facing inwards with blank walls constructed in what appears to be red laterite. There was an imposing entrance pavilion in a formal Mughal style, clearly intended to offer hospitality and impress visitors. This structure opened onto a large courtyard surrounded on three sides by white buildings with flat roofs. On axis with the entrance pavilion and facing it, there was a double-storied wing with a grand, formal double staircase, leading to the first floor and the Governor’s apartments. Beyond these sombre and formal buildings but within the red surrounding wall, there were further courtyards out of sight to visitors, one of which contained a symmetrically laid out garden. In the background of the picture one can see a formal encampment with elephants and horses – presumably the visit of an important Mughal emissary. It is clear that the factory was designed to dazzle and join in with the kinds of pomp and ceremony expected in diplomatic and business encounters.

In Canton, where foreigners were severely restricted in where they could place their hongs, their 13 Factories occupied long narrow sites on low swampy land outside the city walls in densely packed accommodation.\(^{38}\) An earlier strongly controlled enclave was the VOC’s artificial island of Deshima,


attached to Nagasaki by a single bridge. Residents were forbidden to venture into Japan and all trade had to take place in its restricted area.

At the other end of the scale, foreign traders in distant cities, naturally joined together with people from their home ports in quarters for mutual protection. In many trading enclaves, long before Europeans arrived, these merchant communities were often allowed to live by their own laws. A common form of trading establishment often adopted in coastal settlements has a walled trading compound with river or sea access at one end and street frontage at the other. In Cochin, such buildings are still used by spice traders, who employ the open courtyard to dry their merchandise. This arrangement suited small traders as it gave them efficient access to transport and a presence on a trading street where buyers could sample and compare goods. The form also offered security. Similar arrangements were employed on Mozambique and Ibo Islands on the east coast of Africa for trading in ivory and more recently in cashews and copra. Illustrations of similar arrangements record such compounds being used by slave traders in West Africa.

When European merchants began trading in the Indian Ocean and China Sea, they had to rely on breaking into established markets by developing knowledge of commercial networks and fluctuating values of commodities. At first, they traded in major port cities on the Malabar Coast, where spices and other goods had been brought from elsewhere. Eventually, they sought to cut out layers of middlemen, by going to markets established in the Southeast Asian archipelago. At Bantam, the Sultan hosted a very large market open to traders from all over Asia. In this emporium, valuable spices from the Molukas were traded alongside fabrics from India and China, porcelain and many other commodities. Bantam was where English and Dutch established their earliest trading outposts in Southeast Asia. An engraving, published by Linschoten in 1596, shows this bustling open-air market with well-ordered stalls set up by traders from far and wide. Europeans, clearly identifiable by their clothes, can be seen inspecting and buying goods (fig. 6).

Conclusion

This short review of European outposts and settlements in Asia focuses on the period before priorities shifted from trade to territorial acquisition on a large scale, beginning in the Eighteenth

Century, when the EIC started to take over parts of the crumbling Mughal Empire, becoming tax-collectors in the process. Similar annexations had gradually extended the reach of the VOC in areas under their influence. As the emphasis shifted from trade to other forms of control, such as the establishment of plantations and mining, new types of accommodation entered the colonial repertoire, shifting the emphasis from distinctly urban forms of building suited to cramped, often walled enclaves with limited hinterlands to types of building more suited to wider horizons and the domination of territory. Some of these had been rehearsed in the Caribbean and plantations elsewhere, but the colonial bungalows do owe something to several centuries of experimentation and adaptation in Asia, where many of the settlements founded by Europeans as nuclei in their interlocking networks of trade are at the centres of the great coastal metropolises of Asia where architectures and lifestyles were enriched by centuries of cultural fusion.