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v.

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**VII OOST-AZIË, BIRMA TOT JAPAN /
EAST ASIA, BURMA TO JAPAN
& SUPPLEMENT**

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I THE VOC IN EAST ASIA

In the huge area covered by this all-inclusive geographical designation, attention in this volume is focused primarily on the VOC settlements in the areas around the East and South China Seas: China and those areas surrounding it which have been heavily influenced by the Chinese (literary) culture: Korea, Japan, the Ryukyu Islands, Taiwan (Formosa) and the Pescadores. Besides these regions, several parts of the mainland of South-East Asia will also be discussed. This plan is legitimized partly by the circumstance that all these areas were either only slightly influenced by Dutch expansion or, in those cases where they were in fact subjected to VOC rule for some time, this was never more than for a relatively short period. The position of the VOC in East Asia remained mostly peripheral, sometimes because this was how it wanted the situation to be, in Burma, Cambodia and Vietnam, and sometimes because it had no other choice, as in China and Japan. Of far greater importance in this connection is the assessment that these regions were heavily oriented towards China economically. In the sixteenth century, the Chinese themselves referred to the *Nanyang*, a Chinese 'Southern Ocean', which at that time was encircled by an eastern and a western trading route. The western route (*Hsi Yang*) ran to Java via Champa, Cambodia, Siam, the Malay Peninsula and Sumatra; its eastern counterpart (*Ting Yang*) went through the Philippines, the Sulu Archipelago and Celebes to the Moluccas. Japan does not feature on the list because trade to this island empire was banned by the Chinese government for most of the sixteenth century.

In this early colonial period, the Spaniards who had managed to ensconce themselves in the Philippines and the Moluccas were the predominant European power along the eastern route, whereas the Portuguese succeeded in making themselves masters of a number of key positions along the western route, such as Malacca and Macau. In the course of the seventeenth century, the Portuguese share in the lucrative China trade was gradually taken over by the Dutch. Nevertheless, in contrast to the situation in those areas around its headquarters in Batavia, in the Moluccas and in the trading centres of Malacca, Makassar and Bantam captured later in the century, where the VOC could actually exercise political and economic control, in most of the western *Nanyang* Dutch undertakings were completely overshadowed by the Chinese economy; certainly when that economy embarked on yet another exceptional growth spurt at the end of the seventeenth century.

Purely and simply on account of its size, the Chinese economy completely dominated South-East Asia. The consequent natural orientation towards China throughout this region as a whole was reflected in the contemporary demographic ratios. In the era of the Company, South-East Asia, including the Malay Archipelago, was home to an estimated 20 to 30 million inhabitants, about the same as Japan, but China had roughly ten times that number of inhabitants! In the eighteenth century especially, the effect of this Chinese world economy increased exponentially. To a greater extent than in either the Malay Peninsula or the islands of the East Indies which were both being drawn increasingly into the orbit of the VOC, Mainland South-East Asia felt the effects of this growth. The Company could only stand by on the sidelines and do its best to get a slice of the pie.

The great exception to this rule was Taiwan, the island which forms the border between the South and the East China Seas and was then chiefly known by its Portuguese name of Formosa. For a relatively brief period in the seventeenth century, Taiwan was held under direct, intensive Company rule, the like of which would only be attained (much) later in Java and Ceylon. Inevitably this island was also sucked into the Chinese sphere of influence; after the VOC had been expelled from its main settlement in Fort Zeelandia in 1662 and had evacuated its last stronghold of Chilung (*Kelang* in Dutch sources) in 1668, Taiwan was definitively annexed by the Manchus in 1683.

However attractive participation in the burgeoning China trade might be for the surrounding kingdoms, it always held the ever-present threat of being overwhelmed by an influx of Chinese immigrants, eventually causing the loss of domestic political control. In Japan matters were complicated by the shogunate which was constantly assailed by fears that the growing trade with China could lead to an unstaunchable draining away of the domestic supplies of precious metals. In 1685, two years after the Manchu annexation of Taiwan this apprehension prompted an extension of Japanese import restrictions. In colonial trade centres such as Batavia and Manila the waxing economic power of China was viewed by the authorities as less of a threat and throughout the eighteenth century Chinese traders still continued to be largely welcome to offer their goods and services locally. However, as the pogroms in the various cities bear witness, Sinophobia could also suddenly rear its ugly head – actually a sign that in those areas too the economy had gradually become dependent on the swelling group of Chinese immigrants.

Therefore, there is every reason to examine the developments in South-East Asia in the Company era not just from Batavia but to view them with equal intensity from Peking, especially where the various kingdoms on the Mainland are concerned. In the seventeenth century, the VOC was gradually able to acquire a more dominant position in the Malay Archipelago, even though most of the trading centres there remained open to private Chinese, Indian and Arab merchants. Towards the end of the century, when China opened the door wider to foreign trade and the Company had finally achieved its spice monopoly, a growing economic divergence emerged between the Archipelago and the Mainland. This economic dichotomy chiefly corresponded to the much longer existing culturo-religious distinction between the mainly Theravada Buddhist Mainland and the principally Islamic world of the islands of the East Indies and the Malay Peninsula.

This statement should be adjusted slightly. In a nutshell, the kingdoms of Mainland South-East Asia might have been geographically closer to continental China, but in most regions mountains covered with thick tropical jungles caused a natural barrier to the Chinese mainland. Conversely, such great rivers as the Irrawaddy, the Chao Phraya, the Mekong and the Red River offered good accessibility to the sea from the southern coastal areas. From time immemorial, innumerable commercial contacts had developed between the centres of population along these rivers and the maritime areas of South and South-East Asia.

One characteristic of Mainland South-East Asia was that in the first centuries of the second millennium the principal demographic and agrarian centres were not established in the deltas, which were forever subject to floods and changes in the course of the waterways, but farther upstream in the interior in areas which were far easier to reclaim; for example, in the ancient capitals of Pagan in Burma, Sukhothai in Siam (Thailand), and Angkor in Cambodia. Under ideal circumstances, the rulers stimulated agricultural expansion in the interior and maintained control of the deltas and the coastal areas via the rivers. In contrast to the Malay Archipelago with the exception of Java, the economic centre of gravity lay on intensive rice cultivation and trade was of secondary importance. One consequence was that very large areas, usually far from the navigable rivers, did not actually fall under the authority of the ruler. The result was a settlement pattern of relatively small, widely scattered, densely populated cultivated nuclear areas in the midst of enormous jungles; some of which were extensively exploited, others not at all.

A significant change, which was to persist undiminished into the VOC era, began to creep into this pattern in the fifteenth century. In the period between c. 1450 and 1680, referred to as an 'Age of Commerce' by the influential historian Anthony Reid, the relative weight of interregional trade as a source of income for the rulers showed a marked increase.¹ At precisely this time as consequences of the drier climatic conditions and of the introduction of new crops and agricultural techniques, it became easier to reclaim the swampy river deltas and settle people on the land. Both developments probably played an important role in the growing orientation towards the southern coastal areas: in Burma to Pegu (until 1634), in Siam to Ayutthaya, in Cambodia to Phnom Penh, in Vietnam (albeit somewhat later) to Champa. In this period, most of which coincided with what was known as the Little Ice Age in Europe, it is highly likely that the level of precipitation in South-East Asia dropped and that, just as in Europe, the advantage of the coastal regions was that the disappointing harvests could be compensated relatively easily by imports of foodstuffs from elsewhere.

When this political and demographic movement towards the coast is combined with the steadily increasing presence of Chinese traders in Mainland South-East Asia plus the generally mounting significance of Chinese commercial shipping in this region, it is not difficult to see how that already early in the Company era a completely different set of circumstances prevailed here to those in the Archipelago and, as a consequence, why the VOC could play no initiating role in the further development of the overseas trade. Despite this drawback, the expansion of the VOC in this part of South-East Asia can be seen as a catalyst in the much wider movement towards the commercial and agricultural exploitation of the southern coastal areas which was already well under way before the arrival of the first Dutchmen in the region.² Several kingdoms, most important among them Burma and Japan, did try to withdraw from this new maritime dynamism by opting for extreme, self-imposed isolation. However, by the eighteenth century this process would have become irreversible because of the constantly growing Chinese participation in the regional economy. One of the symptoms of this phenomenon was the rise of large new coastal emporia, a development which as is shown by the rise of Hong Kong and Shanghai was to be continued throughout the nineteenth and twentieth centuries and indeed right up to the present day.

The East Asia of the Company era described here was therefore a world which was increasingly oriented towards China. Along the periphery of the area, the VOC and other European trading companies did their best to profit from the immense and continually growing Chinese economy. Permanent contacts via its own official office on the Chinese coast only eventuated in 1728, with the establishment of the Company's direct trade from the Republic to Canton. For a much longer period, in fact from the first years in which it was present in South-East Asia, the VOC had already been pursuing an intensive commercial traffic with China through its trading posts in places which themselves maintained close ties with Chinese ports, among them Patani on the Malay Peninsula, and by attracting Chinese merchants to commercial centres in its own possession, principally Batavia.

As a result of storms or navigational errors, during their voyages in East Asian waters Dutch sailors also ended up in areas in which the VOC had no commercial objectives. This fate befell the Company ship *Spencer*, which stranded on the Korean island *Quelpaert* (Cheju do) when she was blown off course in a typhoon on her way from Taiwan to Nagasaki. Among the thirty-six survivors was the bookkeeper Hendrik Hamel (1630–1692), who wrote down a unique and accurate account of his experiences in this isolated kingdom, which was eventually published as a book in Amsterdam in 1668. In Korea Hamel came across another Dutchman, Jan Janse Weltevree, whose ship had run aground on the coast in 1627, after which he served the Korean court as an arms advisor. As often happened to European sailors stranded in Korea, Japan or elsewhere in East Asia, he had never been granted permission to return home, a fate which now befell Hamel and his shipmates. It was only in 1666 that he and another eight of the hostages were finally able to escape to Deshima in a stolen fishing boat.³

1 Blussé, 'No boats to China', p. 59.

2 See in particular Reid, *Southeast Asia in the Age of Commerce*, and Reid, 'Economic and Social Change', pp. 460–508.

3 A similar development occurred in India, during the almost simultaneous expansion of the Bengal economy.

4 Roeper and Walraven, *De wereld van Hendrik Hamel*.

This Korean adventure was no more than an incident for the VOC; its principal goal remained trade with China and Japan. Taking this fact as a guideline below, in more or less chronological order, is a concise survey of the history of the Company era in the three major parts of East Asia in which the VOC was active: (1) China and Taiwan; (2) Japan; and (3) the mainland of South-East Asia.

China, the Pescadores and Taiwan (1622-1830)

In complete contrast to the mainland of South-East Asia but in a similar situation to large parts of South and West Asia, the relationship between the coast and the interior in China was influenced politically and militarily to a certain degree by the relationship between the sedentary agricultural areas of the south and the nomadic grazing lands in the north. Despite the invention of new military technology, which especially made both the infantry and artillery more effective, China, just as India, continued to remain dependent on the availability of large numbers of mounted warriors from Central Eurasia until deep into the period of European expansion. Consequently, in the time of the Ming dynasty (1368-1644), the political and military heartland of China tended to be concentrated chiefly in the frontier lands of the nomads in the vicinity of the Great Wall.

This was the reason the imperial court moved north in 1403, leaving Nanking (Nanjing) to settle in the much more strategically placed Peking (Beijing). The central and southern parts of China, above all the Yangtze Valley and the south-east coast including the provinces of Fujian (Fukien) and Guangdong (Kwantung) had seen a steady development since the beginning of the second millennium and, in part because of intensive rice cultivation, had become the economic and demographic centre of gravity of China. To connect these two centres and to be able to supply the new capital with food, the already existing Grand or Imperial Canal, which ran parallel to the coast between the Yangtze Kiang (Yangtze, Chang Jiang) and the Huang He (Yellow River), was deepened and extended farther northwards. Because of this long waterway which stretched for over 2,000 kilometres in the interior, the imperial armies could be provisioned without having to make use of the coastal shipping which was much more difficult to control.

Just as in the periphery of the empire bordering the steppes, the coast too posed a constant threat of too great a political and economic dynamism, as the many, intensive overseas trading contacts taking place beyond the control of the imperial authority could always trigger regional rebellions and secessions. In order to counter this maritime threat, in the early Ming period the court tended to pursue a policy of powerful expansion and in the years 1403-1433, the court eunuch Zheng He (Cheng Ho) was dispatched as admiral of seven consecutive maritime expeditions to the *Nanyang* and the southern and western Indian Ocean, in order to submit the various 'barbarian' rulers there by displaying a fitting show of power into acknowledging imperial sovereignty and bring tribute to the Middle Kingdom. After this goal had been achieved, nominally at least, at enormous cost to the state finances, this policy of expansion was abruptly dropped. Thereafter, until the end of imperial rule in China, no more expeditions of any significance were ever dispatched on the orders of the central government.

Later, as an alternative to the expensive expansion policy, a complete prohibition was imposed on overseas trade, as was done in the years 1522-1566, but because of the obvious disadvantages to foreign trade and to the imperial treasury, this isolationist course finally had to be relinquished. From the latter part of the sixteenth century, restricted maritime trade from and to China was generally permitted, under strict government supervision via a closed system of licensed trading cities, traders and destinations. The areas which profited most from this new policy were the port cities of Amoy (Xiamen) and Canton (Guangzhou) with their hinterlands in the fertile provinces of Fujian and Guangdong, located far to the south and protected by mountains. At the same time the growing economic and political significance of these provinces made it increasingly difficult for the central authorities to keep complete control over them.⁵ The special position of the Portuguese in Macau, one of the secondary ports of Canton, should also be viewed in the light of the Chinese licence policy. Outside these 'permitted zones' foreign shipping, on the direct trading route to Japan in particular, was forbidden. Under such circumstances, it is little wonder that much of the existing free maritime trade was officially regarded as piracy.⁶

No matter how destabilizing these centrifugal coastal tendencies were, the greatest danger to the imperial government was the age-old barbarian threat from the north. In the initial years of Dutch contacts with China, a process of semi-nomadic state formation and expansion gradually began to take shape in the far-flung border area to the north-east of Peking under the Manchu leader Nurhaci (1559-1626). During the civil war which partly as a consequence of this development broke out in 1630, the Manchu armies finally gained the upper hand in 1644-1645 when they captured Peking and Nanking. Although it would still be some decades before the last Ming pretenders, who had withdrawn deep into the south with their followers, surrendered, 1644 marked the formal beginning of the last imperial dynasty of China, that of the Manchus or the Qing (Ching, 1644-1911). The first Manchu to rule in Peking was the Shunzi Emperor (r. 1643-1661), who received the first VOC embassy from Batavia at his court in 1655-1657. Under his successor, Kangxi (1661-1722), the empire underwent a period of expanding political power and an explosive economic growth, which would in fact be continued well into the first half of the nineteenth century.

As they had to contend with persistent disturbances in the coastal provinces stirred up by the activities of the Ming followers and various independent warlords, in the first decades of their reign the new rulers reverted to a strongly repressive policy on maritime trade. Only after the conquest of Taiwan in 1683 did the Manchus gain complete control of the Chinese coastal areas and could they slacken their control a little. The result was the spectacular expansion of the Chinese economy, alluded to above, under a system in which, although the government retained a strict supervision of foreign trade during the Ming period, still offered private Chinese traders far more opportunities. Under the late Ming, the empire had been entrenched behind the Great Wall and the Grand Canal in an enduring attempt to protect itself from the 'barbarians' on land and by sea, but under the Manchus China made a deliberate choice to turn towards the outside world and, in the eighteenth century, went through a period of unprecedented political and economic growth.⁵ The most important objective of the surrounding countries was to be able to profit as much as possible without being overwhelmed by the rising economic great power.

The Maritime Trade to China

To a far greater extent than it was ever a consequence of decisions made by the *Heren Zeventien* (Gentlemen Seventeen, the board of the VOC) in the Republic or the High Government in Batavia, the history of Dutch commercial relations with China was the result of the changing political constellation in the empire. In the seventeenth century, the VOC was initially greeted by an overwhelming attitude of suspicion and reserve by the Ming government, but roughly in the period between 1620 to 1660, it was finally able to make a substantial profit because of the growing independence of Fujian under the Zheng family; initially under Zheng Zhilong, alias Iquan, and later under his son, Zheng Chenggong alias Coxinga. Before examining the careers of these powerful pirate princes and their significance to the Company, a brief summary of the earliest period of Dutch maritime trade to China would be useful at this point.⁶

From their very first ventures into the East, besides Java and the Spice Islands China was a primary destination on which the Dutch merchants had set their sights. As elsewhere in East and South-East Asia, the earliest exploration of Chinese waters clearly demonstrated that strong opposition could be expected from the Portuguese, who had maintained a permanent settlement in Macau since 1533. This was made immediately clear to them in October 1601 when two ships of the *Oude Compagnie* (Old Company) of Amsterdam under Admiral Jacob Cornelisz van Neck were blown off course to Macau while on a voyage to Patani and a reconnoitring party of twenty men sent out in two sloops were overpowered by the Portuguese garrison. All but four were executed; only one of the crew finally managed to reach the Republic and after a long peregrination was able to make a report. Two years later the ships *Nassau* and *Erasmus* of the newly established VOC were able to carry out a successful reprisal by capturing the Portuguese carrack *Santa Catarina*, carrying a cargo worth more than 1.4 million guilders. This action incensed the Chinese authorities, who viewed the Dutch conduct as nothing less than outright piracy. Consequently, any chances of direct commercial traffic with China seemed to have been completely stymied for the time being and for the next one and a half years the Company limited itself to indirect contacts via Patani.

In 1604 the first specific trading expedition under the command of Admiral Wybrant van Warwijck set sail to the coast of south China from this port on the east coast of the Malay Peninsula. On the recommendation of Chinese merchants who had been recruited as advisors, at the end of June three Company ships set their course for the Pescadores Archipelago in the Formosa Strait, in the expectation that from there through negotiations with and bribery of the local authorities it would prove possible to obtain permission to set up a lodge on the nearby coast of Fujian. This move, however, ended in complete failure, as once again a *kongsi* of Portuguese and Chinese mandarins effectively managed to sabotage the establishment of such a bridgehead on the mainland. At the end of 1604, Van Warwijck was left with no other option than to leave the Pescadores, which were Chinese territory, on the orders of the authorities, empty-handed.

The next attempt, this time with Canton as objective in 1607 made by an expedition of three ships under Cornelis Matelieff also failed, for the same reasons. The attitude of the Chinese in this period was inexorable: Canton in the estuary of the Pearl River was appointed the sole port to which foreign traders were to be admitted and only under the strictest conditions. The Portuguese stronghold in Macau at the mouth of the same river acted as guardian of this single entry port, halting foreigners and pirates, among whom the contemporary Ming authorities now also counted the Dutch. In their own empire, they allowed no other traders than those from Fujian to venture overseas. Consequently Dutch-Chinese trade could be carried on only through them and exclusively in foreign ports such as Patani and Bantam.

In the years following the opening of the factory in Japan, in Hirado in 1609, the awareness among the directors of the VOC of the eminent importance of the China trade grew steadily. It would be a relatively easy matter to acquire Japanese precious metals, as they reasoned, especially silver, in exchange for Chinese silk for which there was a high demand in Japan.

5 For a summary of economic developments in the maritime provinces, see Naquin and Rawski, *Chinese Society*, pp. 200-205.

6 Antony, *Like froth floating on the Sea*, pp. 19-54.

7 Gommans, 'Warhorse and Post-nomadic Empire', pp. 1-21.

8 The summary to follow is largely based on Leonard Blussé's survey in Blussé and Van Luyn, *China en de Nederlanders*, pp. 25-55.

Annex 297(bis)

Kenneth R. Hall, *A History of Early Southeast Asia: Maritime Trade and Societal Development, 100-1500*
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A History of Early Southeast Asia

Maritime Trade and Societal Development, 100–1500

Kenneth R. Hall

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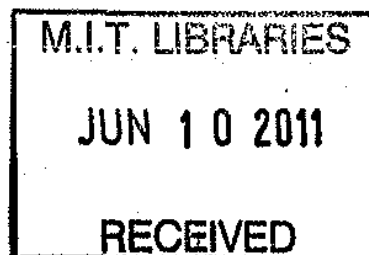
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courts provided meaningful linkages among networked population clusters through a variety of initiatives, and consequently submissive populations thought of themselves as sharing membership in a common civilization that was centered in a court (Hall: 2010c).

EARLY ECONOMIC DEVELOPMENT

In the premodern world, the Southeast Asian region was initially portrayed in international sources as a land of immense wealth; developments there were thought to be of crucial importance to the entirety of world history in the pre-1600 period. Writers, travelers, sailors, merchants, and officials from every continent of the Eastern Hemisphere knew of Southeast Asia's exotic products, and by the second millennium of the Christian era, most were aware of its ports of trade and major political centers (Park: 2010).

In the early centuries CE Indians and Westerners called Southeast Asia the Golden Khersonese, the "Land of Gold," and it was not long thereafter that the region became known for its pepper and the products of its rainforests: first aromatic woods and resins, and then the finest and rarest of spices (Wheatley: 1961). From the seventh to the tenth centuries Middle Easterners and Chinese thought of Southeast Asia as the vital passageway between India and China, as well as the source of spices and jungle products that had substantial market value. By the fifteenth century sailors from ports on the Atlantic, at the opposite side of the hemisphere, would sail into unknown oceans in order to find these Spice Islands. They all knew that Southeast Asia was the spice capital of the world. From roughly 1000 CE until the eighteenth century, all world trade was more or less governed by the ebb and flow of spices in and out of Southeast Asia (Reid: 1988, 1994). Throughout these centuries the region and its products never lost their siren call. Palm trees, gentle surfs, wide beaches, steep mountain slopes covered with lush vegetation, and birds and flowers of brilliant colors, as well as orange and golden tropical sunsets, have enchanted its visitors as well as its own people through the ages.

The story of economic development in early Southeast Asia begins long before the Christian era. Southeast Asia had already been for centuries a region with a distinct cultural identity. By the early Christian era, Southeast Asia had skilled farmers, musicians, metallurgists, and mariners. Even though they had no written language, no large urban concentrations, and no administrative states of recognizable proportions, they were nevertheless a highly accomplished people who had already assumed a significant role in the cultural development of the southern oceans of the Eastern Hemisphere.

Their expertise was in three general areas. First, they were innovative farmers. It is possible that Southeast Asians were the first to domesticate rice and to develop wet-rice cultivation. Early archeological evidence from the era of known rice cultures, as early as 2000 BCE, has been identified in Southeast Asian sites (notably northeastern Thailand), and archeologists have found evidence of a rice plant that could be classified as an intermediate stage between wild and domesticated rice that has been dated to ca. 3000 BCE. But these people never developed a rice monoculture. In addition to rice, local populations also harvested a number of other crops, including sugarcane, yams, sago, bananas, and coconuts. And they apparently were among the first (if not the first) to domesticate the chicken and pig (Bellwood: 1997; O'Connor: 1995).

It may be that Southeast Asians independently discovered bronze and developed their own sophisticated metallurgical techniques based on the special qualities of bamboo. Since the trunk of this plant grows in hollow segments, they were able to use it to fashion a fire piston that produced the heat required to liquefy metal. Archeologists have dated bronze objects uncovered in northeast Thailand to 1500 BCE, and iron bracelets and spearheads to about 500 BCE. By 200 BCE many peoples in the region possessed a sophisticated metal technology that allowed the production of bronze, brass, tin, and iron, although in most cases the tin, copper, and iron raw materials were not locally available and in some cases had to be imported. Beautiful large bronze ceremonial drums like those found in Dong Son (in modern Vietnam) could be found all over Southeast Asia. That these drums were so widely dispersed throughout the region is clear evidence that there existed an extensive and efficient exchange mechanism within the Southeast Asian world prior to any significant trade with imperial India or China (Bronson: 1992).

Their third area of expertise, that of sailing, may explain in part how these drums, among other material objects, became so widely dispersed. The people of the maritime realm were the pioneers of early watercraft developed on the southern oceans (Manguin: 1994). From before the historic period, they knew how to ride the monsoons, the seasonal winds that pulled across the continent during the hot months of the Central Asian summer and pushed away during the cold Central Asian winter. This basic rhythm of the Central Asian bellows offered an opportunity that the seaborne sojourners of Southeast Asia seized. They sailed thousands of miles from their homes, navigating by means of swell and wave patterns, cloud formations, winds, birds, and sea life. This sophisticated and complex knowledge was passed orally from generation to generation. They measured their peoples by "boatloads," and on the slightest pretext, boatloads would leave islands where they were already heavily concentrated and sail off to set up new communities on unin-

habited islands, so that these Malayo-Austronesian peoples eventually stretched halfway around the globe, from Madagascar on the East African coast to Easter Island in the Pacific.

They were the nomads of the Southern Ocean, and they played a role in history that in some ways resembles that of the nomads of the northern steppe. They were prime movers in the links created between larger centers, as well as potential impediments to those links once they were created. Exactly when this far-reaching maritime activity began is unknown, but “Malay” (*Kunlun*) sailors were known in China by the third century BCE, and there is evidence that they were settling along the East African coast by the first century CE. By the time of the Roman Empire, there were permanent communities of Malayo-Polynesian-speaking peoples on the coast of Malagasy, where they remain to this day (Taylor: 1976).

The Malay sailors did not cover these routes empty-handed, and in the process of sailing across the thousands of miles of Southern Ocean from Africa to Easter Island, they moved the specialties of one place to others. Cinnamon, a product that originally came from the south China coast, may also have reached the markets of India on the vessels of these sailors, and the markets of Southwest Asia and the Mediterranean through Malay trading stations in East Africa. The Roman historian Pliny, writing in the first century CE, described cinnamon traders between Africa and Asia who rode the winds “from gulf to gulf” (see chapter 2). Pliny describes their craft as rafts. What he was no doubt referring to was the double outrigger canoe of the Malays. This same craft is still used today along the routes that these ancient mariners sailed. The cinnamon they brought was then traded north by the Africans until it reached Ethiopia, where the Europeans obtained it.

Since Malay sailors were known in China by the third century BCE, it was probably not long after that they began to sail through the Straits of Melaka (Malacca) and Sunda into the Indian Ocean and on to India, and thus it is quite possible that the Southeast Asians themselves were responsible for the earliest contacts between Southeast Asia and South Asia. Historians do not know exactly when the first ships based in Indian ports went to Southeast Asia, but many believe that it was sometime in the last two centuries BCE. It has been suggested that from the late fifth century BCE beginning of the Mauryan period India’s supply of gold came from Siberia, from the northern reaches of Central Asia, but that after the Mauryans fell in the second century BCE, the movement of steppe nomads cut them off from these sources and forced them to look elsewhere. It was then, they think, that merchants based in India’s ports began to sail into Southeast Asian waters, looking for the “Islands of Gold” (Wheatley: 1983; Ray: 1994; Sen: 2003).

The early Southeast Asian populations shared a relatively common physi-

Funan's ports. There they also began to supplement Eastern and Western products with products from the forests of the Indonesian archipelago. Koying well represents the indigenous response to the potential for trade provided by the new maritime activities (see map 2.2).

By the early fifth century the southern Sumatra coast assumed an additional importance, due in part to Java Sea spices. The principal East-West maritime route shifted from its upper Malay Peninsula portage to a nautical passage through the Straits of Melaka, making direct contact with the northwestern edge of the Java Sea (Wolters: 1967, 34–36; Wisseman Christie: 1998a). Zone III, Straits of Melaka Network, thus became the third zone of Southeast Asian commerce, and its center on the southeastern Sumatra coast soon became the focal point for Malay trade in western Borneo, Java, and the eastern islands, as well as the upper Malay Peninsula and its hinterland, the Chaophraya and Irrawaddy river systems (Wheatley: 1959, 67–86). Historians describe southeastern Sumatra in this era as a “favored coast” that aided the flow of commerce, marketing its own Sumatra forest products and Java Sea goods and utilizing Malay ships and crews to connect indigenous riverine and coastal exchange networks with the international route. It was also strategically located relative to contemporary developments in west Java (Wolters: 1979a, 35–36).

Under the Srivijaya maritime state, which dominated straits commerce until the early eleventh century, a pattern of riverine statecraft emerged built on alliances with Malay coastal populations and balanced by an expanding inland power base (L. Andaya: 2008, 49–81). In the eyes of the Chinese, Srivijaya was the perfect trade partner. It was able to keep goods moving into south China ports by servicing vessels voyaging through the Southeast Asian archipelago. Srivijaya's ports were utilized as centers of exchange for those ships traveling over but one segment of the maritime route or as ports of call for ships awaiting the appropriate monsoon winds to take them to their destination. Srivijaya also successfully protected the Southeast Asian zone of the international commercial route from piracy. In recognition of Srivijaya's power the Chinese granted the maritime state preferred trade status, suggesting that those who utilized Srivijaya's ports were given preferential treatment when entering Chinese ports. Historians believe that this Chinese connection was critical to Srivijaya's prosperity and that Srivijaya's power was dependent upon the fluctuations of the Chinese economy (Wolters: 1979a, 39–48). When trade with China's ports was prosperous, Srivijaya thrived. But when China's ports periodically closed, the economic repercussions were disastrous to Srivijaya's political authority. With declining trade revenues Srivijaya was unable to maintain the loyalty of its seafarers, who shifted their energies to open piracy.

The Srivijayan era of economic hegemony came to an abrupt close in 1024–1025, when the south Indian Chola dynasty successfully attacked the Melaka region's ports and shattered Srivijaya's authority over the straits (Spencer: 1983; Kulke: 1999; Sen: 2003, 220–27). This raid began a two-century restructuring of the patterns of Southeast Asian maritime trade. In this era not only Indian but also Chinese and Middle Eastern traders began more openly to penetrate Southeast Asia's markets, moving more directly to the sources of commercial goods. Foreign merchants began to travel regularly into the Java Sea region to acquire spices, a movement that encouraged the development of Java's ports on the northern and eastern Java coasts as trade intermediaries and as ports of call for foreign merchants from the West. The destruction of Srivijaya's hegemony also increased the significance of the southern Vietnam coastline as a commercial power, as coastal centers in the Champa domain that extended from the central Vietnam coastline southward to the Mekong River delta became more prominent intermediary ports of call on the way to China (Lockhart and Phuong: 2010).

The relationship of the river plain-based and previously more internally focused Javanese state to the outside world changed radically during the eleventh and twelfth centuries. During the eighth and ninth centuries the Javanese capital and the territory under its control had been situated in and around the Kedu Plain of central Java, to the south of the Merapi-Perahu mountain range. After the shift of the Javanese state's political center to the lower Brantas basin of eastern Java in the tenth century, and the subsequent consolidation of the eastern and central Javanese plains under one authority, Java rulers began to take a more active interest in overseas trade. This change was in part due to the shift of the royal center to the Brantas River basin and in part due to the increasing economic potential that direct interaction with the maritime traders provided (Boechari: 1979).

Not only was this the era of the Srivijaya network's demise, it also coincided with a significant increase in the volume and economic importance of trade with China during the reign of China's Song dynasty. At the same time that the Java Sea zone flowered as a commercial power during the eleventh and twelfth centuries, the penetration of Chinese seamen from the north through the Sulu Sea to acquire the products of the Spice Islands brought the development of the Philippines and northern Borneo as Southeast Asia's commercial Zone IV, Sulu Sea/Eastern Indonesia. While previously China's rulers had utilized the tributary trade network of non-Chinese to secure international products—because China's rulers had been reluctant to release Chinese seafarers from China's ports, preferring to keep them where bureaucrats could police their overly commercial activities—in the late Song era Chinese commercial specialists were for the first time encouraged to sojourn into the

Southeast Asian region to market Chinese products (e.g., porcelain and silk) and to acquire foreign goods for China's marketplace (Schottenhammer: 1999, 2001; Chaffee: 2008; Heng: 2008). Chinese traders became permanent as well as part-time residents of Southeast Asia's ports and established trade bases in the Philippines and beyond to more directly secure the profitable spices of the eastern Indonesian archipelago, rather than depend on the Java Sea spice trade network (Ptak: 1992, 1993, 1998a). To distribute imports and to gather the forest products the Chinese traders desired, an intensive and extensive network of native trade evolved in this age, and it stimulated major changes in Philippine society (Hutterer: 1974; Morrison and Junker: 2002). The archeological remains of early Laguna, Mindoro, and Cebu society document the rapid growth of Philippine trade centers, as people from the interior and other islands congregated around ports fortified with brass artillery—to protect against the piracy rampant in this region's sea channels—in response to the opportunities and demands afforded by foreign trade (Hutterer: 1973; Diem: 2001, 2010).

The growing interest among the mainland powers at Angkor and Pagan in directly participating in international maritime trade activities resulted in the development of the Southeast Asian trade Zone V, Bay of Bengal Network, during the post-Srivijayan age. Bay of Bengal regional trade encompassed the Burmese, Cambodian, and Thai mainland polities and the variety of domains on the upper Malay Peninsula and the northern and western coasts of Sumatra; India's eastern and southern coasts and Sri Lanka were the regional points of contact with the western Indian Ocean. There was also an overland trade network between Burma and southern China. Southern Sumatra and the lower Malay Peninsula remained principal Southeast Asian landfalls where Western and Eastern Indian Ocean international traders intersected. A mixed ethnic community of Indian Ocean-based Muslim and Tamil traders focused their contact on the Burma and Kedah coasts of the Malay Peninsula, and shifted their activity from Palembang to Jambi on the southern Sumatra coast and Barus on the northern Sumatra coast in the late eleventh century (Wisseman Christie: 1998a; Kulke: 1999).

By the thirteenth century Southeast Asia's regional trade was in the hands of Southeast Asians and Southeast Asia-based traders, inclusive of resident communities of non-Southeast Asian Muslims and Chinese ethnicities, as international sojourning merchants found it once again more expedient to deal with Southeast Asia-based intermediaries at major international emporia rather than attempting to deal directly with those who controlled the sources of supplies (Hall: 2004b; Heng: 2008). This was due in part to the growing efficiency exhibited by Southeast Asia's marketing networks in capably providing goods for the foreigners at selected ports. As opposed to the Srivijaya

era, when trade was dominated by a single Malay state and its ports, by the thirteenth century all five Southeast Asian maritime zones had become prosperous and independent economic networks, not as competitors for maritime dominance but representing an integrated commercial prosperity within Southeast Asia. The strongest of the Southeast Asia island realm's political systems, Majapahit, was centered in east Java. Javanese rulers facilitated the Java Sea spice trade but found no need, nor were they able, to physically dominate the more numerous functional ports of the Straits of Melaka region as Srivijaya had in the earlier age (Hall: 2000). Majapahit's rulers established a loose regional hegemony that saw the emergence of new potential challengers, notably among the northern Sumatra ports that depended heavily upon their role as intermediary centers of commercial exchange with Middle East and India-based seamen, and at the end of the fourteenth century, Melaka on the Malay Peninsula side of the Straits (Hall: 2001a).

Java's limited control over the Straits region was also linked to the rise of Straits piracy, which resulted in China's direct military intervention in the early fifteenth century (Wade: 2004; Hall: 2006). The eventual establishment of Melaka as the focal regional emporium was in part the result of initiatives taken by the Chinese Ming dynasty to fill what they perceived to be the absence of a major political power in the area that could be depended upon to contain piracy, which was jeopardizing the steady flow of profitable commerce into China's ports (Wolters: 1970, 47; Heng: 2009). By the 1430s, however, Melaka's prosperity depended less on Chinese support and more on interaction with intermediary maritime sojourners; Champa, Ayudhya, and Java-based merchants; and Java-centered commercial networks that extended eastward to Indonesia's Spice Islands. Java-based seafarers controlled the island traffic to and from the Straits and used Melaka as a trade intermediary through which to market Java's rice as well as eastern archipelago spices (Hall: 2008).

A new era of Southeast Asian commerce unfolded after the Portuguese entry into the Straits region in 1511. Not only did the Europeans take over Melaka, they also penetrated the Java Sea sphere in the eastern archipelago, attempting to assert their control over the spice trade. Over the next four hundred years the Portuguese and other Europeans who followed attempted to impose their hegemony over the sources of the products and to eliminate the indigenous and resident diaspora intermediaries who had controlled trade in Southeast Asia since its inception. Although the Europeans' attempts to monopolize Southeast Asia's trade failed, they did successfully open the archipelago trade to a variety of competing groups, both Eastern and Western. By the seventeenth century ports on Java's north coast, which had emerged as independent economic centers during the decline of the Majapahit state in

tional trade began to act as an impetus to state-building efforts in the broader region, whether as a consequence of or as a reaction to the international trade.

From at least the seventh century BCE, goods from India arrived in Babylon along two well-traveled commercial routes. The preferred overland route, often called in modern writings the Silk Road, crossed the mountains and steppes of Central Asia. By the fourth century BCE, however, Aramaic language inscriptions from the Middle East recorded an active maritime trade along the coast, with goods transported by sea from India's northwestern coast to Seleucia in Mesopotamia via the Persian Gulf and the Tigris River. Alexander the Great's admiral, Nearchus, employed local pilots and commissioned a fleet of thirty-oared galleys that used the same coastal route to transport Alexander's troops from India back to Mesopotamia in 321 BCE (Ray: 2003, 2004).

Such coastal shipping rather than transoceanic voyages was typical of the early maritime contact between Middle East and Asian ports. Until the first century CE, there was limited knowledge or use of the seasonal monsoon winds, except by Southeast Asia-based seamen who were sailing between the Indonesian archipelago and Madagascar. The small-oared galleys making these ocean voyages tried to stay within sight of land as they hopped from port to port between Mesopotamia and India. Early Middle Eastern literary references speak colorfully of six-month voyages during which trained birds were used to guide ships to land; sailors navigated by the stars and by watching the flight of birds. Merchants and other sojourners commonly booked space for themselves and their goods on the ship deck.

Regional political fragmentation at first limited Mediterranean markets for goods transported along this coastal route; the real blossoming of maritime trade between East and West awaited a stable Mediterranean Sea-centered marketplace. The consolidation of Roman rule provided this peaceful setting. Rome's political growth heralded a demand for luxury goods, among them spices, scented woods, resins, and cloth from the East, which substantially encouraged the expansion of Indian Ocean shipping. Technical advances soon followed as innovations in Western ship construction provided sailing rigs capable of undertaking voyages with larger loads and ultimately promised a means of using the ocean monsoon wind currents, thus enabling navigators to make transoceanic voyages.

Too frequently recent Western secondary sources tend to collectively categorize Middle Eastern traders as "Arabs" (Sen: 2003, 174, 234). This generalization ignores the multiethnic communities from the Middle East who participated in the Indian Ocean trade since its inception. In the earliest era, Parthian merchants predominated, from the period of the Persian king Mithradates I (r. ca. 171–139 BCE) onward. Parthians supplied Indian iron,

the passage to Yavadvipa, and indeed Indian evidence indicates that not many Indian sailors were making the passage either.

Chinese records provide a more satisfactory yet still incomplete view of the burgeoning commercial networks that connected China with the West in the era of the Roman Empire (Liu: 1988; Ray: 1994). By 111 BCE, the Han dynasty controlled southern China, and Han emperors, following the lead of the illustrious emperor Han Wudi (140–87 BCE), who was responsible for the development of the Central Asian caravan (Silk Road) route, came to control Guangzhou (Canton), a coastal city with strong commercial interests. Together with Quanzhou to its north, Guangzhou would serve as the early terminus for China's maritime trade with the West. During a break in Han rule from 9 to 25 CE, south China became a haven for refugees escaping from the turmoil in the north, among them northern aristocrats who further encouraged the development of Guangzhou as a commercial center. These aristocrats constituted a growing market for Western goods.

The Chinese used the term *Da Qin* in reference to the Roman provinces in the Middle East stretching from Syria to Egypt. From these western regions “precious and rare objects of all foreign countries” were said to come (Hirth: 1885, 42). The Han history (*Hou Han-shu*) dating from 125 CE vaguely describes Da Qin's trade with the northwestern coast of India. Profit to Da Qin's traders from this trade was said to be tenfold, but “honest” (Wolters: 1967, 40). Da Qin products reaching China included glass, carpets, rugs, embroideries, piece goods, and precious stones. Among these, manufactured goods—notably glassware in the form of costume jewelry, ornaments of colored glass, and glass beads—were especially valued (Wolters: 1967, 39–40; Miksic: 2003, 18–22).

The decline and fall of the Han dynasty between 190 CE and 225, and the corresponding collapse of the Silk Road network, increased the Chinese gentry's need for a maritime link between East and West to supply them with exotic goods. The south China-based Wu dynasty (220–264 CE) encouraged the import of Western textiles (mainly Indian cotton), tree resins, coral, pearls, amber, glassware, jewelry, and other manufactures. When in 226 Da Qin merchants from the West visited the Wu court, they were questioned extensively by the emperor himself, who sent an official to accompany them on their return voyage (Wolters: 1967, 42). The Wu governor of the Chinese province in northern Vietnam was subsequently delegated the special role of advertising south China's interest in this trade. When envoys from the lower Vietnam coastal states of Funan and Linyi paid official visits in 226 and 231, respectively, the emperor congratulated the Wu governor for his “meritorious performance.” In 240, the Wu court dispatched envoys led by the court's appointed agent Kang Tai to Funan's ports to view firsthand the nature of

trade with the West—and seemingly as well to evaluate whether conquest down the coast beyond the Red River delta would be worthwhile (Wang: 1958, 33). These envoys' reports provided the first written details on Funan, Da Qin, and the networked centers of maritime trade that lay beyond in Southeast Asia, northern India, and the Middle East.

Kang Tai informed the Chinese emperor that the kingdom of Funan was a prosperous realm from which great merchant ships departed for China and India. Funan's authority stretched along the trade route beyond the lower Mekong Delta to the upper Malay Peninsula. He reported that after a major naval expedition in the early third century, Funan had assumed authority over many of the trade centers on the Malay coast, thereby consolidating its dominance over the flow of commerce through Southeast Asia. By the early fourth century, however, significant changes were taking place on the international route that resulted in the fifth- and sixth-century demise of Funan and its networked northeast Malay Peninsula commercial centers (Manguin: 2009; Miksic: 2003a, 28–33).

THE EARLY CHINA TRADE

Who provided passage from Southeast Asia's ports to China and India in the first centuries of the Christian era? Early Chinese records make it clear that Malayo-Austronesian seamen (*Kunlun*) and ships (*kunlunpo*) based in Southeast Asia, with the ships described as extending to two hundred feet in length, rising up to twenty feet above the water level, and said to be able to hold from six hundred to seven hundred passengers and ten thousand bushels (nine hundred tons) of cargo, sailed the route between Southeast Asia and China (Wolters: 1967, 154; Manguin: 1994; Miksic: 2003a, 22). Until the eleventh century no Chinese ships made the voyage on a regular basis, and until the sixth century Persia-based ships went no farther east than Sri Lanka. There is disagreement, however, on who provided the passage from South Asia to Southeast Asia.

Many Western historians initially thought that Indian seamen in Indian-made ships developed the route. In reiterations of this view, it used to be argued that Southeast Asian seamen were not capable of building the great ships making the voyage (Wheatley: 1975, 154). In this West-prejudiced view Indian craftsmen copied the more advanced Persian ships in shipyards along the Indian coast and Indian sailors, most of them Buddhists, then sailed the vessels with their international passengers and cargoes to the "Land of Gold." Other historians now believe that it was not Indians but multiethnic Southeast Asians, piloting ships (*kunlunpo*) built in Southeast Asia from the

Southeast Asian archipelago to India and back, who provided this early linkage for international merchants (Wolters: 1967, 154). In their view Southeast Asian seagoing populations were responsible for opening the entire sea route from India to China. They point to Western accounts from this age that record voyages by “Malay” seafarers as far west as the African coast and draw the conclusion that if Malay ships could reach Africa, they could certainly reach India (Manguin: 1980).

When the need for a maritime route increased, international sojourners were able to turn their maritime skills to financial gain. Because Western traders at this time were primarily interested in exchanging Western goods for Chinese products without voyaging beyond South or Southeast Asia themselves, access to the ports of south China was a critical factor that allowed Southeast Asia-based sojourners to expand their Western trade. By securing Chinese commodities and transporting them to Southeast Asian and South Asian trade depots, Southeast Asian seamen effectively eliminated the need for Western ships to venture beyond South Asia.

Southeast Asia-based seamen, however, were not only facilitators of international trade; they could be a serious detriment to it as well. They had the potential to be shippers and/or pirates. Chinese records recognized this duality in their report that “merchant ships of the barbarians” piloted by Kunlun seamen were used to transfer the early third-century Chinese envoys to their destinations in the archipelago, and that these seamen profited equally from the trade and from plundering, enslaving, or killing people (Wang: 1958, 20). The Chinese considered Southeast Asia to be generally unstable politically and a potential threat to the efficient flow of commercial goods into China. The Chinese government was most interested in having its political legitimacy and dominance recognized—above all to ensure the stability of their southern borderlands—as it was in establishing commercial goals as the basis of relationships. The Chinese thus looked for a strong, dominant port-polity in the area that would be able to maintain trade and prevent plundering by the sea pirates based in Southeast Asian waters.

The Chinese apparently favored consistency, preferring not to shift alliances from one port-polity to another. They would recognize one port and attempt to maintain a tributary relationship with it. If the state stopped sending envoys to the Chinese court, the Chinese would try to reestablish contact with that tributary state before granting official recognition to another. Southeast Asian states in a tributary relationship with China received token reciprocal material gifts from the Chinese court and the even more valued Chinese recognition of their legitimacy and trading status. Appeals for direct military aid or patronage were almost always ignored. Southeast Asian states did capitalize on Chinese recognition, however, to attract trade to their ports. Chinese

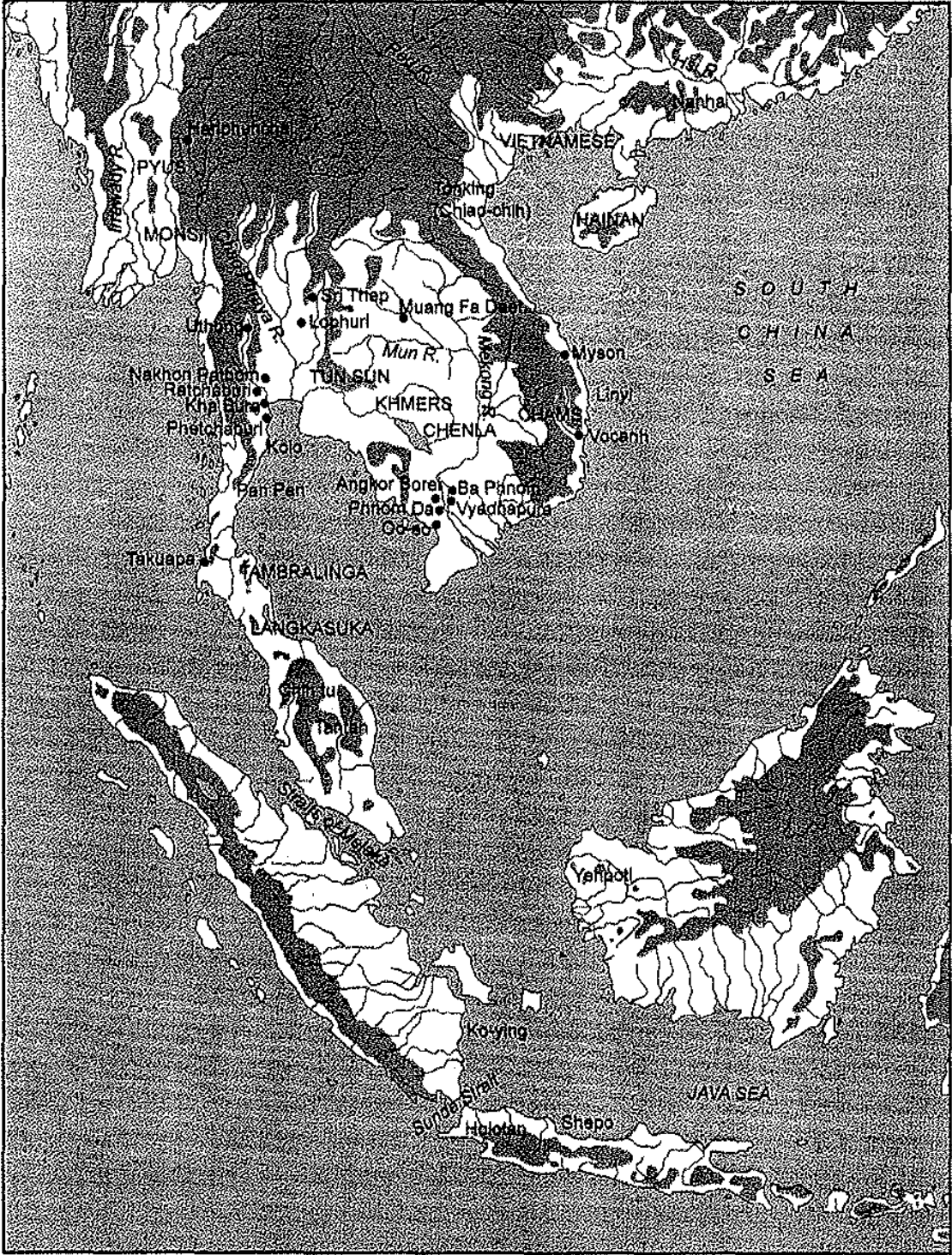
support bestowed on them a legitimacy that contributed to their rise. Traders who frequented a “legitimate” coastal trading center were given preferential treatment in their trade with China. The Southeast Asia–based seamen who provided shipping for goods and merchants saw the potential for acquiring great wealth in the China trade and joined forces with the legitimized states. They turned to policing rather than pirating the sea channels and in return for their loyalty shared in the trade-derived prosperity.

So critical was Chinese recognition that any coastal trade depot wishing to share in this prosperity regularly sent a tribute mission to the Chinese court. According to one historian’s analysis of these political missions, which were dutifully recorded by Chinese scribes, when they were few it meant stability in the area; that is, when one trade depot’s authority over the sea lanes was unchallenged (Wolters: 1970, 38–48). Periods of internal dissension and political turmoil are reflected, on the other hand, by numerous tribute missions, as various coastal commercial centers competed for the preferred status the Chinese could bestow. For example, in the era of Funan’s supremacy, Funan ports were officially recognized by the Chinese court and sent few tribute missions. But by the fifth century, when the pattern of trade was shifting from Funan to the Melaka and Sunda Strait region, numerous tribute missions from the former economic subordinates of Funan appeared at the Chinese court soliciting favorable trade relationships. Funan attempted to regain Chinese favor, sending both tributary missions and trade envoys to the Chinese court, but the Chinese, fully aware of the transition taking place in trading patterns, chose to ignore the Funan initiative and to give official recognition instead to the ports of a southeastern Sumatra state as well as to those of Funan’s northern neighbor, and potential rival, the Cham state of Linyi.

THE INDIANIZATION OF EARLY SOUTHEAST ASIA

We have seen that the growing importance of the maritime route through Southeast Asia had a significant impact on the political and economic systems of the region. Just what that impact entailed can be illustrated by a case study of the earliest known Southeast Asian political entity, Funan.

As reported above, when in the 240s the first China envoys on record traveled to Southeast Asia to explore the nature of the sea passage, doing so at the behest of the Wu dynasty, they went to Funan on the southern Vietnam coast. The reports filed by the court’s agent Kang Tai and his compatriot Zhu Ying offer a window on the origins of Funan (Wheatley: 1961, 114–15; Vickery: 1998, 33–37). Kang Tai’s report provides a contemporary glimpse of the prosperous state, informing his emperor that the people of Funan



Map 2.3. Southeast Asia in the Funan Age

live in walled cities, palaces, and houses [that are built on wooden piles]. . . . They devote themselves to agriculture. In one year they sow and harvest for three [i.e., they leave it in and it will grow back three years before they have to replant]. . . . [Customs] taxes are paid in gold, silver, pearls, and perfumes. . . . There are books and depositories of archives and other things. Their characters for writing resemble those of the Hu [a Sogdian people of Central Asia whose alphabet and script was of Indian origin]. (Pelliot: 1903, 252)

At the beginning of the first millennium, ports on the lower Vietnam coast, said by the Chinese to have been under Funan's authority, were among the coastal centers in the vicinity of the upper Malay Peninsula that quickly developed to service the growing numbers of merchants traveling the sea and overland Isthmus of Kra route. Revisionist historians, citing new archeological data obtained since the 1990s from extensive excavations and surveys in the lower Mekong River basin, believe that the Funan realm was populated by a mixture of ethnicities. Largely Khmer agricultural societies developed in the Mekong River upstream in modern Cambodia, while mixtures of Mon, Cham, and Malayo-Austronesian fishing and hunting groups populated the lower Mekong and the coast (Vickery: 2003–2004; Bourdonneau: 2003). Already building their own ships, Funan-based seamen recognized that the location of their coast in relation to the new international route across the Isthmus of Kra enabled them to provide passage for Indian and Chinese goods. Soon a Funan port was booming. The latest archeological evidence documents the construction of the port facilities, including buildings for storing goods and hostelryes for merchants lying over until the next season's monsoon winds allowed their return voyage (Manguin and Khai: 2000; Miksic: 2003a; Vo: 2003, 47–69; Manguin: 2004).

Archeological data from the Óc Eo site on the northwestern edge of the Mekong Delta supports the Chinese ambassadors' early third-century reports on the evolution of Funan as a commercial center for the maritime trade destined for China; it also connects the Funan polity's rise to the parallel or previous development of Funan's agricultural base. Favorable water resources, soil, and seasonal weather allowed Funan's agriculturalists in the upper delta and lower Mekong River basin to produce multiple rice harvests annually, supplying sufficient surplus to easily feed foreign merchants resident in Funan ports and to provision their ships (Vickery: 1998, 300–1). Clearly Funan's rise had two sources: the productivity of its agrarian system and the area's strategic location opposite the Isthmus of Kra. A network of canals connect the coast to Funan's agricultural upstream, centered on its urban "capital" at the archeological site of Angkor Borei in modern southern Cambodia. It is unclear whether this canal network required a new level of technological competence or a central leadership for its construction (Malleret:

1959–1963; Liere: 1980; Stark: 1998, 2003, 2006a, 2006b; Stark and Sovath: 2001). The question arises whether Funan's emergence was the consequence of indigenous evolution or the result of a significant input of foreign expertise, especially Indian. To answer this question, it is necessary to examine Funan's earliest history.

INDIANIZED FUNAN

According to the Chinese sources, the Funan state was founded in the first century CE. Its origin is suggested by a local legend that was already old when Chinese visitors recorded it in the 240s. According to this legend, Funan began when a local princess (whom the Chinese called Linyeh) led a raid on a passing merchant ship of unspecified nationality. The ship's passengers and crew managed to fend off the raiding party and make a landing. One of the passengers was Kaundinya, a man from a country "beyond the seas" (India). Linyeh subsequently married him, and the legend says he drank of the local waters, suggesting an oath of loyalty. As Funan was a matrilineal society, Kaundinya thereby became part of the local lineage, and as its heir he became the first Funan monarch. The realm that Kaundinya and Linyeh inherited consisted of several settlements, principally along the Mekong, each with its own local chief. Kaundinya and Linyeh later transferred seven of these to their son, while retaining the rest as their own (Pelliot: 1925, 246–49).

During their reign, according to the legend, Funan began attracting merchant ships by providing secure facilities and harbor improvements. The Kaundinya myth suggests that Indians were using Southeast Asian ships on their passage through Southeast Asia, for the myth does not specify that Kaundinya was traveling on an Indian ship, but says simply that a man from beyond the seas was on a ship of unremarkable and thus presumably local origin. This is certainly plausible, for Chinese records report that ships were being built in Funan's ports, including the ships that the Funan monarch Fan Shihman had ordered constructed for his third-century expedition of conquest against Malay Peninsula port-polities (Miksic: 2003a, 22).

Legends like the Kaundinya story cannot be taken too literally, but as symbolic if not metaphoric references. Early societies did not compose oral or the earliest written history as "fact" in our modern sense, but as mythical references that were attuned to their audience, or what their audiences were preconditioned to hear relative to their own lifetime experiences. In this light the Kaundinya myth, and others to be encountered in subsequent chapters of this book, above all provide meaning relative to a specific local space, in references to mountains, water, and sky. The upstream homeland leading to

the mountainous interior offered security, while the coastal realm adjacent to the sea, which was the most physically threatening as the source of seasonal typhoons and subsequent flooding, was also the borderland to the unknown, from which came strangers.

This particular story combines a myth of the Indian origin of Funan's rulers with an older myth, common among the Malayo-Austronesian peoples, which described a marriage between a sky god and a foam-born *naga*/snake princess (or sometimes a princess born from a bamboo shoot). The Kaundinya legend parallels this latter myth, as Kaundinya, and the Indic celestial religious tradition he represents, is the "sky god" (foreigner) who unites with the *naga* (local) earthbound princess, representing local worship of animistic spirits, which together (the celestial Indic religious tradition that is localized with the preexisting indigenous animism) become the basis of Funan's future. The basic elements of the Kaundinya legend are reiterated elsewhere in Indic and Southeast Asian folklore, but historians have not been in agreement on its interpretation (Przyluski: 1925; Vickery: 1998, 36). What seems most likely is that it suggests that the rulers of Funan began a cultural dialogue with India at the same time as they were integrating their settlements into larger domains.

The details of this cultural dialogue are a matter of dispute. It used to be argued that Indian Brahmans, or perhaps Indian traders claiming to belong to this Indian upper caste, traveled to Southeast Asia and presided over an Indianization of the region. According to this view, South Asians united in marriage with the daughters of the local chiefs and then converted the rulers and their subjects to Indian ways. Because the local population had no equivalent vocabulary or understanding for the social, moral, and religious innovations brought by the foreigners, the Indians used their own terminology as they worked to uplift the native population culturally. Indic culture soon engulfed the more primitive local civilization, and the local population became subjects of Indianized states.

While not denying the role of South Asians in stimulating the formation of early Southeast Asian states, revisionist historians opposing these South Asian agency theories have more recently stressed the active role of Southeast Asia's indigenous rulers in forging the initial linkages with the bearers of Indian culture (Miksic: 2003a; Tingley: 2009). Some scholars have reasoned that the maritime traders most likely to have initiated contact with the Southeast Asians would have been incapable of transmitting the more subtle concepts of Indian thought, due to their lack of formal training. Revisionists, therefore, stress the idea of a mutual sharing process. According to this view, local rulers, having learned of Indian culture through their trading relationships with South Asia, invited trained personnel from India who then guided the Indianization process. One of these revisionist proposals has it that the

original contacts had been with Indians traveling to Southeast Asia, while according to another proposal the initial contact came through the agency of the Southeast Asian sailors who seem to have dominated the earliest East-West maritime routes.

Whatever the manner of the initial contacts, Southeast Asian rulers recognized in Indian culture certain opportunities for ritual, administrative, and technological advantages useful against local rivals. They also recognized that by Indianizing their courts they could facilitate trade with South Asia-based merchants and thereby increase their income. To obtain those advantages, the Southeast Asian rulers therefore encouraged the immigration of literate Brahmans to help them administer their realms. Thus, the early era of trade contact was one of adaptation and learning—an apprenticeship period during which rulers of emerging states were curious about Indian and other foreign cultural traditions and were in the habit of looking overseas for cultural and economic benefits. In this view the initiative was Southeast Asian, not Indian, and Indianization itself was a slow process of cultural synthesis dictated by local need, not a rapid imposition of Indic traditions caused by a massive influx of Brahmans (Wissemann Christie: 1995; Wolters: 1999, 107–25).

As discussed in chapter 1, the motives for these developments are clarified when we realize that the early Southeast Asian polities were not states in the modern sense. Rather, they were tribal societies that from time to time produced chiefs who were able to impose their hegemony over neighboring chiefs by mobilizing military power through family networks, clans of relatives and their allies, and marriage alliances to other chiefs' groups. Certain teachings from the Indic religious tradition would have supported these chiefs' efforts to distinguish themselves from their peers. In particular, the chief could build on the notable heroic accomplishments that had demonstrated his military prowess by referring symbolically to the Indic philosophical notion of ascetic achievement through meditation and ritual performance. Thus, after consolidating his position, whether by force or by offering access to new economic and culturally meaningful resources, the successful Southeast Asian chief would begin to practice Hindu asceticism to further enhance the local perception of his spiritual superiority. The local ruler's ascetic achievements and ritual performances demonstrated his close relationship not only with the indigenous ancestors and spirits, but also with the celestial and universal Indic deities.

In the early Southeast Asian polities the most significant of these deities was the god Siva, whom early mainland inscriptions depict as not only the source of fertility but also the patron of ascetic meditation and the supreme lord of the universe. Rulers of ascetic achievement were characterized in their

inscriptions as Siva's spiritual authorities on earth, and since Siva's authority over all that exists was absolute, in theory the rulers' own powers on earth had no limit (Tingley: 2009, 132, 144).

The ruler's claims to partake of divinity took his followers beyond their existing relationships with ancestors and local chthonic spirits, holding out the potential rewards of a relationship with an omnipotent Indian divine. Due to the political attractiveness of these notions, Southeast Asia's early rulers focused not on the development of state institutions of secular scholarship, but rather on the institution of religious cults that allowed followers to draw inspiration on the leader's spiritual relationships. Local populations responded by rallying behind these spiritually endowed leaders, who were supported by a blend of local and Indian cultural symbols and values. Successful leaders were therefore able to use these symbols and values to mobilize local populations for various intraregional adventures.

Economic relations were also important. Whatever our precise understanding of the process of Indianization—whether imposed by Indian immigrants or invited by Southeast Asia rulers—there is general consensus today that Funan's political development was stimulated in some way by contact with the entrepreneurial activities of traders of various cultures. Funan's chieftains were hardly passive actors in this process, for they oversaw the initial commercial transactions with foreign traders. The local chieftains were the instigators and organizers of Funan's ports. Furthermore, as mediators between the traders and the local population, they selectively adapted Indian-derived vocabulary and concepts for their own purposes.

This in turn had implications for the development of Funan's political culture, for as the international trade through its ports increased in volume, Funan's rulers were subjected to a range of experiences that expanded their statecraft capabilities beyond those of other land-based mainland populations, such as the Mons who were evolving in modern-day Thailand to the northwest. There smaller settlements called *ra* in seventh-century inscriptions were clustered around larger "urban centers" called *dun*, among these the U-Thong, Nakhon Pathom, and Khu Bua settlement sites; these sites and other archeological remains scattered across the Malay Peninsula and central and eastern Thailand are collectively referenced as marking the first-millennium CE Dvaravati civilization. Dvaravati artifacts include refined Buddhist statuary in the Indian style; Wheels of the Law, symbolizing the Buddha's first sermon and teaching, that were erected on the pillars of Buddhist temples; and distinctive pottery, all similar to the evolution of religious practices indicated in the remaining Funan artifacts (Vickery: 1998, 83–138; Dhida: 1999; Robert Brown: 1996; O'Reilly: 2007, 65–90).

Through their international contacts, Funan's leaders were exposed to new

life goals and new perceptions of the cosmos, becoming especially aware of new organizational possibilities. The local ruler thus became a cultural broker, while also being the principal beneficiary of profits directly derived from the commercial route. The Funan monarch's material rewards included ceremonial regalia, beads, textiles, and wealth that could be shared with clients (particularly precious metals, the cash of the period, and other items that could be useful to a submissive local chief attempting to stress his own superiority over potential competitors for power). Funan's paramount chief thus had a vested interest in continuing and expanding the evolving commercial system. The trade gave him the material means to consolidate his rule, while the Indian notion of divine kingship enabled him to assume a more illustrious personal status by using Indian-derived symbols and rituals to reinforce and enhance prior notions of legitimate and empowered leadership.

As previously discussed in chapter 1, Southeast Asia's local rulers traditionally had mobilized followers through ties of marriage and kinship. It is significant, therefore, that the Funan origin myth of Kaundinya and Linyeh, which localizes Indic religion, also weds the local social system with the culture of India. In this myth, the local princess married a foreigner and thus established for him a place within local matrilineal society. He subsequently "drank the waters," which suggests that he took an oath of loyalty to the local ruler (i.e., he entered his/her service), or that he in some way assisted in the development of the local agrarian system. The prominence of the local princess/chief in the legend denotes the importance of women in Funan society prior to its adoption of the Indianized style of patriarchal statecraft, in which males normally assumed leadership roles.

The story also carries the important moral that good things come not from attacking and plundering passing ships, but from befriending and servicing them. Funan's prosperity was ultimately tied to maintaining good relations between its own populations and the assorted traders and religious pilgrims who passed through the area. Note that the initial contact was a raid in which the princess Linyeh led a band of local seamen from the Funan coastline against the passing merchant ship. This is symbolic of initial efforts to bring shipping to Funan's ports by force, and it may demonstrate an early pirate stage in Funan's development (Wheeler: 2006). However, the myth ultimately rejects piracy, as only by the marriage of the local ruler with the ship's traveler was Funan's future prosperity guaranteed. The marriage of the princess and the foreigner therefore sealed a commercial and a cultural compact with foreign merchants and their Indic culture.

Though the Funan origin myth may not document an actual marriage between a native princess and a foreign traveler, it symbolizes a marriage of interests. In order to develop into a successful *entrepôt*, Funan had to present

a cosmopolitan character. The Kaundinya myth suggests that Funan's ports became such a neutral meeting ground. This transformation of the Funan realm's coastal centers into networked international ports depended on the local ruler's initiative in organizing and inspiring his supporters to facilitate this trade. First, port facilities had to be built. Second, these would-be commercial centers had to establish themselves as purveyors of the goods desired by international traders. In the case of Funan this was initially done by providing superior facilities or, if necessary, by using force to build up a supply of desirable goods in its ports.

Chinese and Western goods were the initial staples of the trade passing through Funan's ports, as traders from Funan went to China to exchange Mediterranean, Indian, Middle Eastern, and African goods (such as frankincense and myrrh, other plant resins, and assorted substances used to manufacture perfumes and incense) for China's silk and ceramics—critically, China was an indirect participant in the local marketplace, as China's products were exported rather than locally consumed (Miksic: 2003a, 18–22; Manguin: 2009). However, Funan also increasingly imported Southeast Asian goods that supplemented these staples. For example, copper and tin were transported downriver from the uplands of modern Thailand to supply the workshops of Óc Eo in Funan, where, according to the results of recent excavations, there was no lack of raw materials (Wolters: 1967, 52; Bronson: 1992; Miksic: 2003a, 18–22; Tingley: 2009, 138–39). In addition, a growing flow of goods was brought by Southeast Asian sailors from the islands of the Indonesian archipelago.

Initially, neither the Indians nor the other international traders using the ports of Funan were interested in the Southeast Asian specialties. But as the international transit trade at Funan grew, sailors from the Sunda Strait area to the south (in western Indonesia) began to introduce their own products for the Chinese market, beginning with some that might be construed as substitutes for goods from farther away. Sumatran pine resins were substituted for frankincense, and benzoin (a resin from a plant related to the laurel family, also known as gum benjamin) was substituted for bdellium myrrh. Soon the sailors from the western Indonesian archipelago began introducing their own unique new products.

One of the most important was camphor, a resin that crystallized in wood and that was valued as a medicine, as incense, and as an ingredient in varnish. The most highly prized camphor came from Sumatra's northwest coast (Ptak: 1998b). Products also began to arrive from Indonesia's eastern archipelago. Aromatic woods such as gharuwood and sandalwood (a specialty of Timor) became important commodities, as did Borneo's camphor, and the fine spices of the Maluku Islands also began to appear in international markets. Charaka,

a court physician of the northwest Indian monarch Kanishka at the end of the first century CE, references eastern Indonesian cloves in his medical text, as do fourth-century Gupta court poets (Wolters: 1967, 66).

Trade was not the only basis of the early Funan polity, for it was also generating an agricultural surplus. In addition to its references to the cultural and commercial compact on which Funan was based, the origin myth's depiction of the foreign traveler drinking the water of the land can be interpreted as an allusion to the construction of a Funan hydraulic system, which was the critical link to support the flow of hinterland produce to the coast. Air surveys of the Funan region substantiate the archeological evidence to show a network of skillfully laid out channels between the Bassac estuary and the Gulf of Thailand—hundreds of canals, estimated to cover 120 miles (200 kilometers), connecting at least a dozen population centers whose people lived within earthen ramparts in houses built on stilts (Paris: 1931, 1941; Bourdonneau: 2004; Sanderson: 2003).

The Funan origin myth in its different versions describes the early Funan domain as being comprised of several settlements, each ruled by its own chief. This would be consistent with the view of many scholars that early Southeast Asian states, including Funan, derived their power from networked control over manpower rather than from landholding rights (Wolters: 1979a, 1999). In the Chinese citation of the origin myth the first Funan king was said to have retained authority over the core sector of his realm, while eventually assigning to his son seven “centers” that together became a subordinate secondary “realm.” These seven networked population centers were thereafter ruled indirectly through the son. Whether they had been networked and ruled as a unit before this assignment is unclear. Were these new settlements that had come into existence when rice cultivation spread into unoccupied land, later grouped into a new administrative unit/region under the delegated authority of the Funan monarch's son? As networked territories under the authority of a subordinate Funan chief, how far would their loyalty have extended beyond the familial ties between Funan's ruler and the son who was their initial regional ruler/chief? More generally, what, beyond such personal ties and accompanying oaths of allegiance, would have created the continuing desire of regions beyond Funan's heartland to affiliate with the Funan monarch's leadership?

Some answers to these questions are suggested in the revisionist work of Southeast Asia specialist historians (Vickery: 1998; Higham: 2001, 13–35; Vickery: 2003–2004; Bourdonneau: 2003). Drawing attention to the archeological evidence of dispersed communal population centers (“villages”) in the area, there is common agreement that early Funan was a polity composed of networked villages, a vision consistent with the picture presented in the

third-century Chinese records. Drawing from later seventh- to eighth-century Khmer and Cham inscriptions and working backward to the Funan-era Chinese sources, scholars posit that Funan's influence extended over the scattered areas of fertility in the delta region, reaching roughly from Óc Eo near the coast to Angkor Borei on the northern edge of the Mekong Delta. Mountains separated this region as a whole from the developing Cambodian agricultural plain to its north.

In one scholar's view, in this early Mekong Delta domain, as was also the case in the neighboring Khmer regions to its north, local chieftains, known in the Khmer language as *pon*, held authority over networks of village population clusters that grew enough rice for self-sufficiency. The earliest inscriptions show that the traditional *pon*'s (chief's) power over the local population derived from his ritual strength rather than control over land. The *pon* was backed by his lineage group, whose familial guardian deity was locally pre-eminent. *Pon* and their kinsmen controlled the clan spirit house, where they worshipped a locally prominent female deity (*epon*) on the behalf of other community residents. (Vickery: 1998, 22, 258). Villagers committed to a *pon*'s authority because they believed the *pon* and his lineage group were more spiritually empowered than others. Initially, then, local authority was not economically derived except as it related to local agricultural communalism, for in purely economic terms the *pon* and his kinsmen were merely the highest among economic equals.

This local system of ritually empowered chieftainship changed with the rise of maritime trade, because the trade provided opportunities to accumulate wealth beyond the scope of the *pon*'s traditional share of communal production. This further enhanced the importance of family ties, while structuring them in new ways. The traditional system was a matrilineal one in which inheritance passed from the father's brother (the uncle) to the sister's son (the nephew); a man never inherited from his father (Vickery: 1998, 19, 23). By contrast, new externally derived wealth could be passed directly to the chief's own children or parceled among a network of client chiefs. While traditional wealth and production were subject to group/familial rights, the newer goods were subject to personal rights of possession. Thus, the new wealth from outside the community could be used to support personal authority over traditional community entitlements, and it enabled creation of broad alliance networks and concentrations of power that might sustain seizures of land and manpower. These contrasts between communal and individual conceptions of the basis of rights and power could lead to conflicts, as happened with the accession of the king Fan (*pon*) Shiman as described below. Though this externally derived wealth had made it possible for chiefs to build more

powerful self-centered networks, Funan was hardly a tightly organized, centrally controlled realm.

The Óc Eo archeological site remains document Funan's wide-ranging web of trading networks. The archeological remains include an abundance of Indian and western Indian Ocean artifacts, jewels, gold rings, merchant seals, and Indian ceramics and tin amulets with symbols of Visnu and Siva. There are also Roman materials dating to the second through fourth centuries, including glassware fragments, a gold coin minted in the reign of Marcus Aurelius (r. 161 to 180 CE), and a gold medal of Antoninus Pius dating from 152 CE. Imports from China include a bronze mirror dating from the Later Han dynasty (first to third centuries) and several Buddhist statuettes from the Wei period (386–534 CE) (Malleret: 1959–1963; Tingley: 2009, 120–22, 136–45, 162–71).

In addition to objects of Western and Eastern origin, there is ample evidence of local craft production. Glass beads, possibly produced by a local application of Western glass technology, are abundant in the Óc Eo excavations, as are significant quantities of local ceramics. More impressive, however, are the numerous molded and engraved tin decorative plaques, as this type of tin-working is not known to have been practiced elsewhere at the time.

In addition to these Western objects and local crafts, there are local adaptations of Indian religious art, especially in the sculptured stone architecture found in Funan's core area. These adaptations show features that are unique to Funan. While Indian stone carvers in this early era normally sculpted statues that were part of wall relief or were backed or enclosed by a stele or a wall, Funan sculptors developed their own freestanding style, which is demonstrated in several wooden standing Buddhas, believed to date to the sixth century, that were miraculously preserved in the mud near Binh Hoa (Tingley: 2009, 126–27, 134–35, 154–55). The standing wooden Buddha statues impressed one art historian with their "delicate and graceful [bodies], soft and smoothly rounded, with muscles indicated only slightly, yet with astonishing sensitivity, so that one feels the swing of a body motion, or the balance of a gently bending body at rest" (Groslier: 1962, 63). This sculptural expression reached its height in the early sixth century, as documented in a variety of stone carvings of Visnu and Buddhist statues discovered at multiple Funan sites. The sexless style of this statuary is characteristic of later Southeast Asian Buddhist sculpture, which was seemingly modeled on that of the Funan-era craftsmen (Vickery: 1998, 45–46; Christie: 1979; Cooler: 2010).

Also demonstrative of local initiative is a building ("K") at Óc Eo where local architects constructed a temple modeled on the rock sanctuaries that were popular in southern and central India during the late Gupta period (fifth

and sixth centuries). The crafting of this brick and granite temple in an area with no cliffs or large rocks demonstrates the sophistication of local technology. The skill by which the granite slabs were joined together shows the local control of technique. Such artistic initiative impressed the Chinese court, which received several stone Buddhist statues that the Indian monk Nagasena brought from Funan in the late fifth century. In 503, a Funan monarch also sent the Chinese emperor a coral statue of the Buddha and an ivory stupa as “tributary” gifts (Pelliot: 1903, 257–70, 294).

The coinage found at the Óc Eo excavations further substantiates Óc Eo’s contacts with the regions to its west (Malleret: 1959–1963, 3:948–49; Gutman: 1978; Wicks: 1985, 196–99; Miksic: 2003a, 23–24). Notable among the coins recovered, most of which date to the second-to-fourth-century period, are silver conch/Srivatsa (an auspicious Indian symbol of fertility and abundance usually associated with Sri Lakshmi or a tuft of hair on Visnu’s chest) weighing 8.3 to 8.6 grams, as well as later Rising Sun/Srivatsa coins weighing 9.2 to 9.4 grams, all of which originated in the coastal region of southern Burma. At Óc Eo, sixty-eight to seventy wedge-shaped pieces cut from Rising Sun/Srivatsa coins were recovered, and it is thought that the cut portions were used as fractional coinage in local marketplace transactions. Since no similar cut portions of the Burma silver coins (or of any other coinage from that era) have been recovered in Burma or Thailand, this evidence substantiates the Funan coast’s greater importance at this time, due to its need for smaller-denomination currency to sustain local exchange (Wicks: 1985, 196–99; Miksic: 2003a, 24).

The Óc Eo archeological evidence, together with information from recent study of Bengali scripts and seals, also provides important information on trade with South Asia. Kushana merchants from northwest India assumed an important role in that trade. The Óc Eo remains include unique seals of South Asian origin, similar to those found in sites associated with contemporary lower Burma, which are attributed to Kushana merchants. The scripts and seals of Gupta-era Bengal (fourth to sixth centuries) substantiate especially the existence of a luxury trade in horses, which were transported overland from India’s northwest frontier down the Gangetic plain to Bengal, where they were shipped by boat to south China via the Funan emporium. The archeological remains from Bengal, notably terra-cotta seals found there, depict the sea trade in horses and highlight the Kushana horse traders who were their source (Chakravarti: 1989, 348; 1999, 194–211). This and other evidence—consisting of plaques, seals, pots, and coins—supports the conclusion that Kushana merchants, whose trading network extended across the Gangetic basin from northwestern India, were present at the mouth of the

Ganges during the time of Óc Eo's commercial prominence (Ray: 1994, 87–120).

The horses that were shipped through Funan from northwest India were a very important item of trade for the Chinese, and their availability may have been an important factor in Funan's development as an entrepôt. During the second century, especially, the Chinese Han dynasty had required horses for their wars against the Xiongnu, seminomads who inhabited the steppe region of Central Asia (Creel: 1965). These wars in Central Asia, together with the political confusion in China that reigned in the chaotic years (190–225 CE) leading to the demise of the Han dynasty, created a need for a new trade link between China and the West. The need for the horses became even more acute when the Wei dynasty took control of the Silk Road approaches to China, forcing the southern China-based Wu dynasty (220–64 CE) to develop a maritime trade route that would also allow its elite to continue their consumption of the desired Western products.

The discovery that the maritime route could supply horses apparently came by accident. As was discussed above, Funan's contacts with China were said to have begun when Lu Tai, the Wu governor on China's southern frontier, was ordered to advertise China's interest in trade by sending envoys "to the south." As noted above, Funan and neighboring Linyi responded by sending diplomatic missions to the Wu court in 226 and 231 CE. In turn, the Wu envoy Kang Tai, who visited Funan ports to evaluate their potential for trade, reported that among the commodities available in Funan were Yuezhi (Arabian, Indo-Scythian) horses from Central Asia. In Funan, according to Kang Tai, "There is a saying [that] in foreign countries there are three abundances, the abundance of men in China, the abundance of precious things in Da Qin [the Roman West], and the abundance of horses among the Yuezhi" (Wolters: 1967, 41). Kang Tai reported that the Yuezhi horses were continually being exported to Funan by South Asia-based merchants and said that when he visited Funan he encountered a Persian Sogdian merchant with whom he explored the possibility of entering a horse importing partnership (Sen: 2003, 162; Wolters: 1967, 59–60).

Thus it was that the horses of Central Asia, which had made their way to the Bengal region of India and thence to Funan, were now reexported to China. This documentation, in addition to the archeological remains—particularly Funan's crafts and the evidence of its trade with China, central Thailand, southern Burma, Bengal, and points farther west—not only demonstrate Funan's economic prominence but supply part of the rationale for considering it a state.

FIFTH-CENTURY TRANSITIONS

In the fifth century, Funan's maritime dominance was crumbling and it consequently needed to refocus on developing its agrarian base as the principal source of royal revenue collections. Funan's irrigation innovations thus date to this fifth- and sixth-century era of Funan's transition to a more agrarian lifestyle, and Indianized statecraft, which favored a settled agrarian society, was potentially supportive of this transition from the earlier maritime focus to the agrarian sector. However, these adjustments were not enough to prevent the Funan state's collapse.

The changes came as improvements in navigation made it possible for ships sailing from distant ports to bypass Funan and deal directly with the Chinese. Chinese records make it clear that by the fifth century Holotan in western Java and Koying in the Sunda Strait were trading directly with China, rather than through Funan's intermediary ports (Wolters: 1979b). Funan and the east coast Malay Peninsula were thus being cut out of the India-to-China trade. The Isthmus of Kra portage had fallen into disuse, as ships from Sri Lanka and India were now sailing via the Straits of Melaka directly to these ports on the western edge of the Java Sea, putting them closer to the source of the Indonesian archipelago spices that were beginning to find an international market (Wolters: 1967; Miksic: 2003a, 28–33). The more direct sea passage from the Sunda Strait region north to China incorporated a stopover on the central (Linyi) and northern Vietnam coastlines rather than on the Funan coast of southern Vietnam.

Whether this refocusing of the international trade was directly responsible for Funan's dynastic crisis is not certain, but it had profound consequences for Funan's future. The shifting of the commercial shipping route to the Straits of Melaka passage and the subsequent omission of stops at Funan's ports in the Gulf of Thailand and the Mekong Delta region of the lower Vietnam coastline denied the Funan rulers important revenues. Deprived of this major source of royal income, the ruler as well as his followers, including subordinate chiefs and their supporters, found their prosperity diminished. Such a decline in royal income available for redistribution to their followers could well have touched off a dynastic crisis as rival claimants, promoting their ability to restore Funan's prosperity, attempted to gather enough supporters to seize the throne. As they did so, they competed for a shrinking realm.

By the end of the fifth century, Funan was losing ground to its northern neighbor Linyi (the future Champa), the sailors who had provided Funan's navy had turned to piracy, and the Malay entrepôts had begun sending their own embassies to China. In this same period, as noted earlier, Funan's canal

and irrigation networks were expanding rapidly in the Mekong Delta, as part of its transition to a more intensive agricultural economy. However, Funan's decline continued, as midway through the sixth century its Khmer vassals to the north broke away, and by the seventh century Funan was no more. Its irrigation networks in the Mekong Delta were reclaimed by jungle as the farmers moved northwest to the new Khmer-ruled centers in the central Cambodia Tonle Sap area.

The fall of Funan and the importance of this watershed is substantiated in a series of fifth- and sixth-century sources, which are cited here in detail as an example of the level of Chinese and China-related documentation of China's increased contacts with Southeast Asia and the importance of these early Chinese sources in the absence of this level of itemization in the early Southeast Asian written sources. China's court records record the arrival of Funan's embassies to China in 434 and 484. As noted above, some historians have argued that Southeast Asian embassies to the Chinese court increased in times of local upheaval or political transition, or in response to the ascension of a new Chinese emperor or a new Chinese dynasty. While O. W. Wolters placed emphasis on Funan embassies being sent in times of Funan crisis, this study has also taken into account political unrest in China to explain interruptions in tributary missions (Wolters: 1970, 39–48). This pattern can be seen in the dispatch of the earlier Funan embassies, notably the embassies sent in 268, 286, and 287, in a period marking the fall of the Wu dynasty and its replacement by the Jin (Pelliot: 1903, 251–52). These three embassies were apparently meant to ensure continued Funan commercial interaction with southern China under the new Jin rulers. Apparently the effort was successful, and Funan did not send another embassy until 357, which was reactive to the succession of a new Jin emperor.

In contrast, both of Funan's fifth-century embassies were associated with an era of crises, this time with crises in Funan itself. Since the 434 embassy took place around the time that the ruler of the previously subordinate Pan Pan port-polity on the Malay Peninsula coastline began to declare independence by sending his own diplomatic missions to the Chinese court, it is likely Funan's 434 mission was dispatched in an attempt to renew Funan's favored Chinese commercial relationship (Coedes: 1931). The one in 484 (described below) was understood by the Chinese sources as a vain attempt to recover the commercial business that Funan had already lost to other centers, and it was shortly followed by an equally vain attempt to gain Chinese assistance against Funan's neighboring Vietnam coast competitor Linyi.

Significant changes in the international trade networks from the mid-fourth century had a profound impact on Funan. When the Jin dynasty (265–420) came to power in the late third century, it briefly reunified China and thereby

gave southern China access to the central Asian overland trade routes. However, by the second half of the fourth century this unity was lost, and with it south China's access to the Central Asian trade. In response, the Jin redoubled their efforts to promote the maritime trade routes. They sent embassies to a wider array of Southeast Asian trade centers, including Holotan in western Java and Koying in the Sunda Strait, both of whom responded positively. The Chinese Buddhist pilgrim Faxian (337?–422?) and the fifth-century Indian Buddhist prince Gunavarman provide first-hand evidence that Funan was being bypassed. In 413–414, Faxian sailed directly to Guangzhou from Yehpoti, an Indianized port on the Borneo coast, without a stopover at a Funan port (Giles: 1959; Naerssen and de Jongh: 1977, 18–23). In the mid-fifth century, Gunavarman sailed nonstop to China from Shepo, a trading center on the north Java coast (Coedes: 1968, 54; Wolters: 1967, 35). Coincidentally, neither Faxian nor Gunavarman used the Isthmus of Kra portage in their travels, further evidence that ships were then sailing directly through the Straits of Melaka to and from Sri Lanka and India and bypassing Gulf of Thailand ports.

In 449, the Chinese emperor sent embassies to confer titles on the rulers of three new Indonesian “states.” This is significant because, as noted above, normally the Chinese tried to maintain established commercial relations with a particular Southeast Asian port-polity instead of actively seeking out new ones (Wolters: 1970, 39–48). Also significant was that at this time the Chinese refused to recognize the embassy of the ruler of Funan, their old trade partner, implying that the Chinese court fully recognized by 449 that Funan's ports had been replaced by Java Sea emporia as the dominant ports in Southeast Asian commerce.

That Funan was being replaced by Linyi as the most important trading center along the Vietnam coastline was already apparent in the mid-fifth century, when Gunavarman traveled from the Javanese entrepôt of Shepo to China, for his ship was originally to have made an intermediate stop on the southern Vietnam coast above the Mekong Delta, not at Funan (see above). However, the most significant evidence of the change in Funan's fortunes is the record of a 484 embassy on Funan's behalf by the Indian Buddhist monk Nagasena. Apart from the 434 embassy, this was Funan's only recorded contact with China in the fifth century. Actually, Nagasena's 484 embassy followed a commercial embassy sent around the same year, when King Jayavarman of Funan had dispatched a group of merchants to Guangzhou to solicit Chinese trade. Nagasena had accompanied them on their return and then was sent back to the Chinese court to plead for the Chinese court's aid against Linyi. His entreaties brought no result. Nagasena's comments to the Chinese emperor acknowledged the lack of regular interaction between Funan and China, and

they hint that Funan no longer traded with any part of the coast of present-day Vietnam. Speaking on behalf of Funan, Nagasena reported that the realm he represented was “ceaselessly invaded by Linyi and has [therefore] not entered into relations with [the Red River delta region]. That is why their embassies so seldom come” (Pelliot: 1903, 267).

By then China was increasingly favoring Linyi. In 491, the Chinese court bestowed an important title upon Fan Tang, the ruler of Linyi, proclaiming him “General Pacifier of the South, Commander-in-Chief of the Military Affairs of the Seashore, and King of Linyi” (Maspero: 1928, 77–78). Clearly, by this time Linyi had surpassed Funan as the most important trade ally on the southern Vietnam coast, as Fan Tang’s new title put more emphasis on his role as protector of the Vietnam seacoast than on his role as Linyi’s monarch. Even the report of Funan’s envoy Nagasena accepted that by this time it was Linyi, and not Funan, that was considered responsible for curtailing acts of piracy on the lower Vietnam coast. In his report to the Chinese emperor, Nagasena related that he had been shipwrecked on the Linyi coast, where his possessions had been stolen. That he should have reported this to the Chinese court and that the Chinese should subsequently have invested Fan Tang as Commander of the Seashore indicates that it was Linyi, and specifically its ruler Fan Tang, who were now considered accountable for this area.

Even earlier evidence of Funan’s diminished power along this eastern coast comes from the 430 petition to the Chinese court of the Holotan port-polity, which was seeking protection for its ships sailing from the Sunda Strait coast to China. Sailors from Holotan and what is thought to have been the contemporary west-coast Borneo port-polity of Shepo had both been sailing within range of the lower Vietnam coastline on their South China Sea passage in order to avoid the navigational hazards associated with the Paracel Reefs south of Hainan Island (Manguin: 1976; Wheeler: 2006). Holotan’s petition suggests that by this time shipping along the route was threatened by piracy. Either this piracy resulted from Funan’s attempts to retain control over the maritime channels by forcing ships to utilize its ports (unlikely as evidenced in the case of Nagasena), or else it signaled Funan’s decline as a major commercial emporium, a decline that had forced its resident maritime supporters to resort to piracy. If the latter were the case, as seems likely, Funan’s loss of trade-derived revenue would have left its rulers unable to pay subsidies to the locally resident sailors, for whom piracy then was the more lucrative alternative, albeit a risky one.

In this period, Linyi may have been no more coherently organized than was Funan (Mabbett: 1977a, 154; Coedes: 1968, 59). Nevertheless, Fan Tang’s investiture by the Chinese court was not an arbitrary move. Rather, in

response to the instabilities precipitated by Funan's commercial demise, China was recognizing the local leader who seemed best positioned to restore order along the Vietnam coast. China's interest in Southeast Asia was at that time to keep the flow of shipping moving into south China's ports rather than any sort of political hegemony. It was interested not only in commercial trade, but also in facilitating the flow of Buddhist pilgrims, sacred texts, and relics to and from India, as in the fifth century the Chinese aristocracy was increasingly Buddhist, and the movement of religious items and travelers via the maritime passageway was therefore vital to its self-definition (Liu: 1988).

Thus it was that, despite the fact that throughout the third and fourth centuries Linyi had, with Funan's aid, continually contended for the control of the northern Vietnam coastline by harassing the Chinese Tongking (Giao Chi/Chiao Chau/Jiaozhi) Province in the Red River delta to the north, the Chinese emperor in 491 found himself able to overlook this unfortunate past misbehavior (Stein: 1947). However, in his doing so, it is also significant that the Chinese, always on the lookout for continuity, explained this transfer as an acknowledgment of the relocation of Funan's rightful patriarchal line of kings to Linyi, for which reason they cited Fan Tang's supposed descent from Funan's rulers. Significantly, Fan Tang's move to the Linyi domain and the growth of Linyi's maritime prominence coincided in the Chinese eyes, making even more plausible China's decision to recognize Linyi as the dominant port on the Vietnam coast.

Thus, by the mid-fifth century Funan was no longer a major international trade center. As it declined, its resident seagoing populations shifted to more prosperous Linyi ports, among others. By 431, Linyi's ruler had already been able to launch a force of over one hundred ships to pillage the northern Vietnam coast (Coedes: 1968, 56–57). Meanwhile, the remnants of the Funan realm began to internalize. The Chinese acknowledged this reality in their 491 eulogy of the Linyi ruler Fan Tang.

The emergence of Khmer civilizations coincided with the final demise of Funan, either destroying or incorporating its village communities. Funan's lands in the Mekong Delta were depopulated as cultivators shifted their labor to more productive and secure lands upstream, initially at and around Sambor Prei Kuk. By the eighth century what remained of the mixed agrarian populations to the south moved either by choice or by force to the Khmer rulers' developing economic base in the Tonle Sap area to the north and west. With Funan largely depopulated, Funan's hydraulic system fell into disuse, and Funan's downstream ricelands over the next five hundred years reverted to swamp and jungle (Liere: 1980, 271).

Nevertheless, Funan lived on in the traditions of the successor civilizations of the Chams and the Khmers. Both traced their lineage to Funan and rooted

their evolving polity on the Indianized patterns of statecraft initially developed by Funan rulers. In this they went well beyond the beginnings that Funan had made. While it was true that Funan's rulers had begun to bridge the gap between tribal politics and Indianized statecraft, it remained for the Chams and especially the Khmers to initially develop the mainland Southeast Asian state to its fullest.

EARLY BUDDHIST NETWORKING AND THE MARITIME ROUTE

By the sixth century Buddhism had become especially important to the Chinese, and Southeast Asia assumed a key intermediary role between South Asia, the source of Buddhism, and China. Buddhist monks passed along either the international sea network or a land route through the mountainous regions of Burma and Yunnan (Changli: 1993; Stargardt: 1971; Howard: 1989); Chinese monks traveled to India by sea with stopovers in Buddhist pilgrimage centers in Vietnam, Java, and Sumatra to acquire deeper understanding of their faith and of the Sanskrit and Pali languages, and Indian monks journeyed to China to share their knowledge with Chinese patrons (Sen: 2003, 15–101).

The first account of this passage comes from the Buddhist pilgrim Faxian (337?–422?), noted above, who traveled from China to India overland but returned by sea from Sri Lanka in 413–414 CE via the Straits of Melaka passageway. His description of the return voyage provides a vivid picture of the fateful fifth-century sea passage.

[I] took passage on board a large merchant vessel, on which there were over two hundred souls, and astern of which there was a smaller vessel in tow in case of accidents at sea and destruction of the big vessel. Catching a fair wind [i.e., the monsoon], [we] sailed eastwards for two days; then [we] encountered a heavy gale, and the vessel sprang a leak. The merchants wished to get aboard the smaller vessel; but the men on the latter, fearing that they would be swamped by numbers, quickly cut the tow-rope in two. The merchants were terrified, for death was close at hand; and fearing that the vessel would fill, they promptly took what bulky goods there were and threw them into the sea. . . . The gale blew on for thirteen days and nights, when [we] arrived alongside an island, and then, at ebb-tide, they saw the place where the vessel leaked and forthwith stopped it up, after which we again proceeded on [our] way. This sea is infested with pirates, to meet whom is death. The expanse is boundless. (Giles: 1959, 79)

After sailing through the Straits of Melaka, Faxian landed at the trade depot known to the Chinese as Yehpoti, on the west coast of Borneo (Naerssen and

de Iongh: 1977, 18–23), and voyaged directly from Yehpoti to Guangzhou, which he claimed to be a voyage of fifty days under normal conditions.

There was an economic as well as an intellectual dimension to this earliest Buddhist networking, as the Chinese sought religious artifacts and ritual objects as well as religious texts, all of which would, in their mind, allow them to legitimately perform Buddhist rituals in China. By the seventh century, for example, the Chinese Tang court's envoys exchanged coral, pearls, glass, and silk to acquire Buddhist relics; one envoy paid four thousand bolts of silk to purchase a small parietal bone of the Buddha from a Buddhist monastery in northwest India (Liu: 1996, 47; 1995). Patronage of Buddhism bestowed membership in the international Buddhist movement on Southeast Asian realms. Consequently early Southeast Asian civilizations raised their status above the "barbarian" image normally held by the Chinese of their southern neighbors and provided the basis for international and regional intellectual linkage as well as commercial exchanges among the numerous Buddhist communities that participated in the international maritime route.

As early as the third century an urban community near modern Hanoi on the edge of the Red River delta in Vietnam had become a center of Buddhism, with at least twenty temples and over five hundred monks in residence. By the seventh-century voyage of the Chinese pilgrim Yijing (635–713), this community was viewed as an important stopping point prior to one's entry into China, not only because it was a commercial layover of note, but also because it had become one among a network of Southeast Asia religious centers for Buddhist pilgrims traveling between China and India.

According to legend, Buddhism came to Vietnam in the first century CE, and by the end of the second century resident Indian monks led the important Luy Lau international intellectual center (in the modern Bac Ninh Province north of present Hanoi), at the capital of the Jiaozhi (Giao Chi/"Vietnam") Han administrative district. Luy Lau was the last stopover for Indian monks traveling to China along the international maritime passageway, as it was also for Chinese monks who had traveled to study in Buddhism's homeland. Here a number of important texts were translated into Chinese scripts (e.g., the Anapanasati, the Vessantara-jataka, and the Milinda-panha) prior to their delivery in China. Since Buddhism was initially imported directly from India, the original Vietnamese word for Buddha was *Bụt*, which is still used in Vietnamese folktales. *Bụt* was popularly localized as a folk deity who helped the good and punished the bad. By the fifth century, when Chinese Mahayana Buddhism became prominent, and Chinese rather than Indian monks dominated the maritime route, *Bụt* had lost its Buddhist association and *Phật*, the Chinese pronunciation of Buddha, prevailed (Cadiere: 1989; Cuong Tu: 1998).

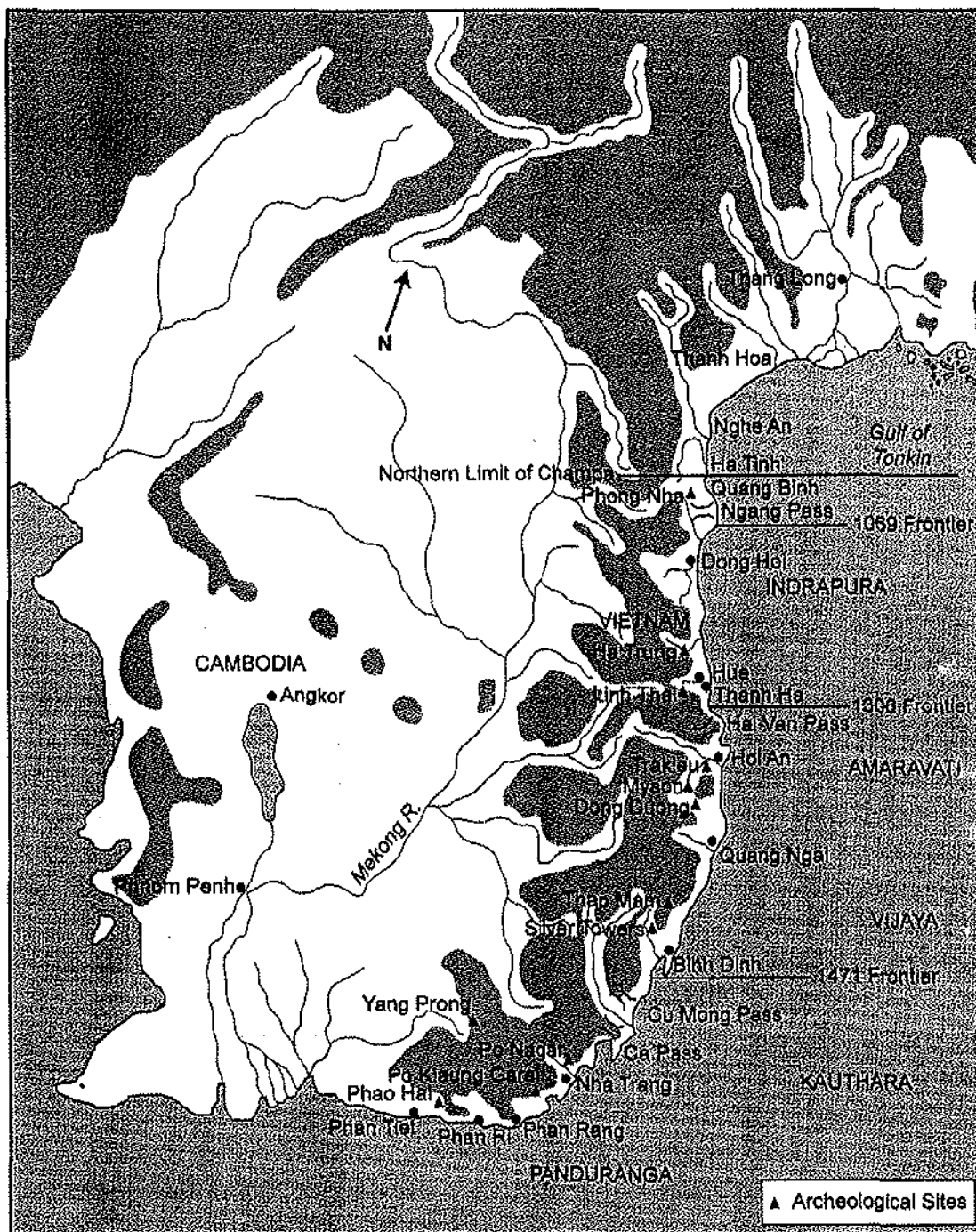
3

Competition on the East Coast of the Mainland

Early Champa and Vietnam Political Economies

The previous chapter's discussion of Funan's history has shown that early Southeast Asian monarchies gained control over population clusters by conquering or networking with a number of allied and competing regionally based elites. Funan's resulting political system was based on the interdependence of political, economic, and religious institutions, a form of hierarchical networking that culminated in a royal court. Funan's sovereignty was, though, inherently unstable because it overly depended on the fortunes of the international maritime trade routes rather than on the income from its productive hinterlands.

This chapter will initially examine the Champa successor network of port-polities on the central and southern Vietnam coast, which were subject to the ebb and flow of the international trade, reflected in the fluctuations in Cham sovereignty. The Cham "state" was dispersed among several competing river valley courts centered in productive downstream river valley ricelands that not only provisioned international traders making stopovers on their Straits of Melaka-to-China voyages, but also linked their coastal ports of trade to productive upstream highland sources of commodities in high international demand. In contrast, Champa's Dai Viet neighbor to the north, which was initially based in the fertile Red River plain and delta in and around modern Hanoi, exhibited developmental patterns toward centralization. When the Vietnamese Dai Viet state declared its autonomy from Chinese overlordship in the tenth century, its court's proactive support of economic expansion in both its agricultural and commercial sectors would ultimately reinforce royal hegemony relative to competing elites and institutions.



Map 3.1. Champa and Vietnam in the Pre-1500 Era

THE CHAMPA REALM IN OVERVIEW

It is now widely accepted that the Champa realm was never a unified kingdom, but was instead the name of a collection of ports of trade and their adjacent Truong Son mountain-range plateau hinterlands, from roughly above

modern-day Hue in the north to the northern edge of the Mekong River delta in the south (from the eighteenth parallel in the north to Phan Thiet and Bien Hoa at the eleventh parallel in the south). The earliest Sanskrit inscription in the Cham realm dates to the fourth century, at Vo Canh near the Nha Trang port. In roughly this same era most of the archeological evidence is in the vicinity of Tra Kieu to the north, which consisted of an offshore port complex on Cu Lao Cham Island linked to the sheltered coastal cove in modern-day Hoi An, known later as Cua Dai Chiem, "Port of Great Champa," and the adjacent Thu Bon Valley rice basin of the modern-day Quang Nam Province. While there are some fifth- and sixth-century remains, in the seventh century the Cham realm was a flourishing multicentered Indic civilization. Most of the inscriptions and archeological evidence from the fifth to the eighth centuries are from the areas surrounding Tra Kieu, which was the political and economic center of the region; My Son was the region's most sacred religious center and Dong Duong was alternately a fortified walled political and religious center.

In the earliest era the Nha Trang basin to the south and its temple center at Po Nagar was a secondary center, as was Phan Rang; its eighth-century Hoa Lai temple complex had a Cambodian architectural style that differed from that of the earliest temples at the My Son temple complex to the north. This was also the case with the Phu Hai temple near Phan Thiet even further to the south (Vickery: 2009, 47). Collectively these differences in architectural styles reinforce the conclusion that the river-mouth centers and their adjacent river systems were autonomous identities making independent adaptations of Indic culture. Phan Rang is also the site of the later architecturally distinct thirteenth- to fourteenth-century Po Klaung Garai and the very different sixteenth-century Po Rome temple complex, a reflection of its prominence as a Cham port of trade in this later era. Similarly Quy Nhom near the Binh Dinh port, between Tra Kieu in the north and Phan Rang to the south, has temple towers that date from the eleventh to fifteenth century. Known at that time as Vijaya in both Cham and Cambodian inscriptions, its temples used the same mixed stone-and-brick construction techniques as their contemporary Khmer neighbors, but their architectural system is distinct; nearby Thap Man has sculptures of monstrous animals that show Vietnamese/Chinese similarities (Vickery: 2009, 48; Guy: 2009).

From south to north the Champa realm consisted of what is called Panduranga in the south, consisting of Phan Thiet, Phan Rang, and sometimes Nha Trang, which was otherwise known as Kauthara and was the site of the sacred Po Nagar temple complex. To the north was Vijaya, centered in the Quy Nhon region, variously called Campanagara, campapura, and campadesa (Champa country, city, or region) in its inscriptions. In the Champa middle was Amara-

vati, which consisted of Indrapura, the Thu Bon Valley sites of Tra Kieu (then known as Simhapura), My Son, and Dong Duong, which was the center of new Mahayana Buddhist patronage by Cham kings who lived in a walled city from the ninth century, following a period in which the region seems to have been marginalized in favor of Panduranga in the late eighth to early ninth centuries. This transition of the favored port of trade/polity on the Cham coastline is reflected in Chinese sources, which had earlier distinguished Panduranga in the south from the middle Huan Wang (the circle of the king; i.e., Indrapura) in the earlier century and, significantly, dropped earlier references to the collective Linyi for the regions south of the northern Red River provinces that were subject to Chinese sovereignty. But from the ninth century the Chinese called this middle region *Zhan Cheng*, Cham city, and developed separate tributary relationships with *Zhan Cheng* and Huan Wang. Cham records confirm this division, as separate kings were ruling from the Indrapura central regions of Amaravati in the north and the collective Panduranga Nha Trang/Phan Rang southern regions. In the eleventh century, the Nha Trang-based king Pramabodhisatya claimed a victory that consolidated Panduranga's authority over the south. In the eleventh and twelfth centuries the southern Nha Trang- and northern Tra Kieu-centered polities began to interact on several levels with their Khmer neighbors to their west, notably as trade partners as overland commercial networking between Angkor and the Champa realm heightened. In the north were the port-polities of Amarendrapura, centered at Lai Trung near modern-day Hue, and Visnupura, centered at Nhan Bieu.

Nineteenth-century French archeologists were highly impressed with the remains of Cham urbanism and regional networking as they explored their new Indochina colony. They found primary and secondary centers linked in the Tra Kieu region, connected by road networks on raised embankments paved with stone; stone bridges built over canals; and urban ruins 16 feet (5 meters) high on stone foundations on a rectangle 984 feet by 1640 feet (300 by 500 meters). These were not exclusively military fortresses, but protected palaces, temples, and the general populace (Aymonier: 1891b, 21–22; Hardy: 2009, 109–10, 121).

Chinese records substantiate recent archeological excavations in their descriptions of early Cham urbanism. In the sixth-century *Shui Jing Zhu* geographical account of China's waterways and those of its borderlands, the author Li Daoyuan (d. 527) includes this account of the fortified Cham urban center at Hoa Chau (Thira Thien Hue) near modern-day Hue, where the ramparts, over 1.24 miles in length (2,000 meters) are still visible (Hardy: 2009, 121).

The ramparts were made up of a first brick foundation, six *li* and 170 paces in circumference, and measuring 650 paces from east to west; this foundation was [twenty feet] high; above, there was a ten-foot high brick wall, pierced by square slits. This brick wall was itself topped with a stockade, and the entire structure dominated by pavilions and belvederes attaining a height of up to 70–80 feet. The city had thirteen gates; all the public buildings open towards the south; we counted more than 2,100 residential houses. (Pelliot: 1904, 191; Hardy: 2009, 108)

A ninth-century Cham inscription describes a secondary town to the larger Dong Duong temple/administrative complex.

The town bedecked in the splendour of Indra's town, sparkling with white lotuses . . . founded by Bhrgu in ancient times . . . [this town] called Campa keeps here its invincible fortune. This illustrious [town] protected by His Majesty Jaya Sinharvarman, whose power unceasing renews its prosperity, [this town] inseparably untied with good fortune shines here. The king is the shelter of the virtues. (Finot: 1904a, 109; Hardy: 2009, 108–9)

This Cham self-image is authenticated in the collection of ninth-century stories circulating in Baghdad, collated in the *Kitab al-Aghani* by the Persian scholar Abu al-Faraj (897–967), which describes Buddhist worship at Dong Duong ca. 875: “The Indians have, in the town of Champa, a different temple from the above, . . . this temple is ancient and . . . all the Buddhas found there enter into conversation with the faithful and reply to all the requests made to them” (Ferrand: 1913, 123; Hardy: 2009, 109).

Similar to the contemporary regions of Southeast Asia, the Cham temples were equally sustained by meritorious tax-free transfers of income from designated lands that were dedicated to support the temples. The referenced Buddhist temple is an example, wherein a ninth-century Dong Duong temple stele inscription reports:

King Indravarman gave these fields with their harvests, slaves of both sexes, silver, gold, brass, copper, and other riches, to [the Divine Lord] Sri Laksmindralokesvara, for the use of the [resident monastic] community of monks, for the completion of the propagation of the Dharma. Those who . . . kings, ksatriyas . . . brahmans, ministers . . . merchants, who remove, destroy, or . . . [these goods], may they all go to Maharaurava [“Hell”]; on the other hand, keep them, reveal [those who have removed them], may they all go, according to their desire, to the City of Heaven and the City of Deliverance. (Finot: 1904a, 95; Hardy: 2009, 109)

CHAMPA AND INTERNATIONAL COMMERCE IN THE EIGHTH CENTURY

The Cham polities had compelling reasons to assert themselves as Funan's successor in the international commercial channels. This Malayo-Austrone-

sian people, ethnically, linguistically, and culturally related to the maritime regions to their south and east, developed into a series of Indianized civilizations from the second into the sixteenth centuries CE. As cited in chapter 2, the earliest Chinese references to a Cham state date to 190–193 CE. Then and later, it appeared in the Chinese records as the state of Linyi, but the state's own later epigraphy refers to the realm as Champa, after the Champa region of northeast India with which the Chams were in trade and cultural contact, for which reason the people are known as Chams (Vickery: 1998, 48–51, 64–69; Guy: 2009, 128–29).

Caught between the domain of Funan to the south and the Chinese province of Jiaozhi to the north, the Cham realm's early history was characterized by shifting alliances among regional centers that were concentrated at the river mouths of the Cham coast, a situation not unlike that of the Straits of Melaka Srivijaya realm that will be examined in chapter 4 (Coedes: 1968, 17; Stein: 1947). In contrast to Srivijaya, however, the Cham realm had major neighbors to its north (Jiaozhi) and west (the Khmer realm that would become Angkor). According to Chinese sources, during the early third century the great Funan ruler Fan Shihman brought the Chams under his authority. This report is corroborated by the earliest Sanskrit inscription in Cham territories, a third-century inscription that was placed in Cham territories and that has been interpreted by historians, based on the corresponding Chinese sources, to record that Linyi was then a networked territory under Funan hegemony. The third-century Sanskrit stele inscription of Vo Canh in the Linyi region of Nha Trang references the reigning king Sri Mara, who some scholars argue to be the prominent Funan king Fan Shihman, whose consolidations of the Funan realm are highlighted in Chinese sources (Coedes: 1968, 40; Gaspar-done: 1965). Revisionist historians are now asserting that the Linyi in Chinese references was not referential to the entire Champa coastline, but was referential exclusively to the borderlands south of the Chinese Jiaozhi Province, whose population was always a threat to their northern neighbors, as these borderlands were continuously contested by the Chams and Vietnamese over the centuries (see chapter 7). Reports of the Chinese envoys Kang Tai and Zhu Ying, who visited Funan about the same time (arriving there in the 240s), say that Funan's ruler, whom they call Fan Hsun, had already established an alliance with the Chams around 220 and that together the Chams and Funanese were making naval raids and land attacks against the coast of the northern Red River delta region (Maspero: 1928: 54–55).

About a century later, in the mid-300s, the semiautonomous Cham ruler known to the Chinese as Fan Fo took the Sanskrit title Bhadravarman, developed a Sanskritic administrative core, and erected the first temples in the Cham holy city of My Son. This temple city focused on their fictitious Mount

Vugvan, the Cham equivalent of Mount Meru, the abode of the ancestors. Almost all the My Son temples, like elsewhere in the Cham realm, center on a core temple, known to Cham as a *kalan*, surrounded by smaller temples. Almost always Cham temples face east, from where the sun rises and believed to be the realm of the gods, and where cosmological movement begins. Here at My Son, Bhadravarman consecrated the Siva-linga Bhadresvara, thereby beginning the Cham tradition of assigning to the polity's central deity the reigning king's Sanskrit name, thus proclaiming the monarch's potential for achieving divinity upon his death, and he reinforced this by the strategic pairing of the most important Cham royal temples with a specific sacred mountain (Maspero: 1928, 53; Vickery: 1998; Phuong: 2009, 176).

Shortly afterward, in the fifth century, the Cham realm was an independent entity, responding in part to the new circumstances afforded when China's Jin dynasty rulers encouraged traders from the Southern Seas to trade in China's ports. Cham ports became intermediate stops for merchant ships navigating the South China Sea, and ships regularly put into Cham ports prior to their entry into China's harbors. This is demonstrated in the fifth-century travel itinerary of the Indian prince Gunavarman, who made a Cham port stopover sailing from the Java coast to China (Wolters: 1967, 35). According to Chinese accounts, perhaps trying to see a continuity of power, during the mid-fifth century a dynastic crisis in Funan resulted in the flight of a Funan prince to Linyi, where he became king of the Chams (Coedes: 1931). As noted above, the Chinese throne officially recognized this king, Fan Tang, in 491, when he was granted the title of General Pacifier of the South, Commander-in-Chief of the Military Affairs of the Seashore, and King of Linyi (Maspero: 1928, 77–78). Chapter 2 makes the case that this late fifth-century recognition was due to China's perception that Funan was no longer the dominant commercial center in the Southeast Asian realm, and that Linyi regional ports had become the major commercial powers on the lower Vietnam coast. Fan Tang's title of Pacifier reflected the Chinese court's view that he was responsible for maintaining control over Cham coast piracy that otherwise threatened international shipping. This was done by successfully engaging the loyalty of the coastal seamen.

This Cham state's effectiveness in controlling piracy was intermittent, however, and in 605 a Chinese general tried to forcibly open the Southern Seas region for commerce, most likely seeking to make the Cham coast fit for trade by deterring piracy (Coedes: 1966b, 77). According to the Chinese sources the Cham state reacted favorably and soon became a secondary entrepôt on the main international route, servicing shipping and sailors traveling between the Malay world and Guangzhou. At the time, a Cham capital was located at Tra Kieu near present-day Hoi An, and by 758 the Chinese reported

that the Cham state, which they mistakenly viewed as a unified polity, had also developed secondary commercial centers at Kauthara (present-day Nha Trang) and Panduranga (present-day Phan Rang). As previously noted, around this time the Chinese began to call the Cham state Huan Wang (Wang: 1958, 90–91). According to Chinese sources, around 875 a new Cham dynasty came to power at Indrapura (Quang Nam), and reference in Chinese accounts is henceforth made to Zhan Cheng, “the Cham city,” or Champapura (Maspero: 1928, 6).

The Chinese apparently thought of the Cham domain as principally a maritime state, possibly due to its place in their own commercial preoccupations. This preoccupation is reflected in the fourteenth-century *Annam Chi Luo*, written by a Vietnamese, Le Tac, who gives the following brief note on Champa (*Zhang Cheng Kuo*): “[They] established [their] state on the shore of the sea. Chinese merchant ships cross the sea. The outer barbarians who come and go all congregate here to take on fuel and water” (Le Tac: 1961, 31; Taylor: 1983, 350). However, early Cham epigraphy well documents that the Cham downstream river plains were productive centers of rice agriculture. Scholars are currently agreed, based on the considerable archeological work done in the former Cham realm over the past twenty years, that Champa was never a centralized single state except in the minds of the Chinese, but instead was a series of variable networked river valleys that sometimes worked as allies, and at other times were in competition (Hardy: 2009). We know from archeological and epigraphic evidence that Champa had a river valley focus to its agriculture. Politically, the leader of a Cham riverine network practiced Indic-inspired statecraft, initially drawing legitimacy from Hindu-Buddhist cults that emphasized the Cham king’s association with Siva and his consort Bhadratisvara. As with its Angkor neighbor to the west (chapter 6), temples were often responsible for bringing the lands of the Cham political elites under cultivation (Sox: 1972, 60; Wachtel: 1998).

As was the case with their Srivijaya and Khmer contemporaries, the naga/snake motif remained a prominent Cham visual connection between the Indic and indigenous religious traditions. The Siva-linga was a male divine figure, symbolic of creative energy of the celestial realm, seated with legs partly crossed, hands on hips, on the coils of a naga or seated on a five-headed naga throne, symbolic of natural deities (*yaksa*) in Brahmanical imagery of the subterranean world of the naga presided over by the *yaksa* Kavera, protector of riches and treasures (Guy: 2009, 122ff; Guillon: 2001, inscription 62). Linga, the focal phallic ritual centerpieces in Cham temples, are also a syncretism of the Indic and the local. The male linga rises from the receptive female *yoni* circular bowl-like base. Cham linga are often three-tiered, as the foundational Hindu divine Brahma and Visnu are symbolized in staggered

rectangular or square bases for the culminating rounded penis head of Siva. Cham scholars assert the acceptance of the Indic linga as a powerful symbol in local culture, as the linga is the traditional male spiritual force (Ahier) and the yoni is the female (Awar), which together are the two most powerful dualistic creative forces in the Cham animistic realm. This male/female duality is also the basis of the ritual relationship between the most sacred My Son (Indrapura) and Po Nagar (Vijaya) temple complexes: My Son was the sanctuary of the god Siva (male/father), while Po Nagar was the sanctuary of the goddess of Po Inu Nugar (female/mother) (Nakamura: 2009, 103).

By the seventh and eighth centuries the Cham realm had evolved a loose balance between its wet-rice economy and its participation in the international trade. An important factor necessitating this balance was the fact that the Cham coast was by then strategically located on the principal maritime route between the Srivijaya Melaka Straits-based realm and China, a position that allowed the Chams the opportunity to take advantage of the economic benefits offered by participation in the trade as the trade heightened in the Tang and Song eras (618–1279). In doing so, to some degree Champa inherited the entrepôt position filled in earlier centuries by Funan to the south, though it was Srivijaya that assumed the primary emporium role, maintaining this position generally from the seventh century until the eleventh century. In the eyes of the Chinese, Champa, though important, was ultimately a region of intermediary ports, the last stopover between Srivijaya and China before ships reached China's ports of trade. In time, however, the Cham realm would become increasingly important as a source of commodities desired by the Chinese elite (Hardy: 2009).

A rare oblique reference to external commerce comes from eighth-century Cham inscriptions reporting two sea raids that threatened the state's very existence. A Sanskrit inscription from Nha Trang informs us that in 774 "ferocious, pitiless, dark-skinned men born in other countries, whose food was more horrible than corpses, and who were vicious and furious, came in ships . . . took away the [temple *linga*], and set fire to the temple," thus desecrating the Po Nagar temple near Nha Trang in the Kauthara region (Barth and Bergaigne: 1885–1893, 253). This was followed by a second raid by a similar group in 787, when a Panduranga temple to the south was burned (Aymonier: 1900–1904, 191; Barth and Bergaigne: 1885–1893, 217). The desecration of these temples represented the destruction of the Cham kings' legitimacy, and in the first of these raids the temple's sacred linga was taken away. The Po Nagar temple inscription recording this event reports that the Cham king followed with his navy and defeated the raiders in a sea battle. He was unable to recover the original linga, which was said to have been lost in the battle, but he used the booty acquired from the defeated marauders to

reconstruct the damaged temple, where he installed a replacement linga, the symbol of his legitimacy (Barth and Bergaigne: 1885–1893, 253).

Historians have traditionally identified these dark-skinned and demonic raiders with Javanese or Malay sailors, though they are most likely a multi-ethnic group similar to the Malayo-Austronesian sea nomads who were the strength behind Srivijaya's hegemony (see chapter 4), but who were also a maritime diaspora active along the entire Cham and Vietnam coastline. These sea nomads were seasonally resident oceangoing sojourners who could be used by local rulers to control shipping, but who in times of political turmoil might turn to piracy as the source of their livelihood (Wolters: 1967; 1970). It is notable that the two referenced raids were directed at the southernmost of the Cham regions, the two port areas recognized by the Chinese as being of greatest commercial importance in that time. The maritime raids therefore reflect three possible conditions. First, the Srivijaya state may have seen the rise of the Cham ports as a threat to its economic hegemony (Barth and Bergaigne: 1885–1893, 252). Alternatively, if Srivijaya was not such a powerful force at this particular time, as some historians have proposed, then the raids on the Cham ports may have been undertaken by the very sea pirates who in more settled times might have supported Srivijaya's control over the Southern Seas, but who now would have seen Cham ports as attractive sources of plunder (Bronson and Wisseman: 1976). A third possibility is that the attack could have been mounted by rebel seamen based in the variety of settlements along the lower Cham coast and numerous offshore islands.

CHAMPA AND INTERNATIONAL COMMERCE IN THE TENTH AND ELEVENTH CENTURIES

After these eighth-century records, there is little documentary evidence of the Cham realm's commercial activities until the eleventh century, when several inscriptions, supported by Chinese records, allow further consideration of the Cham relationship with international commerce. Moreover, we know a good deal about Champa's internal structure during this period. Champa's multi-centered civilization was distributed among several river valleys and their upstream highlands, each of which was separated from the others by rugged mountains. In this regard, the state's geographical features were similar to those of the earliest multiple-riverine-system polities in the Straits of Melaka region. Yet despite this similarity to Srivijaya, the Cham polity also resembled contemporary Java (chapter 5), in that its river systems had settled downstreams that were adjacent to fertile upstream centers that lay between the coast and the upstream highlands, as the downstream produced sufficient rice

surpluses to support the expenses of networked temples. By contrast, as described in chapter 4, the internal economic and political development of the Srivijaya realm was hampered by its region's extensive downstream swamps. Champa's economic and religious networks reinforced their multiple river systems' upstream and downstream cultural and economic linkage, while also proclaiming the legitimacy of their Cham elite patrons (Quach-Langlet: 1988, 28–37).

By the tenth century Champa was divided into five core regions. The northern region that bordered Vietnamese territory, which had port sites known as Amarendrapura (Lai Trung/Hue) and Visnupura (Nhan Bieu), was a narrow, sandy coastal plain of scattered agricultural settlements that was punctuated by numerous short streams connecting the coast with its mountainous interior. Amaravati incorporated the earlier Indrapura middle region. This was the site of the important port now known as Hoi An (Redfern: 2002; Wachtel: 1998; Wheeler: 2001). Its multiple short, fertile river valleys were sealed by steep mountain ridges, a geography affording the security necessary for the development of the local wet-rice works that supported these early religious and political complexes.

Amaravati's prior leadership was superseded in the twelfth and thirteenth centuries by its southern neighbor, Vijaya, which developed overland links with the evolving Khmer realm of Angkor, which used Vijaya's port, now known as Sri Banoi/Sri Banoy, as a point of contact with the South China Sea international trade, as an overland road network connected the Khmer heartland with the western Cham highland region, and from there via upstream river valleys to the coast. Continuing southward, the fourth region was Kauthara, which was situated in a narrow coastal strip with little agricultural hinterland between the rugged mountains and the rocky seacoast, but which also developed overland commercial and cultural connections to the Khmer heartland via Sambor (Sambhupura) on the Mekong River. Though the topography was less hospitable for large-scale agriculture, it had several bays (notably, Nha Trang and Cam Ranh) that afforded accommodation for assorted maritime communities. Here, too, was the important early cult site of Po Nagar. To Kauthara's south lay the fifth region, Panduranga (Phan Rang), which had a mixed economy based on hydraulic agriculture, salt production, and fishing. This mixed economy and distance allowed Panduranga to enjoy a degree of autonomy from its northern neighbors.

The five core regions were surrounded by border zones in each of three directions. On the northern periphery of the core was the Nghe Thanh region, which was long contested between the Vietnamese and the northern Cham polities. Although the Chams occasionally raided into this borderland, they verily controlled it. To the west of the core was an autonomous region of

years was to play a role in the politics of the straits and west Java Sea area (Spencer: 1983). The attack of 1025 disrupted the concentration of the international route through the Srivijayan ports along the Straits, and by the last quarter of the eleventh century the trading pattern had become more diffuse. No longer did the primary focus of the route center on the southeastern Sumatra coast and its control of the Straits of Melaka. In 1178, Chinese sources stated: “Of all the wealthy foreign lands which have great store of precious and varied goods, none surpasses the realm of *Dashi* (the Middle East). Next to them comes the *Shepo* (Java), while *Sanfozhi* (Srivijaya) is third; many others come in the next rank” (Wheatley: 1961, 63; Wolters: 1967, 251).

In addition to facilitating the rise of east Java, the 1025 Chola expedition was critical to the Southeast Asian mainland as well. By removing Srivijaya’s presence from the ports of the upper Malay Peninsula, the Cholas cleared the way for the expanding mainland polities to fill the resulting power vacuum (*SIJ*: 2, 105–9; Nilakanta Sastri: 1949, 80; Kulke: 1999). As we will see below, immediately after this raid, first the Khmer Empire of Suryavarman I and then the Burmese empire of Anawrahta, and still later the Thai, all established their influence in this area.

With the weakening of the old international trade system, different types of foreign traders, notably Muslims and Chinese, in increasing numbers pursued Southeast Asian goods more directly into Southeast Asia itself. With new ports on the southeastern coast of China (Fuzhou and Quanzhou supplementing the older port of Guangzhou) (Chaffee: 2008), and the increasing commercial strength of southern India, multiethnic sojourning traders not only continued to transport the goods of East and West but wished to acquire Southeast Asian commodities more directly themselves (Hall: 1980; Ptak: 1999; Heng: 2008). While increasing numbers of maritime diaspora were well received on the coasts of the Philippines, northern Borneo, Vietnam, the Gulf of Thailand, and north and west Sumatra, they dealt still with intermediaries, notably Java-based traders, in obtaining the increased flow of spices from the eastern Indonesian archipelago via the Java Sea. These sojourning traders also began to penetrate the downstream areas of the lowland empires on the mainland, though most appear to have gone no farther inland (Gommans and Leider: 2002; Heng: 2009).

The rise of China-based trade brought yet another shift in the ethnicity of the area’s maritime traders. In the early tenth century, Middle Eastern traders based in the Red Sea and the Persian Gulf regions were prominent in Southeast Asia and were supplementing Malay crews as carriers of international cargoes between India and China. A significant increase in Middle Eastern demand for Asian products had spurred an increased volume of trade (as opposed to the limited volume of the earlier luxury trade). During the twelfth

and thirteenth centuries there was another shift as the role of Middle East-based sojourners in Southeast Asian trade diminished (Tibbetts: 1979). In part this was due to the greater volume of trade, which made it more efficient for regionally based merchants to specialize in one segment of the international route. This decreasing Middle Eastern role in Southeast Asian trade was also due to the direct entry of China-based traders into Southeast Asian markets during this era, as well as to the continuing instability of the Persian Gulf political realm since the demise of the Abbasid dynasty in the mid-tenth century. Middle Eastern trade was especially strong following the rise of Fatimid rulers in Egypt in the late tenth century. During this period the Red Sea served as the new western terminus for the Asian maritime route. Red Sea ports focused their commercial contacts on the Indian and Sri Lankan coasts, as Red Sea-based merchants rarely ventured beyond South Asia into Southeast Asian waters (Goitein: 1974). For the rest of the eastern route, the Western traders depended on contacts with a multiethnic group of traders (including ethnic Middle Easterners who had taken up residency in South and Southeast Asia) who worked the India-to-Southeast Asia leg of the international maritime route to acquire Southeast Asian and Chinese merchandise (Lambourn: 2008b).

During Song times southern Chinese interest was once again exclusively directed to the sea, since the fall of Kaifeng in 1127 brought the closing of the overland caravan routes across the Central Asian steppes. After that date, all tribute with trade that came to the Chinese capital at Hangzhou came by sea, while before that date approximately 35 percent of the tribute missions had come by land (Lo: 1955, 497). In addition, for the first time a Chinese dynasty encouraged China-based traders to trade directly with the south rather than depending on the import of goods through the tributary trade network. The Song government looked to the sea not only as a valued source of tax revenue on imports, but also as a market for exported (and still taxable) products such as silk, a variety of ceramics, and tea, and it also began to integrate the sea into China's defense strategy. In support of these initiatives, a Chinese navy became the foundation for later Mongol and Ming naval expeditions (Heng: 2009).

Although the entry of Chinese private merchants into Southeast Asia had already begun during the ninth and early tenth centuries, in the Song era this activity intensified. At first, Chinese merchants boarded Southeast Asia-based ships for trade in the Southern Seas, but soon Chinese junks also appeared in the Nanyang. Initially working out of the North China Sea, junks from the Chinese commercial fleet were voyaging as far to the west as Lamuri on the northern coast of Sumatra before the end of the twelfth century. By the mid-thirteenth century Chinese junks and traders were also active in the

Nevertheless, the region was becoming more internally focused, and Jambi continued to decline politically; a 1347 inscription from a ruined Jambi temple reports that at that time Adityavarman, ruler over the upstream highlands, held authority over Jambi (L. Andaya: 2008, 88–89). As for Palembang, not until the early Ming period in the late fourteenth century did this port seem to regain some degree of independence. In response to an imperial command presented to Palembang in 1370, a mission was sent to the Ming court in 1371, and subsequent missions were sent in 1373, 1374, 1375, and 1377 (Groeneveldt: 1887, 192–93). O. W. Wolters interpreted this frequency as an attempt by Palembang's rulers to recapture the old position of Srivijaya in the China trade (Wolters: 1970: 49–76; 187–90). If so, they failed. Retrospective Ming histories viewed Palembang as a minor commercial center, attributing its poverty to the Javanese conquest and the fact that thereafter “few trading vessels [went] there.” To underline the point, it was referred to as the Old Harbor (Groeneveldt: 1887, 197; Heng: 2009).

Thus, by the fourteenth century the southeastern Sumatra coast had become insignificant in the international trade. Even on Sumatra itself, the southeast was now overshadowed by the developing pepper production and port centers clustered along Sumatra's northern coast. While southeastern Sumatra did not disappear entirely from the politico-economic map (tribute to China continued intermittently through the fourteenth century, coming first from Jambi and later from Palembang), commercial prominence had passed to the north. Even so, in the late thirteenth century only two ports on the northern Sumatra coast were invited by the Yuan to send tribute missions to China. One was Lamuli (Lamuri/Ramni), a port on the northern tip of the island (the future Aceh) frequented by Middle East traders since at least the tenth century (Tibbetts: 1979, 138–40). The second was Sumutula (Samudra), which during the thirteenth through the fifteenth centuries came to dominate north coast trade, as will be discussed in chapter 9.

CHAM AND VIETNAM COMPETITION FOR THE VIETNAMESE COASTLINE, 1200–1471

While the Thai and Javanese prospered and southeast Sumatra declined, the Champa realm was enjoying a period of relative strength, albeit one that would come to a sudden end in the fifteenth century. The theme of cultural and religious restoration is center stage in Cham inscriptions dating from the 1220s and 1230s, as they followed an era of Khmer dominance over the Cham realm that had dated to Jayavarman VII's late twelfth- and early-thirteenth century reign (as described in chapter 6). A Cham inscription from

lands, provisioned increasing numbers of sojourners who made stopovers in the Cham ports. Regularized contact between the Vijaya lowlands and the central highlands is documented by late fourteenth-century Hindu icons that have been recovered throughout the Central Plateau, as well as temple towers and stelae with Sanskrit inscriptions. As discussed in chapter 3, the early thirteenth century was the era in which the Cham rulers began to formalize their relationship with highland chiefs by bestowing royal titles on them (Hickey: 1982).

During the thirteenth century both local inscriptions and foreign accounts focus on the Cham ruler's personal wealth. According to the contemporary early thirteenth-century record of the Chinese portmaster Zhao Rugua (1225), the Cham ruler reigned from a spacious brick palace, attended by his subordinate princes. All of these possessed vast quantities of gold and jewels, as the royal and noble paraphernalia and symbols of authority included diadems, waistbands, necklaces, and earrings (Rockhill: 1917, 87–88). The Cham elite's focus on personal wealth and conspicuous consumption is not unlike the similar obsession with personal status markers elsewhere in the region, which reflects the local impact of the era's international trade boom (Hall: 2000). Chinese accounts link Champa's heightened trade and subsequent prosperity to Java, and according to the Chinese sources Cham ports (notably Vijaya's port of Thi Nai) passed Java's spices along to China, adding their own rich forest products from the Cham highlands (Rockhill: 1915, 26; Coedes: 1968, 229–30). By the end of the thirteenth century Cham ports were major players in the international trade, as demonstrated by the 1283–1285 Mongol (Yuan) raids against these ports when the Cham monarch refused to respond to the Yuan dynasty's demands for tribute (Coedes: 1968, 192–93).

Some historians suggest that Champa's commercial ties with Java may have been supplemented by political ones. During the early fourteenth century the Cham monarch Jayasinhavarman III (r. 1288–1307?) is thought to have married a Javanese princess, Tapasi. In the Vietnam chronicles' version of the events, Jayasinhavarman III was also said to have married a Vietnamese princess (Che Chi), whom he had received in exchange for relinquishing his rights to certain territories in the north that were contested by Dai Viet and Champa. The Vietnamese sources chronicle persistent rebellions against Vietnamese rule in these ceded territories, which forced the monarch Tran Anh Tong to send troops in 1312, when they also captured the Cham monarch and took him back to the Dai Viet capital, where he died in 1313. The Vietnamese emperor placed the deceased Cham king's brother Che Nang on the Cham throne as "feudatory prince of the second rank." But when Anh Tong became senior ruler and his son Minh Tong assumed executive authority in

1314, Che Nang asserted his independence and invaded the northern territories, which brought a Vietnamese reprisal in 1318; defeated, Che Nang fled to Java (some historians have proposed that he was the son of the Java princess) (Maspero: 1928, 189–205; Coedes: 1968, 217, 229–30). The Dai Viet emperor then placed a military chief Che Annan on the Cham throne. He proceeded to ally with the Mongols, and with their assistance he declared his independence in 1326. When Che Annan died in 1342, his son-in-law Tra Hoa Bo De seized the throne following a ten-year succession war against the legitimate heir Che Mo. The date of Tra Hoa Bo De's death is unknown. There is also the Javanese legend of Dvaravati, sister of a Cham king, who married the fourteenth-century ruler of Majapahit and subsequently encouraged the spread of Islam in Java (Maspero: 1928, 189). Cham representatives participated each year in Java's annual Caitra festival, which celebrated the sovereignty of the late fourteenth-century Majapahit monarchy (Robson: 1995, 34), where they shared in the Saivite-Buddhist rituals of their trade partners to the south.

Champa's links with Java were not the only important ones at this time. Newly recovered shipwreck cargoes in the Philippines demonstrate that by the fourteenth century there were also new links between Champa and the Philippines and from thence along a newly developing eastern maritime route via the Sulu Sea to Indonesia's Spice Islands (see chapter 9) (Ptak: 1992, 1998a). Champa's connections to the north were consequent to a developing new regional network that included China's southern coast, the west coast of Hainan Island, the eastern delta of Dai Viet and its port of Van Don, and the Cham coastline, as discussed below. In the late 1360s the Cham court developed an especially favorable relationship with the new Ming dynasty in China, at the expense of Dai Viet, which would last for several decades. Champa's extensive trade links, together with Dai Viet's dynastic confusion during the later fourteenth century (eventually including a two-decade Ming occupation [1407–1428]), enabled Thi Nai to become the primary intermediary stopover between Melaka and Java and south China's ports (Whitmore: 1985, 19–20; Li: 2006).

Fourteenth-century Vijaya's interest in securing its northern borderlands as a more stable resource base for the future paired with the prior Cham obsession with raiding Dai Viet to secure additional manpower for its slave market and to supplement its longstanding population deficiency (Whitmore: 2010b). However, Victor Lieberman's revisionist perspective is that fourteenth-century Champa faced a population surplus rather than a manpower deficiency, which was compounded by poor weather conditions (Lieberman: 2003, 385–93). Lieberman argues that an inevitable food crisis forced Champa to find new means to sustain its then-high standard of living, and this

meant recovering northern lands that were starting to be settled by expansive Vietnamese.

In contrast to earlier periods, when Champa seems to have been considered a realm prone to piracy, Ming sources report that in the late fourteenth century the Chams won the early Ming court's support for military expeditions by sending lavish tribute missions and characterizing their Vietnamese neighbors to the north as the constant aggressors. During the 1380s, for example, Cham tribute missions lavished the Ming emperor with two hundred elephant tusks in 1384, fifty-four elephants in 1388; and fifty-one elephants in 1389, in response to which it was reported that "the Emperor was pleased with their sincerity" (Wade: 2010; Whitmore: 1985, 23). By contrast, the sources make repeated references to the Ming emperor's displeasure with Dai Viet, including a 1382 refusal to receive a Vietnamese tribute mission due to Dai Viet's "guile." In addition, Ming records note the immense pleasure of the Ming emperor in 1373 when the Chams convinced the Chinese monarch that they had seized pirates who were operating off the Cham coast, thereby pacifying the seas to China's south. Together, these efforts went a long way toward legitimating Cham preemptive strikes against Dai Viet (Whitmore: 1985).

There were at least two Cham military incursions in the 1370s and 1380s that reached all the way to Dai Viet's capital at Thang Long. Their 1376 sacking of the capital was the result of a trap sprung on retaliating Vietnamese forces in which the Chams destroyed the Vietnamese military, killed the Dai Viet junior monarch who had led his troops against Champa, and captured a Vietnamese prince (Whitmore: 1985, 12–18). The once-hostage prince subsequently married the Cham king's daughter and later successfully led Cham forces against the Vietnamese on the behalf of his Cham father-in-law, who the Vietnamese chronicles call Che Bong Nga (Jaya Simhavarman) (Whitmore: 2010b). The Vietnamese chronicles concede that in that era "many" of the locals in the southern regions chose to serve the Cham "false mandate," that is, the Mandate of Heaven, the favor of the gods that was in Chinese tradition vital to a polity's success, although there are no records of any Cham administrators just to the north in the Thanh Nghe region, which was culturally and ethnically Vietnamese.

In addition to its successes toward the north during this late fourteenth-century era, Vijaya controlled Khmer access to China's marketplace and profited accordingly (see above and below). As the Ming chronicles relate, "When *Zhen La* [the Khmer realm] submits tribute, the king of Champa exacts one quarter of it" (Wade: 2010). The Khmer would complain to the Chinese court about this and other issues in their tributary missions of 1408 and 1414.

Champa's late fourteenth-century military supremacy over Vietnam

tanagara (r. 1268–1292), the last of the Singhasari kings, who laid the foundations for Majapahit. Indeed, the *Nagarakertagama*, an epic poem and chronicle of the Majapahit kingdom composed in 1365 by the Buddhist monk Prapanca under the patronage of Majapahit's rulers, begins its story not with the founding of Majapahit, but with the reign of this mysterious and highly controversial Singhasari king. Among other things, Kertanagara claimed to have been initiated into secret Tantric rites that gave him extraordinary powers against demonic forces. In order to maintain these powers, he was obliged to bring on his own ecstasy through Tantric rituals. Although a later fifteenth-century chronicler hostile to Tantric rituals characterized him as a drunkard who was brought to ruin by his lust, the *Nagarakertagama* described him as a saint and ascetic, free of all passion.

To end despair (and the difficulties that Airlangga's legendary division of the realm seems to have caused), Kertanagara erected a statue depicting himself as Aksubhya, the meditative Buddha, on the spot where Bharada, the ascetic blamed for the partition of the meditating Airlangga's kingdom, had lived. He also confirmed his father Visnuvardhana's (r. 1248–1268) patronage and synthesis of the multiple Javanese religious traditions: Hindu, Buddhist, and animistic. Kertanagara divided his cremated father's ashes between two shrines; at one he was worshipped as an incarnation of Siva, while at the second he was revered as Amoghapasa, the Bodhisattva of Compassion. The *Nagarakertagama* viewed Kertanagara's religious purification of Java as the cause of his and his descendants' glory as divine kings and reunifiers of the realm.

Kertanagara would need all the powers he could summon, for he, and then his son-in-law, would face the Mongols, the Central Asian conquerors whose steppe cavalries had overrun much of the continents of Asia and Europe. By the time that Kertanagara came to power in 1268, southern China and mainland Southeast Asia had already begun to suffer the invasion of these armies. Nanchao, an independent kingdom in what is now China's southern Yunnan Province, had been invaded in 1253 (see chapter 9). The Mongols followed up their occupation of Nanzhao with an unsuccessful invasion of Vietnam in 1257, the first round of a pattern of aggression that the Vietnamese combated for some thirty-one years. The last attack was in 1288, when the Mongols were defeated once and for all.

In 1267, the year before Kertanagara came to power, Khubilai Khan made a direct attack on the Southern Song strongholds. He followed with an invasion of Burma in 1271, to block the retreat of Song refugees, and sporadic fighting between Mongol and Burmese forces continued until 1300 (Aung Thwin: 1998, 33–92). In 1276 the Southern Song capital, Hangzhou, fell to his armies, and in the aftermath in 1279 Khubilai Khan established the Mon-

gol version of a Chinese dynasty, the Yuan. While these campaigns were still underway, the expansive Mongols took to the seas in 1274 and launched the first of their ill-fated naval attacks against Japan. With the establishment of the Yuan dynasty, would-be preferred port-polities on the Sumatra coast lost no time in applying to the new Yuan dynasty for recognition, hoping to fill the intermediary role previously assumed by Srivijaya's ports of trade. In 1277 Palembang, in 1281 Jambi-Malayu, and in 1282 Samudra-Pasai (a pepper depot on the northern tip of the island whose foundation is described in the next chapter) sent tributary envoys to Khubilai's capital.

It was in this unsettled context, perhaps motivated by concern about political destabilization in the Melaka Straits, that Kertanagara conducted his own overseas expansion. In 1275 he sent an expedition to temporarily occupy Jambi-Malayu, the old Sumatran port that had recently been the center of the Srivijaya Straits polity. This initial Javanese presence was temporary, or at best indirect, since in 1281 Jambi sent a mission to the Yuan court seeking recognition as an independent tributary. But in 1286, Kertanagara erected an icon with a dated inscription honoring his deified father in the Batang Hari River upstream (Coedes: 1968, 201; Robson: 1995, 54; Slametmuljana: 1976, 26). Up to this point in time, there is no record of an east Javanese presence in the Straits region; at most, the east Java-based polities' only concern had been to keep the Straits of Melaka open so that international shipping could reach Java's north coast ports. After this initial move into the Straits, Kertanagara shifted his attention eastward, subjugating Bali in 1284. He then again sent his armies westward, and by 1286 he had established Javanese hegemony over the Straits region. It was in that year that he erected a statue of his father at Jambi-Malayu. Khubilai Khan was apparently displeased with this new Javanese hegemony in the Straits. In 1289 he sent envoys to Kertanagara to confront him and demand that Javanese tribute missions be sent to his court. Kertanagara replied by disfiguring and tattooing the faces of the Mongol envoys and sent them back in this disgraced fashion. His impudence so enraged Khubilai Khan that the Mongol ruler sent one thousand warships to chastise Java.

Before the fleet arrived, Kertanagara's previously subordinated ruler of Kadiri defeated Singhasari in 1292 and, during the final attack on the royal residence of Singhasari, King Kertanagara died in the assault. After this crisis in the last months of 1292 or early 1293, Kertanagara's son-in-law Raden Vijaya, leading the remnants of Singhasari's forces, cleared a new capital site from the downstream forest and named it Majapahit. This royal city, which gave its name to the realm, was located about thirty miles upriver from Surabaya on the coast. When the Mongol warships arrived, the son-in-law managed to persuade them that the Singhasari kingdom was gone and that, since

Kertanagara had died, this was punishment enough. He proposed that the Mongols should instead help him chastise Kadiri's usurping vassal, since the new Yuan rulers, in common with their dynastic predecessors, should officially disapprove of coups and other illegitimate successions. After he had destroyed his rivals and enemies with the help of the Mongol expeditionary army, Raden Vijaya turned on the Mongols and forced them to evacuate from Java. He then declared himself Java's new king, taking the reign title Kertarajasa (1294–1309).

Kertarajasa's 1293 victory resulted in a peace agreement with the Mongols, who then reconfirmed Java's special commercial and tributary relationship with China, the Mongols' intent from the beginning. The agreement also recognized Java's commercial connections to the west, which gave Java access to the expanding and increasingly significant market of Western Europe. Java's marketing network benefited from the growth in international demand, from the internal peace and security provided by Majapahit's hegemony, and from its kings' efforts to remove obstacles between hinterland producers and ports. Majapahit would itself be transformed by these developments, as the underlying relatively loose system of tributary relationships was gradually molded into a more centralized state.

Kertarajasa's reign was followed by that of his son Jayanagara (1309–1328). When Jayanagara died without an heir, he was succeeded by his mother the Rajapatni (1329–1350), great-granddaughter of Kertanagara, and eventually by the queen's daughter's son, who reigned as king Rajasanagara or Hayam Wuruk (1350–1389). Behind these intricate successions stood the legendary state minister Gajah Mada (*mahapatih*/prime minister 1329–ca. 1369), who handled day-to-day administrative affairs (Robson: 1995, 26–27, 58–59, 69, 71, 73, 76–77).

Jayanagara's reign was largely marked by local resistance to his consolidations, as the new king tried to maintain regional loyalties to the Majapahit state. After Jayanagara's death in 1328, Gajah Mada, acting in the name of the new queen, restored order in eastern Java as well as the island of Madura by 1331. Royal relatives and (in a few cases) deserving members of the court took charge of each of these provinces, while the queen maintained firm control at the center, backed by her chief minister. By 1343 Bali had been annexed, and in 1347 the ports and regions to Majapahit's north and west on Java came under the court's authority. From the Javanese perspective of Java's court scribes, this expansion under Gajah Mada's leadership extended Majapahit's ritual hegemony over the Java Sea regions as well as the Straits of Melaka (see chapter 9).

Despite its vigorous expansion elsewhere, through much of the fourteenth century Majapahit was apparently content with the situation in the straits

region. Although it had on occasion punished local rulers who became too ambitious, such as the west Java-based Sunda Strait ruler in 1357 (McKinnon: 1985), Majapahit's forces do not seem to have made any attempt to establish a formal presence in the straits until 1377. Exactly what prompted Majapahit to move then is not clear, but it may have been the threat of a new alliance between those ports and the new dynasty in China. In 1368 the Ming had expelled the Mongols and established their dynasty. In 1371 the Ming court sent an imperial invitation to Palembang, whose rulers responded with a tribute mission to China. Whether Majapahit's aggression was motivated by this or by something else, Majapahit's 1377 expedition was apparently successful, for soon the ports in the straits were sending representatives to participate in Majapahit's tributary rituals (Robson: 1995, 33–34, 85).

Thus, by 1377 Majapahit's claimed networked ports and their hinterlands extended from the furthest tip of Sumatra in the west to New Guinea in the east and as far north as the southern islands of the Philippines, a far-flung realm that Javanese records called *Nusantara*. The "navy" with which it exercised its suzerainty was based in ports on Java's north coast, and its monarchs paid the multiethnic resident sailors who constituted this force for their good behavior and their transportation services. These maritime populations were essentially mercenaries of trade as well as of maritime security, and they served Majapahit only so long as it provided the most profitable opportunities (Lombard: 1990).

JAVA IN THE FOURTEENTH CENTURY

Throughout the fourteenth century the power of the Majapahit court continued to develop, ultimately leading to a most significant transition. This change in political structure was to be a hallmark for the future of the entire Southeast Asian region, for the developments that were clearly discernible in Majapahit Java from 1294 on would subsequently appear as features generally characteristic of Southeast Asian statecraft in the fourteenth through sixteenth centuries. Java was one of the first states to begin to make the transition from a pattern of statecraft in which the wealth of the realm gravitated toward the center through a network of ceremonially defined tributary relationships to one in which the royal house came to rely on more direct collection of local specialties and surpluses (though they were sometimes initially justified as direct contributions to exclusively royal ceremonies). It is not simply because Java was first that it can stand as a paradigm for an age. Equally important are the availability of material on the characteristics of pre-1300 Southeast Asian states and highly revealing sources that illuminate important

included porcelain, musk, quicksilver, copper, vermilion, and large quantities of raw and woven silks, damask, satin, and brocade (Ptak: 1998; Vogel: 1993; Heng: 2001, 2009). Privately financed trade from China also included pottery, camphor, and pearls, as well as the less valuable alum, saltpeter, sulfur, iron, and copper and iron utensils. Regular shipping also came from Thailand, Vietnam, Japan, and the Philippines, which contributed foodstuffs, jungle goods, and a variety of other trade items (Wade: 2004; Wang: 1970; Chan: 1968).

In addition, Melaka drew on trade within the archipelago (the fifth zone, which will be described further below). This trade had become highly profitable, and the spices of the Maluku—nutmeg, mace, and cloves—had assumed global importance. Intra-archipelago trade was at that time dominated by merchant-seafarers based in the Muslim-ruled ports of Java's north coast, but eastern archipelago sojourners known collectively as the Bugis were becoming a factor. From the Straits polities themselves—notably from Kedah on the west coast of the Malay Peninsula and Samudra-Pasai on the northwest coast of Sumatra—came tin, gold, jungle products, and pepper, in return for cloth, opium, and foodstuffs. By the end of the fifteenth century, when the first Portuguese missions reached Asia, Melaka was the commercial hub of Asian trade. Early arriving Portuguese, whose home ports in the Atlantic must have seemed poor and provincial by Melaka's cosmopolitan standards, were awed by what they saw. They left with impressive accounts of the bustling Melaka urban center.

In the words of the early fifteenth-century Portuguese scribe Tomé Pires, Southeast Asia was “at the end of the monsoon, where you find what you want, and sometimes more than you are looking for” (Cortesao: 1944, 2:228). When Europeans came to Southeast Asia in the early sixteenth century, they saw Melaka as more than a marketplace. It was a symbol of the wealth and luxury of Asia. They were eager to circumvent the monopoly of Venice on the priceless spice trade, and the great wealth and luxury available in this trading had enticed them halfway around the world in their tiny, uncomfortable ships on an extraordinarily hazardous journey. When the Portuguese entered the Indian Ocean in the early 1500s, therefore, their objective was to seize Melaka, which they rightfully considered to be the dominant center of contemporary Asian trade (McRoberts: 1991).

The third trade zone was centered around Thailand and the lower coast of Vietnam, what Leonard Andaya has recently detailed as the Sea of Melayu (L. Andaya: 2008), including the upper Malay Peninsula's eastern coast and the mainland regions bordering the Gulf of Thailand, and the east coast of Sumatra. The Thai state of Ayudhya developed in the first half of the fourteenth century in the lower Chaophraya valley and thrived as a result of new

foreign contacts. Though it was initially hostile to the rise of Melaka in the south, which it viewed as an intruder into the Thai political and economic sphere, Ayudhya began to export rice to Melaka in the fifteenth century while also being a commercial center for trade with the Philippines and China (Kasetsiri: 1976; Vickery: 2004). Thai participation in Southeast Asian trade is well documented by deposits of their porcelains at the sites of numerous Southeast Asian ports active during the post thirteenth-century era (Roxanna Brown: 2008b; Miksic: 2010a). Meanwhile, following the demise of Angkor in the thirteenth and fourteenth centuries, the remnants of the Khmer civilization of Cambodia established a new base at the edge of the Mekong Delta, which provided them with a commercial link to the Malay populations on the north fringe of the South China Sea (Wolters: 1966b).

The Sulu Sea region comprised the fourth commercial zone. In this region the western coasts of Luzon, Mindoro, Cebu, and Mindanao, along with the Brunei region of Borneo's north coast, all served to varying degrees as facilitators of trade between China and the Spice Islands to the south and east (Ptak: 1992). These Spice Islands were the source of nutmeg, mace, cloves, sandalwood, and other more exotic commodities, such as parrots and birds of paradise, all of which flowed through the Sulu Sea to China and Thailand in the north, as well as to the central Vietnam coastline, Java, and Melaka in the west.

The Chinese presence was not new—Chinese traders had established these bases in the Philippines during the eleventh and twelfth centuries (Hutterer: 1974). The first mission to the Chinese court from the Philippines arrived in 1003. In 1007, envoys were again sent by the ruler of Butuan in northwest Mindanao, requesting that the Song court bestow upon them the same class of flags that Cham envoys had received in 1004. The request was rejected because Butuan, the Chinese reasoned, was beneath Champa in commercial importance (Wolters: 1983, 58).

By the fourteenth century an intensive and extensive network of native trade had evolved to distribute imports and gather the forest products desired by Chinese traders. This trade in both its internal and external dimensions stimulated major changes in Philippine society. It called for formal regulation of commercial contact between indigenous populations and the foreign traders and encouraged the formation of village clusters (*barangay*) that were controlled and protected by local chiefs (*datu*) (Hutterer: 1974, 297). Archeological research has revealed population clusters of over five hundred households in the Manila area dating to the pre-Spanish period, as well as other clustered residential sites on the Mindoro, Mindanao, and Cebu coasts. Each of these communities' trade links with China are demonstrated by the communities' association with significant deposits of Song and Ming porcelain

Annex 544

Greg Wood, "Successive States: Aaron Arrowsmith's *Chart of the Pacific Ocean, 1798-1832*", *The Globe: Journal of The Australian and New Zealand Map Society Inc.*, No. 70 (2012)

SUCCESSIVE STATES: AARON ARROWSMITH'S CHART OF THE PACIFIC OCEAN, 1798-1832

Greg Wood¹

Abstract: For its day, Aaron Arrowsmith's *Chart of the Pacific Ocean*, first published in 1798 and recurrently revised, was regarded as the most authoritative up-to-date depiction of the Pacific and Australia. According to the cartouche, the chart was "drawn from a great number of printed and manuscript sources" implying that Arrowsmith was not simply learned and thorough, but personally had access to information that was not yet in the public arena. Arrowsmith's credentials as a leading British private chart-maker were underlined when the British Admiralty tasked him to publish Matthew Flinders' earliest maps of Bass Strait and Tasmania. Notwithstanding that productive co-operation, a few short years later he, and other London chart-makers, were in contention with Alexander Dalrymple and the newly established Admiralty Hydrographical Office over what would these days be described as 'intellectual property': the 'ownership' and the control of access to new hydrographical information.

This article examines the issues under contention between the public and private publishers, and the sources Arrowsmith drew on as he developed and revised his monumental chart through its successive states. In the background is one particular question: given that Flinders was incarcerated for six years on Mauritius by the French, is it just possible that Arrowsmith could have published the results of the surveys that Flinders undertook in the *Investigator* before Flinders himself was in a position to do so, and has this gone unnoticed?

A few years ago I purchased four battered, water-stained charts relating to Australia. There was no reason to doubt their provenance which had it that they were originally from an American whaler. One of them in particular was a puzzle. Untitled, physically large, it encompassed southern Australia below latitude 20° South. Size notwithstanding, it was obviously incomplete, part of an even larger map. According to the fine print along the lower margin it was published by Aaron Arrowsmith on 1 October 1798. Clearly that date was incorrect. By then, parts of the southern Australian coastline had been explored by Bass and Flinders but not as yet by Grant, Murray, Flinders (in the *Investigator*) and Baudin, whose discoveries it depicted. In time, a search revealed that I had acquired one ninth of Aaron Arrowsmith's monumental *Chart of the Pacific Ocean*.

That fragment triggered numerous questions especially as the chart boasted that it was "drawn from a great number of printed and manuscript sources". For example, just which sources did Arrowsmith draw on initially and for the successive states of his chart? Were others besides Arrowsmith producing similar, highly credible, charts? What *modus operandi* applied between London's private chart-publishers, Arrowsmith specifically, and the newly established British Admiralty Hydrographic Office? And accepting that the 1798 date was incorrect, was it just possible that Arrowsmith could have accessed and published Flinders' *Investigator* surveys before Flinders' return to the UK, and had that gone unnoticed?

The starting point is the Admiralty's relations with London's private map producers. A sense of this emerges from the earliest Hydrographic Office correspondence now held in the UK National Archives in London.¹

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Hydrographical Office Admiralty
22 Feby 1808

23

Public Record Office

Sir

I have received your letter of the 19th with its Enclosure
 when, at the Instance of The Admiralty by Memorial, His
 Majesty in Council was graciously pleased to establish The Hydrographical Office, an avowed
 purpose was to supply the Royal Navy with good Charts.

Their Lordships will please to consider that this Intention
 never can be carried into effect, if the Surveys and Observations sent to The Hydro-
 graphical Office are delivered to private Chart-Masters to publish, mixed with
 materials of doubtful or unknown authority.

At the same time, Uniformity of Scale, so desirable
 in Hydrographical Works cannot be preserved

It is the bounden duty of all Officers in His
 Majesty's Navy to send their Observations, and Charts laid down from those
 Observations, to The Admiralty: If these Materials have been given, or
 sold, to Mr Arrowsmith and not sent to The Admiralty, These Officers have
 committed a reprehensible breach of duty; If they have been sent to The
 Admiralty The Hydrographical Office is the proper Channel for Publication,
 in pursuance of the Orders of His Majesty in Council.

A Chart of the great Belt was engraved in
 the Hydrographical Office before Admiral Gambier's Expedition to Copenhagen,
 to this Plate, ^{Such} Corrections or Additions may be made, as the Materials
 delivered to The Hydrographical Office will permit.

I beg leave to observe also that it is an
 extravagant

Figure 1. First page of Alexander Dalrymple's letter of complaint to the Admiralty dated 23 February 1808.
 (UK Archives ADM 1/3523)

MR ARROWSMITH AND MR DALRYMPLE

Clearly, both the tenure and temper of Alexander Dalrymple, appointed in 1795 as the first Hydrographer of the British Admiralty, were under strain. In a letter dated 23 February 1808 to the Admiralty (**Fig. 1.**) he complained bitterly:

When at the instance of the Admiralty... His Majesty in Council was graciously pleased to establish the Hydrographical Office, an avowed purpose was to supply the Royal Navy with good charts.

Their lordships will please to consider that this intention never can be carried into effect, if the surveys and observations sent to the Hydrographical Office are delivered to private chart makers to publish, mixed with materials of doubtful or unknown authority.

At the same time, uniformity of scale, so desirable in hydrographical works, cannot be preserved....

It is the bounden duty of all officers in His Majesty's Navy to send their observations, and charts... to the Admiralty. If these materials have been given, or sold, to Mr Arrowsmith and not sent to the Admiralty, these officers have committed a reprehensible breach of duty...

Mr Arrowsmith, with consummate assurance, in his application for some charts relative to Ireland, says, "at present lying useless". These charts, which he says are at present lying useless, were that very day... in the hands of Mr Andrews, one of the draughtsmen belonging to the Hydrographical Office, preparing a chart for laying before their Lordships...

Reading between the lines, it is clear that Dalrymple had not finalised charts of Ireland that Arrowsmith had left in an advanced state of preparation 12 years earlier during his brief sojourn at the Hydrographical Office. Tucked away are other hints of Dalrymple's personal vulnerability:

It is obvious from Mr Arrowsmith's letter that... he mistook the nature of the committee appointed for the selection of charts; and supposed it was to supersede the Hydrographical Office...

and

... although I may not have the activity of youth, I have the experience of age which is of as much consequence in hydrographical... [questions.²]

The response from the Secretary to the Admiralty was terse and unforgiving:

Refer the Hydrographer to my letter of the 19th last and direct him to give Mr Arrowsmith the information accordingly.³

THE ADMIRALTY HYDROGRAPHICAL OFFICE & THE PRIVATE CHART PUBLISHERS

Until the Hydrographical Office was established in 1795, private chart-makers alone had published nautical and geographic charts in Britain. At the end of the eighteenth century the pre-eminent chart-makers were Laurie and Whittle, Faden, Sayers, Steel, and a recent upstart, Aaron Arrowsmith, who somehow had secured good access into official circles. When need arose, the Admiralty would commission one or other of them to publish charts or mariner's journals on its behalf: in today's parlance it 'outsourced'. For example, when Cook and others of his era returned to England, their accounts and charts were privately published, they themselves receiving a share of the royalties.

The late eighteenth century was, of course, both a time of geographic discovery and of advances in navigation, the most important being the relative ease of precisely establishing longitude. However the flow of new, reliable, information created a policy conundrum. The push for naval supremacy and for commercial advantage over foreign rivals created a constituency for keeping new hydrographical information secret. Arguments in favour of establishing an official chart-publishing capacity within the Admiralty strengthened when England was at war, as it often was, usually with France. At a practical level, Dalrymple's view that charts should be drawn to a set formula and in a consistent style, capable of routine updating as new surveys came to hand, was easier to achieve in a single publishing operation. This again pointed to government control.

Other considerations worked in favour of openness, freedom of information, and prompt publication. To have any consequence the territorial claims of European nations had to be known and publicised. Safety at sea also mandated prompt publication. Up-to-date scientific information was highly prized but traditionally regarded as an internationally shared resource, a view strongly held by the likes of Sir Joseph Banks. Increasingly, the Admiralty began asserting – most of the time anyway – that knowledge secured at public expense was public property. Certainly by 1821, probably earlier, arguments for openness outweighed those favouring secrecy and the Admiralty began selling its charts to the public. Nor for all intents and purposes did it claim copyright, something only asserted relatively recently.

Dalrymple's letters, and his reaction to Arrowsmith, straddle and confuse the contending arguments. Clearly he was frustrated when hydrographical information generated by the Royal Navy did not end up in his hands, but claimed total proprietorship and prior rights to publication when it did. He criticised the lack of clear property rights when charts were copied by others. This was a debatable area as all map publishers routinely copied each other and plagiarized their predecessors as arguably they should; from a national interest viewpoint, vessel safety and maritime efficiency should trump copyright, causes promoted if publishers could incorporate the latest, accurate, information available from whatever source. Dalrymple was on firmer ground when he criticised the failure of private chart-makers to identify these sources.

However Dalrymple's credibility was compromised by a mote in his own eye. Like many others of the era he had significant conflicts of interest. Wearing his different hats, he was a geographer and hydrographer of standing; a map collector; a private map publisher (an example is his three-sheet version of Cook's discoveries on the Australian east coast (**Fig. 2.**) published as an alternative to that of Hawkesworth); and it would seem he was simultaneously Hydrographer to the Admiralty and Hydrographer to the East India Company.⁴ It didn't help his standing that he was a curmudgeon. One of his former Hydrographical Office engravers, harbouring a grudge, wrote to the Lords of the Admiralty claiming Dalrymple was routinely absent, preoccupied with his private interests and directed the work of the office to that end. But, unkindest cut of all, he then added:

Admiral Bligh in the short time he had the management [of the Hydrographical Office] began to regulate, and order things in a proper manner that the business would have been done, pleasantly:⁵

From its inception the Hydrographical Office wrestled with the vast accumulation of manuscript charts, plans and mariners' journals it inherited. Its top priority was to improve the available charts of the Mediterranean, Baltic and Atlantic, where the naval conflicts of the Napoleonic period were being played out. However, even the existing charts of the British coast were seriously defective. Matthew Flinders' opening gambit in 1801, on leaving Sheerness in the *Investigator* bound initially for nearby Portsmouth, was to ground his charge on a sandbank. He asserted that this was due to defective charts (supplied but not drawn by Arrowsmith), his explanation somewhat compromised by his being below decks with his newly acquired wife, Ann, at the time the vessel struck.

In short, the Hydrographical Office, facing a daunting task, was inadequately staffed and badly managed. After a decade it had made scant progress in new chart production. Necessarily and for decades to come, Britain remained heavily reliant on private chart-makers, including Arrowsmith.⁶

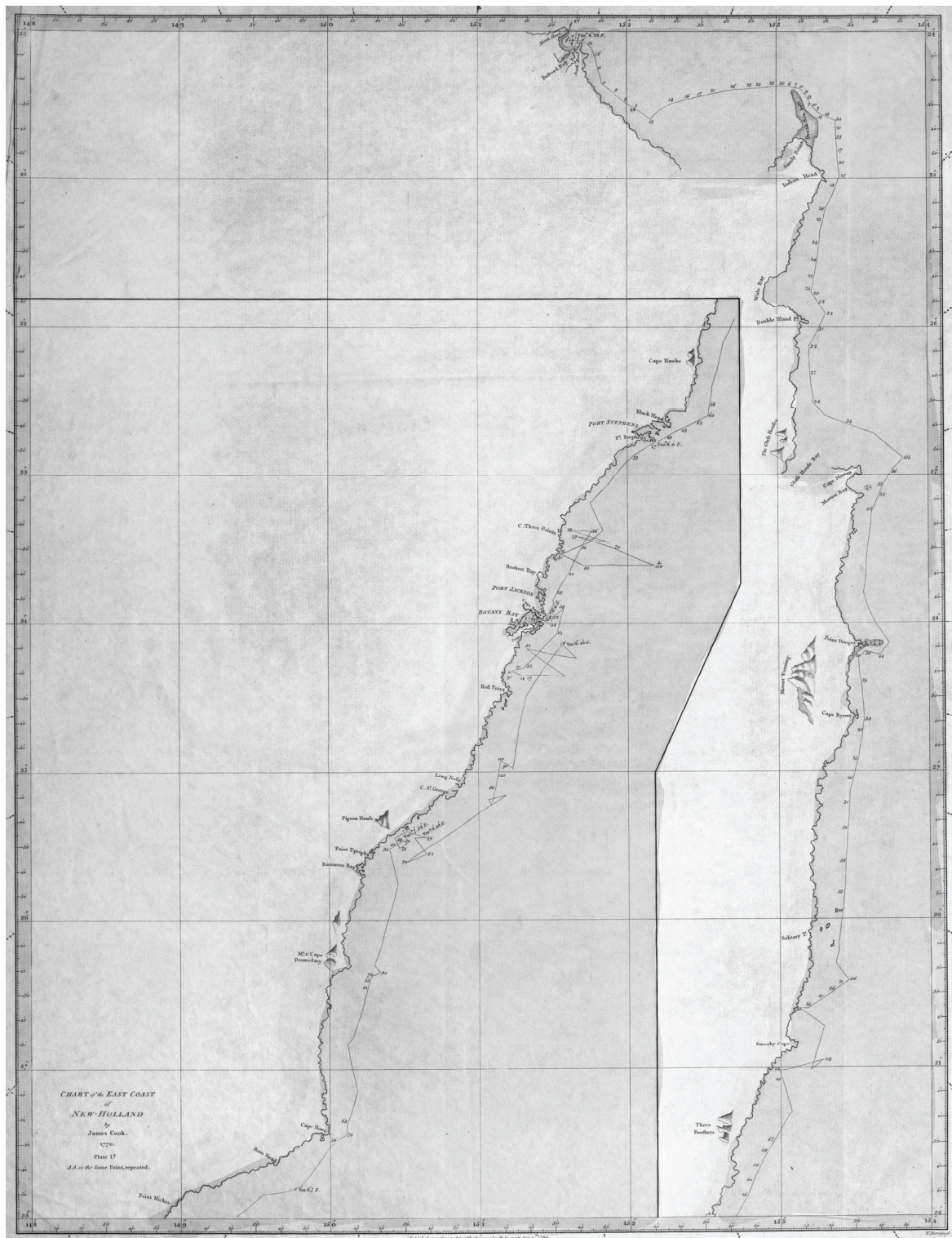


Fig 2. Alexander Dalrymple: *East Coast of New Holland*. Sheet 1. (National Library of Australia, map NK5557a)

AARON ARROWSMITH

What little is known about Aaron Arrowsmith has him born in a “good but impoverished” family in Durham in 1750, coming to London about 1770, establishing himself as a land surveyor, working for other map publishers, possibly Faden and certainly Cary. According to Tooley⁷, he set up his own

establishment as a publisher and engraver in 1790, concentrating his energies on the production of large-scale maps and recording the latest geographical discoveries. In the parlance of the day these were described as ‘general charts’ conveying the general form and position of land masses not the detailed hydrography.

Arrowsmith moved his business address regularly, mostly in the vicinity of Soho Square.⁸ Another Soho Square resident was Sir Joseph Banks, though I have unearthed no correspondence between the two. Banks, it must be said, wasn’t all that interested in maps.⁹ However for the many who were, Arrowsmith’s shop was a mecca. Flinders’ Private Journal records that at Arrowsmith’s he encountered the Spanish explorer Admiral Espinosa, “...with whom I talked about the astronomical observations he had made at Port Jackson and in South America”.¹⁰ Some days later he notes: “...at Arrowsmiths I met Lord William Bentinck” (son of the erstwhile Prime Minister). Underlining his impressive bevy of customers, Arrowsmith was able to style himself Hydrographer to the Prince of Wales, and later, Hydrographer to His Majesty, one in the eye for the Hydrographer to the Admiralty.

Arrowsmith was on the Hydrographical Office payroll between September 1795 and November 1796, returning then to private publishing, assuming he ever left it. Tooley, and the Chart Committee (see below), describe Arrowsmith as hard-working and conscientious, constantly revising his sheets with the result that his maps, more than any others, provide reliable and valuable historical records of his own time.

THE CHART COMMITTEE

By 1807 the Royal Navy’s need for an assessment of the accuracy of the charts then available, from whatever publisher or source, had become compelling and urgent. At Dalrymple’s suggestion a Chart Selection Committee comprising three experienced naval officers was constituted. Dalrymple was personally reluctant to make public pronouncements on the work of other chart publishers, though he had developed lists of privately published charts that, in his opinion, were credible. The first map scrutinised in depth by the Committee was an Arrowsmith chart of the Atlantic Ocean, about which it raised numerous queries and comments but approved it for naval use. In the process the committee members developed a close working relationship with Arrowsmith.

THE D’ENTRECASTEAUX CHARTS

With the Chart Committee looking over his shoulder and increasingly critical, a final schism between the Admiralty and Dalrymple was only a matter of time. The trigger had an Australian connection. In 1795 the British had seized a Dutch vessel that happened to be carrying Beautemps-Beaupre’s charts of D’Entrecasteaux’s expedition, valuable hydrographic information. The originals were returned to the French, albeit after some delay. However Dalrymple made a copy, ostensibly (implausibly) lest they were lost *en route* to France. Come 1807, the D’Entrecasteaux charts still had not been published by the French. Dalrymple was requested to pass his copies, which he held under lock and key, to the Chart Committee, by inference giving Arrowsmith access. This he refused to do claiming it would be a breach of a ‘sacred trust’ and, besides, would put Flinders’ release from Mauritius in jeopardy. His reasoning was wildly overblown especially as regards Flinders who, when he voyaged to Australia in the *Investigator*, had been armed with manuscript copies of these same charts, ‘sacred trust’ notwithstanding.¹¹ Reading the files, it is hard to escape the sense that Dalrymple was reluctant to release any material of potential use to him, in whatever capacity. Eventually, belatedly, he conceded, but for the Admiralty hierarchy it was the last straw. Shortly afterwards he was sacked and, deeply humiliated, died three weeks later.

The Chart Committee continued to develop its list of credible charts for use by the Royal Navy. Arrowsmith’s *Chart of the Pacific Ocean* was one of the few ticked for this region, the Committee

recommending that 100 copies be purchased. Even after a discount for bulk buying it was the most expensive chart for any region on offer from any private publisher.

MR ARROWSMITH AND CAPTAIN FLINDERS

Is the suspicion that Arrowsmith may have accessed Flinders' manuscript charts and pre-empted Flinders' own publication of them as silly as it sounds?¹² As mentioned, Arrowsmith's *Chart of the Pacific Ocean* boasted that it was "drawn from a great number of printed and manuscript journals" the latter in particular being a selling point (**Fig. 3.**). At the behest of the Admiralty, Arrowsmith had published Flinders' charts of Bass Strait and Van Diemen's Land in 1800-1801, an association which marked the start of a friendly professional relationship.



Figure 3. Aaron Arrowsmith's *Chart of the Pacific Ocean* title cartouche, with its reference to 'printed and manuscript sources.' (Mitchell Library: X980.01/2)

As his February 1808 letter shows, Dalrymple was concerned about Arrowsmith's acquisition of naval officers' records. However he also suspected Arrowsmith had under-the-counter access into the Hydrographical Office. In one letter Dalrymple recorded that:

On coming into my office one day, I found Mr Arrowsmith there. I inquired what it was he wanted; he said he came to receive Sir Home Popham's orders, about pasting some charts on cloth -- I told Sir Home that these charts belong to the office, and that I would not allow any charts belonging to the Hydrographical Office to be pasted on cloth. ...¹³

In another:

A proof of a chart of part of New Guinea not yet published, Mr Arrowsmith acknowledged to have got from my engraver's son without my knowledge or permission....¹⁴

Flinders' *Investigator* and *Cumberland* charts of the Australian coast were back in Britain well before Flinders himself, who was incarcerated on Mauritius for six years. The process is summarised in Geoffrey Ingleton's *Matthew Flinders, Navigator and Chart Maker*.¹⁵ Effectively, copies of all Flinders' manuscript and fair charts reached Dalrymple by the end of 1805, some as early as December 1803. While on Mauritius, Flinders redrew an almost complete set of his charts as well as crafting his 1804 *Australia or Terra Australis* chart (**Fig. 4.**) which he sent in the first instance to Sir Joseph Banks, who forwarded it to the Admiralty Hydrographical Office by late 1805. It was never published. By late 1808 most of Flinders' manuscript charts had been duplicated twice over, and were in the Hydrographic Office's holdings well before Flinders himself arrived back in London in late 1810.



Figure 4. After passing through Sir Joseph Banks' hands, Flinders' 1804 manuscript chart, *Australia or Terra Australis*, was in the keeping of the Hydrographical Office by late 1805. (UK Admiralty Hydrographic Office Archives: Y 46/1 xr.)

Accurate navigational information can be a life or death matter, so it is hard to believe that any responsible government could have let six or seven years pass before such important charts were utilised. Flinders was, after all, paid from the public purse, a government official on official business, with no ultimate claim to the intellectual property. The Admiralty would have had every right to publish, and quickly, had it chosen to do so.

Flinders' own attitude to the publication of his maps prior to his return shifted during his time on Mauritius. In a letter he sent to Banks in 1804 accompanying his *Australia or Terra Australis* map he commented:

... I should much wish to be in England when that [i.e. publication] takes place, if possible, to guard against the blunders of the engravers, and the ostentatious trappery of the chart sellers; as also, that the engraving might be taken from my originals; the copy of the general chart however, when filled up will be the most correct.¹⁶

Two years later, Flinders sent a letter to Marsden, the Secretary of the Admiralty, accompanying his “memoir”, the document he drafted to explain the protocols he had followed when constructing his charts. Flinders said the memoir...

...should be attached to my charts in case of their being published without, or previously too, the voyage of the Investigator.¹⁷

The Admiralty made no move to publish. The most likely, and generous, explanation for their not doing so are the overstretched Hydrographical Office and more compelling war-driven priorities. The hope that Flinders' release from Mauritius was imminent could have been another factor leading to procrastination. Ingleton's view is that the cause lay in Flinders' failure to name all his new discoveries on his draft charts (**Fig. 5.**); in my view this may have been a factor, but not the main one. Flinders had had one previous experience with nomenclature: quite a number of the names he proposed on his 1798-9 Bass Strait charts were augmented or amended by Governor Hunter; very possibly he expected his higher authorities in London would want to leave their own mark on these ones.



Figure 5. Flinders' manuscript charts left numerous names to be inserted. For example he had hesitated to include the names of the St Vincent and Spencer Gulfs. (Detail: UK Admiralty Hydrographic Office Archives: Y 46/1 xr).

It may be hard now for Australians to imagine, but in 1805 New Holland was a low priority for Britain. When Bass Strait was first discovered Dalrymple focused solely on the possibilities it offered the East India Company: maybe it could open an alternative route to the Far East, one that avoided the French naval vessels and privateers that plagued the Indian Ocean. There is evidence that Dalrymple utilised Flinders' *Investigator* charts as he advocated this possibility. In a letter to Marsden, on an alternative route to the Far East, he advised:

I have made an abstract of Flinders on the South Coast of New Holland, and mean to give also a copy of his Chart of Bass's Strait and as far westward as the port where he wooded and watered...¹⁸

Arrowsmith's Pacific Ocean chart probably accompanied Flinders to Australia on the *Investigator*¹⁹ as did his World Map. I say "probably" because both Flinders and Dalrymple refer to an Arrowsmith *Chart of the South Seas*. I have uncovered no record, apart from their separate references, to the existence of an Arrowsmith chart by this name. It is conceivable that Arrowsmith prepared a scissors-and-paste chart for Flinders, drawn from his Indian Ocean and Pacific Ocean charts, but nothing explicit in those terms is mentioned in Flinders' Journals. Certainly Ingleton assumes the chart in question was Arrowsmith's *Chart of the Pacific Ocean*. However the reference does give cause for unease; whatever their faults, neither Flinders nor Dalrymple were slapdash.

Flinders is also known to have had with him Laurie and Whittle's *East India Pilot*, van Keulen's charts of the West Coast of New Holland showing de Vlamingh's surveys, the manuscript copies of D'Entrecasteaux/Beautemps-Beaupre's charts, Bligh's manuscript charts of Fiji and the Torres Strait and probably Thevenot's 1663 chart of the Dutch discoveries around the Australian coast. In addition he had the published accounts of Dampier, Cook (Hawkesworth), la Perouse, Vancouver and Bligh and, most significantly, Banks' manuscript log of his voyage on the *Endeavour*.

ARROWSMITH'S PACIFIC OCEAN: SUCCESSIVE STATES

How many editions of Arrowsmith's *Chart of the Pacific Ocean* were there? I have sighted versions in the Mitchell Library in Sydney, the National Library of Australia, the British Admiralty Hydrographic Office in Taunton, and the British Library and Royal Geographical Society Library in London. Undoubtedly there are others.

Ingleton notes that around 1808, presumably reflecting the influence of the Chart Committee, instructions were issued requiring private chart-makers to specify the dates on which changes to their charts were made. From 1808 each version of Arrowsmith's chart has an identifying date and from 1810 it also identifies the earlier editions. The last version was published in 1832 by Samuel Arrowsmith after Aaron Arrowsmith's death, identifying eight prior editions. However there were more. Between the first '1798 edition' and the 1808 edition there are at least three versions bringing the total to about twelve in all.²⁰ The Mitchell Library's copy is the earliest I have seen and almost certainly the very first, the actual, 1798 version.

What were Arrowsmith's sources for his depiction of Australia in that first version? Naturally he incorporated Cook's chart of the east coast of Australia. Nothing on the Australian mainland to the south or west of Point Hicks is included and he makes no presumption as to whether the region of Bass Strait was land or sea, leaving it blank. In the south-west he incorporated Vancouver's 1791 charting, starting from Cape Chatham. The whole southern coastline between Termination Island in Western Australia and Point Hicks in New South Wales was left blank – Arrowsmith presumably feeling Nyuts' depiction of the southern Australian coast was not sufficiently credible, in marked contrast to, say, Laurie and Whittle's chart of the Australian coast from around the same time.

Arrowsmith drew on Dampier's charts for Australia's north-west coast. He included Dampier's soundings along De Witts Land north of Shark Bay; very likely his source for doing so was John Thornton's 1708 *A draft of the coast of New Holland and parts adjacent*. Other soundings and charting of the north-west coast draw on Dutch charts, most probably those of Johannes van Keulen, which were published subsequent to de Vlamingh's exploration south to the Swan River. (The soundings he included around Swan River and Rottenest Island are de Vlamingh's.) The fact that Flinders carried van Keulen's chart with him on the *Investigator* and that Flinders was advised both by Arrowsmith (as well as Dalrymple) on what maps to take with him, points to van Keulen as the likely

source. Arrowsmith chose not to draw in the Arnhem Land coastline, rather suggesting its shape by a line of soundings. Again this is puzzling; seventeenth century Dutch charts had no such inhibition.

It is Arrowsmith's version of the Gulf of Carpentaria (**Fig. 6.**) that dents his reputation for scrupulous care. I can find no similar depiction. It departs significantly from very credible, 150 year old, Dutch charts with no obvious rationale for doing so.²¹ Which leads to the conclusion that, while Arrowsmith was usually careful and rigorous, it was not unknown for him to be whimsically imaginative, and that Dalrymple had some grounds for his reservations about private chart-makers.



Figure 6. Arrowsmith's Chart of the Pacific Ocean. 1798 version. west sheet (detail) with imaginative Gulf of Carpentaria. (Mitchell Library X980.01/2)

THE EVOLUTION OF THE CHART

As mentioned, between 1798 and 1810 there are at least three editions. What is not included in them is as significant as what is. In the original 1798 version (**Fig. 7.**) and in all subsequent versions, Arrowsmith included the tracks of some prominent explorers: the last such entry is dated 1794. No additional voyage tracks were added to later editions, which incorporate the results of further exploration devoid of attribution. For example Flinders' circumnavigation of Australia is never explicitly mentioned nor the *Investigator's* track included. Nor in either the initial or subsequent versions does Arrowsmith draw on any French map-makers – for example, Beautemps-Beaupre or Freycinet – except to the extent that their work was incorporated into the charts of Flinders, and later, Phillip Parker King.

One edition that probably dates from around 1802 is in King George III's Maritime Collection now in the British Library.²² It includes Bass's Strait (sic), Westernport, and Flinders' circumnavigation of Van Diemen's Land in 1798, discoveries Arrowsmith published on behalf of the Admiralty in 1800-01. Both the National Library and the Mitchell Library have another version that is geographically identical (at least as relates to Australia) except that they lack the portrait of Mendoza Rios to whom the chart was dedicated (**Fig. 8.**). They probably date from around 1805.

Until 1814 the changes relating to Australia are incremental. The 1814 version makes significant additions and amendments. It includes Flinders' charting and naming of the Australian southern coast

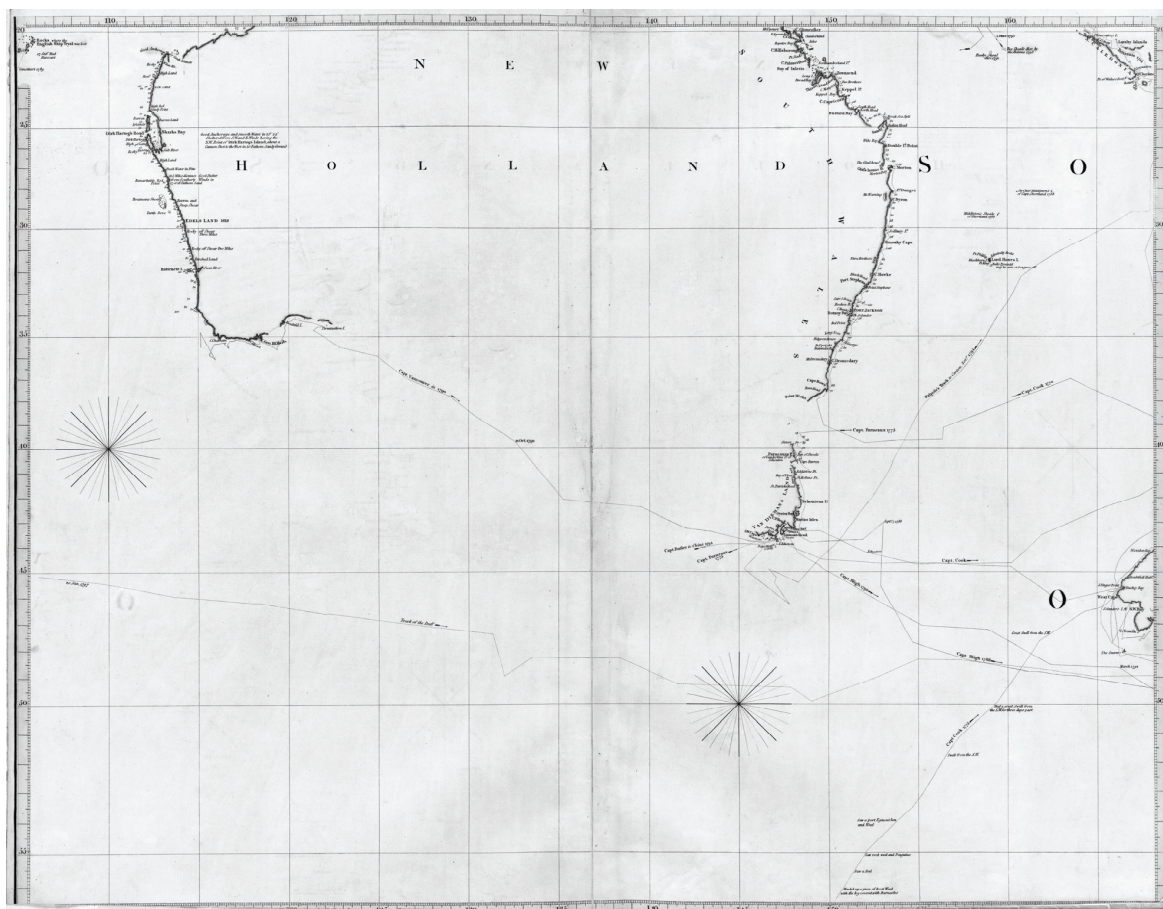


Figure 7. Arrowsmith's *Chart of the Pacific Ocean*, 1798 version, southwest sheet. (Mitchell Library X980.01/2)

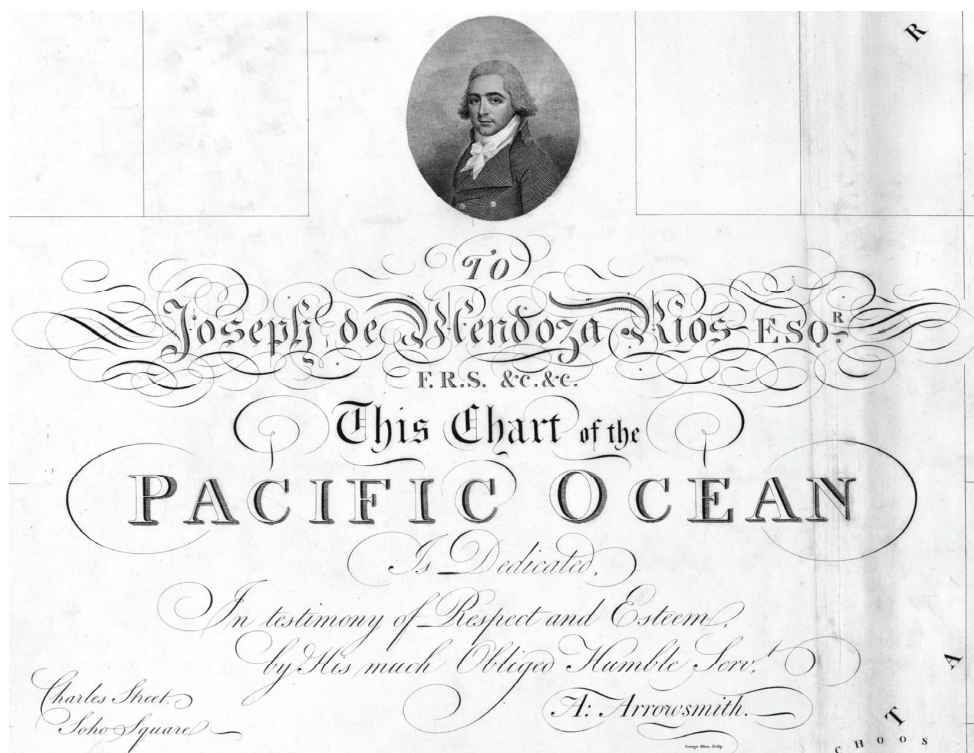


Figure 8. Arrowsmith's Dedication of the 1798 *Pacific Ocean* chart to Mendoza Rios. (Mitchell Library, X980.01/2).

(**Fig. 9.**) and totally re-draws the Gulf of Carpentaria (**Fig. 10.**)²³ Another adjustment is the location of Tryal Rocks, supposedly where the British ship *Tryall* was wrecked in 1622. In April 1803 Flinders, in the by-now decrepit *Investigator*, made a risky diversion *en route* to Port Jackson to search unsuccessfully for Tryal Rocks, specifically using an Arrowsmith Chart as his point of reference. When that search was known to have proved fruitless, Arrowsmith relocated this alleged hazard to Rosemary Island close by the West Australian Coast.²⁴ Most significantly, in 1814, the longitude of the tip of Cape York is moved approximately one degree east.

Further substantial amendments to the depiction of Australia appear in the 1832 edition, the last published. This incorporates Jeffreys' and Philip Parker King's surveys.



Figure 9. Arrowsmith's *Chart of the Pacific Ocean*, 1814 version, southwest sheet (detail) showing the incorporation of Flinders' surveys of the southern Australian coast (UK Admiralty Hydrographic Office Archives).

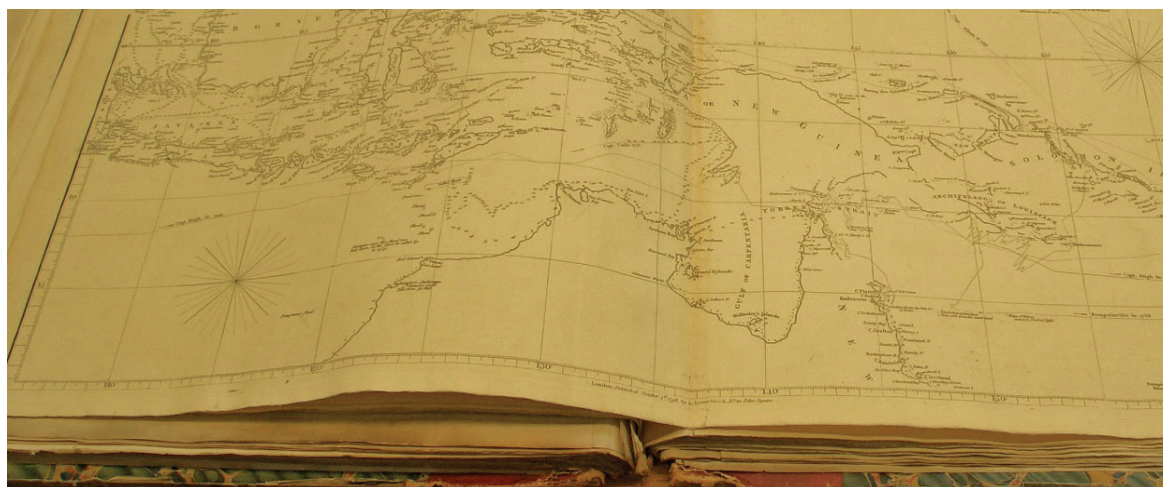


Figure 10. Arrowsmith's *Chart of the Pacific Ocean*. 1814 version. west sheet (detail), which removed his earlier rather imaginative depiction of the Gulf of Carpentaria. Detail from Admiralty Hydrographic Office Copy.

CONCLUSION

The bottom line is, that short of finding yet another pre-1814 version – and this is highly unlikely – Arrowsmith did not pre-empt Flinders' own publication of his surveys. Nor did he lag him by much. Flinders' Atlas was finalised in May 1814; Arrowsmith updated his *Chart* in December 1814.

Why not? There are numerous reasons, none of them insurmountable if the public need had been judged sufficiently compelling. Before 1810, Flinders' charts were gathering dust in the Hydrographical Office, but even with Dalrymple gone they appear to have remained out of the reach of the private chart makers. Only after Flinders returned to London and after Arrowsmith had been commissioned to produce the Atlas accompanying Flinders' *Investigator* Journal, did Arrowsmith come into possession of Flinders' cartography. (It was Aaron Arrowsmith's young nephew, John Arrowsmith, who redrew and reduced Flinders' charts for final publication.) By then it would obviously have been unethical for Arrowsmith to have pre-empted Flinders, who, changing attitudes notwithstanding, was allowed some royalties to recompense him for his work.

However, the Admiralty also laid claim to the intellectual property. It allowed Flinders to publish privately, subject to conditions. Most importantly, the Admiralty reserved to itself the right to publish Flinders' charts individually, also doing so in 1814, thereby contributing to the poor sales of Flinders' Journal and Atlas. Arrowsmith revised his chart once Flinders' discoveries were in the public domain: there is no sign that he sought, or needed, agreement to do so, either from Flinders estate or the Admiralty.

Arrowsmith's contribution to British cartography was substantial. For over a decade, his *Chart of the Pacific Ocean* was regarded as the most accessible and authoritative depiction of the Pacific, and of Australia specifically, then available. It lost its pre-eminence with the publication of Flinders' own charts and even more so when Philip Parker King's charts of Australia were released by the Hydrographical Office. The issues which saw Arrowsmith and Dalrymple at odds (from Dalrymple's perspective anyway) have resonance today, but those differences do not detract from the contribution both made to cartography and navigation.

APPENDIX: EVOLUTION OF THE *CHART OF THE PACIFIC OCEAN'S* DEPICTION OF AUSTRALIA

The following listing is based on the copies of the chart in the collections of the State Library of New South Wales, the National Library of Australia, the British Library in London, the Admiralty Hydrographical Office in Taunton and the Royal Geographical Society in London. Two of the nine sheets that comprise the chart depict the Australian coast and it is these alone that have been examined in describing the successive states.

The original edition is dated 1 October 1798. This version is in the Mitchell Library in Sydney (Catalogue Reference X980.01/2) and predates all others I have sighted in the other listed collections. That version is described in the text. A copy can be viewed online at the State Library's website. <http://library.sl.nsw.gov.au/record=b2391985~S2>

Between 1798 and 1810 there are at least three editions. One, that probably dates from around 1802, is in the King George III's Maritime Collection now in the British Library (British Library, Maps *980 (10)). Arrowsmith's address is given as 24 Rathbone Street, where he lived from 1802-8. This version includes 'Bass's Strait', Westernport, Hunter's Is. in Bass's Strait, Ham's Island, Bank's Strait

and the results of Flinders' circumnavigation of Tasmania in 1798. The half outline of the Furneaux Islands that was included in the original 1798 version is amended and the islands delineated. Coal River is added on the NSW east coast, today's Newcastle.

Both the National Library of Australia (<http://nla.gov.au/nla.map-t61>) and the Mitchell Library have versions that, as relates to Australia, are geographically identical to the King's Collection version. For reasons unclear they remove Mendoza Rios' portrait. They probably date from around 1805.

The British Library (Arrowsmith Maps STP) and the Royal Geographical Society (mr Pacific Ocean G.5) both have versions explicitly dated 1808, though this is not an edition listed in the 1810 and subsequent versions of the chart. Arrowsmith's address is given as 10 Soho Square. A reference to 'low flat islands' is added near Termination Point in WA. This version now refers to 'Basses Strait', includes Wilson's Promontory (by name), Port Phillip, King Island, Montague Island, and makes reference to 'Wreck Reef where the Porpoise and Cato were lost in 1803.'

The 1810 (e.g. British Library, Maps 980 (12)) version includes Twofold Bay (Bass) and refers to Barmouth River. The North Coast of Arnhem's Land is lightly drawn in, in a way that implies it remains inconclusive. There is no mention of Cape Leeuwin, (a name which dates back to 1622) and Arrowsmith does not incorporate the results of the D'Entrecasteaux expedition which were published in France around 1807 by Beautemps-Beaupre.

The 1814 version in the Admiralty Hydrographical Office Archives in Taunton contains extensive additions and amendments that reflect Flinders' circumnavigation in the *Investigator*. It includes Flinders' charting and naming of the Australian south coast, Spencer's Gulf, St Vincent Gulf, Kangaroo Island, Nuyts Archipelago etc. Bass Strait is named such and King Island is included. The Gulf of Carpentaria is now as Flinders charted it, the longitude of Cape York Shifting approximately one degree to the East from that calculated by Cook. In the west Cape Leeuwin and Point D'Entrecasteaux are named and included. One other amendment is that Arrowsmith removes a reference to the supposed location of Tryal Rocks, where, reputedly the British ship *Tryall* was wrecked in 1622. Reference to the likely location of the hazard moves from longitude 106° East, latitude 21° South to longitude 113° East.

The 1820 (Mitchell Library, MT3 910/1820/1) version does not remove the gap in the mapping of the north eastern Australian coast left by both Cook and Flinders between Cape Flattery and Cape Weymouth, even though Jefferys had by then surveyed the area. (The earliest extant Admiralty chart that does so is dated 1822.)

I have not sighted the versions which Arrowsmith(s) published between 1820 and 1832.

The 1832 edition, (British Library, Maps 980 (13)), the final version published, is a substantial transformation incorporating not only the surveys of Flinders but also of Jeffreys and Philip Parker King, most relevant to the north and north-west Australian coastline. There are copies in the Admiralty Hydrographic Office, the British Library and the Royal Geographical Society Library.

ACKNOWLEDGEMENTS

After researching this article for some years, can I belatedly record particular thanks to Guy Hannaford and his colleagues at the Admiralty Hydrographical Office in Taunton, Somerset; to Dr Martin Woods and the staff of the Map Section of the National Library in Canberra; to Maggie Patton and Andy Carr in the Mitchell Library in Sydney; and to Judith Scurlfield and Gerard Hayes at the State Library of Victoria in Melbourne. In my absence, Martin Woods very kindly agreed to read this paper at the ANZMapS Conference of held in Sydney in May 2011.

NOTES

- ¹ Henceforward referred to as the UK Archives. All the papers quoted are either found in ADM 1/3522 or ADM 1/3523.
- ² The word in the manuscript is indecipherable.
- ³ Letter dated 23 February 1808. UK Archives, Admiralty Files. ADM 1/3523.
- ⁴ Much of Dalrymple's time was devoted to negotiating the terms and conditions to sell his private charts to the Admiralty. When he wrote the letter of 23 February 1808 quoted earlier he carved out an exemption... *What I have here taken the liberty to suggest has relation to the Hydrographical Office only, and not to the Hydrographer to the Admiralty.* Dalrymple's private map collection, valued by the chart-maker William Faden after his death, included many vellum Dutch charts of the East Indies and Indian Ocean.
- ⁵ Arrowsmith dedicated his charts with "respect and esteem". In a volume he published in 1770, shedding historical light on the possibility of a Southern Continent, Dalrymple's dedication comprised a catalogue of negatives. To quote just a few: *Not to him who discovers scarcely anything but Patagonians. Not to him who from 20° south latitude thinking it impossible to go on discovery into 30° south determined to come home around the world into 50° north. Nor to him who infatuated with female blandishments, forgot for what he went abroad... but to the man who emulous of Magalhães [i.e. Magellan] and the heroes of former times, undeterred by difficulties and unswayed by pleasure, shall persist through every obstacle..., and ...establish an intercourse with a southern continent, this historical collection of former discoveries in the South Pacific Ocean, is presented by Alexander Dalrymple.* In describing the final credential, "he who was undeterred", Dalrymple undoubtedly had himself, not Cook, in mind.
- ⁶ Despite the undercurrent favouring change, the standing of private map publishers remained high. You get a glimpse of that from Flinders. He wrote in his Private Journal in May 1811 '...I went to Sir Joseph Banks and to Mr Arrowsmiths seeking for information on the early discoveries in New Holland...' Both gentlemen were friends of Flinders, and Arrowsmith was preparing the charts for Flinders' *A Voyage to Terra Australis* at the time. Nevertheless, they, rather than his employer the Admiralty and its Hydrographical Office, remained the most logical starting point for his search. That said, the Admiralty was increasingly concerned to ensure that what had been funded by the public purse became public property. When Hurd succeeded Dalrymple as Hydrographer he immediately tried to sell the Admiralty some of his earlier charts for a considerable sum. The offer was rejected; he was informed they were already public property.
- ⁷ See R.V. Tooley, 1985, p.10.
- ⁸ Identified changes of address were from Castle Street Long Acre; to Charles Street Soho Square in 1802; thence to 24 Rathbone Street; and in 1808 to 10 Soho Square. Arrowsmith tended to update the addresses on his maps more often than he changed the ostensible date of publication.
- ⁹ There was certainly contact during 1810-1814 when Flinders, Banks, and Arrowsmith were agreeing arrangements for the publication of the Atlas to accompany Flinders' *Voyage to Terra Australis*.
- ¹⁰ Flinders' Private Journal. 7 May 1811.
- ¹¹ See for example Flinders' Journal on HMS Investigator, 1801-03, v.1, p.253.
- ¹² The analysis that follows is based on an examination of all Flinders' private and official journals and all his private and public correspondence: see his Journal on HMS Investigator 1801-03, Private Journal 1803-14, Private Letters 1801-14 and Public Letters 1805-07, all accessible through the James Fairfax Matthew Flinders Electronic Archive at the State Library of NSW.
- ¹³ 5 March 1808. ADM 1/3523.
- ¹⁴ Dalrymple, 14 May 1808. ADM 1/3523.
- ¹⁵ See Ingleton, 1986, Appendix 3, p.436. Flinders' charts of the south coast of Australia, in differing stages of refinement, were sent from Port Jackson, and delivered to Dalrymple in December 1803. Another set reached the Hydrographical Office in August 1804. Large-scale original manuscript charts and plans of the south, eastern, northeastern and northern coasts, except for two, were saved from the shipwreck of the *Porpoise* and duplicate copies made. These duplicates also reached the Hydrographical Office in August 1804. Still more charts were compiled on Mauritius, and another, almost complete set of finished charts was carried by safe hand from Mauritius in May 1805 and received by the Hydrographical Office in December 1805. Flinders also sent an explanatory memoir explaining the construction of the charts. Other versions of Flinders' Torres Strait and Gulf of Carpentaria charts were taken from Mauritius to England by Flinders' manservant the following year and delivered to the Admiralty in February 1808. The story that Banks kept the 1804 chart in a chest without looking at it until Flinders returned, is an urban myth. That honour belongs to Dalrymple.
- ¹⁶ Quoted in Ingleton, 1986, p.312. By 'filled up' Flinders most likely meant filling in the gaps, i.e. adding names to all the geographic features he had discovered.
- ¹⁷ See Ingleton, 1986, p.349: and Flinders' Public Letters, 1805-07.
- ¹⁸ In the National Library's Manuscript Collection (MS 43) is a small scissors-and-paste map, with Dalrymple's handwritten annotations, to explain alternative routes to the East Indies and China.
- ¹⁹ See Ingleton, 1986, p.207.

- ²⁰ Some of the variations are not cartographic. All versions retained an elaborate dedication to 'Joseph de Mendoza Rios FRS in testimony of his [Arrowsmith's] respect and esteem.' The earliest editions included a portrait of Mendoza Rios, later removed for no clear reason.
- ²¹ One somewhat similar depiction is by Bellin (1753). However Bellin, quite explicitly, was chancing his arm with the *Terres Australes* he published in 1753.
- ²² British Library. Maps Reference Number *980 (10).
- ²³ Flinders' detailed charts of northern Australia include the name *Point Arrowsmith* but Arrowsmith was too modest to include it in his own map.
- ²⁴ The wreck of the *Tryall* was eventually found on the Monte Bello Islands some 100 km west of Rosemary Island.

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Annex 545

Ulises Granados, "Modernization and Regionalism in South China: Notes on Coastal Navigation in Guangdong Province During the Late Nineteenth and Early Twentieth Century", *International Journal of Maritime History*, Vol. XXIV, No. 1 (June 2012)

Modernization and Regionalism in South China: Notes on Coastal Navigation in Guangdong Province during the Late Nineteenth and Early Twentieth Century

Ulises Granados

Introduction

Studies on inland, coastal and bluewater navigation in China during the late Qing dynasty (1644-1911) have been framed mainly within discussions of the role of foreign companies, most based in Shanghai and Hong Kong, within the framework of the “treaty ports” system. The historiography of these economic activities also developed within the debate of how the foreign presence in China under this system evolved, developed and inhibited the growth of a robust domestic shipping sector. Most of the authors have also advanced arguments about why this sector failed to modernize in China during the late nineteenth and early twentieth century.

Some important studies have offered insights into how navigation on the Chinese littoral evolved. From the early 1950s, Liu Kwang-Ching has produced several useful studies, in addition to his contribution to the *Cambridge History of China*, which have spurred additional research.¹ He dealt not only with shipping but also with the overall efforts by the Qing bureaucracy to respond to the Western challenge by establishing “modern” companies, including arsenals and shipyards, in an early effort to industrialize. Other important studies on shipping activities during the early and mid-nineteenth century, whether about the junk trade or later steamship enterprises, have focussed on

¹Liu Kwang-Ching, “Financing a Steam-Navigation Company in China, 1861-62,” *Business History Review*, XXVIII, No. 2 (1954), 154-181; “Steamship Enterprise in Nineteenth-Century China,” *Journal of Asian Studies*, XVIII, No. 4 (1959), 435-455; “The Confucian as Patriot and Pragmatist: Li Hung-chang’s Formative Years, 1823-1866,” *Harvard Journal of Asiatic Studies*, XXX (1970), 5-45; “The Military Challenge: The North-West and the North,” in Denis Twitchett and John K. Fairbank (eds.), *The Cambridge History of China* (New York, 1980), XI, 202-273; and *Li Hongzhang ping zhuan: Zhongguo jindaihua de qi shi* (Li Hongzhang and China’s Early Modernization) (Shanghai, 1995).

International Journal of Maritime History, XXIV, No. 1 (June 2012), 89-114.

regional trade within China,² with Southeast Asia³ or more specifically on the China Merchants' Steam Navigation Company (CMSNC).⁴ Jane Kate Leonard in particular has shown how important figures such as Wei Yuan understood the Sino-Western maritime encounter and the overall nature of the debate on modernity and tradition in late Qing China, a debate that in turn may eventually have shaped the fate of the domestic shipping industry.⁵

Since the early 1980s, Chinese scholars have started to examine some aspects of the history of shipping along the Chinese coasts from various per-

²Jane Kate Leonard's work has been especially influential here; see her "Chinese Overlordship and Western Penetration in Maritime Asia: A Late Ch'ing Reappraisal of Chinese Maritime Relations," *Modern Asian Studies*, VI, No. 2 (1972), 151-174; Leonard, "Controlling from Afar: Open Communications and the Tao-Kuang Emperor's Control of Grand Canal-Grain Transport Management, 1824-26," *Modern Asian Studies*, XXII, No. 4 (1988), 665-699; *Controlling from Afar: The Daoguang Emperor's Management of the Grand Canal Crisis, 1824-1826* (Ann Arbor, 1996); and "Negotiating across the Boundaries of State Power: Organizing the 1826 Sea Transport Experiment," in Robert J. Antony and Jane Kate Leonard (eds.), *Dragons, Tigers, and Dogs: Qing Crisis Management and the Boundaries of State Power in Late Imperial China* (Ithaca, NY, 2002), 183-212.

³Jennifer Wayne Cushman, *Fields from the Sea: Chinese Junk Trade with Siam during the Late Eighteenth and Early Nineteenth Centuries* (Ithaca, NY, 1993).

⁴See, for example, Stephen McCourt, "The China Merchants' Steam Navigation Company and the Nippon Yusen Kaisha: A Company-level Analysis of China's and Japan's Contrasting Experiences with Industrialization from 1870 through World War I" (Unpublished PhD thesis, Harvard University, 2001). Also useful are a series of publications by Lai Chi-Kong, including *The Proposal to Nationalize the China Merchants' Steam Navigation Company, 1878-1881* (Davis, CA, 1988); "Li Hung-chang and Modern Enterprise The China Merchants' Company, 1872-1885," *Chinese Studies in History*, XXV, No. 1 (1991), 19-51; "The Qing State and Merchant Enterprise: The China Merchants' Company, 1872-1902" in Jane Kate Leonard and John R. Watt (eds.), *To Achieve Security and Wealth: The Qing Imperial State and the Economy, 1644-1911* (Ithaca, NY, 1992), 139-155, reprinted in Rajeswary A. Brown (ed.), *Chinese Business Enterprise: Critical Perspectives on Business and Management* (4 vols., London, 1996), IV, 98-111; "China's First Modern Corporation and the State: Officials, Merchants, and Resource Allocation in the China Merchants' Steam Navigation Company, 1872-1902," *Journal of Economic History*, LIV, No. 2 (1994), 432-434; and "China Merchants' Steam Navigation Company," in David Pong (ed.), *Encyclopedia of Modern China* (4 vols., New York, 2009), I, 213-215.

⁵Jane Kate Leonard, *Wei Yuan and China's Rediscovery of the Maritime World* (Cambridge, MA, 1984).

spectives.⁶ These studies include comparative analyses of the CMSNC and Japanese companies,⁷ the evolution of the company under particular administrators⁸ and its management system in general.⁹ Some of these works focus on

⁶See, for example, Nie Baozhang and Zhu Yingui (eds.), *Zhongguo jindai hangyunshi ziliao* (Documents on the History of Modern Navigation in China) (2 vols., Shanghai, 1983); Zhang Huoquan, *Zhaoshangju shi: Jindai bufen* (History of the China Merchants' Steam Navigation Company, Modern Period) (Beijing, 1988); Zheng Xueyi, "Wan qing zhaoshangju duiwai kaifang de lishi hanshi" ("Historic Revisionism on the Opening to the Outside World by the China Merchants' Steam Navigation Company during the late Qing"), *Beijing daxue xuebao*, VI (1992); Liu Ding, "Lunchuan zhaoshangju yu wan Qing haifang" ("The China Merchants' Steam Navigation Company and Coastal Defence during the Late Qing Dynasty"), *Sichuan ligong xueyuan xuebao*, III (2006); and Chen Xulu, Gu Tinglong, Wang Xi and Chen Jiang, *Lunchuan zhaoshang ju* (The China Merchants' Steam Navigation Company) (Shanghai, 2002).

⁷Zhang Bozhao, "Qiye jingying fangshi de jindaihua, lunchuan zhaoshangju yu riben youchuan shehui de bijiao yanjiu" ("The Modernization of Modes of Business Management: A Comparative Research of the China Merchants' Steam Navigation Company and the Nippon Yusen Kaisha"), *Zhongguo jingjishi yanjiu*, IV (1989); and Zhu Yin'gui, *Guojia ganyu jingji yu Zhong Ri jindaihua: lunchuan zhaoshangju yu Sanling, Riben youchuan huishe de bijiao yanjiu* (Economic Regulation and Modernity in China and Japan: A Comparative Research between the China Merchants' Steam Navigation Company and the Nippon Yusen Kaisha) (Beijing, 1994).

⁸Chen Jiang, "Tang Jingxing yu Lunchuan zhaoshangju" ("Tang Jingxing and the China Merchants' Steam Navigation Company"), *Jindaishi yanjiu* (1990); Zhu Yin'gui, "Cong 1885 nian sheng xuanhuai ruzhu zhaoshangju kan wan qing xinshi gongshang qiyezhong de guanshang guanxi" ("Official-Merchant Relationships in the New Business Enterprise during the Late Qing: The Case of the China Merchants' Steam Navigation Company under Sheng Xuanhuai since 1885"), *Shilin* (2008); Qin Xianghua, *Sui Yuji: wo zai zhanshangju* (Sui Yuji: My Years at the China Merchants' Steam Navigation Company) (Beijing, 2009); and Huang Pengying, "Luelun guanshang guanxi yu jindai Zhongguo qiye de fazha, yi sheng xuanhuai jingban lunchuan zhaoshangju wei shidian" ("Notes on the Official-Merchant Relationship and the Development of the Companies in Modern China: The China Merchants' Steam Navigation Company under the Management of Sheng Xuanhuai"), *Kaoshi zhokan*, LII (2011).

⁹Ji Manhong and Yan Hongzhong, "Jindai zaiqi qiye de zhili tezheng yi 1873-1911 nian de Lunchuan zhaoshangju wei li" ("Administrative Features of the Companies during the Early Modern Period: The Case of the China Merchants' Steam Navigation Company, 1873-1911"), *Jinan xuebao*, IV (2004); Zheng Yuanshan, "Lunchuan zhaoshangju" ("The China Merchants' Steam Navigation Company"), *Lishi jiaoxue*, X (1981); Li Chunmei, "Cong Lunchuan zhaoshangju kan zhongguo jindai gufenzhi de xingqi" ("The Origin of the Shareholding System in Modern China as Seen from the China Merchants' Steam Navigation Company"), *Sichuan shifan daxue xuebao* (1995);

the CMSNC's period of growth just before the first Sino-Japanese War (1894-1895). The study of the company's activities between 1872 and 1895 is particularly relevant for several reasons, especially because the CMSNC was the most important example of a domestic firm competing with foreign enterprises and because it was during this period that the company prospered under the "official supervision, merchant management" (*guangdu shang ban*) formula, an innovative management style for "modern" domestic enterprises.

An important barrier that scholars interested in the history of shipping in China during the last decades of the nineteenth century must surmount is the scarcity of primary sources. Most information on the domestic water transport of goods and people, or inter-provincial and foreign trade, whether riverine, coastal or oceanic, come from Western sources which understandably focussed on their own developments, statistics and narratives.¹⁰ Some reasons for the scarcity of sources deserve mention. First, little importance was placed in traditional Chinese culture on mercantile activities; considered at best an adjunct to agriculture, trade did not feature in detail in official histories or provincial records. Moreover, a considerable portion of Chinese water transport was handled by private junks; since much of this constituted illegal trade, there was an understandable lack of records. Some of the few sources which paid proper attention to navigational affairs in South China during the late Qing period included the Maritime Customs House of Canton (YHGZ),¹¹ the *Canton Gazetteer* (*Guangzhou fuzhi*, GZfz)¹² and the *Macau Gazetteer* (*Aomen Jilue*, AMJL).¹³ But even these sources privileged naval defence of the coastlines at the expense of the daily activities of merchants and fishermen. Of course, by the mid-nineteenth century, Bing Yan's *Maritime Records* (1820), Wei Yuan's *Illustrated Treatise on the Sea Kingdoms* (1842) and Xi Jiyu's *Brief Geography*

and Luo Suwen, "Lunchuan zhaoshangju guangdu shangbian jingying tizhi xingcheng de yuanyin ji yingxiang" ("Origins and Consequences of the Formation of the *guangdu shangbian*" (Management System in the China Merchants' Steam Navigation Company), *Shilin* (2008).

¹⁰An exception is China, Imperial Maritime Customs, *Decennial Reports on the Trade, Navigation, Industries, etc. of the Ports Open to Foreign Commerce in China and Corea (1882-1891)* (Shanghai, 1893). More representative, however, are works such as Hosea Ballou Morse, *The Trade and Administration of the Chinese Empire* (Shanghai, 1908); and Basil Lubbock, *The Opium Clippers* (Glasgow, 1933).

¹¹See Liang Tinan and Fang Dongshu, *Yue haiguan zhi* (Maritime Customs House of Canton) (Taipei, 1968).

¹²Dai Zhaochen, Shi Cheng and Li Guangting, *Guangzhou fuzhi* (Canton Gazetteer) (Guangzhou, 1879).

¹³Yin Guangren, *Aomen Jilue* (Macau Gazetteer) (Macau, 1880).

*of the Globe*¹⁴ had already dealt with the maritime realm of the Qing empire and the European presence, but these studies represented the first systematic attempts to understand the overseas “barbarians” who eventually dragged China into the First Opium War and imposed the “treaty ports” system.

From a Chinese perspective, the entire nineteenth century was the zenith of European imperialism, understood as the violent outcome of a process of economic and political expansion through overseas trade. This expansion, epitomized by the British presence at Canton and later expanded by force to several other ports, clashed with the Sinocentric Qing worldview based on tributary relations. Such a clash of cultures¹⁵ eventually led some members of the bureaucracy, amid military defeat, to propose measures to strengthen the empire and modernize the economy to better deal with the barbarians from across the sea. This was the motif behind the Self Strengthening Movement in China (1861-1895) which failed during the latter half of the nineteenth century. Much has been written about why China did not develop economically at the end of the Qing dynasty (as Meiji Japan successfully did in the late 1880s) or, more broadly, why China lagged behind the West in modernization.¹⁶ Among recent studies comparing China with Europe are those dealing with empirical and theoretical aspects of market integration,¹⁷ specific markets, exports and different paths to industrialization,¹⁸ and economic expansion in general.¹⁹

¹⁴Xu Jiyu, *Yinghuan zhilue* (Brief Geography of the Globe) (1848; reprint, Beijing, 2000).

¹⁵This clash has also been characterized as the end of the Chinese myth of universal kingship, a long-standing myth that had been ideologically constructed during successive dynasties. See Luke S.K. Kwong, “The Chinese Myth of Universal Kingship and Commissioner Lin Zexu’s Anti-Opium Campaign of 1839,” *English Historical Review*, CXXIII (2008), 1470-1503.

¹⁶See, for example, Knight Biggerstaff, “Modernization and Early Modern China,” *Journal of Asian Studies*, XXV, No. 4 (1966), 607-619.

¹⁷Carol H. Shuie and Wolfgang Keller, “Markets in China and Europe on the Eve of the Industrial Revolution,” *American Economic Review*, XCVII, No. 4 (2007), 1189-1216.

¹⁸Sucheta Mazumdar, *Sugar and Society in China: Peasants, Technology and the World Market* (Cambridge, MA, 1998); and Peter C. Perdue, “China and the World Economy: Exports, Regions, and Theories,” *Harvard Journal of Asiatic Studies*, LX, No. 1 (2000), 259-275.

¹⁹R. Bin Wong, “The Search for European Differences and Domination in the Early Modern World: A View from Asia,” *American Historical Review*, CVII, No. 2 (2002), 447-469.

As for the failure of the domestic navigation enterprise by the end of the nineteenth century, much more should be said beyond a myopic focus on the CMSNC. What alternatives were there within an industrialization-modernization framework? How did Chinese entrepreneurs (“capitalists” or “proto-capitalists”) respond to the new demands in freight and passenger transportation on inland and coastal waters? How did the junk tradition survive the advent of the steamship era? Fortunately, a more complete picture on the links among modernization, navigation, merchants and the overseas Chinese seems to be emerging. Cheong Weng Eang’s study of Guangdong merchants paints a most valuable picture of the period up to the Opium War,²⁰ while Huang’s study of Guangdong merchants during the Ming and Qing eras has successfully mapped out the evolution of many entrepreneurs well beyond the period of the Opium War. By examining genealogies (*JiaPu*), Huang has identified some Guangdong merchants and overseas Chinese during the late nineteenth and early twentieth century who were involved in shipping.²¹ Other studies have already paved the way for a discussion about whether some overseas Chinese merchants had their own response to the quest for modernization and industrialization in China at the turn of the twentieth century, including sea and river transportation.²² This research intends to use these types of questions to help trigger discussions on the issue of navigation on the South China coast.

In the first section of this essay I will present an overview of water transport, mainly coastal navigation, during the last three decades of the nineteenth century, with an emphasis on the evolution of the CMSNC, one of the most important Chinese companies to emerge as part of the Self Strengthening Movement. The second section focuses on Guangdong province and the way modern foreign steamship companies had to share the market both with the CMSNC and a plethora of other small junk fleets, traditional means of transportation that although no match for foreign vessels, nonetheless tried to adapt to the slow but inexorable dominion of the foreigners. Finally, a third section develops arguments about the role of the merchants, including wealthy overseas Chinese capitalists in Southeast Asia, in the process of the modernization of shipping, both within and without the project envisioned by the late Qing authorities.

²⁰Cheong Weng Eang, *Hong Merchants of Canton: Chinese Merchants in Sino-Western Trade, 1684-1798* (Richmond, Surrey, 1997).

²¹Huang Qichen and Pang Xinping, *Ming Qing Guangdong shangren* (Guangdong Merchants in the Ming and Qing Dynasty) (Guangzhou, 2001).

²²Wellington K.K. Chan, “Government, Merchants and Industry to 1911,” in Twitchett and Fairbank (eds.), *Cambridge History of China*, XI, 416-462; and Michael R. Godley, *The Mandarin Capitalists from Nanyang: Overseas Chinese Enterprise in the Modernization of China, 1893-1911* (London, 1981).

The CMSNC and the Need for a Modern Shipping Industry

Chinese foreign trade (as well as those institutions that sought to regulate it) was mainly the preserve of ships. Trade became intrinsically linked with power relations rationalized by the tribute that the Chinese Court expected other polities to pay as an expression of political submission to the Emperor. Trade and tribute, as John Fairbank pointed out, were elements of a single system of foreign relations.²³ Before the Opium War (1839-1842), which marked the beginning of the "treaty ports" system, seaborne trade with China entered through Fuzhou (for the Ryukyu trade), Amoy (for Sulu trade), Canton (for Siamese trade) and Fujian (for Dutch trade). The Ming authorities maintained the Superintendencies of Merchant Shipping (*Shi bo shi*), an institution which dated back to the Tang dynasty, at Canton, Quanzhou and Ningpo in order to regulate and tax foreign trade. After the Qing rulers took control of China in 1644, trade was severely inhibited in part by a prohibition on sea commerce promulgated in 1661 to deal with the Formosa rebellion. A short period (1684-1759) of openness followed, only to be reversed once again in 1760 when the government restricted all relations with Western traders to the port of Canton (Guangzhou) where the so-called "Canton System" became firmly established. Since 1685, a Superintendent of Maritime Customs (*Hoppo*) appointed by the Imperial Household Department was collecting duties in Canton by using Chinese merchants (*hongs*) as agents for business done with the West. These merchants, grouped since the late Ming into a conglomerate of brokerage firms, in 1720 became a monopolistic guild called the *Co-hong* (*kong hang*), successfully erecting a common front against both Chinese officials and foreigners.²⁴

Under the "Canton System," British and other Western ships increasingly gained the biggest share of shipping in China. Before the Opium War this system, while allowing corruption to flourish at several levels of the Chinese government, became the avenue for increasing the import of opium brought from India by private foreign merchants who by the early nineteenth century had already displaced the British East India Company. Of these foreigners, British merchants owned the most foreign ships entering Canton. The system collapsed in 1839, however, leading to an influx of foreign ships. After the Opium War, five ports (Canton, Fuzhou, Ningpo, Amoy and Shanghai) were opened to trade, and Hong Kong became a British territory. During the remaining decades of the nineteenth century, as more ports were opened to foreigners, domestic junks and motorized vessels in China became increasingly

²³John King Fairbank, *Trade and Diplomacy on the China Coast: The Opening of the Treaty Ports, 1842-1854* (Stanford, 1969), 33.

²⁴For a detailed study, see Cheong, *Hong Merchants*.

overshadowed by foreigners, most of whom by the mid-nineteenth century already owned steamships or auxiliary steamers.

Table 1
Chinese and Foreign Sea and Inland Water Transportation, 1870-1895
(motorized and non-motorized vessels)

Year	China	UK	Japan	US	France	Germ	Others	Total
1870	469	6577	--	4547	194	1304	1045	14,136
1880	7124	12,397	201	1070	128	1501	549	22,970
1890	10,603	16,897	629	155	174	2140	535	31,133
1895	13,014	19,579	108	92	266	2684	1389	37,132

Source: Nie Baozhang and Zhu Yingui (eds.), *Zhongguo jindai hangyunshi ziliao* (Documents on the History of Modern Navigation in China) (2 vols., Shanghai, 1983), II, 324-325.

Table 2
Main Flags in the Carrying Trade in China, 1864-1903 (tons)

Country	1864	1874	1884	1894	1903
UK	2,862,214	4,738,793	12,152,949	20,496,347	28,133,987
US	2,609,390	3,184,360	2,140,741	126,127	559,686
France	93,099	137,253	93,963	348,291	1,178,200
Germany	580,570	530,377	939,765	1,983,605	7,310,427
Japan	756	480	215,105	379,044	7,965,358
Norway	38,193	22,507	10,455	288,051	1,136,056
Other for.	396,673	197,784	460,197	458,290	1,106,466
China	64,588	494,237	2,993,613	5,539,246	9,911,209
Total	6,635,485	9,305,801	18,806,788	29,622,001	57,290,389

Note: China includes only those steamers and sailing vessels regulated by the Inspectorate General of Customs.

Source: Hosea Ballou Morse, *The Trade and Administration of the Chinese Empire* (Shanghai, 1908), 285.

Steamships were first introduced in China as early as 1819 on the Canton River. The initial overseas route was inaugurated by the Calcutta-built steamer *Forbes* in 1829.²⁵ Steamships quickly supplanted sailing vessels in the opium trade because they were not restricted by the arrival of the monsoon. As well, the new technology allowed merchants to ship merchandise year-round, and its speed made it well suited to the passenger trades or even to use as a

²⁵A.D. Blue, "Early Steamships in China," *Journal of the Hong Kong Branch of the Royal Asiatic Society*, XIII (1973), 42.

warship. By the end of the Opium War there were forty-eight British warships in Chinese waters, fourteen of which were propelled by steam.²⁶ American steamships quickly followed in the newly opened ports, starting with the steamship *Midas* in 1845. After the Chinese defeat in the Arrow War (1856-1860), foreign steamship transportation further consolidated.²⁷ As tables 1 and 2 show, coastal and inland transportation were largely in foreign hands, both in terms of the number of ships and their carrying capacity.

Soon after the Arrow War, the first advocates of what later became known as the Self Strengthening Movement, among them Li Hongzhang, Zuo Zongtang and Zeng Guofan, quickly started to implement policies which aimed to industrialize and modernize the economy, including plans for a domestic steamship industry. These policies were ultimately to be the responsibility of the *Zongli Yamen* (Office in Charge of Affairs of All Nations, or the Foreign Office).²⁸ Zhili Governor Li Hongzhang in particular proposed to build a modern, competitive merchant navigation company as an integral part of the programme. During the first years of the movement, its core was the adoption of Western firearms, the establishment of arsenals and navy yards and the training of personnel in new academies at home and in selected facilities abroad.²⁹ At the end of this initial stage in 1872, Li Hongzhang ordered the establishment of the CMSNC. Other "modern" enterprises included the Kaiping Coal Mine (1877), Shanghai Cotton Cloth Mill (1878) and Imperial Telegraph Administration (1881). According to Immanuel Hsu, besides military industries, "greater attention was directed to the development of profit-oriented enterprises."³⁰

The management of the CMSNC initially remained in the hands of a government-appointed official, while the start-up capital came from merchant shareholders, thus making the company the first "modern" stockholding firm in China (even though overall supervision of the company remained with government). Its first promoter-manager in 1872 was the official Zhu Qi'ang, who was succeeded in 1873 by Xu Run and Tang Jingxing (Tong King-sing), the later a former compradore of the British firm Jardine, Matheson and Co. After

²⁶*Ibid.*, 50.

²⁷Huang Yen-Yu, "Viceroy Yeh Ming-Ch'en and the Canton Episode (1856-1861), 4: The Canton Episode," *Harvard Journal of Asiatic Studies*, VI, No. 1 (1941), 94-127.

²⁸S.M. Meng, *The Tsungli Yamen: Its Organization and Functions* (Cambridge, MA, 1962), 68.

²⁹Immanuel C. Y. Hsu, *The Rise of Modern China* (New York, 1975), 350.

³⁰*Ibid.*, 352.

1884, the CMSNC was administered by Ma Jianzhong (Ma Chien-chung) and later by the official Sheng Xuanhuai. The most prominent feature of the CMSNC is that it was devised by Li Hongzhang as a firm under "government supervision and merchant management" (*guangdu shangban*). By having a manager with strong decision-making power, the role of officials was supposed to be merely to act as supervisors. But unlike foreign companies whose capital came entirely from shareholders, the Chinese government provided the CMSNC with loans and capital. In 1872-1873, the CMSNC began operations with a capital of 500,000 *taels*; three years later its total capital was raised to 2,188,036 *taels*, 685,000 of which came from loans.³¹

The new company grew in the first few years. In 1877, the CMSNC purchased the fleet of the American steamship company Russell and Co. (the Shanghai Steam Navigation Company, founded in 1862), acquiring its thirty-seven ships as well as its docks. This purchase was a reflection of the company's early success; between 1867 and 1872 the Shanghai Steam Navigation Company had enjoyed a virtual monopoly over steam traffic on the Yangtze River as well as a "dominant position on the North China line."³² The purchase enabled the CMSNC to use twenty-six of its own vessels and fifty-one acquired from British firms on the Yangtze and in the Shanghai-treaty ports.³³ This growth also allowed the company to diversify into related businesses, such as insurance – the companies Renhe Co. and Jinhe Co., merged into one firm in 1886 – and to acquire warehouses and docks as foreign firms did in the treaty ports.³⁴

Indeed, until the outbreak of the Sino-French War in 1884, the CMSNC enjoyed at least relative success in terms of the number of ships it owned and their total tonnage. Table 3 shows that the fleet grew from four ships totalling 2319 tons in 1872-1873 to twenty-six steamships with a carrying capacity of 33,376 tons in 1884.³⁵ Company vessels were even used to transport military personnel from Nanjing to Canton in 1883 amid preparations for the war against France.³⁶ Yet its presence became more important to river

³¹Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 981.

³²Liu, *Li Hongzhang ping zhuan*, 179.

³³Albert Feuerwerker, "Economic Trends in the Late Ch'ing Empire, 1870-1911," in Twitchett and Fairbank (eds.), *Cambridge History of China*, XI, 54.

³⁴Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1086.

³⁵On this growth, see Zhang, *Zhaoshangju shi*, 63.

³⁶Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 819.

transportation than to bluewater routes; during the 1880s and 1890s, the firm's river transportation rose while its share of deep-sea traffic fell.³⁷

Table 3
The CMSNC Fleet, 1872-1895 (Number of Vessels)

1872	1873	1874	1875	1876	1877	1878	1879	1880	1881	1882	1883
1	4	6	9	11	29	25	25	26	26	26	26
1884	1885	1886	1887	1888	1889	1890	1891	1892	1893	1894	1895
26	24	24	25	26	27	26	28	27	26	26	24

Source: Nie Baozhang and Zhu Yingui (eds.), *Zhongguo jindai hangyunshi ziliao* (Documents on the History of Modern Navigation in China) (2 vols., Shanghai, 1983), II, 1000.

Table 4
Tonnage on Various Routes on the Chinese Littorals, 1874-1903

	1874	1883	1893	1903
Foreign Trade	1,742,977	4,029,840	7,142,612	16,357,104
Coastal Trade	7,562,824	13,560,074	22,176,199	40,933,285
Total	9,305,801	17,589,914	29,318,811	57,290,389
Motorized Navigation	8,058,716	16,419,043	28,277,050	55,903,221
Non-motorized Navigation	1,220,085	1,170,871	1,041,761	1,360,168
Total	9,305,801	17,589,914	29,318,811	57,290,389
(Chinese Boats)	494,237	4,941,728	6,829,950	9,911,209

Source: Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 332.

The first fifteen years of the CMSNC's life reflected an attempt by Chinese officialdom to confront Western steamship dominance on Chinese routes with a modern domestic company. It was also the Chinese response to the technological revolution in which sail was replaced by steam in waterborne transport. The junk trade could not match steam's speed or cost advantages in the treaty ports. This accelerated a trend that began when foreigners first appeared in Chinese ports. As foreign vessels increased their presence, they slowly but inexorably displaced the junks not only on deep-sea routes emanating from the treaty ports but also on the more important coastal routes (see table 4). Well before the Qing dynasty, Chinese junk routes were traditionally divided into two groups. Northern Ocean boats sailed from Shanghai up to the Shangdong Peninsula, Tianjing and Liaoning, while Southern Ocean junks sailed from Shanghai along the Fujian and Guangdong coast to Taiwan, Amoy, Shantou, Canton, Hong Kong, Macau, Beihai (Pakhoi) and Hainan. Overseas routes included ports of call at Siagon, Singapore, Penang, Manila, Siam, Java

³⁷Zhang, *Zhaoshangju shi*, 161-162.

and Japanese ports. By the mid-nineteenth century, it was estimated that 1600 junks per year sailed along China's coasts, some 700 of them from Fujian and Guangdong alone.³⁸ Moreover, an uncountable number of fishing vessels anchored at Shanghai and other major ports by the outbreak of the Opium War in 1839.

Table 5
Domestic and Foreign Ships Registered at Customs, 1870-1895
(tons and number of vessels)

		China		Foreign		Total	
		Steamer	Non- Steamer (Junk)	Steamer	Non- Steamer	Steamer	Non- Steamer
1870	Tons	--	29,939	5,058,528	1,819,361	5,058,528	1,849,300
	No.	--	469	7724	5943	7724	6412
1875	Tons	811,344	60,095	7,553,137	1,443,065	8,364,481	1,503,160
	No.	1557	854	9847	4734	11,406	5588
1880	Tons	4,699,255	129,244	9,873,463	1,172,390	14,572,718	1,301,634
	No.	5335	1789	11,965	3881	17,300	5670
1885	Tons	2,109,137	134,397	14,903,793	920,850	17,012,930	1,055,247
	No.	2735	1610	15,956	3139	18,691	4749
1890	Tons	6,110,613	224,343	17,817,944	723,559	23,928,557	947,902
	No.	7657	2946	18,181	2349	25,838	5295
1895	Tons	4,965,177	254,944	23,718,231	798,726	28,683,408	1,053,670
	No.	6822	6192	21,354	2764	28,176	8956

Source: Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1302-1303.

Both in terms of the number of ships and total tonnage, the Chinese junk was increasingly relegated to interprovincial trades. By the 1860s, foreign vessels had engrossed a sizable share of the Chinese coastal trade while the proportion carried in junks began to diminish.³⁹ The number of steamships rose from 9701 in 1872 to 18,170 in 1881, while the number of junks declined from 7379 to 5017 during the same period.⁴⁰ After the opening of the first treaty ports in the 1840s, the Fujian-Taiwan route was used by only about fifty junks, a symbolic number compared with the more than one thousand that sailed this route before the Treaty of Nanking. After the Arrow War, the junk trade in Fujian province accounted only for one-third of the Chinese total. Further south, the Guangdong-Siam junk trade was severely diminished after 1874 when a treaty between France and Annam opened Haiphong to European

³⁸Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1251.

³⁹Zhang, *Zhaoshangju shi*, 8.

⁴⁰Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1307.

trade.⁴¹ The Guangdong-Singapore junk trade was also diminished; no more than a thousand junks used the route in 1844-1845.⁴² As table 5 shows, the numbers of both motorized and non-motorized ships continued to grow, but both the percentage propelled by sail (Chinese and foreign) registered at customs remained at only about one-third during the period 1870-1895. As for foreign ships, steamers had largely displaced sailing vessels by the end of the century.

It might seem that the steamship industry in China ought to have been a success, yet it was not. Why did the CMSNC, an integral part of the Self Strengthening Movement, eventually fail? We know that the Sino-French War of 1884-1885 marked the beginning of the company's decline. During the war, fearing that its vessels might be targeted by the French as enemy vessels, the CMSNC decided to operate them temporarily under the flag of a different country, in this case the American.⁴³ But neither the Sino-French War nor the first Sino-Japanese War (1894-1895) were the direct causes for the decline of this native enterprise.⁴⁴ Instead, severe structural problems eventually brought it down. Writing in the early 1950s, Miyazaki Ichisada argued that while the company was able to prosper under the close supervision of Li Hongzhang, his successors were not as capable.⁴⁵ The CMSNC was part of the overall experiment in modernization projected by Li Hongzhang and other government officials and was created under the formula of *guangdu shangban*, the second phase of management after the "government undertakings" (*guanban*) that characterized the arsenals and dockyards set up by Zeng Guofan, Zuo Zontang

⁴¹Julia T. Martínez, "Chinese Rice Trade and Shipping from the North Vietnamese Port of Haiphong," *Chinese Southern Diaspora Studies*, 1 (2007), 85.

⁴²Zhang, *Zhaoshangju shi*, 9; and Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1313.

⁴³Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1198; and Zhang, *Zhaoshangju shi*, 116.

⁴⁴In fact, the CMSNC was used by Li Hongzhang as a political tool for the Qing government with the rulers of Vietnam *vis-a-vis* the increasing presence of the French in Indochina. Before the Sino-French War the CMSNC worked as an information-gathering agency in Indochina against the French and was therefore an instrument for Chinese diplomacy. See Kazuo Ozawa, "Qingmatsu no gaiko no ichi sokumen: Sei Butsu senso to shoshokyoku" ("One Aspect of Late Qing Diplomacy: The Sino-French War and the China Merchants' Steam Navigation Company"), *Yokohama Shodaironshu*, XIII, No. 1 (1979), 73-81.

⁴⁵K.H. Kim, *Japanese Perspectives on China's Early Modernization: The Self-Strengthening Movement, 1860-1895, A Bibliographical Survey* (Ann Arbor, 1974).

and Li Hongzhang. The *guandu shangban* was eventually eclipsed during a third phase (1885-1895) of the Self Strengthening Movement by two types of mercantile enterprises, namely "joint government and merchant enterprises" (*guanshang heban*) and some "private enterprises" (*shangban*).

Emmanuel Hsu has pointed out that all companies created during the Self Strengthening Movement were at best "superficial attempts at modernization" and suffered from a lack of capital, limited vision, lack of coordination and strong opposition from conservatives within the Court. Moreover, Li Hongzhang's companies were secondary to his real intention, which was to modernize the country by strengthening the military through the construction of arsenals and building a modern army and navy. Indeed, he contends that the CMSNC was more important to Li as a means of acquiring foreign vessels than it was as a shipping company. In 1880-1881, Li began to plan for the construction of several battleships; the funds were to come from several existing projects, including the CMSNC.⁴⁶

As for de-capitalization and lack of investment, table 3 showed that little tonnage was added to the fleet after 1877; the CMSNC was unable to maintain profits and attract new investors even after it decided to enter into an innovative agreement with its main foreign rivals, Jardine, Matheson and Butterfield and Swire.⁴⁷ Liu has noted that between 1886 and 1893, CMSNC's net profits remaining for reinvestment (after deducting interest, dividends and loan payments) was a mere 14.9 percent compared to the lucrative 27.5 percent for the period 1877-1883.⁴⁸

The decline of the CMSNC can also be attributed to a growing disenchantment among merchants with government-sponsored projects, particularly by the end of the century when the company was increasingly treated as a source of revenue for other projects. In fact, the CMSNC, like the Kaiping Mining Company and the Shanghai Cotton Cloth Mill, suffered from some managerial malpractices and was plagued by financial irregularities. In 1891, and again in 1896, its manager, Sheng Xuanhuaim transferred a total of 1,200,000 *taels* to other companies without consulting his mercantile investors.⁴⁹ Indeed, these practices could only be regulated to a limited extent until

⁴⁶Liu, "The Military Challenge," 248.

⁴⁷This agreement, reached in 1882, set forth uniform freight rates and pooled earnings which were to be divided according to each company's route mileage; see Chen, Gu, Wang and Chen, *Lunchuan zhaoshang ju*, 111-114.

⁴⁸Liu, "Steamship Enterprise," 450.

⁴⁹Chan, "Government, Merchants and Industry to 1911," 429.

the promulgation of the General Rules for Merchants and the Company Law in 1904.⁵⁰

Navigation in Guangdong Province

The privileged geographical position of Guangdong's main ports and rivers, and their location on the north shore of the South China Sea, close to the British territory of Hong Kong, facilitated shipping between China and Europe, Japan, Southeast Asia and the US. By 1904, the province's treaty ports included Shantou (Swatow), Guangzhou (Canton), Sansui (Samshui), Jiang Men (Kongmoon), Jiongzhou (Kiungchow) and Beihai (Pakhoi); its anchorages also included two customs stations (Kowloon and Lappa), and two ceded and one leased territory – Hong Kong, Macau and Guangzhouguan (Kwangchowkwan). Canton became one of the most important ports for trade (see table 6). By the early nineteenth century, well-established foreign shipping lines from Guangdong to Europe through South East Asia, Japan and the US included the Indo-China S.N. Co. (from Jardine and Matheson Co.); the China and Japan SS Co.; the Labuan Coal Co.; the Spanish Mail Steamers between Manila, Singapore and Olano; the China Sea, Saigon and Straits S.N. Co. Ltd.; Larrineaga's Spanish Steamers; the China and Manila Steamship Co. Ltd.; the Hongkong and Canton Steam Packet Co.; Peninsular and Oriental (P&O); Service Maritime des Messageries Imperials; the Ocean Steam Ship Co.; the China Coast S.N. Co.; the Hong Kong, Canton and Macao Steamboat Co. (from Butterfield and Swire Co.); the Shanghai Steam Navigation Co. (from Russell and Co.); and the Douglas Steamship Co. Ltd.⁵¹

Table 6
Guangzhou's Imports and Exports, 1860-1904 (*taels*)

Year	Import	Export	Total
1860	13,061,230	11,516,815	24,578,045
1864	2,393,085	9,860,220	12,253,305
1874	6,626,441	16,287,633	12,914,074
1884	11,886,781	13,853,243	25,740,024
1894	27,385,876	18,031,721	45,417,597
1904	52,885,637	43,361,439	96,247,076

Source: Morse, *Trade and Administration*, 255.

⁵⁰William C. Kirby, "China Unincorporated: Company Law and Business Enterprise in Twentieth-Century China," *Journal of Asian Studies*, LIV, No. 1 (1995), 43-63.

⁵¹Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 281-320 and 526.

Despite all these foreign companies, the CMSNC launched its own routes from Guangdong right after its founding in 1872. Three years later, the company set up a General Office for Guangdong, Fujian and the Nanyang (*Yenmin nanyang zongji juwu*). It also established a regional bureau at Canton. The merchant Tang Yingxing was appointed to the Canton office, Chen Fanan to the Hong Kong office and Zheng Yongchuang to the Shantou office.⁵²

Before – and after – the creation of the CMSNC, foreign companies dominated Guangdong's trade and shipping, and the opening of new treaty ports strengthened this domination. Butterfield and Swire, as well as Jardine and Matheson, had established solid webs of related companies and activities including insurance and wharfage. In particular, Jardine and Matheson's shipping-related businesses stretched from Shanghai to Hong Kong and Macao and included insurance, real estate, tramways, mining, sugar refining and lumbering.⁵³

By the late 1860s, partly as a result of the Treaty of Tianjin (1858) which opened the Yangtze to foreign navigation, river and ocean shipping was dominated by steamers rather than Chinese junks. By the end of the Arrow War in 1860 the same tendency was increasingly evident in Guangdong. Not only did steam displace sail, but iron-hulled ships were increasingly displacing wooden-built vessels. Between 1869 and 1878, for example, the number of wooden vessels declined from 291 to 145, while ocean-going and river steamships increased from 1181 to 1573.⁵⁴

In Guangdong province, the CMSNC had to compete for market share against a plethora of foreign companies. After the CMSNC acquired Russell and Co.'s fleet in 1877, it had to compete mainly against Jardine and Matheson and Butterfield and Swire, two firms that by 1867 had agreed with Russell and Co. that the latter would not sail on the Southern Ocean routes (from Shanghai to Canton and Hong Kong) or on the short coastal route between Hong Kong and Macau.⁵⁵ The CMSNC inherited these restrictions.

During its first years of life in Guangdong province, the CMSNC had to compete virtually alone with few opportunities for joint ventures. It was not until 1878 that the company successfully reached an agreement with Siemmsen and Co. – the agent for Ocean Steamships – to transport merchandise in Guangdong.⁵⁶ By 1880, the company again started to struggle for market share

⁵²*Ibid.*, II, 842.

⁵³*Ibid.*, II, 503-506.

⁵⁴*Ibid.*, II, 385; and *Decennial Reports*, 1878.

⁵⁵Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, 1181-1182.

⁵⁶Zhang, *Zhaoshangju shi*, 112.

on those routes served by the Indo-China S.N. Co. (from Jardine and Matheson), as well as against the China Steam Navigation Co. (from Butterfield and Swire) and the Hong Kong, Canton and Macao Steamboat Co. (also from Butterfield Swire).⁵⁷ The CMSNC's routes included the Shantou-Hong Kong-Canton and Shanghai-Luzon (early in 1873); Shantou-Singapore route (1874); Shantou-Xiamen, Shantou-Macau and Hong Kong-Haikou (1878); and Haikou-Haiphong (1881).⁵⁸ In Haiphong, the CMSNC ships transporting rice even used British flags to circumvent Vietnamese government prohibitions on rice exports.⁵⁹

The CMSNC also planned to participate on the Hong Kong-Singapore and Hong Kong-Siam routes. By 1880, the largest share in these trades was in the hands of foreign vessels and to a lesser extent small Chinese junks, so the CMSNC that same year explored the possibility of raising capital from Guangdong investors to enable it to compete. For the Guangdong-Siam route, Li Hongzhang reported that a total of twenty-eight Chinese investors had pledged 50,000 *taels*. As for the Hong Kong-Singapore route, the company seemed to have identified the year before a total of thirty-eight investors who pledged about 65,000 *taels*.⁶⁰ Before the Sino-French War, the CMSNC's plans for expansion overseas also included the Hong Kong-Manila route.

The CMSNC's capital assets in Guangdong and Shantou, however, fell far behind those it had in Shanghai or Tianjin. It remained that way until 1892 when the company purchased a few piers in Hong Kong and Shantou through investments totalling 54,000 and 6000 *taels* each. Improvements included the construction of warehouses in Hong Kong and Shantou at a total cost of 34,000 *taels*. In comparison, foreign firms, in particular Jardine and Matheson, had already set up a total of fourteen installations to build and repair ships as well as store cargo in Canton and Shantou alone.⁶¹ As for overseas routes, by 1884 docks and warehouses were administered by the CMSNC

⁵⁷In 1884 these two companies from Butterfield and Swire agreed to consolidate their positions through joint ventures.

⁵⁸Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1096; and Zhang, *Zhaoshangju shi*, 60.

⁵⁹Martínez, "Chinese Rice Trade," 86.

⁶⁰Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, 984-985 and 987-988.

⁶¹Jiang Zulu and Fang Zhiqin, *Jianming Guangdong shi* (A Concise History of Guangdong) (Taishan, 1993), 459.

in places such as Nagasaki, Yokohama, Kobe, Singapore, Penang, Annam and Luzon, a total of nineteen cities.⁶²

While the CMSNC fell behind foreign firms, the junk trades slowly withered as well. By the late nineteenth century, the days were long gone when fine Siam-built, Chuanzhou-type "white-head vessels" sailed on the Eastern side of the province.⁶³ Besides cargo boats, mini-junk sampans (also used for fishing), and wheel boats (for passengers, mainly used in inland waterways and for coastal trips),⁶⁴ there were five main types of native sea-going junks: Lor-chas, Toumeng, Haibo, Hongtou and Qingtou.⁶⁵ The main trades with Vietnam were on the *Ya Zai*, a wood-rattan type of small junk.⁶⁶ By the late nineteenth century, the investment needed by the owner of a junk in Guangdong might have fluctuated between 3000 and 8000 *taels* per trip with returns of no more than eight percent. Together with losses as high as seventy-five percent for large junks, and less than ten percent in profits for small junks, their freight service proved unprofitable for many items.⁶⁷

The junk trade in Guangdong had been regulated at ports mainly through licences issued by the regional authorities. A general revision of these regulations was ordered under the Governorship of Liangguang, Rui Lin (1865-1874), whereby the owner of the junk, its crew, dimension and capacity of the vessel, number of masts, and ammunition on board, among other things, had to be promptly declared.⁶⁸ Owner of junks had their licenses renewed every five years by the district magistrates (from *ting*, *zhou* or *xian*) where the junk was built. Sailing licenses were divided in two, the so-called "junk papers" (*zhao chuan*) and certificates issued by the authorities in response to a formal petition.⁶⁹ It is almost certain that such a strict regulation (at least on

⁶²Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1091.

⁶³Lubbock, *Opium Clippers*, 295; and Ivon A. Donnelly, *Chinese Junks and Other Native Crafts* (Shanghai, 1924; reprint, Hong Kong, 2008), 133-135.

⁶⁴By about 1880, paddlewheelers were used as passenger boats on short river routes, including commercial ones connecting Canton, Xiangshan (Zhongshan) and Huizhou; see Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1320-1321.

⁶⁵For more details, see Dai, Shi and Li, *Guangzhou fuzhi*, j. 74, 23b-25a.

⁶⁶Zhang, *Zhaoshangju shi*, 101-103.

⁶⁷*Decennial Reports* 1893, Shantou, 534.

⁶⁸The general regulations are contained in Dai, Shi and Li, *Guangzhou fuzhi*, j. 74, 13a-23a.

⁶⁹*Decennial Reports*, 1893, Lappa, 612-616.

paper) of junk activities was meant to guard against the possibility of junk owners, pilots or crew turn to piracy, particularly because Guangdong was still an area where there were remnants of the Taiping rebellion (1851-1864); the local government decided to increase measures to crush rebel movements in the province.⁷⁰ Further regulations were based on a *baojia*-like system of mutual supervision⁷¹ and tax collection whereby ten registered junks were organized into a ward (*jia*) under the leadership of a head. Ten wards became a station group (*ao*). Fishing vessels, small in size compared with the trade junks, were organized in ten pairs of boats (twenty units) as a *jia*.⁷²

The insurance system used by the junk owners remained very rudimentary. Basically, a group of four merchants agreed to load the junk and share losses incurred during the trip; thus, the whole group shared the potential losses of the entire fleet. Because loans extended for the purchase of merchandise were not recovered should the goods be lost at sea, it was agreed to charge an interest rate of between 1.5 and three percent on these loans as guarantees. In Guangzhou, it is known that cargo was insured with a Chinese company called Lien Hui Insurance Co. (*lianhui baoxian gongsi*).⁷³

Guangdong Merchants and the Limits of the Sea Transport Industry

At this point it is reasonable to ask whether capital was invested in similar projects in order to develop a modern shipping industry in South China. In the preceding section it became clear that the CMSNC did not develop as a national project to replace the increasingly unprofitable junk trade. But it is a safe guess that capital was invested elsewhere insofar as shipping was an indispensable part of the distribution process. According to estimates by Huang, Guangdong merchants continued during the Guangxu reign (1875-1908) to trade a wide range of products, such as cotton, oil, medical herbs, cow leather, bamboo and livestock, some of which was shipped mainly to Canton along inter-provincial sea routes. Foreign products entering Canton via Hong Kong and Macau included rice from Thailand and Vietnam, gold from Portugal, wheat flour, dry fish, clothing and many other Western products from South-

⁷⁰Zhao Erxun, *Qing Shi Gao* (The Draft History of Qing) (4 vols., Beijing, 1997), j. 388, 1170.

⁷¹During the early 1800s, the same system – then envisioned as a local self-defense militia – was implemented in order to confront rampant piracy on its coasts. See Robert J. Antony, “State, Community, and Pirate Suppression in Guangdong Province, 1809-1810,” *Late Imperial China*, XXVII, No. 1 (2006), 10 and 12.

⁷²*Decennial Reports 1893*, Shantou, 534, and Lappa, 598.

⁷³*Ibid.*, Shantou, 534, and Canton, 571.

east Asia, the US and Europe.⁷⁴ If Chinese merchants withdrew from the transport sector, they nonetheless remained central elements in a complex trading system. Chinese merchants eventually did try to adapt and modify their traditional junk transportation activities into profitable alternatives to the extent possible. Here several aspects deserve our attention.

The first is adaptation to the new technologies. Efforts were made to use steam power in small enterprises through buying and leasing steam engines and steamships, actions which immediately caught the attention of central and local authorities. As a response to the fact that Chinese merchants were purchasing small steam-powered ships, the Chinese government in 1867 issued detailed rules to regulate such activities.⁷⁵ These rules were designed for investors who wanted to buy or lease Western-style, steam-propelled ships for trading. Under the new rules, the Supervisory *Yamen* and the Commissioner of Customs (*shui wu si*) were ordered to oversee all transactions. In 1884, another set of regulations was issued for those Chinese merchants who wanted to build and use steam-propelled ships.⁷⁶ Both in Shanghai and all of Guangdong province, these regulations opened the door for small Chinese companies to make incursions into the inland waterborne transport system with government licenses. Still, such legislation had only a minor impact on the transportation industry: no private trade or transport of passengers was allowed; only government-sanctioned trade was permitted. There was also a strict official supervision of purchases of these kind of ships, possibly to discourage foreigners from colluding with locals in fraudulent Chinese companies. This supervision began with the *Zongli Yamen* and spiralled downward, often in cooperation with the British consulates where the purchases of foreign vessels had to be registered.

Chinese merchants also tried to adapt their business strategies to fall somewhere between the strict government regulations imposed on this activity and the advantages that steam power offered. In the case of passenger carriage, steam launches began to be used in 1887 in the Canton area for towing craft on the waterways in the delta. Such an irregular activity, then in violation of the rules for foreign vessels, was later regularized by the government of Governor Zhang Zhidong through the issuance of annual, renewable licences approved with several restrictions.⁷⁷

⁷⁴Huang and Pang, *Ming Qing Guangdong shangren*, 110-111.

⁷⁵Liu, "Confucian," 40.

⁷⁶Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1368-1372.

⁷⁷*Decennial Reports*, 1893, Canton, 572.

Second is the relevance of the *guanxi* and *pang* connections in this enterprise both within China and among the Chinese diaspora. Local and overseas merchants profited from dialectical lineages, *pang*-like relations to advance in the transportation business. *Pang* organization, based on the same dialect of its members, represented the basic model of socio-economic organization of the Guangdong Chinese men within and outside the province. From 1870, Cantonese-*pang* merchants were particularly active in trading activities in Japan, Thailand, Manila, California, Singapore and Vietnam; Chaozhou-*pang* merchants were actively involved in trade in Singapore, Vietnam, India and the Malay Peninsula, while Hakka-*pang* merchants dealt mainly with Malaysia, Java and Batavia.⁷⁸ The growth of this powerful Chinese diaspora became the other side of the coin of the huge numbers in that unspecialized workforce (coolies) that migrated mainly from southern China. Both Chinese merchants and coolies overseas, particularly in Southeast Asia, came to the attention of Guangdong and the central government for being subject to discrimination in European, Japanese and US territories.

In Southeast Asia in particular, some Chinese merchants successfully profited from the transportation industry. The most evident case is that of Thio Thiau Siat (Chang Pi Shih), who built a prosperous shipping business in the Dutch East Indies and had an important share in the transport of goods there. As a successful Cantonese businessman, Thio Thiau Siat in 1904 was appointed vice-president of the newly created Board of Trade, as well as Imperial Commissioner Investigating Commerce in Foreign Ports and concurrently Superintendent of Agriculture, Industry, Railroads and Mining in Fujian and Guangdong. He became the most notorious example of the successful merchant invited by the Chinese Court to restructure the economy of the agonizing last dynasty through overseas Chinese capital.

The *pang* identification among Chinese merchants was an important element inside as well as outside China. During the profitable years of the CMSNC, a freight-brokerage system with the support of the Cantonese guild in Shanghai – the Kwong Siew Association (Guang-Zhao Hui Guan) – functioned as its base of administration; by the 1870s, the company even operated services between Shanghai and Nagasaki to supply Cantonese merchants trading with Japan.⁷⁹ It is equally important to stress that the Guangdong merchants' connection in steam shipping was present both *within* and *outside* the CMSNC structure. Respected Chinese merchants during the late nineteenth century came from Guangdong and started their activities either in the province

⁷⁸Huang and Pang, *Ming Qing Guangdong shangren*, 136-142 and 147-150.

⁷⁹Liu, "Steamship Enterprise," 442-443.

or in Hong Kong with foreign companies, as did former CMSNC managers Tong King-sing, Xu Run and Tang Jingxing.⁸⁰

It is important not to forget, however, that for the shipping industry, Guangdong merchants continued to prefer foreign companies offering inland, coastal and overseas services for some basic economic reasons. Compared with sailing junks, foreign steam shipping was faster, easier to insure and its goods paid lower tariffs in ports. Trading or fishing with junks meant more taxes: Chinese junks had to pay several taxes, both civil and military.⁸¹

In other Southeast Asian countries where the junk trade previously flourished, Chinese participation by the end of the nineteenth century was limited to activities other than transport, which increasingly was in foreign hands. By 1870, the Chinese junk trade had ceased to the Philippines, while from 1880 Spanish vessels trading in Amoy were also displaced by British-owned steamships. In this Spanish colony, Chinese merchants preferred to use several Western-style institutions such as marine insurance agencies and Chinese-owned banks instead of investing directly in the transportation of goods and people.⁸²

There were some exceptional cases where entrepreneurs in China decided to start their own transport business. These few cases might be considered incipient efforts by local merchants to develop this business in spite of the adverse conditions. In Guangdong, Kwok A. Cheang (Guo Ganzhang) in the 1870s operated his own fleet of thirteen steamships.⁸³ Covering the regional Hong Kong-Haikou-Haiphong route, his venture could even compete with the Hong Kong, Canton and Macao Steam Boat Co. on the Macau-Hong Kong route (particularly in the nightly ferry service from 1874). Other examples include a small Chinese firm in 1873 which tried to enter the passenger transportation business on the Hong Kong-Kowloon route; another small company on the Canton-Foshan route in 1873 (soon to fail for lack of capital); and a third Chinese firm in the Canton-Hong Kong service competing with Butterfield and Swire's steamships.⁸⁴ Several other merchants even dared to enter ship trading, men such as Huang Shichu who during the Daoguang (1820-1850) period engaged in the sale of "Guangdong ships" for a period of twelve years. Other proto-capitalists included Nanhai merchant Liang Ding-

⁸⁰Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 857-870.

⁸¹*Ibid.*, II, 1289; and Liang and Fang, *Yue haiguan zhi*, j. 11, 1a-22a.

⁸²Edgar Wickberg, *The Chinese in Philippine Life, 1850-1898* (Manila, 2000), 84 and 87.

⁸³Nie and Zhu (eds.), *Zhongguo jindai hangyunshi ziliao*, II, 1355.

⁸⁴*Ibid.*, II, 1403.

song, who profited from the trade in junk ships that were later used along the Guangdong-Tianjin coastal route during the late Qing era.⁸⁵

As has become evident, the problem of investment and the lack of capital remained the most urgent issues, things that promptly caught the attention of the Chinese merchant community overseas. But political instability, foreign intervention and corruption in China were among the main obstacles to the full involvement of the overseas Chinese, not only in shipping but also in the Chinese economy in general. Since the late 1880s, merchants came to distrust official intervention in *guanban shangban* enterprises and were increasingly reluctant to invest in them.

Despite all this, there were some proposals to invest in the shipping sector. According to Lin Derong, during the period 1862-1895, one overseas *huaqiao* investor originally from Guangdong with a capital of 200,000 *taels* engaged in sea transportation. Later, in the period 1895-1911, two Guangdong *huaqiao* investors participated in this enterprise, raising a sum of 16,292,500 *taels* in capital.⁸⁶ Similar histories of overseas Chinese or Chinese descendants investing in shipping in Southeast Asia included the above-mentioned powerful merchant Thio Thiau Siat – who became Chinese consul in Singapore in 1895 – and Oei Tiong Ham in the Dutch Indies. The Chinese government, interested by the end of the nineteenth century in protecting the overseas Chinese communities in colonial territories such as Singapore,⁸⁷ also intended to encourage investments among the Chinese overseas community to finance the steamship industry in Guangdong.⁸⁸ According to Michael Godley, the Board of Post and Communications proposed to send an official to Singapore in 1907 to sell shares in a Guangdong shipping company. In 1908, other overseas Chinese-

⁸⁵Huang and Pang, *Ming Qing Guangdong shangren*, 88.

⁸⁶Lin Derong, *Xiyang hanglu yimin* (Migration along the Western Ocean Routes) (Nanchang, 2006), 274.

⁸⁷In 1885 and 1887, Lianguang governor Zhang Zhidong petitioned the Court to send ships to several points in Southeast Asia (Nanyang), as well as to make preparations for detailed surveys of local socio-economical conditions in colonial territories in order to protect the overseas Chinese community. See Zhongguo diyi lishi dangangan bian, *Qingdai Zhongguo yu Dongnanya geguo guanxi dangan shiliao huibian* (Compilation of Historical Records on Relations between Qing China and Southeast Asian countries, vol. 1: Singapore) (Beijing, 1998), files 14, 17, 23 and 30.

⁸⁸The other aspect of these efforts of capitalization was the need to build a new post-Sino-French War navy. Lianguang Governor Zhang Zhidong suggested the need for overseas Chinese in Southeast Asia and the Western hemisphere to contribute funds for the navy. See Michael R. Godley, "The Late Ch'ing Courtship of the Chinese in Southeast Asia," *Journal of Asian Studies*, XXXIV, No. 2 (1975), 366.

backed merchant companies were proposed, including the so-called Sino-Siamese Mail Steamship Company.⁸⁹

Final Considerations

During the second half of the nineteenth century, the world's shipping industry experienced a radical transition from wind to steam power. By the beginning of the twentieth century, diesel-powered engines completed the cycle of technological transformation. Such changes had important implications for China, where a long tradition of junk transport faded away at the hands of foreign companies which offered faster, cheaper trade all year around. Moreover, this technological change unfolded in China during the height of foreign imperialism characterized by intensive industrialization.

The history of the development of steam transportation, the decline of the junk trade and the new opportunities that these brought about in fact reflect the way China confronted its quest for modernization and industrialization in a period marked by internal and external military threats. Unfortunately, in late nineteenth-century China, "modern" steam-powered transport, as an integral part of commercial activities, did not receive the same amount of attention paid to the quest for industrialization by those in charge of the Self Strengthening Movement. As Wellington K. Chan has noted, modernization was envisioned at the Qing Court mainly as synonymous with industrialization, and commercial activities, including foreign trade, "could at best play a supporting role."⁹⁰ The failure of the CMSNC had much to do with the lack of interest by merchants in investing in a commercial company where investors were not properly protected against government intervention in case of disputes, liabilities or bankruptcy. Moreover, as Michael Godley reminds us, the *guangdu shangban* companies of the Self Strengthening Movement did not in essence transform the Chinese economy. It is safe to say that those experiments were insufficient, not backed with a sufficient infrastructure and eventually unable to challenge foreign firms. Godley underscores the fact that capital and technical skills were in short supply, rivalries frequent and foreign competition unbeatable. Above all, he continues, "self-strengthening surely provided a poor rationalization for fundamental change."⁹¹

As for the new paths which domestic navigation took – or should have taken – in China, it is imperative to bring the topics of regionalism versus centralism together with that of overseas merchants as an economic force into the

⁸⁹Godley, *Mandarin Capitalists*, 131.

⁹⁰Chan, "Government, Merchants and Industry to 1911," 418.

⁹¹Godley, *Mandarin Capitalists*, 179.

discussion of why there was not enough investment in transportation, especially in shipping. Region, as opposed to nation, should be understood as supranational (China-Southeast Asia) as much as provincial (Guangdong). It is important to note that at the provincial level, some efforts were made to create a local shipbuilding industry, emulating the model devised nationally during the Self Strengthening Movement, even though the military aspect of this "modernization" was overwhelming.⁹² In Guangdong province, the Guangzhou Mills Bureau was created early in 1873; three years later, its first docks were purchased at Huangpu to build the Bureau's shipyard. In 1880, the first small gunboats (*wenzi chuan-paochuan*) were built for use in inland river patrols.⁹³ Even though the technology to build these vessels could have been used for a merchant fleet, in fact the shipyard was focussed on providing military vessels, responding to Governor Zhang Zhidong's overall interest in developing first a shallow-water defence fleet.⁹⁴ Eventually, as with the CMSNC, the shipyard's financial problems began after the outbreak of the Sino-French War in 1885.

These regional dimensions were also clearly understood by the Chinese economic elite living abroad. They recognized quickly that the expansion of foreign steamers into China and migration from China to Southeast Asia had become, as Bin Wong reminds us, part of a global process of economic integration of regions, continents and oceans.⁹⁵ And they recognized too that industrial and economic development in general, if achievable in China, must remain at the provincial level. By the early twentieth century, the powerful merchant Thio Thiau Siat, addressing the Empress Dowager Ci Xi, reminded her that the scheme for the modernization of Chinese commerce should begin in Fujian and Guangdong with overseas Chinese support. He wrote that "we must recruit Chinese merchants in foreign ports to maintain commercial affairs. In order to make commerce flourish, we must begin in Fukien, Kwangtung, and other provinces."⁹⁶

⁹²Between 1881 and 1885, Li Hongzhang ordered the transference to the Guangdong fleet of a total of twenty vessels, most of them small craft used against piracy in the coast and inland waterways; Zhang Wei and Fang Kun, *Zhongguo haijiang tongshi* (A Complete History of China's Coastal Areas and Territorial Seas) (Zhengzhou, 2003, 371).

⁹³Jiang and Fang, *Jianming Guangdong shi*, 518.

⁹⁴Thomas L. Kennedy, "Chang Chi-Tung and the Struggle for Strategic Industrialization: The Establishment of the Hanyang Arsenal, 1884-1895," *Harvard Journal of Asiatic Studies*, XXXIII (1973), 159.

⁹⁵Wong, "Search for European Differences," 467-468.

⁹⁶Quoted in Godley, *Mandarin Capitalists*, 113.

Final thoughts might well lead us to further research into the origins of the modern shipping industry in China. Could entrepreneurship in shipping have been capable of modernizing without official sponsorship through massive levels of investment from a regional and diaspora base? Regardless of the fact that domestic transport entrepreneurs had to compete with foreign firms, there was the bureaucracy looming over the whole economy. And this bureaucracy seemed to have so much power over the private merchant – domestic or overseas – that the latter was unable to develop independent economic projects. Wellington K. Chan argues that officialdom in China at the end of the nineteenth century played new roles in the economic sphere: “with industrial development as the goal, these officials assumed successive new roles: first supervisors, then managers, then investors, and finally, for some, official-entrepreneurs.”⁹⁷ Among other important obstacles, particularly for small firms, is that there was no “modern” commercial legal code to protect their economic activities. Only since 1904, with the promulgation of the Company Law, was the first step laid for Chinese merchants to acquire some level of certainty as investors or shareholders. Were it not for the political chaos amid the collapse of the Qing dynasty in 1911, a shipping industry in China may have developed with investment from both domestic entrepreneurs and the overseas Chinese community.

⁹⁷Chan, “Government, Merchants and Industry to 1911,” 419.

Annex 546

Lo Jung-pang, *China as a Sea Power 1127-1368: A Preliminary Survey of the Maritime Expansion and Naval Exploits of the Chinese People During the Southern Song and Yuan Periods* (2012)

China as a Sea Power 1127–1368

*A Preliminary Survey of the
Maritime Expansion and Naval Exploits of the
Chinese People During the Southern Song and Yuan Periods*

Lo Jung-pang
Seattle, 1957

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CHAPTER 9

Yuan Naval Campaigns to the South

The extension of Mongol power southward into Indochina was undertaken about the same time as the khans consolidated their domination of the Korean peninsula and began to look across the sea towards Japan. In the winter of 1257–8, as part of their operations on the perimeter of the Song empire, a Mongol force penetrated into Tongking from Yunnan. The advance guard led by Aju, son of the Mongol commander Urianqadai, scored a decisive victory over the Annamites by defeating their fleet on one of the tributaries of the Red River and forcing their king, Tran Nhut-canh 陳日煚, to flee to the sanctuary of an island in the sea.¹

After long drawn out negotiations, Annam agreed in 1266 to acknowledge the overlordship of the Mongol emperor, but in the following year, when the Mongols gave the Annamese government the “Six Duties” (*liu shih* 六事) of a vassal state, the Annamites again shied away. These “Six Duties,” similar to those that were given in the same year to the Koreans, were as follows: (1) the rulers of the vassal state must personally proceed to the khan’s court to pay homage, (2) they must leave their sons or brothers as hostage, (3) they must submit a census of the population of their state, (4) they must supply troops and provisions to the khan’s army, (5) they must hand over records of their revenue, and (6) they must permit the stationing of a *darughachi* (resident general) with authority over their administration.²

The Annamites refused to accept these terms. The Mongols, preoccupied with their war against Song, could not coerce the Annamites to accept them and had to be content with their nominal acknowledgment of vassalage. As soon as they defeated the Song, however, the newly established

¹ *Yuan Shi*, ch. 209, p. 1.

² *Ibid.*, p. 2.

Yuan dynasty turned its attention toward the south, particularly to Champa and Annam.

The Mongol Invasion of Southeast Asia

With the fall of the Song capital at Hangzhou in 1276, the khan and his court once more turned their eyes to the south, this time to the small Indian state of Champa. An army commander in Guangxi wrote to the court that the defenses of Champa were so weak that he could conquer the country with three thousand foot soldiers and three hundred cavalymen, and navigators told the court that Champa could be easily reached in one day's sailing from the island of Hainan.³ The court of Qubilai Qan was also interested in Champa because, by its geographical location, it dominated the sea lanes between China and the states of Southeast and South Asia.

But Sogatu, who was then governor of Fujian, memorialized the court that there was no need for the use of arms and that, since the Cham king, Indravarman VI,⁴ had shown indications of desiring to enter into relations with the new government in China, the submission of Champa might be achieved by diplomacy. The Yuan court therefore, early in 1280, dispatched Sogatu, Meng Ch'ing-yuan 孟慶元, and Sun Sheng-fu 孫勝夫 to confer the title of king of Champa on Indravarman.⁵ Thereafter, the Yuan government began to call upon Champa to fulfill its obligation as a vassal as, for example, when the ship of the Yuan envoy to Malaya was damaged, Champa was asked to provide another vessel,⁶ and political prisoners were exiled to Champa.⁷

The first campaign against Japan occupied the attention of Qubilai Qan, but almost immediately after the news of the destruction of the Yuan fleet off the rocky shores of Kyushu, he turned his attention to the south, probably in an effort to retrieve his prestige. Advancing one step, he decided to make Champa into a province of China so that it could be used as a base for his expeditions to the Southern Sea. On 29 November 1281, he issued a decree creating the Ambulatory Department of Champa (*Chan-ch'eng Hsing-sheng* 占城行省) with Sogatu as the minister of the right, Liu Shen 劉深

³ Ibid., p. 4.

⁴ Yamamoto Tatsuuro, *Annanshi Kenkyu*, Vol. 1 (Tokyo: Yamakawa Shuppansha, 1950), p. 106.

⁵ *Yuan Shi*, ch. 209, p. 4.

⁶ Ibid., ch. 11, p. 10.

⁷ Ibid., p. 13.

as minister of the left, and Yiqmis 也黑迷失 as councilor. Indravarman VI was confirmed as the king of Champa.⁸ On the following day, 30 November, he issued an edict ordering the mobilization of a hundred sea-going ships and ten thousand men, consisting of official Yuan forces, units of the Newly Attached Army (former Song troops), as well as sailors “for expeditions against foreign states beyond the sea scheduled for the first month of the following year (10 February–10 March 1282). The king of the province of Champa will be instructed to furnish the food supplies of the troops.”⁹

The plan, however, met opposition from many of the ministers of the court.

The court discussed the sending of troops to invade Sukhothai 暹羅 (Sien-lo), Lopburi 羅斛 (Lo-hu), Malabar, Kaulam, Samudra and other countries. Chia-lu-na-ta-ssu 迦魯納荅思 submitted a memorial saying: “These are all small and distant countries. Of what benefit would their conquest be to us? To launch a war would be to risk the lives of our people for no useful purpose. It would be better to send envoys to advise them of the disaster [that would befall them if they do not submit] and the good fortune [they would share if they submit]. If they do not submit, it would not be too late to invade them.”¹⁰

This suggestion was adopted. Yang T’ing-pi 楊廷璧, sent to Malabar and Kaulam in 1281, succeeded in persuading ten states in Southern India and the East Indies to send tribute-bearing missions.¹¹ In 1282, Meng Qingyuan and Sun Shengfu were sent to Java, Ho Tzu-chih 何子志 and Huang-fu Chieh 皇甫傑 to Sukhothai, and Yu Yung-hsien 尤永賢 and I-lan 伊蘭 to Malabar.¹²

These missions all had to pass by or stop at Champa on their way south. Qubilai Qan thought that he could ensure their safety and their needs by having Champa as a state friendly to his government. What he did not foresee was the pro-Song sentiment that was still strong in the Cham court. The Cham king had been sympathetic to the Song cause, and during the last stages of the struggle between the Song adherents and the Yuan forces off the coast of Guangdong, there were talks among the Chinese of seeking military assistance from Champa or of sending the child emperor to find safety there. Large numbers of Chinese, officials, soldiers, and civilians

⁸ Ibid., p. 12.

⁹ Ibid.

¹⁰ Ibid., ch. 134, p. 10.

¹¹ Ibid., ch. 210, p. 12.

¹² Ibid., ch. 12, p. 5.

who fled from the Mongols had found refuge in Champa, and they had inspired and incited the Chams to hate the Mongols.¹³ At the same time, the demands of the Yuan officials also gained them the enmity of the people of Champa. Thus, in the summer of 1282, when the Yuan envoys, He Zizhi, Hangfu Jie, Yu Yongxian, and Yilan passed through Champa, they were detained and imprisoned by the Chams, led by their prince Harijit.

At this time, Sogatu was in Guangzhou, just about to set sail to set up the Ambulatory Department of Champa. Upon news of the seizure of the envoys, the Yuan court instructed Sogatu to lead his expedition to punish the Chams. In his instructions to Sogatu, Qubilai Qan declared: "The old king (Indravarman VI) is innocent. The ones who oppose our order are his son (Harijit) and a Southern Chinese (蠻人 *man-jen*)."¹⁴ Champa was accused of revolting after submission. The punitive expedition consisted of five thousand men drawn from Northern Jiangsu, Zhejiang, Fujian, Hunan, and Guangdong and the fleet consisted of a hundred large transports and 250 combat ships (probably landing craft).¹⁵ Annam was instructed to furnish supplies.¹⁶

The Expedition against Champa, 1283

The fleet set sail from Guangzhou and on 30 December entered the Bay of Quinhon, a body of water surrounded by hills except for a narrow ship-passage in the south. Some miles inland from the upper end of the bay stood Vijaya, the capital of Champa.¹⁷ As the water in the upper end of the bay was too shallow,¹⁸ the only place where a landing could be effected was the west shores of the bay which the Cham defenders had fortified by the construction of a wooden stockade.¹⁹

The official Yuan account described the events as follows:

In the first month of the twentieth year of Zhiyan (February, 1283), the Ambulatory Department ordered the troops to set sail at midnight of the 15th day (13 February) to attack the stockade. On the appointed day,

¹³ Wen, *Nanyang Huaqiao Tongshi*, pp. 44–7.

¹⁴ *Yuan Shi*, ch. 210, p. 15.

¹⁵ *Ibid.*, ch. 12, p. 5.

¹⁶ *Ibid.*, ch. 209, p. 6.

¹⁷ Near the present-day city of Binh Dinh.

¹⁸ A. Bouinai and A. Paulus, *L'Indo-Chinese française contemporaine*, Vol. 2 (Paris, 1885), p. 633.

¹⁹ A wooden fort (*mu-ch'eng* 木城) in Chinese records.

it sent Ch'en Chung-ta 陳仲達 governor of Qiungzhou (Hainan Island), the director (*tsung-kuan* 總管), Liu Ch'üan 劉全, and the Centurion, Su Ch'üan 粟全, with sixteen hundred men by a route over water to attack the north side of the stockade, the Centurions Chang Pin 張斌 and Chao Ta 趙達 with three hundred men to land on a sand spit east [of the stockade], and the main body of the forces of the Ambulatory Department, consisting of three thousand men, to attack the south side in three columns.

The ships sailed and at dawn they touched shore, but because of strong winds, about seven- or eight-tenths of the vessels [probably landing craft] were wrecked. The enemy opened his south gate and ten thousand men marched out carrying banners and beating drums, and accompanied by several scores of elephants. They also branched out into three columns to meet our assault.

Stones and arrows fell. The battle lasted from *mao* (5-7 a.m.) to *wu* (11 a.m. to 1 p.m.). The enemy was defeated. Government troops then entered the stockade where they met the detachments from the east and the north. Combining their forces they attacked [the enemy again] killing and drowning several thousand of them. The food supply they captured in the stockade was sufficient to feed several tens of thousand men. They learned that the [Cham] chief, having abandoned his temporary headquarters, set fire to his warehouses, and killed [Yu] Yongxian and Yilan, had fled to the mountains.²⁰

After a two-day stay in the wooden stockade, the Yuan forces set out by land for Vijaya. They arrived on 17 February and entered the city two days later, and then they withdrew and set up camp outside the city. The Chams sent delegates to negotiate the terms of settlement. The negotiations dragged on fruitlessly for a month because the Cham king, Indravarman, and Prince Harijit both refused to leave the security of their mountain retreat to visit the Yuan camp. Yuan troops sent into the mountains were ambushed. The Chams further demonstrated their defiance by executing the two other captured Yuan envoys, He Zizhi and Huangfu Jie, and a hundred of their entourage.

As the Cham delegates continued to offer excuses, the Yuan commanders gradually began to realize that the Chams had no intention of coming to terms and were only using the negotiations to stall for time. From a captured spy, Sogatu learned that the Cham king had 20,000 men with him in the mountains and not only was he summoning his forces in Panduranga 賓多龍 (Pin-to-lung, now Phanrang) in the south and

²⁰ GCWL, ch. 41, p. 33.

Indrapura in the north, but he had also dispatched emissaries to seek the aid of Annam, Cambodia, and Java.²¹

On 16 March, Sogatu sent a strong force into the mountains to seek and destroy the hideout of the Cham king. It was ambushed and driven back with heavy losses. Sogatu thereupon withdrew his army to the wooden stockade on the beach in order to await re-enforcements and supplies. He had his men unload the supplies for the large transports and to clear the fields for farming so that he was able to harvest 150,000 piculs of rice that summer.²² He sent two officers to Cambodia to open relations with that country, but the men were detained.²³ Meanwhile, he made urgent appeals to the Yuan court for help.

Preoccupied with the preparations for the third invasion of Japan, the court could not spare much to send to Sogatu's aid. It instructed the city of Nanchang to send troops to escort supply ships to Champa.²⁴ It was not until June, when the khan shelved his plan for the invasion of Japan, that he ordered major re-enforcements for Sogatu's command. His first order, issued in June, instructed Arig-qaya to prepare a force of seven thousand Han (Jurchens and Northern China) and eight thousand Newly Attached (former Song) troops, to re-enforce the army in Champa and to bring supplies of food, armor, and weapons.²⁵ There was no record of these re-enforcements leaving. Apparently, Arig-qaya had difficulty in mobilizing this force, for three weeks later, the court authorized the commanders of the expeditionary forces to draft men from the prisoners.²⁶

Eventually in March of the following year, the court ordered Ataqai, commander of the expeditionary force for the invasion of Japan, to detach 15,000 men and two hundred ships from his command to provide troops and vessels for the relief expedition to Champa. At length, the relief expedition set sail. It was composed of a total of 20,000 men under the command of Qutuq 忽都虎, with Omar and Liu Chün-ch'ing 劉郡慶 as deputy commanders.²⁷

²¹ *Yuan Shi*, ch. 210, p. 7.

²² *Ibid.*, ch. 128, p. 9.

²³ Zhou Dagan, *Zhenla Fengtu Ji* (Gujin Shuohai) ([China]: Tiaoxi Shao shi You shan tang, Daoguang yuan nian 茗溪邵氏酉山堂, 道光元年 [1821]), Introduction.

²⁴ *Yuan Shi*, ch. 12, p. 13.

²⁵ *Ibid.*

²⁶ *Ibid.*

²⁷ *Ibid.*, p. 4.

The expedition did not go smoothly. Off the harbor of Shu-meilien 舒眉蓮港 (probably the Bay of Zhoumay),²⁸ the crew of the entire advance squadron mutinied and, seizing the ships, sailed away.²⁹ Finally on 13 April, the fleet sailed into the Bay of Quinhon, but at the spot where Sogatu's camp was located, they found only smouldering ruins. It was only when troops under deputy commander Liu Junqing landed, and marched inland to capture the Cham capital of Vijaya, that they learned from Cham prisoners of war that Sogatu's forces had evacuated and set fire to their camp on 4 April, barely nine days before.³⁰ Leading his entire force, Sogatu had marched north by land to occupy Thuan-chau 順州 and Hoa-chau 化州. Qutuq sent an officer to the Cham king, who in his reply said that he was willing to acknowledge the suzerainty of the khan but that, since Sogatu's troops had looted his country, he could not send tribute.³¹

The attitude of the Chams made the Yuan emperor even more determined to subdue them and a new offensive strategy was worked out. The Ambulatory Department of Jianghuai (Northern Jiangsu) had obtained some maps of Champa, either from army commanders or from foreign merchants, showing a land route via Annam to Champa. The Yuan court received these maps on 23 August, and on the following day it announced the appointment of Prince Toqon 托歡, one of the khan's sons, as commander of the Yuan expedition against Champa with orders to march through Tongking to Champa. The Annamese ambassador in Daidu was told to go back to Annam and to inform his government to prepare the passage of Yuan troops.³²

Later in the year, Sogatu, who was in Indochina, suggested to the Yuan court that, because Annam was contiguous to Zhenla (Cambodia), Champa, Sukhothai (Siam), Mien (Burma), and Yunnan, and therefore of strategic value, the Yuan government should establish an Ambulatory Department over Annam, it should occupy three of its provinces, and it should use the food stocks of Tongking to supply the Yuan forces in Champa. "By this way," he wrote, "we can avoid the difficulties of shipping supplies by the sea route."³³ These views echoed those voiced by Chen Zhongda, governor of

²⁸ Mouth of the River of Hue.

²⁹ *Yuan Shi*, ch. 13, pp. 3–4; Some made it back to China, since in May and June orders were sent to arrest them in China's coastal provinces.

³⁰ *GCWL*, ch. 41, p. 35.

³¹ *Yuan Shi*, ch. 13, p. 3; and ch. 210, p. 7.

³² *Ibid.*, ch. 13, p. 5.

³³ *Ibid.*, ch. 209, p. 7.

Hainan, who also suggested the occupation of Tongking to open a passage to Champa.³⁴

A Yuan envoy went to Annam to request the Annamese king to send troops and to furnish supplies for the invasion of Champa, but he met rebuffs from the Annamese.³⁵ Chen Zhongda then reported that the Annamese not only refused to support the Yuan government but they were preparing to send 20,000 men and five hundred ships to help the Chams.³⁶

Yuan relations with Champa eased somewhat in December with the arrival of a Cham mission bringing the gift of three elephants and a letter stating that Champa would continue to send tribute and to acknowledge the overlordship of the khan on condition that the Yuan troops leave Champa. The Yuan court refused to accept this condition.³⁷ An Annamese embassy also arrived to request a delay in the passage of Yuan troops through Tongking. Their request was denied.³⁸

When the Annamese envoy returned to Tongking, he told his king, Tran Nhut-ton 陳日烜, that the Yuan request to march through was only a pretext to invade Tongking. The king convened an assembly of elders and told them the Yuan demands and asked them to present their views. "Ten thousand men shouted as if from one mouth: 'Fight!'"³⁹ Prince Hung-dao, Tran Quoc-toan 興道王, 陳國峻, who had fought the Mongols in their first invasion of Annam in 1257–8, took command of the army, reputed to be two hundred thousand men, massing them at Van-kiep 萬劫 (now known as Van-yen 萬安, in the district of Bac-ninh) to oppose the enemy. Considerable attention was also devoted to ship-building and training men in naval warfare.⁴⁰ They were ready when the Yuan troops invaded in 1285.

The Second Campaign against Annam, 1285

Yuan troops under Prince Toqon crossed the frontier from Guangxi into Tongking on 27 January 1285, they streamed through the passes in the vicinity of Langson, and divided in six columns working their way down the

³⁴ Ibid.

³⁵ Ibid., ch. 13, p. 4.

³⁶ Ibid., ch. 209, p. 7.

³⁷ Ibid., ch. 13, p. 5.

³⁸ Ngo Si-lien, *Dai-Viet Su-ky Toan-tho'* [hereafter abbreviated as *DVSKTT*], cited in Yamamoto, *Annanshi Kenkyu*, p. 147.

³⁹ Ibid.

⁴⁰ Ibid., pp. 48 and 156–7.

rivers.⁴¹ On 11 February, advance units under Omar reached Van-kiep and three days later broke through the Annamese defenses to reach the north bank of the Phu-luong River 富良江.⁴² To prevent the crossing of the river, the Annamese king, Tran Nhut-ton, moved a force of a hundred thousand men in a thousand ships up the Lu Jiang 瀘江 (now Canal des Rapides). Battle was joined on 18 February. Using captured enemy vessels, the invaders under Omar defeated the Annamites and succeeded in crossing the Phu-luong. All prisoners found to have the words "Kill Tartars" tattooed on their arms were killed.⁴³

But the Yuan forces did not capitalize on their victory. Instead of advancing southward, they remained in the north bank of the Phu-luong in the district of Bac-ninh, fighting daily skirmishes, but making little headway in penetrating the Annamese lines. The Annamese defenders stayed behind their fortifications and they planted stakes in the rivers which ripped holes in the bottoms of the Yuan boats.

The desultory fighting lasted for weeks. Figuring that the Annamese had pulled in their forces from their entire nation to meet the invasion from the north and that their defenses in southern Tongking must therefore be weakly held, Prince Toqon sent an officer named Tanggudai to instruct Sogatu, who was in Thuan-chau and Hon-chou, to march north. At the same time, he sent frantic appeals for re-enforcements from China while he wrote to the king of Annam that the Yuan forces had come in, not as enemies but as allies against Champa. But nothing came of this correspondence. The Yuan court wrote back that it was too dangerous to send supplies by sea and the Annamese would not accept its overtures of friendship.⁴⁴

As it was expected, the Annamese defenses in the south were weakly held, and Sogatu's forces were able to march north with little opposition. On 13 March, two weeks after they began to push northward, they had covered 2,000 *li* (about 700 miles) of territory, fought seven engagements with the enemy, penetrated the pass at Nghe-an 義安 (Porte d'Annam), and captured the cities of Dien-chau 濱州 and Thanhhoa 清化, and the supply bases of the Annamese at Thien-chuong 天長 (east of Nam-dinh) and Chuong-yen 長安 (east of Ninh-binh).⁴⁵ Among the prisoners they

⁴¹ *Yuan Shi*, ch. 13, p. 7.

⁴² *Ibid.*, p. 9.

⁴³ *Ibid.*

⁴⁴ *Ibid.*, p. 9; and ch. 209, p. 8.

⁴⁵ *Ibid.*, ch. 209, p. 7.

took were four hundred Song officers who were fighting in the ranks of the Annamese.⁴⁶

Sogatu's drive from the south obliged the Annamese to withdraw many of their units in the north to meet the threat in the south. In the meantime, men of the northern Yuan army had been busy chopping wood in the jungles and collecting nails, lime, and other items for ship construction to build a navy of several wings that were placed under the command of Omar. With the Annamese defenses weakened, the Yuan forces succeeded in pushing down to effect a junction with Sogatu's army.

The combined Yuan forces then began a general offensive against the Annamese, with Manggudai in command of the land troops and Li Heng and Omar in command of the navy. The navy first drove the Annamese king out to sea and, turning around, attacked and defeated a thousand-ship fleet under Tran Quoc-toan. Then sailing down the Canal des Rapides through a gauntlet of enemy warships, wooden stakes planted in the river, and stones hurled from the enemy's shore-placed catapults, they succeeded in capturing the Annamese capital Hanoi.⁴⁷

The Yuan naval forces then put out to sea. In two sea battles, in the middle of April, they met and destroyed the Annamese fleet. In the first battle at An-ban 安邦 (off the coast of Chuong-yen, in the Bay of Along, northeast of Haiphong) they surrounded and almost captured the Annamese king, Tran Nhut-ton,⁴⁸ and in the second battle at the Giao-thuy 膠水, they captured a fleet of nearly ten thousand boats. The king of Annam and his commander, Tran Quoc-toan, fled south, pursued by Omar in a fleet of 60 ships. They eluded pursuit, however, and upon reaching Thanhhoa they rallied another army against the invaders, and recovered their bases of supply at Thien-chuong and Chuong-yen.

By this time it was May and the Yuan forces had been in hostile territory for five months. The food supply they had brought in had been consumed and they could obtain little food from the ravaged countryside. The supply lines from China were long and precarious. From Guangxi to Tongking, guard posts were established every 30 *li* (ten miles) and relay stations every 60 *li* (20 miles) and three hundred soldiers were kept on duty

⁴⁶ Ibid., p. 9.

⁴⁷ Ibid.

⁴⁸ The first battle took place near Sam-tri Island on 14 April; Yamamoto, *Annanshi Kenkyu*, p. 180.

at every post and every station. Thus, much of the food was consumed before it ever reached the troops at the front.⁴⁹

Since what little food stocks there were in Hanoi were not enough for the large Yuan force, Prince Toqon ordered Sogatu to lead his troops to Thien-chuong where, since it was one of the enemy's supply bases, there was expected to be food. Leading his naval forces south by sea, Li Heng had his men make rafts, probably for use in shallow water, with which he recaptured Thien-chuong.⁵⁰ Leaving Omar at Thien-chuong, Li Heng returned to Hanoi. Omar then assisted Sogatu to set up camp at Thien-chuong.

In Hanoi, the situation of the Yuan forces grew more desperate. Besides the shortage of food, heat and disease also took their toll of lives. They were hemmed in the city and environments where the Mongol cavalry was ineffective. Early in June, they fought the battle at the Pass of Hamtu, 12 miles southeast of Hanoi. By their superior armament, training, tactics, and discipline, the Yuan forces at first drove back the Annamites. Then, to their surprise they saw a new regiment of troops move up, men wearing Song uniforms, fighting in closed formation and shooting their arrows by volleys. They were Chinese troops under Chao Chung 趙忠 who, after the fall of Song, had made their way to Annam and had found employment in the service of Prince Chieu-van, Tran Nhut-quyet 昭文王, 陳日燾. Their arrival turned the tide of battle. The Yuan forces, taken by surprise, fled back to the city.⁵¹

On 9 June, the Yuan army evacuated Hanoi and on the following day, it began its withdrawal from Tongking. Annamese troops followed them all the way, harassing and ambushing them. Li Heng, shot by a poisoned arrow, died. To protect Prince Toqon from being shot, the soldiers built a copper box in which they hid him until they reached the Guangxi border.⁵²

The evacuation took place so suddenly that Sogatu was not informed. On 6 June, he was surprised and driven out from Thien-chuong. He made an attempt to march north but was prevented by the Annamese. On 24 June, Annamese troops under Tran Nhut-quyet destroyed his army at Truong-duong 章陽. Sogatu fled and was killed while crossing the Son Ma.⁵³ Omar

⁴⁹ *Yuan Shi*, ch. 209, p. 7.

⁵⁰ *Ibid.*, ch. 129, p. 14.

⁵¹ *DVSKTT*, cited in Yamamoto, *Anmanshi Kenkyu*, p. 184.

⁵² *Ibid.*, p. 189.

⁵³ *Ibid.*, p. 192.

and a naval commander Liu Gui reached the sea and found a small boat to sail back to China.⁵⁴

While the Yuan army retreated helter-skelter across the frontier, the naval forces remained on the coast of Indochina. With the death of Li Heng, Sogatu, and the flight of Omar, Yiqmis took over command of the navy. He sent word to Daidu suggesting that the fleet stay to patrol the waters of Champa and Annam. The request was granted. Yiqmis made his operational base at Dai-luong-ho 大浪湖 (Cau-hai in the province of Thua-thien⁵⁵). He remained for a year before he and his fleet were ordered to return to China.⁵⁶

The Third Invasion of Annam

Meanwhile, the court in Daidu finally moved to send re-enforcements to Prince Toqon. A force of five thousand men, consisting of a thousand Mongols and four thousand Han (Northern Chinese) and Newly Attached (former Song) troops, was being mobilized for departure in August, when the defeated army came straggling back across the frontier. The order for the re-enforcement was cancelled. The court also decided to treat the personnel of the defeated army leniently instead of punishing them. At Tanggudai's request, the men were given leaves to visit their families before reporting back to the headquarters of Prince Toqon and Arig-qaya.⁵⁷

At this time, preparations for the third invasion of Japan, scheduled for 1286, were at their peak, and they occupied the full attention of the Yuan government. Suddenly, on 1 February, the khan issued a decree announcing a change of policy. "Japan had not invaded us, but Annam is threatening our frontier," he said. "We shall put aside the plans against Japan to devote our efforts against Annam."⁵⁸ Following a conference with Arig-qaya, the khan announced on 5 March the establishment of the Ambulatory Department of Annam with Arig-qaya as the Minister of the Left, Oghruqchi 奧魯赤 was made assistance minister, and Yiqmis, Omar, and Fan Yi councillors.⁵⁹ In an attempt to undermine the resistance and solidarity of the Annamites, the

⁵⁴ Ibid.

⁵⁵ Also called Lagune d'Ouest and Lagune d'Est.

⁵⁶ *Yuan Shi*, ch. 13, p. 13; and ch. 131, p. 17.

⁵⁷ Ibid., ch. 13, p. 13.

⁵⁸ Ibid., ch. 208, p. 17.

⁵⁹ Ibid., ch. 209, p. 10.

Yuan court found a pretender to the throne of Annam, a man named Tran Ik-tik and a distant relative of the king, whom it proclaimed as the legitimate king of Annam.⁶⁰ Arig-qaya was permitted to send three thousand regular and a thousand Mongol troops to escort Tran Ik-tik to Annam and to place him on the throne.⁶¹

There were many ministers in the Yuan court who opposed the foreign wars, and who, not daring to resist the khan, sought to delay matters by pointing out the difficulties in the hope of dissuading the khan. One of these men, Liu Hsüan 劉宣, president of the Board of Civil Office, warned that "Transportation by sea is difficult and we cannot use carts, horses or oxen as means of transportation. We have to transport by land, but one porter carrying five *tou* consumes half the amount himself in one round trip, leaving only half of the amount for the government [forces]. A hundred thousand piculs would require 400,000 porters and it is only one or two months' supply for the army. To transport equipment and boat materials [probably prefabricated parts for assembly into boats] would require a total of 500,000 to 600,000."⁶²

Liu Xuan's memorial helped to focus the attention of the Yuan court on the problems. The solutions came from several quarters. Ma Ch'eng-lung 馬成龍, commander of the garrisons on Leizhou Peninsula and Hainan Island, reported that he had devised and built scores of large sea-going transports known as "Sea Scouts" (*hai-shao-ma* 海哨馬) to move supplies swiftly.⁶³ The court, also concerned with the problem, ordered the provinces of Hunan and Guangdong to build three hundred large transports for the invasion of Annam. The vessels were to be completed by September and to assemble at the ports of Chin-chou 欽州 (Yamzhou) and Lien-chou 廉州 (Limzhou) in the south-western coast of Guangdong.⁶⁴

The land forces were to mass at Guilin, in Guangxi, in August 1286 for the invasion of Annam, but early in July, the Ambulatory Department of the provinces of Hunan and Guangdong reported that it could not mobilize sufficient troops and asked for more time. It reported that, although it had orders to mobilize 28,700 men for the invasion of Annam, it could raise only 10,900 men who were physically fit, the remainder, 17,800 men, were overaged or incapacitated in some way. The khan and the Privy Council

⁶⁰ Ibid.

⁶¹ Ibid., ch. 14, p. 4.

⁶² Ibid., ch. 168, p. 14.

⁶³ *Xin Yuan Shi*, ch. 177, p. 24.

⁶⁴ *Yuan Shi*, ch. 14, p. 2.

agreed to postpone the invasion for another year.⁶⁵ The year was well spent by the government to collect a sizeable invasion force and to give the men training in naval warfare.⁶⁶

Early in February 1287, the troops were alerted and ordered to be prepared to march south. The expeditionary force consisted of seventy thousand Mongol and Han (Jurchens and Northern Chinese) troops from northern Jiangsu, Jiangxi, Hunan, and Guangdong, six thousand troops from Yunnan, one thousand men of the Newly Attached Army (former Song troops), and 17,000 Loi aborigines from the island of Hainan.⁶⁷ This totalled 94,000 men, and did not include the crew to man the five hundred troop transports and warships.

As for the transportation of food supplies, the government organized four Offices of Commanders of Ten Thousand for Grain Transportation by Sea (at Quanzhou, Fuzhou, Pingjiang, and Shanghai) to ship grain from the Yangzi Valley to the imperial capital in the north. The Pingjiang office, under the administration of Manggudai, was given the assignment of shipping supplies to the invading forces in Annam. Manggudai made his deputy, Chang Wen-hu 張文虎 commander of the transport fleet, with Fei Kung-ch'en 費拱辰 and T'ao Ta-ming 陶大明 to assist him in shipping 170,000 piculs of grain to Annam.⁶⁸ The military governor of Hainan, Chen Zhongda, reported that a number of private ship-owners were willing to lend their vessels to the government to transport the Loi troops to Tongking.⁶⁹

The invasion was postponed in May due to the rebellion of Prince Nayan in Manchuria which took three months to put down, and by the invasion of Burma. But by fall 1287, everything was ready for the third campaign against Annam. The expeditionary force against Annam set out from Yochou 鄂州 (in Hubei) on 10 October 1287, after some minor reshuffle of the top command, Prince Toqon was again made commander-in-chief, and added to his staff were Abachi 阿八赤, who had been relieved of his post as director of the "New Waterways" with the establishment of the sea transportation service, Chang Yü 張玉, son of the veteran Zhang Rongshi, and Liu Gui, who had fled back from Annam with Omar. Just prior to his departure, Prince Toqon received a letter from his father, the khan, warning him to exercise strict discipline and not to permit his troops

⁶⁵ Ibid., p. 5.

⁶⁶ Ibid., p. 7.

⁶⁷ Ibid., p. 9.

⁶⁸ Ibid.

⁶⁹ Ibid., ch. 210, p. 11.

to pillage the countryside nor to assume that Annam was weak and could be easily conquered.⁷⁰

On 4 December, the expeditionary force arrived at Laiping in Guangxi. Here it split into two divisions. One division, consisting of 18,000 men under the command of Omar, Fan Yi, and Mahmud 馬末, marched south into Guangdong to the port of embarkation at Qinzhou. Here, they boarded the 70 transports and five hundred warships, manned by tens of thousand men under the command of Zhang Yu and Liu Gui.⁷¹ The main body of the expeditionary force, under the personal command of Prince Toqon, marched south by land towards the Annamese frontier. The sailing date of the fleet, 16 December, was timed to coordinate with the march of the land division, which began on 17 December, so that the land and sea forces could meet in Tongking. A third but smaller force of six thousand men began pushing down from Yunnan on 10 December as a diversionary measure.⁷²

The Yuan army crossed the frontier on 24 December by two routes: Cheng Pengfei leading ten thousand men marched south via a stream known as Son Thuong and Abachi leading another ten thousand men came down via the Luc-nam River. Following Abachi came Prince Toqon and Oghruqchi with the main body of the expeditionary force.⁷³ Defeating the Annamese in 17 skirmishes they knifed through the weakly held enemy defenses. On 1 January 1288, the two columns rejoined at Van-kiép, to await the arrival of the naval forces.⁷⁴

Setting sail on 16 December, the Yuan fleet sailed slowly down the coast meeting no opposition from the enemy. It passed Ngoc-son 玉山 (in the vicinity of Van-ninh) and then entered a body of water now known as the Bay of Along and the Bay of Faitsilong. Here, hiding behind the island of Luong-son 浪山,⁷⁵ a fleet of four hundred Annamese warjunks under the command of Tran Ta 陳椰 lay waiting. Knowing that the fast-sailing Yuan warships out-distanced the large transports, the plan of the Annamese commander was to permit the enemy escort vessels to go by and to wait to strike at the troop carriers.

⁷⁰ Ibid., ch. 14, p. 11.

⁷¹ Le Tac, *An-nam Chi-luoc* [hereafter abbreviated as *ANCL*], cited in Yamamoto, *Annanshi Kenkyu*, p. 218.

⁷² *Yuan Shi*, ch. 14, p. 14.

⁷³ Ibid.

⁷⁴ Ibid., ch. 209, p. 16; and ch. 14, p. 15.

⁷⁵ Yamamoto, *Annanshi Kenkyu*, pp. 220–1.

On 2 January, Yuan warships under the command of Omar passed by the island. It was night, but somehow the ambush was discovered, and the Yuan ships immediately swerved from their course to surround the enemy fleet. The battle lasted until dawn when the Annamese ships broke away from the engagement and retired. Yuan accounts claimed the killing of four thousand enemy marines and the capture of a hundred ships.⁷⁶ The Annamese declared that they had severely mauled the enemy fleet and also captured a number of ships.⁷⁷ It was, however, more of a Yuan victory since their fleet sailed through with relatively little loss to enter the Bac-dang 白藤 (or Nam-trieu 南趙) River and to join the land forces at Van-kiep (Van-yen).

So far, the movements of the Yuan forces, both on land and on sea, had been carried out with clockwork precision despite the operations of the enemy. But neither the land forces nor the naval forces had brought in much food for, according to prearranged plans, the food supplies were to be transported to them by the fleet under the command of Zhang Wenhui. Without supplies, the large Yuan forces were helpless.⁷⁸

On 7 January, following a conference, Prince Toqon ordered Cheng Pengfei to take 20,000 men to build and garrison wooden stockades at Pho-lai 普賴 and Chih-ling 至靈 (near present-day Sept Pagodes and south of Van-yen) to protect his rear, and Omar to lead a division to scour the countryside for food.⁷⁹ In late January there still being no sign of the supply fleet, Prince Toqon ordered the advance. Accompanied by troops under Abachi marching on land along the river, the naval forces under Omar and Fan Yi sailed down the Lu Jiang (Canal des Rapides) on 2 February, and on the following day, captured the Annamese capital Hanoi without encountering opposition. But it turned out to be a great disappointment, for the Annamese had stripped the city of all food stocks and not a peck of rice could be obtained.

In the days that followed, the Yuan forces consolidated their occupation of the Red River delta, driving the remnants of the Annamese forces under their king, Tran Nhut-ton, out to sea. To solve logistical problems, Prince Toqon sent Oghrugchi and Abachi to lead their troops to cut a swath into the enemy-held countryside in order to forage for food. Omar was instructed to take his fleet out to Dai-pang K'ou 大旁口 (Cua Van-uc) to wait for the long

⁷⁶ *Yuan Shi*, ch. 209, p. 11; and ch. 166, p. 13.

⁷⁷ *DVSKTT*, cited in Yamamoto, *Annanshi Kenkyu*, p. 220.

⁷⁸ *Yuan Shi*, ch. 166, p. 13.

⁷⁹ *ANCL*, cited in Yamamoto, *Annanshi Kenkyu*, p. 227.

overdue grain fleet under Zhang Wenhui. In their sweep through the country, Abachi and his men succeeded in capturing two hundred enemy boats carrying 113,000 piculs of rice, but in a skirmish, he was killed. Oghruqchi was no less successful, returning to Hanoi with 40,000 piculs. However, Omar was not as fortunate. At Da-ngu K'ou 多魚口 (not far from Cua Van-uc), his fleet was trapped by low tide and narrowly escaped destruction by the Annamese. There being no signs of Zhang Wenhui's transport fleet, Omar decided it would be more prudent to return to Hanoi.⁸⁰

While the Yuan forces in the Red River Delta anxiously waited for its arrival, the fleet of supply ships under Zhang Wenhui had run into trouble. It had left the mouth of the Yangzi in three divisions: One under the command of Zhang Wenhui himself, the second under Fei Gongchen, and the third under Hsü Ch'ing 徐慶.⁸¹ Fei's division met contrary winds at Waizhou, east of the Pearl River Delta off the coast of Guangdong, and the ships were blown off their course to Hainan Island. Xu's division was driven by the winds to Champa, and eventually found its way back to Hainan. Only Zhang's division, which had started out first, found its way to the Gulf of Tongking.

In January 1288, only a few days after the fleet under Omar had passed through, Zhang's squadron of grain ships passed the island of Van-hai 雲海 (also known as Ile de Sangliers) which was at this time a thriving commercial entrepot. Here the Annamese commander-in-chief Prince Hungdao, Tran Quoc-toan, had stationed a strong fleet under the command of Vuong Du-khanh 王餘慶, to intercept the Yuan ships as they passed by. However, by mistake, Vuong had permitted the fleet under Omar to slip through unnoticed. For this act of negligence, Prince Hungdao had sent a messenger to arrest Vuong and bring him to the Annamese headquarters for court-martial. Vuong asked for and the messenger granted him a few days of grace. He knew that the Yuan warships and troop transports having passed through, they must be followed by supply ships and it was his hope to attack the weakly armed supply ships.⁸²

His hope was realized when the ships under Zhang Wenhui were sighted. When the Yuan ships appeared, they were immediately attacked by 30 Annamese men of war. Zhang Wenhui decided to fight. The running sea

⁸⁰ *Yuan Shi*, ch. 15, p. 1; and ch. 209, p. 12.

⁸¹ It is unclear when Xu Qing replaced Tao Daming.

⁸² Van-hai was known as Dunshan 屯山 or Yundunshan 雲屯山 in Chinese; Yamamoto Tatsuro, "Yun-tun, Annam's Commercial Port," *Toyo Gakko* 9 (Jan. 1929): 286-94.

battle took the two fleets into the Bay of Along and Bay of Faitsilong, where a large fleet of Annamese warships pounced on him, Realizing too late that he had been led into a trap, he gave an order to retreat, but his cumbersome and heavily-laden transports were no match against the speedy enemy ships. The only way he could get away was to order his men to throw overboard the cargo of rice to lighten the ships. He made his way across the Tongking Gulf to the island of Hainan after losing 11 ships with a cargo of 14,300 piculs of rice, as well as 220 men.⁸³

When the king of Annam received the report of the victory, he pardoned Vuong Du-khanh and then said to his followers: "What the Yuan forces need most of all is food. They may not have heard of the defeat of their transport fleet and may be planning further offensive action." So he released some prisoners of war and sent them to the Yuan camp and the news they brought served to demoralize the Yuan troops even more than before.⁸⁴

On 5 March, the Yuan army evacuated Hanoi and moved back to the fortified stockades at Pho-lai and Zhiling in the Van-kiep area.⁸⁵ But with food supplies running low, even these positions were untenable, and on 30 March, Prince Toqon decided to withdraw from Tongking.⁸⁶ The retreat was carried out with great difficulty. Prince Toqon boarded a large warship to sail down the river with the fleet for enemy troops held northern Annam and the Yuan forces could not withdraw in the same way they came. Cheng Pengfei leading the land forces marched alongside the river to protect the fleet and had to fight his way through enemy hordes. Bridges and roads were destroyed. Annamese troops followed, destroying whole units that straggled behind.

On 8 April, the Yuan fleet reached Truc-dong 竹洞 (about seven miles north of Haiphong) where it encountered warships of the Annamese navy. Liu Gui quickly routed them, capturing 20 enemy ships. At this point, there were two courses opened to Omar, who was the top commander of the Yuan fleet. One was to sail out to sea for the return voyage to China. This had been the original plan. The other course was to sail northward along the coast, to stay in close contact with the land forces and to meet, perhaps, Zhang Wenhui's transport fleet. Omar decided upon the latter course.

⁸³ *Yuan Shi*, ch. 15, p. 3.

⁸⁴ *DVSKTT*, cited in Yamamoto, *Annanshi Kenkyu*, p. 237.

⁸⁵ *Yuan Shi*, ch. 209, p. 12.

⁸⁶ *Ibid.*

On 9 April, the Yuan fleet sailed past the mouth of the Bac-dang (or Nam-trieu) River. It was high tide. Suddenly a fleet of Annamese warships sallied out from the river to attack. Yuan ships moved out of line to meet them. In a short sharp clash, the Yuan ships defeated the Annamites and pursued them into the Bac-dang. As they proceeded up river, the tide receded, revealing wooden stakes planted into the river and camouflaged with a covering of reeds and leaves. With the Yuan ships stuck in the river, the Annamese war junks returned to battle. They had little difficulty in destroying the immobilized Yuan ships. Thousands of Yuan troops jumped into the water and were drowned, and Omar was taken prisoner.

Meanwhile, Fan Yi, seeing Omar's ships engaged, rushed up to help and his ships were surrounded and boarded by Annamese war vessels. Wounded, Fan Yi tried to escape by jumping into the water. The enemy fished him out with hooks and killed him. The battle lasted from sunrise to sundown (*mao* 5–7 a.m. to *z'hou* 5–7 p.m.) and ended with four hundred Yuan warships captured by the Annamites.⁸⁷ The next day, Prince Toqon took to land again, and by avoiding the main highways, where the Annamites had dug traps for his horses, he returned to China by side roads after a week of hard riding. A large part of his army was abandoned in Annam.

Omar had been right in his surmise that the grain fleet under Zhang Wenhui would come down the coast and try to enter the Bac-dang River. While in one of the ports of Hainan, where he had sought refuge after his defeat, Zhang had rounded up the transports of the other two divisions, refitted his ships and repaired the damage, and in the beginning of April, set sail to bring his much needed food supplies to the Yuan forces, which he thought were still in Hanoi. His ships sailed across the Gulf of Tongking and, unaware of danger, sailed into the Bac-dang River. Again, by mere coincidence, it was only a few days after Omar's fleet was there. Once the transport fleet was in the river, it was attacked by the Annamese warships while the falling tide and protruding wooden stakes prevented the ships from sailing out. Again, the Yuan fleet was disastrously defeated.⁸⁸ Only Zhang Wenhui and a few of his men found their way back to China.

This ended the third Yuan invasion of Annam. To appease the Yuan government, the king of Annam sent an embassy to pay tribute and to acknowledge the suzerainty of the khan. But instead of going to Daidu personally he sent a gold statuette of himself. It was a compromise that the

⁸⁷ *DVSKTT*, cited in Yamamoto, *Annanshi Kenkyu*, p. 243.

⁸⁸ *Ibid.*

Yuan court temporarily accepted. The Annamese king also sent back his prisoner Omar, but Prince Hungdao, who opposed this gesture, contrived to have the ship carrying Omar sink at sea.

Qubilai Qan was still determined to punish the Annamites and to conquer Annam. In 1291, there was an order to select 83,600 men from the Newly Attached Army (former Song troops) for service against Annam, but it was not until 1293 that the preparations were ready.⁸⁹ The government seized a thousand ships from the river folk of Guangdong, known as Tanka 蜑家, to carry the army of 56,570 men, 350,000 piculs of food, and 700,000 pieces of equipment. In December, eight thousand former Song troops were added, making a total expeditionary force of about 65,000 men.⁹⁰ Liu Kuo-chieh 劉國傑 was made commander of the expedition, which was to start from Changsha with the purpose of putting the Annamese pretender Tran Ik-tik on the throne of Annam.⁹¹ But on 18 February 1294, Qubilai Qan died, and the expedition was cancelled. In a special decree, the new Yuan emperor announced that the war with Annam was at an end, and he sent a mission to Annam to restore friendly relations between the two countries.⁹²

The Expedition against Java, 1293

In seeking to extend his power abroad, there were two regions that Qubilai Qan was particularly interested. One was the southern states of India, for the legend of the riches of Golconda might have reached his ears. "All the *huihui* (Moslem) states," declared the *Yuan Shi*, "produce gold, pearls and treasures."⁹³ Through the diplomatic efforts of Yuan envoys such as Yang Tingbi and Yiqmis, states on the Malabar and the Coromandel coasts of India were persuaded to establish relations with China and to send tribute to Beijing. The other region was the lush tropical islands of the Eastern Archipelago, and "most of these overseas nations produce rare treasures which by taking would enrich China."⁹⁴ But the region was, in modern parlance, the sphere of influence of the strong Javanese state of Tumapel 杜馬班, whose rise to power had been coincident with the rise of the

⁸⁹ *Yuan Shi*, ch. 16, p. 14.

⁹⁰ *Ibid.*, ch. 17, p. 16.

⁹¹ *Ibid.*, ch. 209, p. 18.

⁹² *ANCL*, cited in Yamamoto, *Annanshi Kenkyu*, p. 263.

⁹³ *Yuan Shi*, ch. 210, p. 12.

⁹⁴ *Ibid.*, p. 8.

Mongol empire. Kertanagara, the king of Tumapel, dominated the Malay world, supplanting the position of the once powerful kingdom of Sri Vijaya on Sumatra. He therefore regarded the diplomatic efforts of the Yuan government to win over the states in the East Indies as a direct challenge to his power and the visit of Yuan envoys to his court to persuade him to send tribute as insults and importunities. To deter them from coming, he had the face of the last Yuan envoy branded.⁹⁵

Shortly after this act of defiance, Kertanagara was deposed and killed by one of his vassals, Jayakatong 扎牙迦賞 of Gelang 葛郎, viceroy of Kederi (Daha), who revolted and usurped the throne in 1292. Kertanagara's son-in-law, the Raden Vijaya 羅登必闍耶, refused to recognize Jayakatong. From his headquarters at Majapahit he waged a war against the usurper.

Not informed of the political changes in eastern Java, Qubilai Qan made preparations to punish the Javanese for disfiguring his envoy, knowing that unless he avenged the insult his prestige would suffer in the eyes of the rulers of the Malay states. In March 1292, the khan ordered that Shi Bi, Gao Xing, and Yiqmis be temporarily detached from their position in the Ambulatory Department of Fujian to prepare for the expedition against Java. They were instructed to mobilize 20,000 men from the provinces of Fujian, Jiangxi and Hunan, and Guangdong, to collect a fleet of a thousand ships and to stockpile food supplies for one year. The government appropriated to them 40,000 *ting* (or two million taels) in currency, ten tiger badges, 40 gold badges, and a hundred silver badges besides gold cloth and silk "for rewarding the meritorious."⁹⁶ The plan was for the embarkation to take place in December and the expedition to set sail early in 1293.⁹⁷

At this time, the Yuan government was also preparing for yet another invasion of Annam and there appeared to be some difficulty in mobilizing men and ships for the expedition against Java. In the middle of August, the court assigned ten thousand men for the expedition and accepted the offer of a merchant named Ali to repair ships for the navy. In appreciation of his service the khan conferred upon him a three-pearl tiger badge.⁹⁸ Later in the year, the Yuan court appointed Kao Te-ch'eng 高德誠, Yin Shih 殷實, and Tao Daming to command the sailors in the fleet.⁹⁹ Since these men were

⁹⁵ Ibid.

⁹⁶ Ibid.

⁹⁷ Ibid.

⁹⁸ Ibid., ch. 17, p. 7.

⁹⁹ *Yuan Shi*, ch. 17, p. 9.

officers of the maritime transportation service, it was quite likely that ships and crew of the Offices of Grain Transportation by Sea were used in the expedition. During these preparations in 1293, the government navy kept a tight watch over the foreign merchants. Their ships were permitted to enter Chinese ports but not to leave, in order to prevent news of the preparations from reaching the Javanese.¹⁰⁰

In September, the three top Commanders of the expeditions were summoned to Daidu for an audience with the khan. Qubilai told Shi Bi, his commander-in-chief, to leave all matters concerning the navy to Yiqmis who was regarded as an expert. He also told Shi Bi to proclaim, upon his arrival in Java, that the purpose of the expedition was not an invasion but merely to punish the king for insulting a Yuan envoy.¹⁰¹

The three commanders, Shi Bi, Yiqmis, and Gao Xing, picked up the main body of their forces, about five thousand men,¹⁰² at Qingyuan (Ningbo) in November, then sailed down to Quanzhou to meet the other units of the expedition. After a delay of two months, the expedition set sail from Hou-shu 後渚¹⁰³ on 22 January 1293.¹⁰⁴ The fleet sailed out in the teeth of a winter storm and, although there was no serious damage, the men received no food for several days. The fleet passed the Taya Islands,¹⁰⁵ and stopped briefly at Champa where Yiqmis dispatched two of his officers to visit Lamuri, Samudra, Perlak, and Mulayu (all in Sumatra). Sailing on, the fleet passed the Natuna Islands, and on 25 February arrived at the mountain island of Gelam 拘蘭山,¹⁰⁶ off the west coast of Borneo. Here, while the crewmen repaired some of the ships and chopped trees to build more vessels, the Office of the Imperial Commissioner (*hsüan-wei shi-ssu* 宣尉使司) received envoys sent by the states of Lamuri, Samudra, Perlak, and Mulayu, which up to this time had wavered between submission to the Mongol khan or to the king of Tumapel.

On 15 March, following a series of conferences, Yiqmis started out first in ten ships to escort the five hundred officials of Office of the Imperial Commissioner to Java. It was hoped that diplomatic action would be sufficient to bring the Javanese to terms. The main force was to wait seven

¹⁰⁰ Ibid., p. 6.

¹⁰¹ Ibid., p. 8.

¹⁰² Ibid., p. 13.

¹⁰³ Probably a harbor near Quanzhou.

¹⁰⁴ According to *Yuan Jingshi Datian*, cited in *GCWL*, ch. 41, p. 36.

¹⁰⁵ Probably the Taya Islands, just east of Hainan.

¹⁰⁶ Probably Pulo Kumpal.

days, and then to sail to Karimon (Pulo Krimun) to provide a display of force if the diplomatic overtures should fail.

A week later, when it was found that the Javanese refused to meet the Yuan officials, Shi Bi and Gao Xing sailed the fleet to Tuban 杜並足, a seaport with a large Chinese colony, and on 22 March began to disembark their troops. Following another conference, Gao Xing and Yiqmis led a force of infantry and cavalry to march across the country while the naval forces, under the command of Tuqudege 土虎登哥, sailed through the Straits of Madura. The two forces were to meet at Pachekan 八節澗 (south of Surabaya),¹⁰⁷ on 30 March.

Due to various delays, the land and sea forces did not meet at Pachekan until 8 April. Here the Yuan troops saw a large fleet of warjunks with devil-head prows and filled with armed men blocking the Brantas River. It was under the command of one of the officers of the usurper Jayakatong of Gelang. However, the enemy fleet made no move to attack the Yuan ships, while the masses of enemy troops on the warjunks and on shore merely watched but made no hostile motion. The officials of the Ambulatory Department of Java¹⁰⁸ set up a banquet on the bank of the river and waved to the Javanese to come over, but there was no response from the natives. After several attempts to establish contact with the Javanese had failed, the Yuan forces advanced, Tuqudege leading the warships and Ch'en Chen-kuo 陳鎮國 leading the infantry and cavalry. The Javanese retreated, abandoning over a hundred large ships.

Leaving Gao Decheng with his seamen to garrison Pachekan, the Yuan forces advanced inland up the river. They were met by an envoy sent by Raden Vijaya saying that Gelang troops led by Jayakatong were attacking him in his Majapahit stronghold and desired immediate help. Yiqmis therefore ordered Chen Zhenguo to occupy the port of Chang-ku 章孤, and Gao Xing to rush to Majapahit, but it turned out to be a false alarm and Gao Xing decided to return to the Yuan camp.

On 14 April, hearing that Gelang forces under Jayakatong were marching towards Majapahit, Yiqmis ordered Gao Xing to intercept the enemy while he himself, leading another column, rushed to defend Majapahit. Somehow the enemy eluded Gao Xing and reached the southeast of Raden Vijaya's city to be met by Yiqmis. On the following day, Gao Xing finally showed up and together with Yiqmis drove off the Gelang troops.

¹⁰⁷ South of present-day Surabaya.

¹⁰⁸ *GCWL*, ch. 41, p. 36.

Meanwhile, Raden Vijaya presented maps to the Yuan commanders showing them how to reach Kediri (Daha), capital of Gelang and headquarters of Jayakatong.

On 22 April, the Yuan forces began their advance against Kediri. The Yuan fleet under Tuqudege sailed up the Brantas River, while Yiqmis leading a land force marched west of the river and Gao Xing leading another force marched east of the river. They were followed in the rear by a large Majapahit force under Raden Vijaya. The three Yuan columns kept in touch with each other by means of signal guns (*bsin-p'ao* 信炮) and were to meet at Kediri on 26 April.

The forces arrived at the enemy stronghold on schedule, where they found an army of over a hundred thousand men, according to Yuan accounts, massed to oppose them. The battle lasted from dawn to early afternoon (*mao* 5–7 a.m. to *wei* 1–3 p.m.). The enemy attacked three times and each time they were repulsed. By evening, the Gelang forces were crushed. Six thousand were killed and tens of thousands fled by swimming across the river. The king of Gelang retired to the city, which was immediately attacked by the Yuan forces. Messengers went to summon him to surrender, and at the hour of *Xu* (7–9 p.m.), Jayakatong came out and submitted formally to the Yuan commanders.

Eastern Java now lay under the power of Yuan arms. But instead of setting up the Ambulatory Department of Java, the Yuan diplomats made a mistake. On 9 May, they formally turned over their captured territory to the Raden Vijaya, who had professed friendship and agreed to acknowledge the overlordship of the khan. They made a second mistake when they permitted Raden Vijaya to return to Majapahit, giving him only a small escort of two hundred men.

On 26 May, Raden Vijaya revolted and killed his escort of Yuan troops. Then he rallied his men and appealed to the nation to drive out the invaders. Thinking that the war was over, Shi Bi had sent his forces back to their base at Pachekan while he remained at Kediri with a small detachment of troops. Raden Vijaya tried to trap him there, but Shi Bi escaped in time. Leading his men down the Brantas River by foot, Shi Bi fought his way for over a hundred miles before he reached Pachekan. On 31 May, the Yuan fleet set sail. Their casualties, according to one account, came to three thousand men.

The Yuan fleet reached Quanzhou after a voyage of 68 days. It brought back not only a hundred members of the household of Jayakatong as prisoners, the maps of the country, and a register of the population, but also large quantities of spices, batik cloth, gold to the value of 500,000 taels, and

also gold, silver, ivory, and rhinoceros horn from neighboring states.¹⁰⁹ The rank and file of the expedition were discharged and given leave to return to their homes, but the leaders of the expedition, Shi Bi, Yiqmis, and Gao Xing were summoned before the khan and reprimanded for their failure. Their punishment was 50 blows and the confiscation of a third of their property.¹¹⁰

By making use of the Yuan forces, Raden Vijaya had eliminated his rival and by revolting he had then rid his country of the invaders and made himself the most powerful man in Java, and the state he founded, Majapahit, the most powerful in Southeast Asia.¹¹¹ He married his sister to a man who had also bested the Yuan forces, Harijit, who had ascended the throne of Champa under the title of Jaya Sinhavarman IV.

Mongol Support for Foreign Trade

By necessity, the Mongols often allied with merchants to fund their campaigns. As one historian has pointed out,

The forebears of the Yuan emperors were nomads in Mongolia, yet in a few generations they were strong enough to conquer China, to overawe Europe and to establish a nation greater in size than any in the past. Although they accomplished this partly by the use of their strong and ruthless military power, yet it was commerce which they used as a weapon for the subjugation of peoples and nations. ... In their conquest of Song, commerce was their advance guard which they backed with armed might.¹¹²

The merchants served the Mongols as spies to gather information and as agents provocateurs to weaken the enemies' will to resist. They gave financial support to the Mongols to enable them to build their war machine, and they excited the cupidity of the Mongols to want to conquer foreign lands.¹¹³ Chinggis Qan used merchants as spies in Central Asia and their murder provided him with an excuse for war against Khwarezm in 1219.

¹⁰⁹ Ibid.

¹¹⁰ *Yuan Shi*, ch. 17, p. 16.

¹¹¹ Much later during the 20th century, Chiang Kai-shek was to use a remarkably similar tactic of allying temporarily with the USSR to retake control of North China.

¹¹² Wang Xiaotong, *Zhongguo Shangye Shi* (Shanghai: Shang wu yin shu guan, Minguo 26 [1937]), p. 147.

¹¹³ Hu Cuizhong, *Yuanshi Xubian*, cited in *XWXTK*, ch. 28, p. 3053, col. 2.

Qubilai Qan prepared for his conquest of Song by deliberately releasing captured merchants,¹¹⁴ by making overtures to the merchant class of China, by assurances of patronage and privileges and winning them to his cause by promises of political stability and commercial opportunities so that the businessmen of China were more sympathetic to him than to the Song court.¹¹⁵

The Mongols had no prejudice against engaging in commerce. On the contrary, businessmen held an honored place in society and influential positions in government during Yuan times.¹¹⁶ Businessmen had control of the salt monopoly with its huge revenue as well as the monopolies on sale of tea, alum, and alcoholic beverages. The merchants bought the right to collect taxes; they operated banks and made loans at usurious interest rates; they held monopolies for the import and sale of precious stones, spices, and aromatic woods; they controlled the transportation system of the empire, in particular the shipment of grains from the Yangzi Valley to the Great Capital; they managed the industries for the manufacture of porcelain, silk, lacquerware, paper, cotton textiles, and other goods; they had charge over commerce, both domestic and foreign; they administered the fiscal system of the nation; and they held the franchise for printing paper money. All these were government enterprises operated to raise revenue for the state, for the Mongols needed vast sums of money for the upkeep of their huge army of government functionaries, for the expenses of their foreign campaigns, for the maintenance of their land and sea forces, for the expenditure of a luxurious court, for pensions to the royal princes and largesse to the religious orders, and for their gigantic construction programs.

Since the Mongols were not used to the sea, they needed help from Han Chinese. Among the first to lend aid to the Yuan forces were Chu Ch'ing 朱清 and Chang Hsüan 張瑄, who had made their fortune as pirates and salt-smugglers and who had turned respectable by becoming merchants.¹¹⁷ In the summer of 1275 they turned over a fleet of five hundred vessels to the Yuan navy to enable the Yuan forces to strike at the Song capital Hangzhou from the sea.¹¹⁸

¹¹⁴ In 1260, 1261, and 1265; Wang Xiaotong, *Zhongguo Shangye Shi*, p. 147.

¹¹⁵ *Ibid.*

¹¹⁶ Xia Junwen, "The power of the merchants during the Yuan period," *Zhongyang Ribao* (Nanjing), March 10-17-24, 1948, supplement on history.

¹¹⁷ Tao Zongyi, *Zhuogeng Lu*, ch. 5, p. 85.

¹¹⁸ *Xin Yuan Shi*, ch. 141, p. 6.

As we have seen above, one of the most important foreign merchants who rendered invaluable assistance to the Yuan forces by providing ships was P'u Shou-keng 蒲壽庚, a man of Persian descent, who as Superintendent of Maritime Trade at Quanzhou and as Imperial Commissioner for the Defense of the Southeast Coastal Area during the last days of the Song, was the most powerful man in South China.¹¹⁹ He controlled maritime commerce and also possessed a fleet of large-size ships — ships that were able to make ocean voyages to the Persian Gulf and back, and as the Defense Commissioner he also commanded the naval forces of Southeast China. His submission to the Mongols was the death blow to the Song cause. By transferring his merchant ships and his war vessels to the Yuan forces he ensured the victory of Yuan and the collapse of Song resistance, and he also set the Yuan forces on the path of overseas expansion.¹²⁰

It was only after the Yuan court acquired the services of Pu Shougeng that it began to expand economic relations with the states of South and Southeast Asia. Shortly after his defection to the Yuan forces, in 1277, Pu approached Sogatu, the Yuan commander and governor of Fujian, with the proposal for the establishment of diplomatic and commercial intercourse with the maritime states of the South. When Sogatu was summoned to the Great Capital in 1278, "The emperor, seeing that South China (*Chiangnan* 江南) had been conquered and planning overseas venture, appointed him governor of Quanzhou in order to bid and summon foreign states in the south to come."¹²¹ Pu Shougeng was appointed his deputy, and in a decree, issued probably at the recommendation of Sogatu and Pu, the khan declared: "The foreign nations located in the islands of the Southeast all admire our righteousness. You can permit the foreign merchants to spread the word of my feelings. If they [the foreign countries] come to my court, I would treat them with favor and respect. If they come to trade they would be permitted to attain what they desire."¹²² Sogatu and Pu Shougeng were given ten patents, each countersigned with the emperor's seal, and the foreign merchants were asked to forward these patents to the head of their country.

In the years immediately following 1281, the Yuan government sent a number of missions abroad, some successful and some not. Meng Qingyuan and Sun Shengfu were sent to Java where the king of Tumapel, in an act

¹¹⁹ *Yuan Shi*, ch. 47, p. 17.

¹²⁰ Kuwabara, *Pu Shougeng* (Feng's translation), p. 203.

¹²¹ *Ibid.*, ch. 129, p. 9.

¹²² *Ibid.*, ch. 10, p. 7.

of defiance, insulted Meng and branded him on the face. Wang Zhiweng, sent to Japan, was murdered by the crew of his ship while on the high seas. He Zuzhi and Huangfu Jie who were sent to Sukhothai and Yu Yongxian and Yilan who were sent to Malabar, were detained, imprisoned, and subsequently killed during their stop-over at Champa. The most successful were the missions of Yang T'ing-pi 楊廷璧 and Qasar-qaya 噶扎爾哈雅 to the southern coastal states of India. Through their efforts, they were able to persuade ten states to send commercial and tributary missions to China.¹²³

The envoy who made the most number of voyages was perhaps Yiqmis. After his visit to Pa-lo-po (Nepal) in 1272, he made another visit there in 1275. Besides participating in the campaigns against Annam and Java, he made two voyages to Ceylon and to Malabar in 1284 and 1287.¹²⁴ In addition, while sailing to Java and later returning from Java he sent agents to establish relations with a number of Malayan states. Yang Tingbi and Yiqmis, together, were responsible for the establishment of diplomatic and commercial intercourse with more than a score of states in the Eastern Archipelago and Southern India. These states included Malabar 馬八兒, Kaulam 俱蘭, Somnath 蘇木達, Lar 來來, Lakuwaram 那旺, Cambay 甘杯, Dali 大力, Singala 僧急里, Ceylon 僧加刺, Kelantan 吉蘭丹, Samudra 蘇木都刺, Trengganu 丁家廬, Tamiang 淡洋, Lamuri 南巫里, Mulayu 木來由, and She-p'o 闍婆 (western Java).

But trade was largely a government monopoly. Residents of the coastal areas were not permitted to carry out private transactions with foreign merchants nor take copper coins abroad. Penalty for violation was 107 lashes. Merchant ships, upon entering port, must hand over their signal flags, bows and arrows, gongs and drums to the custody of the local government office. Merchants were not permitted to buy up gold or silver from private sources for the purpose of export. Government officials who aided or abetted merchants in attempts to defraud the government by not paying sufficient import duties would be summarily arrested. Envoys of foreign states who attempted to pass off merchandise as tribute for the purpose of avoiding payment of taxes would be regarded as tax-evading, and government officials in the seaports who aided and abetted foreign merchants in avoiding the payment of duties would be given 107 lashes and dismissed from office forever.¹²⁵

¹²³ Ibid.

¹²⁴ Ibid., ch. 131, pp. 10-1.

¹²⁵ *Yuan Shi*, ch. 104, p. 3.

The severity of the law was only matched by the laxity of its enforcement. The government found it increasingly difficult, in the face of the vast riches to be derived from foreign trade, to make it a government monopoly, or even the monopoly of a few privilege merchants. With the death of Qubilai Qan two years later, in 1294, the restrictions were lifted.¹²⁶ Thereafter, foreign trade was carried on without further attempts to channel or constrict it. Private merchants, government officials, members of the court, even the empress of one of the khans, sent ships abroad to trade or bought shares in joint commercial ventures.¹²⁷ Many of the merchants became multi-millionaires.¹²⁸ Besides commissioning and organizing fleets (*kang* 綱) to sail abroad to trade,¹²⁹ the government also sought to increase its revenue by raising the import duty until it reached as high as two parts out of ten for "fine" goods, and two parts out of 15 for "coarse" goods.¹³⁰

These developments greatly stimulated Chinese merchant shipping by encouraging the export of Chinese goods while the high tariff discouraged imports. Chinese ships carried their commercial ventures to states on the perimeter of the East and South China Seas, to the Malabar and Coromandel coasts of India, and to the Persian Gulf.¹³¹ One of the ports at which they wintered during the rainy season was Pandarini, sixteen miles north of Calicut.¹³² At Cambay they would meet Frankish merchants and sell them spices, sapan wood, chinaware and pepper, but mostly cargoes that they had picked up in the East Indies.¹³³ When they sailed from China they would have cargoes of silk,¹³⁴ brocades, satin, Quzhou porcelain, calico, copper, iron, lacquer wares, coins, combs, umbrellas, copper, and iron wires. Much of the cargo, except for small quantities of gold, porcelain and silk, was sold in the first ports of call, and the merchants would then pick up articles of native manufacture that they would carry to other ports for sale. Batik cloth from Java would be sold at the Karimata Islands, Siam, and

¹²⁶ Ibid.

¹²⁷ *XWXTK*, ch. 26, p. 3025, col. 3.

¹²⁸ Meng Siming, *Yuandai Shebui Jieji Zhidu* (Peiping: Yenching University Monographs XVI, 1938), pp. 89, 144.

¹²⁹ *XWXTK*, ch. 26, p. 3025, col. 3.

¹³⁰ Wang Xiaotong, *Zhongguo Shangye Shi*, p. 155.

¹³¹ Wang Dayuan, *Taoyi Zhilue*, passim.

¹³² Ibn Batuta, in Yule and Cordier, *Marco Polo*, Vol. 2, p. 391.

¹³³ Wang Dayuan, *Taoyi Zhilue*, p. 109.

¹³⁴ Robert S. Lopez, "China silk in Europe in the Yuan period," *Journal of the American Oriental Society* [hereafter abbreviated as *JAOS*] 72 (1952): 72-6.

even as far as Mosul. At Columbo they would sell rose water, arak, and Palipatum cloth.¹³⁵

Thus, the Chinese businessmen were not only importers and exporters, but they also controlled the hauling of much of the freight throughout the waters of the Orient and the Indian Ocean. Quanzhou was the commercial capital of maritime Asia. Thus, it became a main focus of the Mongol's trade empire.

The Yuan Dynasty's Overseas Trade Empire

At home the merchants competed with the government, and by their manipulations they infringed upon the monopoly on foreign trade that the government was trying to achieve, and siphoned off a large share of the profit from maritime commerce which should go to the government. But overseas they served the government well in the attempt of the Yuan rulers to create an overseas economic empire.

One of the main objectives in sending emissaries abroad "to bid and summon" foreign states to establish relations with China was to persuade them to send missions to the Yuan court, to pay homage to the khan so as to redound to the glory and prestige of the Mongol emperor. But another objective, equally important, was to bring the foreign states into the economic orbit of China and therefore to create an overseas economic empire under Yuan domination.

To the people of China at this period, the very mention of overseas states would conjure up visions of fabulous riches. They had heard tales of golden palaces and rose-tinted pearls of Japan.¹³⁶ They had heard of Palembang where the soil was so rich that there was a saying: "Plant grain for one year, and in three years reap a harvest of gold."¹³⁷ The Philippine state of Sulu was regarded as the producer of pearls:

The large ones are worth over 700 to 800 *ting* (35,000 to 40,000 taels), the middle size ones 200 to 300 *ting* (10,000 to 15,000 taels), and the small ones ten to twenty *ting* (500 to 1000 taels). Ten thousand of the small pearls weigh from 300–400 ounces to a thousand ounces. The heavier ones come from the Third Port in the Western Ocean (Manar in India).¹³⁸

¹³⁵ Wang Dayuan, *Taoyi Zhilue*, p. 80.

¹³⁶ Marco Polo, *The Description of the World*, vol. 1, pp. 357–8.

¹³⁷ Wang Dayuan, *Taoyi Zhilue*, p. 57.

¹³⁸ *Ibid.*, p. 54.

In describing Java, the *Yuan Shi* stated, "Most of the foreign states across the sea produce rare treasures which could be used to enrich China."¹³⁹ As to Malabar, where the sultan told the Yuan envoys Qasar-qaya and Yang Tingbi that his was a poor country, the *Yuan Shi* stated: "This is a false statement. All Moslem states produce gold, pearls, and treasures, and all Moslems come [to China?] to trade."¹⁴⁰

Convinced of the wealth of the overseas states, the Yuan rulers saw in it a solution to their pressing financial problem at home. Funds were desperately needed for the maintenance of the naval forces and the huge permanent army, for preparations for foreign wars, for the upkeep of the extravagant court and the support of the nobility and the religious orders, for construction works, and for a multitude of commercial enterprises. In the view of the Yuan rulers, the foreign states that acknowledged the overlordship of China were regarded as integral parts of the empire, like the provinces of China, and since the provinces were paying taxes and offering tribute, why should the vassal states abroad not do likewise? Thus the closer states such as Korea, Annam, and Champa were called upon to furnish troops, ships, provisions, and funds for the khan's overseas campaigns. Although the distant states could not be made to furnish troops, ships, and provisions, they could at least furnish funds.

To the Yuan government, therefore, the foreign states that had entered into relations with China were not only vassal states that must periodically demonstrate their fealty by sending missions to China, but they were also units of the vast economic system of the Yuan empire. They served not only to exalt the political position of the suzerain state, but also to ensure and sustain its economic welfare. The subordinate states rendered economic support by two ways: First, indirectly by trade. By this means, they buy the products of the suzerain state, paying for them in precious metals, gems, and costly goods. But when they sell goods to the suzerain state, payment was made in paper money, which the suzerain state used to absorb more precious metals. Second, directly, by tribute, when they make an outright presentation of gold and precious stones and costly goods to their liege lord, the khan. Thus, the relationship between the suzerain and the vassal states abroad during Yuan times was somewhat analogous to the relationship between the mother country and the colonies in the mercantilistic days of European expansion.

¹³⁹ *Yuan Shi*, ch. 210, p. 8.

¹⁴⁰ *Ibid.*, p. 12.

The desire for foreign commodities was so great and the volume of imports was so large¹⁴¹ that China, during the Yuan period as during the Song period, suffered from an unfavorable balance of trade. The government derived a lucrative revenue from the duties and excise taxes and surtaxes levied on the imported goods and from the re-sale of these goods, through government monopolies, to the people, so the losses were borne by the people and the result was a general depression of the standard of living and the economy of the nation. The only way that foreign trade could be carried out at all was by supplementing the export of Chinese goods with metals.¹⁴² This was, of course, contrary to the policy of the government, which desired only the influx, not the outflow, of precious metals. During a period of 35 years — from 1286 to 1322 — the government issued decrees banning the export of metals as many as six times, but the bans could not be enforced. To make up for the drain of specie from China, the only way was to force paper money on the people. This served to absorb gold and other metals from the people. Part of the metals went to the government treasury and a part was used in paying for imported goods from abroad.

Paper money had been adopted by the Mongols as early as 1237, and the value had remained relatively stable up to 1276. The conquest of Song and the commencement of overseas campaigns multiplied government expenditure many fold, so one of the first measures to increase revenue was the issuance of more and more paper currency. In 1276, the amount of currency issue was five times that of 1275.¹⁴³ In 1282, at the suggestion of Keng Jen 耿仁, member of Ahmad's faction, the Yuan government formally decreed that paper money would be used to absorb copper coins from the people. The coins would then be transferred to the Superintendencies of Merchant Ships to pay for the gold, pearls, spices, and other goods from the merchants, so as to increase government revenue from the collection of import duties.¹⁴⁴ That the aim of the decree was to conserve gold may be seen in the fact that, a few months afterwards, another decree was issued at the suggestion of Manggudai, which forbade merchants to use gold or coins as media of exchange; only iron was not banned.¹⁴⁵ Measures were adopted to prevent exchanging of banknotes for copper cash when offered to foreign

¹⁴¹ Ibid., p. 340.

¹⁴² Wang Dayuan, *Taoyi Zhilue*, passim.

¹⁴³ *Yuan Shi*, ch. 93, pp. 6–7.

¹⁴⁴ Ibid., p. 17.

¹⁴⁵ Ibid.

merchants in the ports and to restrict the use of cash to the purchase of gold, pearls and gems, and valuable commodities.¹⁴⁶

This was unsatisfactory, but the government was determined to restrict the drain of its hoard of precious metals. In 1285, when Lu Shirong was in charge of the government's finances, he tried to put more money in circulation in order to facilitate commercial transactions. His suggestion to increase the issue of currency to three million *ting* and to mint a large number of copper coins to be distributed to the ports of Hangzhou and Quanzhou for use in trading with the foreign merchants was vetoed; instead, the government issued only two million *ting* and prohibited all private exportation of copper cash.¹⁴⁷

In banning the use of all metallic money in foreign trade, the Yuan government attempted to encourage the use of only paper money.¹⁴⁸ Some merchants, reluctant to accept the Yuan notes, exported rice to pay the imports, but this was soon prohibited by the government.¹⁴⁹ In 1287, when a new note called the *Chih-yuan* note 至元鈔 (from the reign title Zhiyuan, 1264–94) to distinguish it from the old issue which was known as the *Chung-t'ung* note 中統鈔 (from the reign title Zhongtong, 1260–4), a total of 116,000 *ting* (5,800,000 taels) of the new currency, 1,593 *ting* (79,650 taels) of silver, and a hundred taels of gold was earmarked for the purpose of enabling the businessmen of South China to carry on trade with foreign merchants.¹⁵⁰ Merchants were also provided with currency to exchange for pearls and gems in Malabar. The amounts were 1,000 *ting* (50,000 taels) in 1285,¹⁵¹ 1,000 *ting* in 1289,¹⁵² and, made possible by the success of these two earlier ventures, 50,000 *ting* (2,500,000 taels) to purchase "fine" quality goods in Malabar, Kaulam, and Bengal in 1296.¹⁵³

The policy of the Mongol-dominated Chinese government was to make the Yuan notes the medium of exchange throughout maritime Asia. All the states that had intercourse with China and were therefore regarded

¹⁴⁶ Rockhill, *Journey of William of Rubruck*, p. 424.

¹⁴⁷ Chen Bangzhan, *Yuanshi Jishi Benmo*, ch. 7, p. 33.

¹⁴⁸ *Fujian Tongzhi* (Shanghai: Commercial Press), cited in Chen Chutong, "Overseas Expansion of the Chinese People During the Yuan Period," *Jinan Xuebao* II, 1 (Dec. 1936): 126.

¹⁴⁹ *XWXTK*, ch. 26, p. 3024, col. 2.

¹⁵⁰ *Ibid.*

¹⁵¹ *Yuan Shi*, ch. 13, p. 17.

¹⁵² *Ibid.*, ch. 15, p. 10.

¹⁵³ *Ibid.*, ch. 94, p. 18.

as vassal states were required to accept and to circulate these notes, and their value was sustained by the large volume of exports from China.¹⁵⁴ However, the foreign states were not always willing to accept these notes and only did so at heavy discount in the exchange market. In Annam, a Zhongtong note of one tael valued in silver was worth 70 copper cash at the official rate and 67 copper cash at the market rate.¹⁵⁵ In Sukhothai, Zhongtong notes with a face value of 24 taels were exchanged for 10,000 cowries,¹⁵⁶ while in the adjacent state of Lopburi, a Zhongtong note of ten strings could bring in 10,000 cowries.¹⁵⁷ But in the Indian state of Orissa, a Zhongtong note of ten taels could be exchanged for a silver coin of only two mace and eight candareens (or 0.26 taels), or 11,520 cowries.¹⁵⁸

The foisting of paper money on the foreign states was an indirect way to obtain gold, jewels, and other treasures from abroad. The direct means was through demands for tribute from the satellite states. Up to as late as the Song period, the court of the Chinese emperor, accepted, in addition to taxes, products of the soil such as fruits, fowls, and animals. These were known as “local” tribute (*t'u-kung* 土貢). They were presented to the emperor to symbolize the payment of the rent that the tenants — the people of the nation — owed to the landlord — the emperor. Foreign states beyond the borders of China presented gifts once in a generation, but the Chinese emperor did not regard it as his prerogative to make demands on the foreign countries for gifts (*chih* 贄).

By the Song period, there came a change in the concept as to what constituted tribute as to who should pay tribute. In Song China, with the change from agricultural economy to money economy, tribute of the soil sent in by the provinces came to include not only birds and beasts, fruits, and grain but also gold, silver, coins, silk, and cotton textiles and manufactured goods. Simultaneously, in the alien dynasties of the north, the Khitan state of Liao and the Jurchen state of Jin, tribute came to include, not only products of the land but also money, gold, precious stones for the court, and demand was made not only their own provinces but also on neighboring states. Tribute was looked upon as a regular source of state income.¹⁵⁹

¹⁵⁴ Quan Hansheng, “Paper money of the Yuan period,” *Bulletin Academia Sinica* 15 (1948): 2.

¹⁵⁵ Wang Dayuan, *Taoyi Zhilue*, p. 13.

¹⁵⁶ Fei, *Xingzha Shenglan*, ch. 1, p. 5.

¹⁵⁷ Wang Dayuan, *Taoyi Zhilue*, p. 33.

¹⁵⁸ *Ibid.*, p. 114.

¹⁵⁹ *XWXTK*, ch. 26, p. 304, col. 1.

With their pressing need for funds, the Mongols would not be expected to overlook this source of income. As non-Chinese rulers, their conception of tribute was similar to that of the Khitans and the Jurchens. So not only did they raise taxes, operate government monopolies, manipulate currency, and sell offices to raise funds,¹⁶⁰ but they also made heavy demands for tribute. Provinces paid tribute as well as taxes, and one of the largest amounts paid as tribute was that presented by the province of Yunnan in 1330, which came to five thousand ounces of gold.¹⁶¹ Officials paid tribute, as for example, Arig-qaya's gift of 3,580 ounces of gold and 53,100 ounces of silver in 1279 and Manggudai's gift of a hundred catties of pearls in 1283 were listed as tribute,¹⁶² so were the 400 catties of pearls and 3,400 ounces of gold sent in by the Superintendency of Merchant Ships in 1289,¹⁶³ and the large pearls and millions of taels in currency presented by a merchant named Mahommad 瑪哈瑪.¹⁶⁴

Foreign states that acknowledged the overlordship of the Yuan emperor and therefore were regarded as parts of the economic system of the Yuan empire paid tribute at periodic intervals. In 1291, for example, the king of Lopburi promised in a letter to the Yuan court that he would continue to send gold.¹⁶⁵ In 1297, the king of Burma declared that he would be willing to pay 2,500 ounces of gold and silver annually.¹⁶⁶

The demand for gold and silver, for precious stones, and costly articles explains the reluctance of so many states to enter into diplomatic relations with China during the Yuan period. To send missions to kowtow before the presence of the khan and to present some paltry gift meant little to the small states, which came into contact with the power of the khan, but to make payments of treasure was another matter. Submission to the Mongol Suzerain became not just a point of honor, it became a question of cost. This was why larger states such as Japan, Annam, Champa, and Java, which would have to pay more than smaller states, resisted Yuan demands and thus obliged the khan to send his naval forces to chastise them. To permit any one state to evade payment of tribute would have set a precedent for other states to follow, and in the end, would vitiate the entire overseas economic

¹⁶⁰ *Ibid.*, ch. 28, p. 3053, col. 2.

¹⁶¹ *Ibid.*, p. 3052, col. 2.

¹⁶² *Ibid.*, p. 3053, col. 1.

¹⁶³ *Yuan Shi*, ch. 15, p. 10.

¹⁶⁴ *XWXTK*, ch. 28, p. 3053, col. 1.

¹⁶⁵ *Ibid.*, p. 3054, col. 2.

¹⁶⁶ *Ibid.*, col. 1.

system of the Yuan empire. Thus, the economy of Yuan China rested, for a large measure, on its sea power.

Conclusions

The Yuan period was a time of transition from the free trade of the Song to the tributary trade of the Ming. It was an age of vast commercial enterprises built upon the foundation laid during the Song period and developed under the patronage of the Mongol court, which saw in them a prime means of increasing its revenue. The policy of the Yuan rulers was to draw in gold, silver, precious stones, and other treasures from the vassal states in the form of tribute or in exchange for Chinese commodities and Chinese paper notes. In this scheme, the Yuan court was aided and abetted by the merchants, who were a wealthy and influential class, high in imperial favor. They served the Yuan government, too, in building and furnishing ships for the navy, in managing foreign trade and other government enterprises, and acting as espionage and diplomatic agents to bring foreign nations under Mongol domination and to facilitate Yuan expansion on the sea.

Ultimately, the Mongol attempt to extend their empire into Southeast Asia failed. Very quickly, Yuan diplomacy became entangled in native politics. Lack of knowledge of the political situation of the overseas countries of the south and lack of understanding of the motives of the native chieftains contributed to the failure of Yuan arms. Raden Vijaya, Prince of Majapahit, whom the Yuan officials supported, revolted when the Yuan forces had served his purpose, and Indravarman the King of Champa, whom the Yuan court believed to be friendly, waylaid Yuan embassies and resisted the khan's officials.

As serious as the lack of knowledge and information were the lack of manpower and lack of sufficient shipping. The men and warships sent on expeditions to the south were only those that the court could spare from the preparations for the invasion of Japan. The troops were not of the best. Out of 28,700 men mobilized in Hunan and Guangdong for the invasion of Annam in 1285, 17,800 were found to be unfit. A whole division of the fleet bound for Champa in 1284 mutinied and deserted. But most serious of all was the difficulty in transporting supplies to the troops at the front. Twice the Yuan forces had to withdraw after they had conquered the Red River delta in Tongking and put the enemy to flight. These factors all combined to frustrate the efforts of the Yuan government in extending its power to the Southern Sea.

PART IV

CONCLUSIONS

Conclusions: The Collapse of the Yuan, Rise of the Ming, and China as a Sea Power

The Yuan navy gradually declined following the death of Qubilai Qan in 1294. His successors halted the preparations for further expeditions against Japan and Annam, and, despite rumors of Japanese plans to invade China, as happened in 1304, the Yuan paid little heed to the coastal defenses.¹ A large share of the responsibility for the weakening of the coastal defense fleet rested with Manggudai. It was he who started the practice of using land forces on the sea and naval forces on land. For this, he had been reprimanded by Qubilai Qan who said: "To make the men of the navy learn the techniques of land fighting and to drive foot and mounted soldiers to fight [the type of] warfare [that depended] on wind and water is [something which is] difficult to achieve and easy [to end] in failure and would not serve our purpose."²

But ignoring this wise council, the Yuan court did nothing to halt the deterioration of the Yuan navy. By the middle of the fourteenth century, an official named Wang Ssu-ch'eng 王思誠 pointed out in a memorial that in the days of Qubilai Qan, the government had a large fleet of "Sea Storks" (*hai hsien-ho* 海仙鶴) to patrol the maritime supply lines, but now (circa 1350) there were only about a dozen of these vessels left, and moreover, instead of going out to sea on cruises, they were all idle in the port of Liujiagang, permitting pirates to raid freely on the coast.

The sailors of the warships, Wang went on, had married women of the port and were reluctant to leave their families to go on patrols. To strengthen coastal defenses, he suggested that the men of the navy be prohibited from

¹ *XWXTK*, ch. 128, p. 3927, col. 3.

² *Ibid.*, p. 3938, col. 1.

marrying local women, that the fleet should go out on cruises twice a year, and that the ships of foreign merchants be halted at sea for inspection.³ Many of the ministers in the Yuan court said that Wang's proposals were good ones, but that the situation had deteriorated to such an extent that nothing could be done to remedy it.

The Rise of Piracy

The neglect of the navy and the slackening of coastal defenses were an invitation to sea rovers to molest shipping and to invade and plunder the opulent cities on the shore of the East China Sea. From abroad came Japanese pirates known as *Wako* 倭寇. In the half century since the Mongol invasion, Japan was again in the midst of civil war. There was the overthrow of the Hojo regency, the attempted restoration of imperial power, the rise of the Ashikaga shogunate, and the partition of the nation by the establishment of the Northern and the Southern Courts.

By the middle of the fourteenth century the *Wako* raids on Korea became events of annual occurrence. The raids grew in scale and ferocity until in 1363, for example, one of the raids was carried out by as many as 263 ships.⁴ Their operations extended down to the China coast to as far as Shandong,⁵ until they were defeated by Yuan coast guards under Liu Hsien 劉暹 at P'eng-chou 蓬州 (possibly modern Penglai) in 1363.⁶

Hard-pressed for funds and for food, the Yuan government levied more taxes, thus increasing the already heavy burden of the people. Peasant revolts broke out in the region between the Yellow River and the Yangzi and in Hubei and Zhejiang, areas from which the Yuan government obtained a large portion of its food and revenue. Lawlessness became widespread. Chang Shih-ch'eng 張士誠, a smuggler and illicit dealer in salt, rose to power in Jiangsu, occupying not only the rice-producing center but also controlling the lower sections of the Grand Canal.⁷

Fang Kuo-chen 方國珍, a pirate, operating from the islands off the coast of Zhejiang, attacked merchant shipping and the grain transports

³ *Yuan Shi*, ch. 183, p. 2.

⁴ Takekoshi Yosaburo, *Wako-ki* (Tokyo: Hakuyōsha, 1939), pp. 75–6.

⁵ Goto Hideo, "Kiaochow-wan, the center of Wako activities in Shandong," *Shigaku Zasshi* 25, 12 (Dec. 1914): 1519ff.

⁶ *Yuan Shi*, ch. 46, p. 6.

⁷ The middle section was opened in 1289, during Sangga's administration, giving the Grand Canal a shorter and more direct route.

plying the coastal waters of China. Fang, a native of Taizhou in Zhejiang, had fled to sea when he was falsely accused of consorting with outlaws. Adventurers, desperadoes, and other fugitives joined him so that he soon had a force of several thousand men and a fleet of swift ships to harass the Yuan transportation system. By 1348, Fang Guozhen was one of the first, if not the first, of the popular Han leaders to raise the banner of revolt against the Mongols.

A Yuan fleet under Dorjibal 朶兒只班 was sent against Fang, pursuing him to Wu-hu-men 五虎門, the entrance of the Min River in Fujian, where it caught up and surrounded Fang's pirate ships. But the defection of the crew of the Yuan warships permitted Fang to escape, Fang then turned around, destroyed the Yuan fleet, and captured Dorjibal. To obtain Dorjibal's release, the Yuan government conferred the governorship of Qingyuan (Ningbo) on Fang. Fang accepted the office but continued his raids on the coastal cities.

In 1351, after suffering two defeats, Fang Guozhen was again surrounded by Yuan warships. Fire-rafts were launched to burn Fang's fleet when the sailors on the Yuan ships again permitted Fang to escape, defeat the Yuan fleet, and capture the Yuan admirals. In the following year, the Yuan government sent two fleets against him, one moving north from Fujian and the other moving south from Zhejiang, but Fang successfully eluded capture.

Finally, to win Fang over, the Yuan government promoted him to be Commander of Ten Thousand for Grain Transportation by sea in the hope that by making him responsible for the safety of the grain transports it would restrain him from attacking them. In 1358, the Yuan government elevated him to be a councillor of the Ambulatory Department of Zhejiang and convinced him to invade the territory of his neighbor Zhang Shicheng, in the hope that they would destroy each other. But Fang, in a series of land and sea victories, won the war. However, in the following year, he surrendered to a new leader who had risen to power in Anhui, a man named Zhu Yuanzhang who was destined to be the founder of the Ming Dynasty.⁸

Meanwhile, suffering from a shortage of food, the plight of the Yuan court was becoming more and more desperate. To win back Fang Guozhen, the Yuan court in 1359 made him governor of Zhejiang, conferring also an important post on his neighbor Zhang Shicheng. In return, Fang was to

⁸ Cha Jidao, *Zuiwei Lu* (1633) (SBCK), "Biographies," ch. 6, p. 4.

provide the ships and Zhang the grain. The two men had just fought a war against each other and they would not cooperate. Zhang feared that Fang would capture the grain and Fang feared that Zhang would seize his ships. Finally, a Yuan negotiator arranged for the grain to be sent south to the port of Ganpu to be loaded onto Fang's ships. By this way, 110,000 piculs was shipped to the capital. This arrangement lasted until 1363 when Zhang Shicheng halted further grain shipments.⁹

The suspension of grain shipments brought immediate suffering and privation to the Yuan capital. The famine was so severe that cases of cannibalism were even reported. In describing the conditions, a Ming writer said:

During the period of prosperity of the Yuan Dynasty, an average of four million piculs [of grain] was shipped [to the capital by the sea route and the canal]. In the last years, it was only by begging from its rebel officials that it was able to get a hundred thousand piculs, and in the end not a peck or bushel was shipped. By that time a peck of rice cost six taels of silver. Members of patrician families and powerful officials wore robes of silk and embroidery, pearls and jade, but their stomachs were racked by hunger and they were on the verge of starving to death. Alas, how pitiful!¹⁰

Food shortages, financial losses, and corruption all contributed to the overthrow of Yuan power. Thus, just as a strong Yuan navy safeguarded the supply lines to permit the shipment of food from the South, and extended Yuan power abroad to enable the Yuan government to draw upon the wealth of the Indies to sustain the economy of China, a weak navy was a principal cause of the collapse of the Yuan empire.

The Han Exodus out of Yuan China

The Yuan period saw the first wholesale exodus from China. The emigrants went abroad to seek asylum from political oppression at home or to seek economic opportunity to make a living. Many were Song adherents who transported their hostility to the invaders of their homeland abroad by attempting to influence the rulers of foreign states to take up arms against the Mongols; their acts provoked the Mongols to send out overseas

⁹ *Yuan Shi*, ch. 97, p. 1.

¹⁰ Qiu Jun, *Daxue Yanyi Bu*, ch. 34, cited in Kuwabara Jitsuzo, "North and South China in the view of history," p. 466, note 66.

expeditions. Settling abroad in large numbers, the Han Chinese rose to positions of prominence, and they founded colonies, a number of which were wealthy and powerful. Thus, while politically and militarily, the overseas empire that ambitious rulers of China tried to build proved to be temporary, commercially, the Chinese people succeeded in founding an overseas commercial empire that was to flourish to the present day.

The Mongol invasion of China also accelerated the exodus of military men from China. Many of the officers and men of the Song army found their way to Annam and Champa. Some went farther, to Singora, a state on the Malay Peninsula, and to the island of Sumatra.¹¹ A number of them even reached Ceylon. Singhalese chronicles tell of Chinese soldiers who took service in the army of King Panditha Parakrama Bahu II (1222–57), and how large quantities of Chinese weapons were imported for their use.¹²

The collapse of Chinese resistance in Guangdong and the destruction of the Chinese fleet at the 1279 Battle of Yaishan led to a wholesale flight of Chinese soldiers to foreign countries. In Annam and Champa, there were so many Song officers and soldiers that they were organized into their own units. The best known of the Chinese corps was that under Chao Chung 趙忠 who with his men had enlisted as the household guards of one of the Annamese princes. Wearing Song uniforms and fighting in the close-rank formation of Song armies, it was their timely appearance that turned the tide of battle, forcing the Yuan troops to withdraw from Tongking.¹³

Song expatriates in Champa provoked Qubilai Qan to launch an invasion of Champa, his first naval expedition into the South China Seas. First, it was on the instigation of the Chinese that the Chams seized the ships carrying four Mongol envoys to Siam and Malabar and arrested the envoys. When the Yuan court decided to send an army by sea under the command of Sogatu to chastise Champa, the khan said, "The old king is innocent. The guilty ones are his son and a man of Man 蠻 that is a Chinese. [Manzi was the Mongol term for South China.]"¹⁴ Then, when the Mongol troops landed in March 1283 on the coast of Champa, a Chinese named Tseng Yen 曾延 sought to delay the Mongol attack by going personally to the Mongol camp and giving false information in order to give the Chams

¹¹ Wen, *Nanyang Huaqiao Tongshi*, p. 43.

¹² Donald Obeyesekere, *Outlines of Ceylon History* (Colombo: The Times of Ceylon, 1911), p. 191.

¹³ *DVSKTT*, cited in Yamamoto, *Annanshi Kenkyu*, p. 184.

¹⁴ *Yuan Shi*, ch. 210, p. 5.

time to prepare.¹⁵ Later, in 1285, the khan thought that he could remove the source of anti-Yuan political activities by ordering his general, Li Heng, to sail to Champa and arrest the Song Prince Guang and Chen Yizhong.¹⁶

Many Chinese civilians also went abroad to fight the Mongols. Cho Mou 卓謀, a Hakka farmer from the district of Jiaying, first joined the army of Wen Tianxiang. After Wen's defeat and capture, he and his men made their way to Yaishan to join the Song fleet. When the fleet was destroyed in March 1279, Zhuo escaped. He sailed to the northern coast of Borneo, fought off the Dyaks, and after more than 20 years of labor he succeeded in founding a small, short-lived state in Borneo.¹⁷

Large numbers of Song troops were incorporated into the Yuan armies and were sent abroad in the overseas expeditions. Many deserted when they landed in foreign countries. One of the most fabulous exploits was the founding of a kingdom on the coast of India by a Chinese officer in the Yuan army. The merchant Wang Dayuan who visited this kingdom, named Ma-lu-chien 馬魯澗 (Warangal?),¹⁸ wrote this account about it:

It is in size about 18,000 *li* in perimeter and is one of the Western countries that acknowledges the overlordship of China. Its chief is a man from Yuan named Ch'en 陳, born in the district of Lin-chang 臨漳 [in Henan]. In his youth, he learned to read but when he grew up he became a soldier and in the beginning of the dynasty he rose to become the garrison commander of Kan-chou 甘州 [in Gansu]. Then he entered this country, conquered it, and never returned home.¹⁹

Throughout the Song and Yuan periods, more and more Chinese arrived in Southeast Asia, since it was the natural and easier thing to do to go to places where their compatriots had secured a firm footing and prospered. So many came that, by the beginning of the fifteenth century, a traveller — Ma Huan 馬歡, one of Zheng He's chroniclers — who visited Palembang, was able to write: "Most of the people of this state are men from Guangdong, Zhangzhou and Quanzhou who had fled to this place. They have become wealthy for the land is rich."²⁰

¹⁵ Ibid., p. 6.

¹⁶ Ibid., ch. 13, p. 11.

¹⁷ Huang Jingchu, *Huajiao Mingren Gushi* (Changsha, 1940), pp. 2–3.

¹⁸ Yamamoto Tatsuro, "Concerning the origin of the names T'ung-yang and Hsi-yang," *Toyo Gakko* 21, 1 (Oct. 1933): 114–6.

¹⁹ Wang Dayuan, *Taoyi Zhihui*, p. 109.

²⁰ Ma Huan, *Yingyai Shenglan*, p. 25.

Gradually the Chinese grew in strength so they were able to overthrow the native rulers and to occupy the land.²¹ One of the many Chinese who rose to positions of prominence was a Southern Chinese²² named Liang Tao-ming 梁道明 who seized control of Djambi 詹卑, a district north of Palembang. Consolidating his power, Liang soon found himself strong enough to occupy Palembang, which was “renamed Chiu-kang 舊港 (Old Port) ... Several thousands of families of soldiers and civilians from Fujian and Guangdong sailed across the sea to join them. They elected Liang Daoming chief, and his authority extended over the entire area.”²³ This large Chinese colony of Jiugang, established in the middle of the fourteenth century, was destined to play a dramatic role during the voyages of Zheng He. It was probably the largest of the Chinese colonies in Sumatra.

Besides Sumatra, there were also clusters of Chinese colonies in eastern Java, the largest and most prosperous was Grisee which the Chinese named Hsin-ts'un 新村 (The New Village).²⁴ It owed its prosperity to the fact that it served as the business center and seaport for both Tuban, which was half a day's journey to the west, and Surabaya, which was 20 *li* [about seven miles] to the south.²⁵ Originally, the place “was a piece of barren sandy land. The Chinese came and settled here and named it Ssu-ts'un [Hsin-ts'un] 廟村. They are wealthy people from Guangdong and they number over a thousand families. Foreigners from everywhere come here to trade. They sell gold, precious stones of all kinds, and other foreign goods. The citizens are prosperous.”²⁶

The harbor was crowded with ships from all parts of the Orient, the streets of the city were busy with traffic, the stores along the streets bustled with activity, and the people, living closely together over their stores or in the residence quarters, continued the customs and traditions of their homeland.²⁷ It was indeed a Chinese town transported to a tropical land. These Chinese communities in Java remained to the Ming period when they were visited by the fleet under Zheng He.²⁸

²¹ *Ming Shi*, ch. 324, pp. 18–9.

²² From Nanhai district in Guangdong.

²³ *Ming Shi*, ch. 324, pp. 18–9

²⁴ Liu Jixuan and Su Shizheng, *Zhongguo Minzu Tuozhi Nanyang Shi* (Shanghai: Commercial Press, 1934), p. 72.

²⁵ Fei, *Xingzha Shenglan*, ch. 1, p. 6.

²⁶ Ma Huan, *Yingyai Shenglan*, pp. 16–7.

²⁷ Fei, *Xingzha Shenglan*, ch. 1, p. 6.

²⁸ Victor Purcell, “Chinese Settlement in Malacca,” *JMBRAS* 20 (June 1947): 124.

The Rise of the Ming Dynasty

The naval developments in the late Song and Yuan periods were but the prelude leading to the climax in the early Ming period, when the Chinese navy reached its apogee as a sea power. In 1355, two years after he had organized his own rebel army, Chu Yuan-chang 朱元璋, who later became the Ming Emperor Hongwu, found that he needed ships to cross the Yangzi River to attack Chi-ch'ing 集慶 (Nanjing). He succeeded in winning over the pirate Liao Yung-chung 廖永忠 to his cause. With the aid of Liao's junks, he was able to defeat the Mongols in two naval engagements to capture Jiaqing in 1356.

For the 11 years that followed, the war that Hongwu waged against his rivals were fought more on water than on land, including along the Yangzi River, on the Dongting, and on the Boyang and Dai lakes. By the employment of his fleet to shuttle his troops back and forth on the Yangzi, he was able to wage a two-front war, in the east against Chang Shih-ch'eng 張士誠 and in the west against Ch'en Yu-liang 陳友諒, both of whom had powerful naval forces. In the battle on the Boyang Lake, 30 August–2 September 1363, Hongwu's ships, though smaller than the three-deck giants of Chen's fleet, emerged victorious because of greater fire-power of their artillery and their more mobile tactics. With Chen's forces destroyed, Hongwu turned to the east and after heavy fighting destroyed Zhang's fleet. The river phase of his campaign ended with him in possession of the lower section of the Yangzi.

The maritime phase of the campaign began in 1367, when Liao Yongzhong and T'ang Ho 湯和 were sent with a fleet down the coast to Zhejiang against the pirate Fang Kuo-chen 方國珍. They drove Fang from his stronghold at Ch'ing-yuan 慶元 (Ningbo), and converted the port into the first Ming naval base. Pushing southward along the coast, the Ming fleet grew quickly in size and strength. In October, the Ming fleet defeated and captured Fang's main force, a fleet of 60 sea-going ships, at Dinghai. In the following month, the Ming fleet seized Fuzhou and took as prizes 103 sea-going ships belonging to Ch'en Yu-ting 陳友定, the warlord of Fujian. At the approach of the Ming fleet, Ho Chen 何真, governor of Guangdong, surrendered, and in April 1368, Liao Yongzhong sailed up the Pearl River to Guangzhou to take possession of five hundred junks. Meanwhile, to send supplies to the troops marching north against the Yuan capital, Hongwu ordered Tang He to construct sea-going transports at Qingyuan (Ningbo) and the first ships reached Tanggu in May.

With the expulsion of the Mongols and the establishment of the Ming dynasty in 1368, there was less call for the navy, but Hongwu continued to

enlarge and to strengthen it. The navy-building program was the basic part of the reorganization of the coastal defense system. According to the plan, each patrol station (*pai-hu so* 百戶所) was to have one warship manned by a hundred men. Ten patrol stations were to be under one military sub-station, which would have ten warships manned by a thousand men. Five sub-stations were to be under a military station (*wei* 衛), which would have 50 warships manned by five thousand men.²⁹ The court instructed the provincial authorities to supply ships to make up shortages so that the military stations would be up to full strength. Damages to the vessels were to be repaired by the soldiers of each station.³⁰

With 56 military stations on the coast of China from Liaodong to Guangdong during the beginning of the Ming period,³¹ there should have been 2,800 warships. However, this plan for the expansion of the Ming coastal defense navy seems to have remained largely on paper. Only Zhejiang, which was one of the ship-building centers, had a coastal fleet at full strength. With 11 military stations, it had its full quota of 550 warships.³² In the other seaboard provinces, the coastal defense fleets were under strength. Guangdong, for example, with nine military stations, should have had 450 warships, but there were actually only 300 ships attached to six naval bases.³³ The imperial fleet of four hundred ships was stationed at Hsin-chiang-k'ou 新江口 near Nanjing.³⁴ Nearby was the Lung-chiang Ch'uan-ch'ang 龍江船廠, the imperial shipyard, which was built by the Hongwu Emperor, and constructed the warships for the government.

The Yongle Emperor, who seized the throne in 1403, strengthened the coastal defenses by increasing the number of warships in the military stations and substations. Every year, a high-ranking military officer was sent to supervise the patrol of coastal waters by the combined fleets of the seaboard provinces. From 1404 to 1411, except for the years 1406–7 when he was transferred to active duty in the war in Annam, the officer in command of the coastal fleets was Li Pin 李彬. Because the length of the coastline of China made it difficult for one fleet to patrol it, Li Bin divided his fleet into two squadrons. One squadron, under the command of Liu Sheng 柳昇, who had distinguished himself in the naval campaign in Annam, and

²⁹ *XWXTK*, ch. 132, p. 3969, col. 1.

³⁰ Bu Datong, *Beiwu Tuzhi* (Baoyantang Miji), p. 3.

³¹ Hu Zongxian, *Chouhai Tubian* (preface date 1624), ch. 7, passim.

³² *Shaoxing Fuzhi* (1792 edition), ch. 22, p. 13.

³³ *Guangdong Tongzhi* (1822 edition), ch. 23, p. 19.

³⁴ *Ming Shi*, ch. 92, p. 15.

Ch'en Hsüan 陳瑄, who had been in charge of the shipment of grain by sea to Beijing, had the dual tasks of patrolling the waters off the coast of Shandong and Jiangsu and also safeguarding the grain transports. It was this squadron that defeated a large concentration of Wako at Ch'ing-chou 青州 and Chin-shan 金山 in 1409. The second squadron, under the command of Chiang Ch'ing 姜清 and Chang Chen 張真, had the responsibility of patrolling the southeastern coast of China. The 50 ships and five thousand men were drawn from the military stations in Fujian and Guangdong. In the fall of 1408, a detachment of this squadron routed a large force of Annamese pirates at Qinzhou (Yamzhou), pursuing them down the coast of Annam.³⁵

Besides the imperial fleet at Nanjing and the coastal defense squadrons, there were two other fleets. One was the high-seas fleet, based at Ch'ang-lo 長樂 (near Fuzhou), which Zheng He and other officers used in their numerous voyages to the South China Sea and the Indian Ocean. The ships of this fleet were the largest in the Ming navy. The first class ships were 444 feet long with a beam of 180 feet while the second class ships were 370 feet long and 150 feet wide.³⁶ The mainstay of the high-seas fleet was not these huge ships but the smaller and more maneuverable vessels called "eight-oared" (*pa-lu* 八櫓).

The other special fleet was the grain transportation fleet, which was also, during the early Ming period, operated by the navy. This fleet, based at Liu-chia-kang 劉家港, at the entrance of the Yangzi, numbered at one time three thousand ships, large and small. There were four shipments of grain a year to supply the need of the national capital, which Yongle had established in Beijing. The transports were large 1,000-unit (*liao*) vessels and also smaller-size craft.

Besides having better ships, the early Ming navy also had better weapons than its enemies. It was a master of artillery who deserted the Mongols and joined Hongwu in 1355 that enabled him to defeat the Yuan fleet and to capture Jiqing (Nanjing). Later, it was by use of firearms that he defeated the fleet of Chen Youliang on the Boyang Lake. Realizing the value of this new weapon, Emperor Hongwu made it standard throughout the Ming forces. Each war junk on the coast defense fleet carried 16 arquebuses, 20 bows, rockets, grenades, smoke-pots, and naphtha-launching tubes.³⁷

³⁵ *Ming Shilu*, "Yongle," ch. 66, p. 6.

³⁶ *Ming Shi*, ch. 304, p. 2.

³⁷ *XWXTK*, ch. 134, p. 3995, col 1.

The ship-building program was carried out by both the Board of Public Works at Nanjing and by the provincial military stations. In addition to the principal government shipyard at Longjiang outside of Nanjing, ships were also built in yards at Yangzhou, Ningbo, Suzhou, Anjing, Zhenjiang (Jinjiang), Dinghai, and as far inland as Jiangxi and Hubei. Ship-building went on during the first ten years of Yongle's reign. The two peak years were 1403, when 361 sea-going ships were built, and 1405, when 1180 vessels were ordered to be constructed. These ship-building efforts, of course, were linked with Zheng He's expeditions, which began in 1406.

The Expeditions of Zheng He

In the first year of his reign, Yongle sent envoys abroad to announce to the states of Southeast Asia, Japan, and India, his ascension to the throne and to bid them to re-establish diplomatic and commercial relations with China. To give visible evidence of the power of China and to provide military support for his envoys, Yongle sent his fleet down on several expeditions into the South China Sea and the Indian Ocean. Of these expeditions, the largest and best known were those conducted by Zheng He, who sailed abroad on seven official missions and another time on personal business, making a total of at least eight voyages.³⁸

Yongle's motives for sending abroad these naval expeditions have not been clearly stated. It has been suggested that the expeditions were sent because (1) it was the policy of the Ming court to develop commerce with states in Southeast Asia and India, (2) Yongle wanted to extend the power and prestige of China to foreign lands, (3) Yongle desired to seek the whereabouts of the Jianwen Emperor, his nephew, whose throne he had usurped, and (4) palace attendants wished to please Yongle by bringing back rare gifts from abroad.³⁹

Of these four reasons, the first two seem more cogent. Yongle conceived of himself as being the ruler of a universal state in which China was the core and it was his ambition to make the foreign states of East Asia acknowledge his suzerainty. On Zheng He's first voyage, the *Ming Shi* stated that he "visited the various foreign states to proclaim the decree of the Son of

³⁸ Zheng Hesheng, *Zheng He Yishi Huibian* (Shanghai 上海: Zhonghua shu ju, Min guo 37 中華書局, 民國 37 [1948]), p. 111.

³⁹ For more on the reasons behind the voyages, see Geoff Wade, ed., *China and Southeast Asia* (London: Routledge, 2009).

Heaven and to confer gifts to their rulers, using military power to overawe them when they would not submit."⁴⁰ At the same time, the fleet under Zheng He's command consisted not only of warships but also large cargo ships known as "treasure ships" (*pao-ch'uan* 寶船). At each port of call while Zheng He or other envoys took care of the affairs of state, their subordinates took care of the transaction of business.⁴¹

Each voyage began with Zheng He receiving official orders at Nanjing. He then sailed down with part of the fleet to Changlo, near Fuzhou, to take command of the main fleet. The supplies were furnished by the Board of Public Works at Nanjing and the local authorities, and the troops were drawn from the garrison at Nanjing and military stations along the coast. Although the number of ships in the different expeditions varied from 40 (in the fourth voyage, 1412–5) to 62 (in the first voyage, 1406–7), the number of men in each voyage averaged 27,000 to 28,000. They included "officers, soldiers of the flag, cooks, purveyers, helmsmen, interpreters, clerks, accountants, buyers, doctors, anchor-makers, caulkers, carpenters, seamen, and others."⁴²

Zheng He's first voyage lasted from 1406–7. During the Yuan period, China had dominated the countries of Southern Asia. But in the civil wars that accompanied the fall of the Yuan dynasty, there was a withdrawal of the political influence of China in the south, which the first Ming emperor, Hongwu, preoccupied with the consolidation of his government, did little to reassert. Many of the states in Southeast Asia ceased sending envoys to the Chinese court and some even treated lightly the pretensions of the Chinese emperor. In the fourteenth century, Majapahit had achieved dominance over the states of the South China Sea. The Majapahit rulers, while jealous and apprehensive of the extension of Chinese power into what they considered to be their sphere of influence, tended at first to under-rate China's military strength. It was therefore necessary for Zheng He to make a show of strength.

When Zheng He's fleet arrived off the coast of Java, it did not meet formal resistance from the Majapahit navy. However, when 170 men of his fleet landed on "shore leave" they were "accidentally" killed by the king of Tumapel. Zheng He strongly protested and compelled the king to send an envoy to Nanjing to apologize for the incident. Yongle demanded an indemnity of 60,000 taels of gold, but later, after much negotiation, the

⁴⁰ *Ming Shi*, ch. 304, p. 2.

⁴¹ Ma Huan, *Yingyai Shenglan*, passim.

⁴² Zhu Yunming, *Qianwen Ji* (CSJC), pp. 72–5.

incident was settled diplomatically by Zheng He with the payment of 10,000 taels of gold by Tumapel. Majapahit was unable to do anything to help its vassal, Tumapel.⁴³

After visiting various states on the Malay Peninsula and the island of Sumatra, the Ming fleet sailed across the Bay of Bengal to the southern Indian state of Calicut. There, Zheng He conferred investiture on the king of Calicut and raised a stone monument to mark the extension of China's power to countries "ten thousand li across the sea."

Except for Java, where there was no armed clash, the only other resistance that Zheng He encountered was at Palembang 舊港 and this was not from the natives but from Chinese pirates. During the latter part of the fourteenth century large numbers of Chinese from Fujian and Guangdong had settled at Palembang. As the power of Majapahit declined, the Chinese settlers took possession of Palembang and its adjoining countryside and by commerce as well as by piracy they became strong and wealthy. Their leader was Liang Tao-ming 梁道明 who, having sent envoys to the court at Nanjing, received assurance of support from the Chinese government.

Later, when Liang became enfeebled by age, his power was challenged by a new leader named Ch'en Tsu-i 陳祖義, so that at the time of Zheng He's first voyage, the Chinese colonists at Palembang were split into two hostile factions. When Zheng He passed through Palembang on his return voyage from Calicut, Shih Chin-ch'ing 施進卿, who had succeeded Liang Daoming, told him that Chen Zuyi was a pirate and was preparing to waylay the Chinese fleet with its valuable cargo. Zheng He was ready when Chen Zuyi's forces attacked. He defeated Chen's pirates, burning ten ships and capturing seven.⁴⁴ Upon Zheng He's report of the event and his recommendation, Yongle made Palembang a *hsuan-wei-ssu* 宣慰司, an administrative district of China, with Shi Jinqing as governor.

While Palembang was a good port, the Chinese had the use of a better port further in the north. This was Malacca, which controlled the strategic strait connecting the China Sea and the Indian Ocean. In 1405, it was only a small fishing village paying a tribute of forty taels of gold to Siam. The chief of Malacca sent an envoy to Nanjing to ask for China's support, saying that "the king of Malacca wished to see Malacca in the same status as a province of China."⁴⁵ Yongle was very pleased. He invested the chief of Malacca with the formal title of king, elevated Malacca to the status of

⁴³ *Ming Shi*, ch. 324, p. 15.

⁴⁴ *Ming Shilu*, "Yongle," ch. 52, p. 7.

⁴⁵ *Ibid.*, ch. 38, pp. 4-5.

a state, and warned Siam not to encroach on Malacca any more.⁴⁶ In 1405, Malacca came under the control of China, and the mountains of Malacca were given Chinese names. Since then, Malacca had been used as a base for the Ming fleets. It was at this port that the fleet of Zheng He split into squadrons to go to the various states and it was here that they met again for the return voyage to China.

Zheng He's second voyage lasted two years, from 1407–9. Arriving at Malacca, the fleet split up. One detachment, under Chang Ch'ien 張謙, sailed to Brunei, where the Chinese envoy told the king of Brunei that he would no longer have to pay an annual tribute of forty catties of refined camphor to the Majapahit rulers of Java. A Chinese name was conferred on the principal mountain of Brunei and a stone monument erected. A line on the inscription read: "look up to our great Ming [dynasty] henceforth for ten thousand years."⁴⁷ The main fleet sailed to Ceylon, where Zheng He caused to be erected a stele bearing inscriptions in three languages claiming Chinese suzerainty over the island.

The third voyage also lasted two years, 1409–11, and included 27,000 men in 48 ships. The countries visited included Champa, Cambodia, Karimata, Gelam Island, Java, Janggala, Palembang, Tamaing, Malacca, Pahang, Pule Condore, Lankasuka, Sumudra, Aru, Achin, in the Malay Archipelago; the Bras Island, the Nicobar Islands, the Maldive Islands, Ceylon, Kaulam, Cochin, Bengala, in the Indian Ocean; La-sa (Lar), Hormuz, Dzufar, Aden, and Mecca, in the Persian Gulf and the Red Sea; and Brawa and Mogadishu on the East coast of Africa. The fleet did not sail to all these places as one unit, but split itself into squadrons (*fen-tsung* 分隊). A part of the fleet sailed to the Liuqiu Islands and another part to the Philippine Islands.⁴⁸

Returning from its visit to Red Sea ports, the squadron under Zheng He's personal command came under attack by the king of Ceylon, Vira Vijaya Bahu VI, known as Alagakkonara. The attack was launched by 50,000 Singhalese troops while Zheng He with an armed escort was ashore. Instead of returning to his ships, Zhang He marched inland and occupied the king's capital. When Alagakkonara returned to relieve his capital, he was ambushed and captured by the Chinese and taken as prisoner to Nanjing. In his place, the Chinese selected a docile Singhalese prince to rule as king,

⁴⁶ *Ming Shi*, ch. 324, p. 12.

⁴⁷ Cha, *Zuiwei Lu*, ch. 36, p. 60.

⁴⁸ Lu Rong, *Shuyuan Zaji* (CSJC), ch. 3, p. 25.

a man who was willing to acknowledge the overlordship of the Chinese emperor.⁴⁹

The fourth voyage, 1413–5, visited Malacca, Champa, Sunda, Pahang, Kelantan, then sailed across the Bay of Bengal to Calicut, Lambri, and Cochin in southern India, and then to the Maldive Islands and Hormuz. On its return voyage, Zheng He intervened in the internal affairs of the state of Achin (Aceh), in northern Sumatra, where an adventurer named Sekandar had usurped the throne. The Chinese landed and defeated the Battak forces under Sekandar, and took him in chains to Nanjing where he was executed. During the fifth voyage, 1417–9, Zheng He visited Champa, Malacca, Sumatra, Java, Pahang, Palembang, Calicut, Ceylon, Lambri, La-sa (Lar), Cochin, the Maldive Islands, Aden, Hormuz, Malinde, Mogadishu, and Brawa. A mountain in the south India state of Cochin was given a Chinese name. Finally, during the sixth voyage, 1421–2, the fleet called at Malacca, Aru, Calicut, Lambri, Ceylon, the Maldive Islands, La-sa (Lar), Cambay, Aden, Mogdishu, Dzufar, and Brawa. The voyage was uneventful.

In 1424, Zheng He was sent on a mission to Palembang. Shi Jinqing, the governor of the Xuanweisi of Palembang, having died, Zheng He was sent to appoint his son Shih Chi-sun 施濟孫 (his daughter, according to Ma Huan), as the new Chinese governor of Palembang. Zheng He went alone in this voyage, not in command of a sea-going fleet.⁵⁰

By the time Zheng He returned to China from this mission, the Yongle Emperor had died. The new emperor, at the advice of the minister Hsia Yuan-chi 夏原吉, immediately ordered the discontinuation of the expeditions to the “Western Ocean.” As the capital had been moved to Beijing in 1420, a new military force was created to garrison Nanjing and the men of Zheng He’s fleet were given this assignment. The Hongxi emperor died in 1425, after ruling only a year, and was succeeded by Xuande.

Emperor Xuande acted cautiously during the first years of his reign, and it was not till Xia Yuanji, his chief counsellor, died in 1430, that he issued a decree ordering Zheng He to go to sea again. The seventh voyage lasted from 1431–3: The fleet, manned by 27,550 men, visited Siam, Palembang, Malacca, Aru, Cochin, Calicut, Ceylon, Lambri, La-sa (Lars), Cambay, the Maldive Islands, Hormuz, Aden, Dzufar, Mecca, Mogadishu, Brawa, and Juba. At Siam, the Chinese envoy lodged a strong protest with the king of Siam for interfering with the voyage of the ambassador of Malacca to China.

⁴⁹ *Ming Shi*, ch. 326, p. 6.

⁵⁰ Duyvendak, *China's Discovery of Africa*, pp. 387–8.

The End of the Ming Expeditions

Upon his return, Zheng He resumed his post as commandant of the Nanjing garrison, where he died at the age of 62 two years later. With Zheng He's death, the far-ranging voyages of the Ming navy came to an end. However, within a period of 30 years, the seven principal voyages of Zheng He as well as the many voyages by his colleagues had, by the display of China's naval might, served to establish the political power of China over nearly all of maritime Asia. Chinese warships visited states from the Sea of Japan to the east coast of Africa. The *Ming Shi* listed 42 states that sent envoys with gifts, which the Chinese called tribute, to the Ming court.

While modern scholars often portray Zheng He's journeys as peaceful, he brought back as prisoners the king of Ceylon and the rulers of the Battaks in northern Sumatra, and replaced them with men chosen by the Chinese government. The Chinese also virtually created the kingdom of Malacca and made it their naval base for their activities in the South China Sea and the Indian Ocean. Palembang was ruled by a Chinese governor and a Chinese official was sent as governor to Luzon.⁵¹ Majapahit and Siam, the two strongest states in Southeast Asia, no longer dared to challenge the authority of China in the South China Sea.

The kings of states in the East Indies and Southern India received investiture from the Chinese emperor and as many as four kings went personally to the Chinese court to pay their homage. Korea, the kingdom of Chung-shan 中山 on the Liuqiu Islands, and Japan acknowledged the suzerainty of China, and the principal mountains of Japan, Malacca, Brunei, and Cochin were given Chinese names, an act that symbolized that they were to be regarded as mountains in the territorial domain of China. Annam was temporarily reconquered and ruled as a Chinese province.

The Ming fleet not only patrolled the East and South China Seas to guard against the depredation of Japanese sea-rovers but also protected the sea lanes against pirates in the Malay Archipelago and the waters of Southern India. The destruction of the fleet of Chen Zuyi at Palembang and the capture of the king of Ceylon were punitive actions, according to the *Ming Shi*, against the acts of piracy committed by these chieftains. Both Majapahit and Siam were warned against interfering with the passage of merchants and envoys through their territorial waters. To safeguard the peace in the Orient, a responsibility he assumed, Yongle sent the Ming navy to intervene in disputes between foreign states. The first instance of this

⁵¹ *Ming Shi*, ch. 325, p. 11.

function of the Ming navy was in 1403 when it responded to the appeal of the king of Champa, Jaya Sinhavarman, whose capital was besieged by the forces of the Annamese usurper, Ho Han-th'ong. At the appearance of nine Chinese warships, the Annamese fleet withdrew without giving battle.⁵²

This was the zenith of China's career as a sea power. By possession of a strong navy, China, for the brief span of 30 years, achieved political hegemony over the states of the maritime Asia, from Japan in the east to Ceylon in the west. It was the only period in her long history that China had been so strong on the seas.

China as a Sea Power

The three hundred years that spanned the Southern Song, Yuan, and early Ming dynasties saw the spectacular and far-reaching advance of the Chinese nation on the sea. During this period, the Chinese navy was first dominant on the Yellow Sea and the East China Sea, then later also on the South China Sea, and eventually extending its power into the Indian Ocean. China occupied a position of political preeminence over the maritime states of the Orient, with Chinese shipping under the aegis of China's naval power, in control over the sea-lanes and the sea-borne commerce of the East, and with Chinese emigrants sailing abroad to establish colonies in the tropical lands of the South, China was truly a sea power.

As this book has sought to show, the naval ascendancy of China actually began in the Southern Song period when the Chinese first organized a national, permanent, sea-going navy. It was the possession of these three conditions simultaneously that distinguished the Southern Song navy from Chinese navies of the past. Driven out of North China by the invasion of the Jurchens, the Song court established itself in the southeastern coast of China. There, in a region endowed by nature with the topography and resources for maritime activities, with a people who had inherited from their forefathers a naval tradition and a nautical spirit, facilitated by the technological advances of the time, and stimulated by the exigencies of war, the Chinese built a strong navy.

But it was as a weapon for defense in their life-and-death struggle against the northern invaders, and the victories of the navy off the coast of Shandong and at the mouth of the Yangzi in the War of 1161, at a

⁵² Ngo Si-lien, *Dai Viet Su-ky Toan-tho'*, cited in Georges Maspero, "Le royaume de Champa," *T'oung Pao* 14 (1913): 158-9.

time when their land forces suffered reverses on almost every front, that vindicated the policy of the men who had pinned their faith on the navy. At the same time, the reduction of the normal sources of revenue caused by the constriction of the empire and the ravages of war obliged the Chinese to look abroad to obtain supplies and funds for the sustenance of the government and the prosecution of the war. The result was the development of maritime commerce on an unprecedented scale.

By possessing and using their navy to the fullest, the Song Chinese were able to resist effectively the encroachment of the Mongol-led Yuan forces, until the invaders succeeded in building a navy of their own. With their naval forces, the invaders succeeded in crushing the Song defenses on the Han and Yangzi Rivers, in capturing the Song capital and, finally, in the historic battle of Yaishan in 1279, in annihilating the Song fleet. Remnants of the Song navy were incorporated into the Yuan navy, which became an instrument of aggression. Yuan fleets carried out overseas campaigns against Japan, Formosa, Annam, Champa, and Java. Accompanying and coordinating with the efforts made in achieving political imperialism by military means were the attempts to build an overseas economic empire. For a time there was partial success when Chinese currency was forced on states as distant as Malabar. Chinese ships brought back the riches of the Indies. Fleeing from oppression at home and lured by opportunities abroad, large numbers of Chinese left their homeland to live in foreign countries, resulting in the first mass exodus by sea in the history of China.

The naval spirit and tradition of the Song, the art of ship-building, and the nautical techniques, which were handed down to the Yuan, were in turn bequeathed to the Ming, enabling China to reach the apogee as a sea power. Chinese naval expeditions, of which those under Zheng He were simply the best known, reached lands as distant as the east coast of Africa. At its height, the political sway of China extended from Japan to Ceylon and from Korea to Java.

Never before the twelfth century and never since the fifteenth century had China been so strong at sea or had the sea exerted so great an influence on the people of China. But this sudden upsurge of maritime interest and this dramatic expansion on the sea was not an anomalous condition, an aberration from what many people would consider as the "normal" course of historical and social development of China. The advance to the East and the South followed Chinese trends of historical and cultural development. China's supremacy as a naval power during the late Song, Yuan, and early Ming period was the cumulative outcome of a number of basic factors, the

most prominent of which were geographical, historical, psychological, and political characteristics, aided by rapid technological advances.

All of these conditions contributed to and culminated in making China a major sea power during the Southern Song, Yuan, and early Ming periods. These conditions were some of the basic factors in molding the pattern of this epoch, but they were also the outcome of the dynamics of the time that made it, in the view of many authorities, the beginning of the modern age in China's history. China, in the twelfth–fifteenth centuries, was in many respects like Europe in the fourteenth–seventeenth centuries, when men were stirred by the progress of intellectual achievements and affected by the spirit of adventure, and when, in the milieu of the Renaissance and the Reformation, with the rise of capitalism and the emergence of nationalistic states, men set out on voyages of exploration for commerce and colonization, and governments funded expeditions to conquer and to proselytise.

One Chinese characteristic that resisted the outward expansion on the sea was introversion, which was due to many contradictory psychological traits in the multi-faceted character of the Chinese people. On the one hand, the Chinese exhibited an inclination for positive action and for active relations with other nations and people, which may be called the Confucian side of the nature of the Chinese. Plus, they showed a disposition for military expansion and for material self-improvement, all which channeled China's interests toward the sea. On the other hand, Taoism taught withdrawal and isolation, quiet inaction, and a passive outlook on life.⁵³ The Chinese attitude of being satisfied with one's lot in life, the desire to stay at home, their interest in literary and philosophy studies, and their leaning toward pacifism, all inhibited expansionist activities by turning the interest of the Chinese people inward.

The interaction of all of these basic forces together has determined the course of Chinese history. At times, the forces for introversion prevailed and China remained quiescent and dormant. At other times, the forces that turn the Chinese toward the northwest and the problems of the land frontier occupied China's interest. But there were times when the call of the sea was complemented by the mood and urge to expand and it was these times, as during the Song, Yuan, and early Ming epoch, that China emerged as a sea power.

⁵³ Liang Qichao stated that militarism is the first nature of the Chinese and pacifism the second nature. Liang Qichao, "Understanding China's Military Spirit," *Yinbingshi Chuanji* 3, no. 44 (Kunming, 1941): 4–14.

Concluding Thoughts

The history of China has seen many occasions when the Chinese pushed out to sea, and then were compelled by internal problems or threats of invasion from the north to pull back again. During the period of Warring States in China, Wu and Yue grew up as thalassic states. When the nation was limited again under the early Qin and Han emperors, the naval thrust against Korea and Annam became part of the imperialist wars waged by China. Then followed a period of gradual decline, when China was beset by internal problems and menaced by aggressive neighbors in the north and west, until the empire collapsed, foreign peoples poured in and China was divided into a number of independent states.

Later, this pattern was repeated. The state of Wu during the period of the Three Kingdoms followed by the states of Jin, Song, Qi, Liang, and Chen, each in turn emerged as naval powers. Sui and Tang, dynasties ruling a reunited China, employed naval forces in their campaigns against Korea, the Liuqiu Islands, and Annam and Champa, while also waging aggressive wars in China's northwest and southwest borders. By the middle of the Tang period, however, China weakened and again internal problems and the threat of strong militaristic peoples in the north and west occupied the minds of the Chinese. Eventually, the Tang empire fell, foreign invaders poured in, and China was divided.

Once again, for the third time, it was the coastal states of a divided China, Wu-Yue, Nan-Tang, and Nan-Han, which took the lead in navy-building and maritime activities, which were then adopted by the Song Dynasty. Under the Yuan dynasty, which reunited China by force, campaigns by sea were launched against Korea, the Liuqiu Islands, Annam, Champa, and Java, and under the native Ming dynasty, the peak in China's career as a naval power was reached when naval expeditions sailed into the Indian Ocean and China achieved hegemony over Eastern Asia. But, as before, China weakened during the middle of the Ming period. Internal affairs occupied the minds of the Chinese and the resurgence of the nomads diverted their attention.

During each of the three occasions when China embarked on maritime enterprises, the beginning was made by coastal states when China was divided, the height was reached when China was strong and unified, and the decline took place when China weakened, the people became absorbed by internal affairs, and the foreign policy of the state became directed to the north and the west. These cycles of maritime interest, each lasting roughly five hundred years, corresponded with the cycles of cohesion and division,

strength and weakness, prosperity and impoverishment, and expansion and contraction.⁵⁴

Such appears to be the dynamics of China's growth as a sea power. The periodic shifts of orientation, from land to sea and vice versa, have shaped the course of China's historical, social, and cultural development as well as that of her neighbors. China, with her huge population, her territorial vastness, and her geographical location occupies a position of dominance in East Asia. Her neighbors to the south and the east have felt the influence of China even during the centuries when Chinese emperors have preferred to look inward or towards the steppes of the northwest, but the presence and influence of China has been felt in far greater measure when the Chinese people push out to sea and China emerges as a sea power. Only time will tell whether China is even now in the midst of its fourth great cycle as a sea power.

⁵⁴ The cycles worked out by Chi Ch'ao-ting on the basis of the construction of water control are a little longer in duration, cf. his book, *Key Economic Areas in Chinese History* (London: George Allen & Unwin, 1936), pp. 9–10. The cycles of Chinese maritime expansion were as follows: 1st cycle, 559 BC (Wu) to 42 AD (Later Han) 581 years; 2nd cycle, 226 AD (Wu) to 670 AD (Tang) 444 years; 3rd cycle, 907 AD (Wu-Yue) to 1480 AD (Ming) 543 years.

Annex 547

Robert Batchelor, "The Selden Map Rediscovered: A Chinese Map of East Asia Shipping Routes, c. 1619",
Imago Mundi: The International Journal for the History of Cartography, Vol. 65, No. 1 (24 Jan. 2013)

The Selden Map Rediscovered: A Chinese Map of East Asian Shipping Routes, c.1619

ROBERT BATCHELOR

ABSTRACT: The rediscovery of the Selden Map of China (MS Selden Supra 105) in the Bodleian Library in 2008 provides an opportunity to reassess the history of Chinese cartography and debates about maritime dimensions of the Ming Empire. The map depicts a network of Chinese shipping routes, reaching from Japan to Aceh, Sumatra, and suggests previously unknown map-making techniques. In this article I draw attention to the map's unique components, notably its portrayal of shipping routes and vegetation, consider its sources, and suggest a possible patron and location of composition.

KEYWORDS: Map of China, Quanzhou, East Asia, Ming Empire, Taiwan, Tokugawa Japan, East India Company, Chinese cartography, charts, cosmography, map construction, navigation, South Seas trade, piracy, Zhang Xie, Zheng Zhilong, Zheng He, John Selden, Gabriel Tatton, Li Dan.

Historians have traditionally argued that, unlike the Mediterranean or the Atlantic world, East Asia as a whole had no indigenous cartography. As Nathan Sivin and Gari Ledyard wrote in the landmark *History of Cartography*, 'East Asians, especially the ruling classes, stayed at home'.¹ The well-known Zheng He maps have been considered exceptions to this general rule, and popular historians like Gavin Menzies have recently tried to attribute some rather improbable achievements to these voyages.² In January 2008, an early-seventeenth century Chinese map of East Asia, generally referred to as 'The Selden map of China' (東西洋航海圖), was rediscovered in the Bodleian Library, Oxford (Plate 5, Figs. 1 and 2).³ A reassessment of this received wisdom is now required.

The Selden Map

The primary importance of the Selden map stems from its depiction of Chinese merchant shipping routes across East Asia, which had gone unnoticed until that January (Fig. 3). These routes form a network from Nagasaki, Japan, south to Timor and Sumatra, a unique diagram of what contemporary texts called the eastern and western routes. The centrality to the map of the system of routes has been confirmed by the restoration work carried out by a team led by Robert Minto between the map's rediscovery in 2008 and its unveiling in September of 2011. Removal of the backing added in 1919 during conservation revealed a draft of the trunk route that runs from Nagasaki to Vietnam (Fig. 4). This particular route saw heavy traffic in the early

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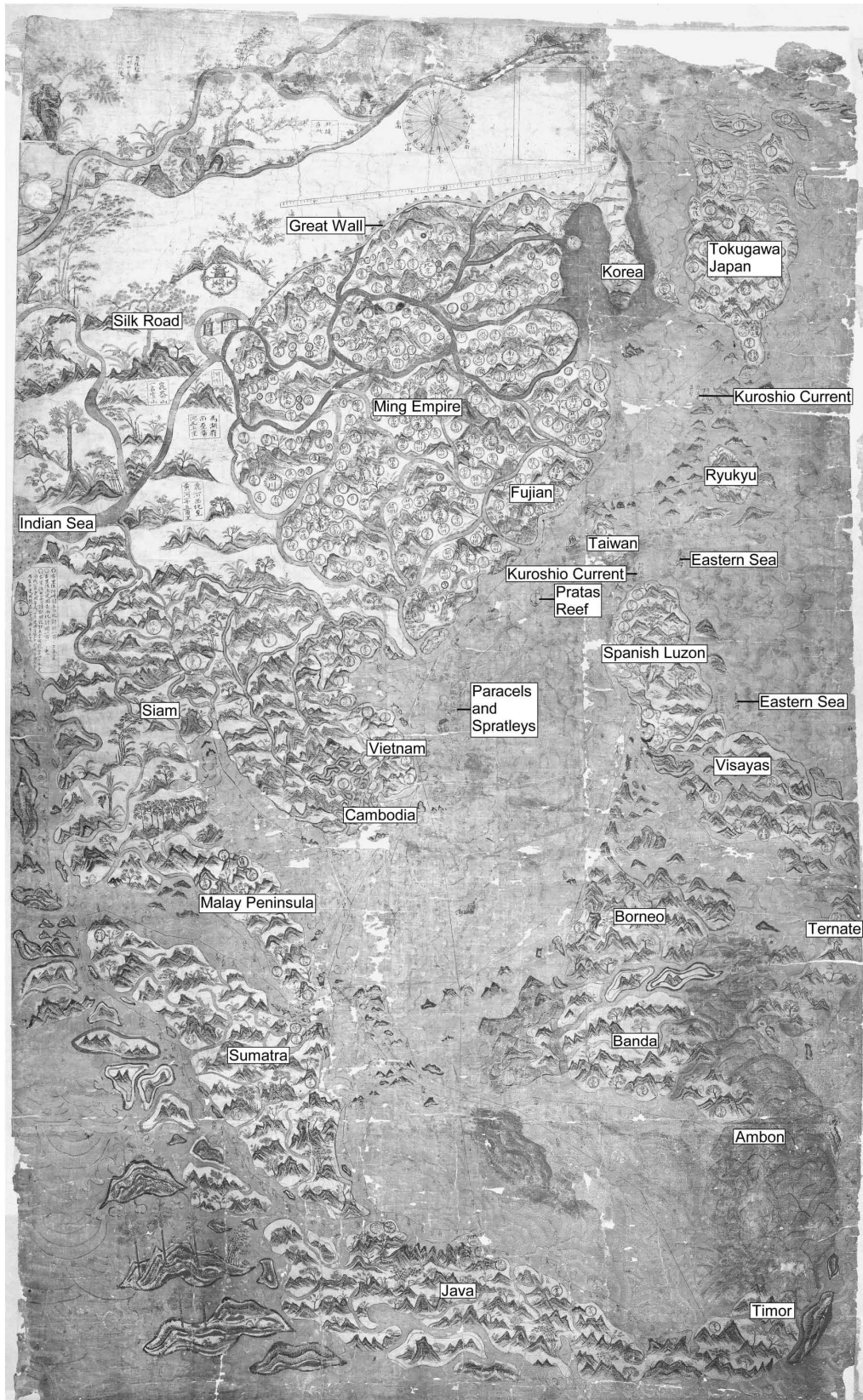


Fig. 1. Guide to the Selden map of China (c.1619), with author's identification of the main political and cultural entities. The original, drawn in ink and watercolour on paper, measures approximately 158 × 96 cm (see Plate 5). Oxford, Bodleian Library, MS Selden Supra 105. (© R. Batchelor. Map reproduced with permission from The Bodleian Library.)

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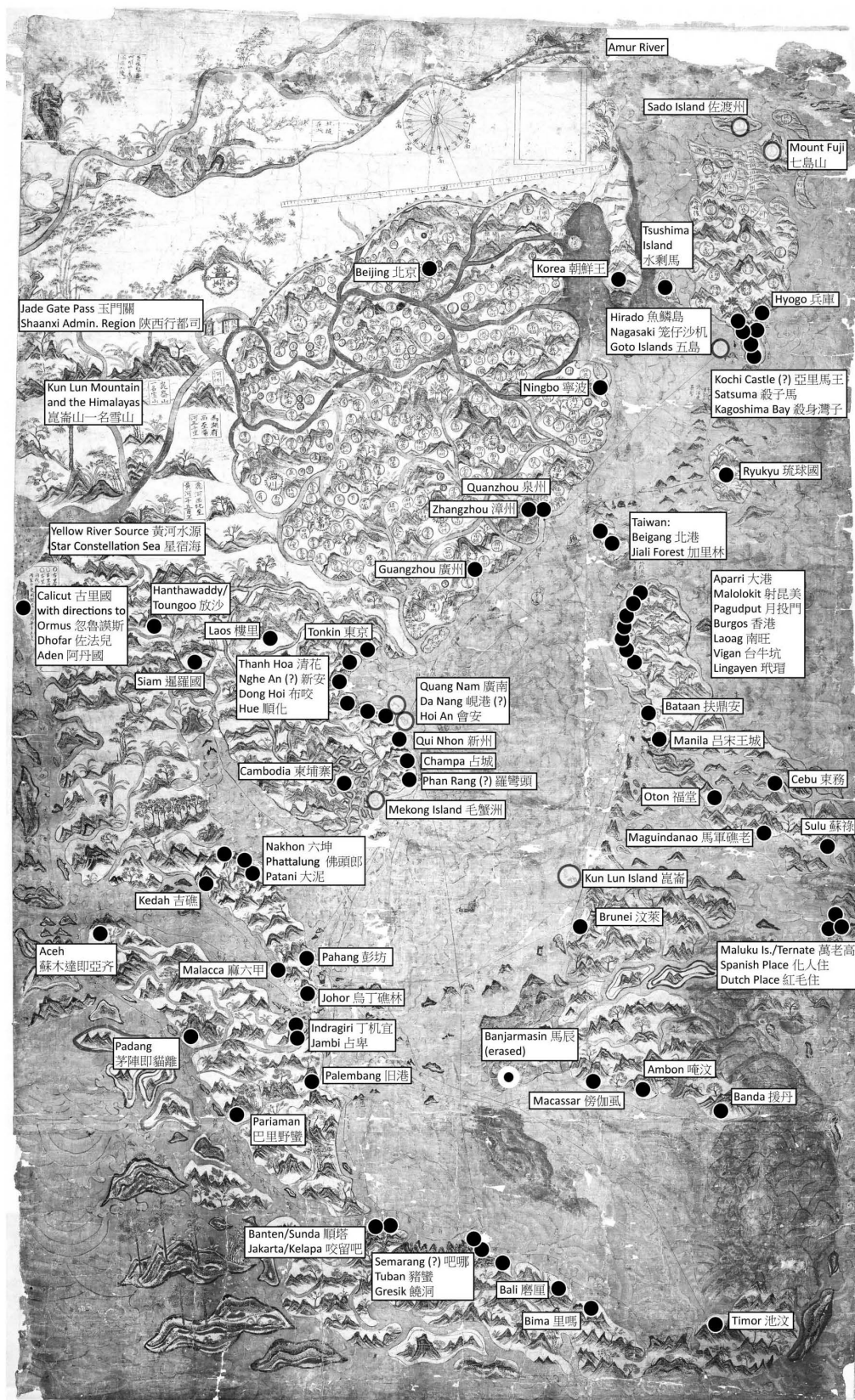


Fig. 2. The Selden map of China, with the author's transcription and translation of selected inscriptions. The solid black dots indicate a labelled circle on the original; the open circles indicate islands that are labelled, but lack a circle. Oxford, Bodleian Library, MS Selden Supra 105. (© R. Batchelor. Map reproduced with permission from The Bodleian Library.)

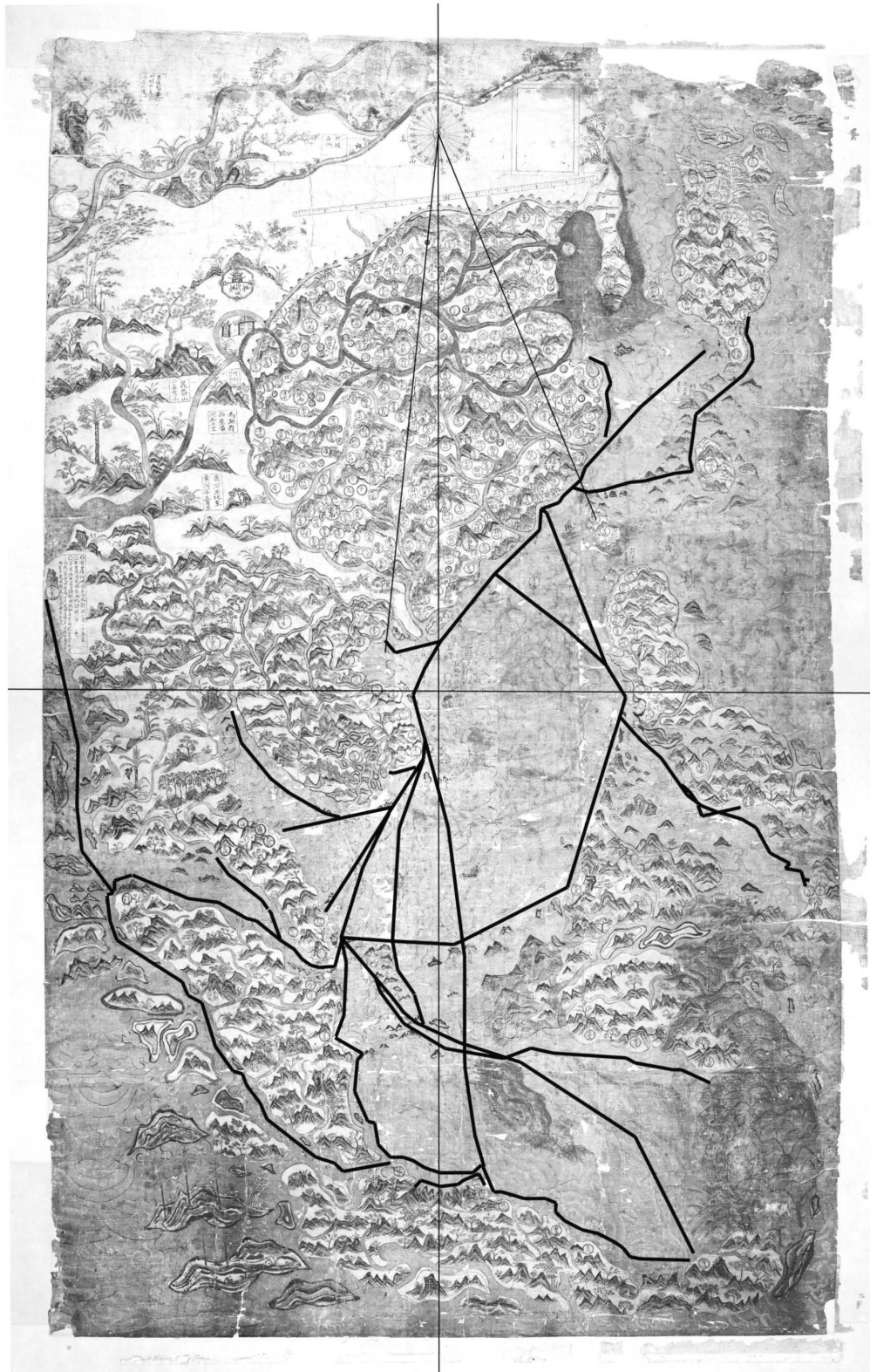


Fig. 3. The Selden map of China with shipping routes highlighted. The north-south line marks approximately the central axis of the map, which should pass through Beijing in the north and just off the Vietnam coast at Champa in the south (see Fig. 2). Oxford, Bodleian Library, MS Selden Supra 105. (© R. Batchelor. Map reproduced with permission from The Bodleian Library.)

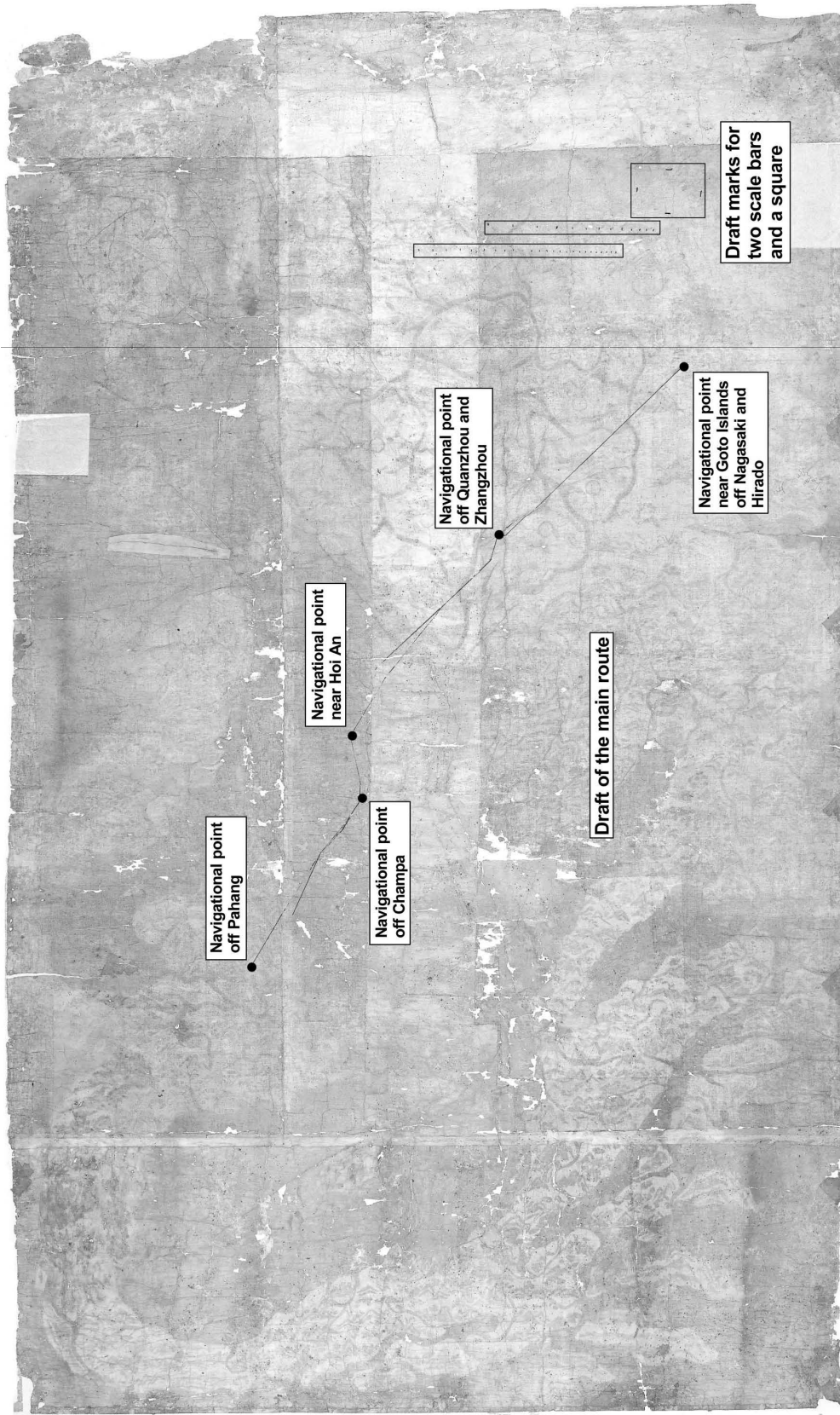


Fig. 4. Reverse of the Selden map of China, as revealed during restoration in 2010, with drafting marks highlighted. Oxford, Bodleian Library, MS Selden Supra 105. (© R. Batchelor. Map reproduced with permission from The Bodleian Library.)

seventeenth century from Japanese Red Seal ships as well as Chinese merchants, the Dutch East India Company (VOC) and the English East India Company.⁴

It is conjectured that the map may have been made for a Chinese merchant family or organization with ties to Fujian. It could well prove to be the earliest survival of Chinese merchant cartography, unique among Chinese maps from the period in not being a product of Ming bureaucracy. On the front, more than sixty ports are labelled along the shipping routes in addition to countries, Japanese provinces, islands, reefs, rivers, mountains and currents (see Fig. 2). Written directions from Calicut to ports near the Persian Gulf appear on the western edge of the map. A compass rose is placed centrally at the top of the map with a scale bar below it; both are discussed by Stephen Davies elsewhere in this volume.⁵ Compass bearings in Chinese are given along the routes. The technical aspects implied by the mapping of sea routes, together with the map's probable merchant provenance, have persuaded scholars such as Timothy Brook and Zhang Zhiqing that it is the most important Chinese map to have been found in over a generation.⁶

The Selden map has been in the collection of the Bodleian Library since 1659, when it arrived with the manuscript collection of the London jurist and legal theorist John Selden. The librarian Thomas Hyde and a visiting Chinese student, Michael Shen Fuzong, reviewed the map in 1687 at the Bodleian and appear to have annotated the map in Latin, as well as making the notes about the compass rose and other markings on the map that are now preserved in the British Library.⁷ As David Helliwell has noted, for at least some part of the eighteenth century the map (or a copy of it) was on view at the Bodleian in the Anatomy School's cabinet of curiosities. One reason for its subsequent neglect appears to be that in November 1705 Edmond Halley, an expert on longitude and especially declination, dismissed the map as cartographically incorrect.⁸ Although it underwent crude restoration work in the early twentieth century, the map was essentially forgotten. Halley appears to be the last person to examine the routes and technical aspects of the map before 2008.

In the early seventeenth century, while it was in the London collection of John Selden, the map would have had considerable geopolitical as well as commercial significance. A 1653 codicil to Selden's will singled out this map from his large collection as particularly important:

a map of China made there fairly, and done in colours, together with a sea compass of their making and divisions, taken both by an English commander, who being pressed exceedingly to restore it at a great ransom, would not part with it.⁹

Ironically, Selden in his treatise, *Mare Clausum* (1619) had opposed the kind of piratical seizure that had led to his possession of the map, arguing that demonstration of technical ability to measure the seas was the way to make claims of dominion over them.¹⁰ He rejected Hugo Grotius's philosophy of 'free seas' and 'just war' that validated privateering as a legitimate strategy to counter Spanish and Portuguese claims in Asian waters, a doctrine that had allowed the capture of Chinese and other Asian merchant ships trading with the Iberians.¹¹

Chinese maps had been desired objects in London ever since Thomas Cavendish brought one back to London in 1588 as part of an effort to demonstrate the presence of independent sovereign empires there. In 1609, another Chinese map had been somewhat forcibly 'taken' from a merchant's house by an East India Company captain, John Saris, as payment of a debt. This was the printed woodcut sheet map of the Ming empire that Selden's friend, Samuel Purchas, re-engraved for his *Pilgrimes* in 1625.¹² Both the 1588 and the 1609 maps were examples of Ming imperial cartography in the tradition of Luo Hongxian and informed by data from the Ming census and taxation system. Legally obtained or not, the Selden map was the first Chinese map based on merchant data to have made its way to England, and at a global level it is the only one of its kind to survive.

Strikingly painted with depictions of trees, flowers, rivers and mountains in six colours (including white) and black Chinese carbon ink, the Selden map most likely was intended for display as well as reference within a wealthy merchant household. It is large, measuring approximately 158 × 96 centimetres, and would have required a substantial wall or table. It may have had an earlier fabric backing. Some damage has occurred along the top and right edges (possibly from a roller) and where it has been folded. On the reverse are thirteen evenly spaced triangular pieces of paper on the left and right sides.

The map was drawn on three pieces of *mitsumata* or *sanyapi* (三亞皮, from the *Edgeworthia gardineri*), a paper made from the Japanese plant of the same name that was cultivated in China and Korea by the seventeenth century and widely traded. It does not seem to have been produced as a working chart, but rather as a singular and aesthetically beautiful painting (*hua*, 畫) in the Chinese tradition of the

scholarly landscape and panoramic route scroll. However, the route lines were drawn with technical instruments and the map's general cartographic style also marks its ties to the more prosaic form of a diagram or *tu* (圖), with which, in printed form, merchants especially would have been familiar.¹³

Overall, the Selden map represents a seventeenth-century interface between Chinese painting and printing media as well as between a number of mapping traditions. Because of this, contemporary observers would have understood the map on several levels. They would have seen in the cartographical image of Ming provinces that incorporated astrological symbols paired with a representation of ocean-route networks based on compass directions a symbolical connection between official political structure and cosmological belief. At the same time, the map presented a comprehensive visual record that was usually available only in closely guarded manuscript pilots' rutters or loosely described in diverse and often dated printed books. The aim in this article is to explore some of those interfaces, to introduce the newly discovered map to the history of cartography, and to touch on the basic aspects of its compilation and the possible reasons for, or context of, its creation. In the process much is revealed about the global significance of East Asian mapping during the seventeenth century, aspects of that history that have been forgotten, and the dynamics of Chinese merchant organizations during this period.

The Relation to Chinese Cartography

At first look, the Selden map appears to be an expansion of a traditional map of China. In such maps, the provinces of the empire are bounded in the north by the Great Wall and, usually, to the east by a narrow sea. A good example of such a map can be seen in Figure 5, a printed map of the fifteen provinces of the Ming Empire from a popular 1607 encyclopaedia, which the maker of the Selden map used for the place-names within the empire and for some of the text cartouches to the north and west of the Great Wall (Fig. 6).¹⁴ Information taken from the encyclopaedia map was reoriented so that Beijing fell along the middle axis of the Selden map, an adaptation that involved a substantial realignment of the content. Additionally, and strikingly, the Selden mapmaker created a richly detailed cartography of both mainland and insular Southeast Asia, which takes up more than half the map and makes the empire look small by comparison. Distorted versions of Japan and Korea as well as prominent depictions of Taiwan, Luzon and Visayas all suggest the increasing

importance of the western Pacific or *Dong Hai* (東海). In contrast, the encyclopaedia map gives only a scant geography of overseas places such as Korea (朝鮮), Japan (日本) and Ryukyu (琉球), indicated by their names in cartouches. Clearly, the focus of the Selden map, with its central point falling in the middle of the South China Sea and key drafting points on the Vietnamese coast, is on the ocean. All this, in addition to the shipping routes, suggests a very different kind of map than is usually encountered in the imperial Chinese tradition.

The mapmaker seems to have been aware that the encyclopaedia map was a cliché, useful enough to people living in Fujian where it was printed, but not matching the experience of those living outside the Ming Empire. Maps like the one in the encyclopaedia promised a link to the cosmological power of the empire. The title of the encyclopaedia map, *Ershiba xiu fenye huang ming gesheng di yu zong tu* (二十八宿分野皇明各省地輿總圖, 'Twenty-eight mansion, field-allocation, imperial Ming, all provinces terrestrial world map'), highlights the cosmographical as well as geographical dimension of its design. In particular, the advertised *fenye* (分野, 'field allocation') symbols linked provinces in the empire, notably nine in the Han Dynasty, with the celestial fields (*fen*) of the Chinese zodiac, the twenty-eight mansions (*xu*, 宿) of heaven that were defined by constellations the moon passes through. Knowing the mansions for a province allowed divination to occur locally by observing the celestial events happening in them.

By the Ming period, the expansion to thirteen provinces and two administrative areas meant that on maps like the one in the encyclopaedia Jiangxi, Fujian and Guangdong all used the same *fenye*, while Yunnan and Nanjing had no *fenye*.¹⁵ Sixty *fenye* markings are depicted on both maps, indicating the maker's desire to preserve the system despite its inadequacies; for example, the constellations *gui* (鬼, ghost), *bi* (壁, wall) and *jing* (井, well) for western Shaanxi (B in Fig. 6) and *nu* (女, girl) and *niu* (牛, ox) for Fujian (Fig. 7). As Emma Teng has argued, in the case of Taiwan where *fenye* were tied to nearby Fujian, such stretching of the system prefigured the shift to a 'symbolic geography', which no longer indicated any direct link to sacred and imperial cosmologies.¹⁶ Because of its association with a merchant diaspora, the Selden map's extension of networks far beyond the *fenye* of the empire itself illustrated the weakness of the cosmological system even more than Matteo Ricci's more comprehensive map of the world printed in Beijing in 1602.

The use of colour in the Selden map seems to be one aspect of this shift from maps as divinatory tools



Fig. 5. Printed map of the Ming Empire entitled *Ershiba xiu fenye huang ming gesheng di yu zong tu* (二十八宿分野皇明各省地輿總圖, 'Twenty-eight mansion, field-allocation, imperial Ming, all provinces terrestrial world map') from the popular Ming encyclopaedia, *Bianyong Xuehai qunyū* (便用學海群玉, 'Convenient to use: Seas of knowledge, mines of jade'), revised by Wu Weizi (Fujian, Xiong Chongyu from Jianyang, 1607), juan 2. Approx. 22 × 24 cm. North is at the top. To the northwest and west the Great Wall is marked with double broken lines and towers. In the ocean to the east are Korea (朝鮮), Japan (日本) and Ryukyu (琉球). The gourd shape in the lower left is the Star Constellation Sea (星宿海, *Xingxiu Hai*). This sole surviving copy is in Leiden University, Acad. 226. (Reproduced with permission from the University of Leiden.)

for cosmological orientation to the more purely symbolic relationships of places separated by measurable time and space. In the absence of colour, the encyclopaedia map typically denoted *fenye* characters by a circle and the place-name(s) within a rectangular cartouche. On the Selden map a more complex iconography is used, in which *fenye* characters are surrounded by a small but highly visible bright red circle. Other markings denote provinces separately in a sunburst pattern, also in red. For Beijing and Nanjing lines are added to this pattern to give the appearance of a crenelated wall. Port cities on navigational routes and administrative names within the Ming area appear in larger yellow circles.

Cartouches are used for more extensive features such as mountain ranges or the general location of barbarian nations. For unclear reasons, the ports of Aceh, Hue and those near Kedah and Patani are circled in red. Occasionally more ornate structures are used, such as the gate for the Jade Gate Pass that marks the commencement of the Silk Road (see 1 in Fig. 6). In general, while the compass directions of the routes still suggest a connection with the Ming provinces and their *fenye* markings, the technical aspects of the routes seem to take precedence over the symbolic clichés of Ming cosmology and the older Yuan connection to the Silk Road and the geographies of the west.



Fig. 6. Details from the western edge of the Selden map (left) and the same geographical area on the Ming encyclopaedia map (right). In addition to the addition on the Selden map of place-names for Burma and Siam, a box next to Calicut (古里国) gives instructions for reaching Aden (阿丹国), Zufar/Salalah (法兒国) and Ormuz (忽魯謨斯). The most important change is the transformation of the mythical Star Constellation Sea, the source of the Yellow River on both maps, into a bulbous Indian Sea on the Selden map. Inscriptions 1 to 8 are virtually identical on both maps, but Calicut (9) is not marked on the Ming map. A and B are examples of the copying of inscriptions in the western part of the province of Shaanxi (陝西). Oxford, Bodleian Library, MS Selden Supra 105; Leiden University, Acad. 226. (Reproduced with permission from The Bodleian Library and University of Leiden respectively.)

(1) 玉門關, *Yumen Guan*, Jade Gate Pass; (2) 陝西行都司, *Shaanxi xing dushi*, Shaanxi Administrative Region; (3) 崑崙山, *Kunlun Shan*, Kunlun Mountain; and 一名雪山, *Yiming Xueshan*, The Himalayas (?); Lit. 'All snow-capped mountains' (the Selden map adds the magical grain tree known as *muhe* (木禾), depicted here as a Chinese white pine, a source of pine nuts); (4) 河州, *Hezhou*; (5) 馬湖府西至黃河三千里, *Mahu fu xi Huang He san qianli*, Mahu west of Yellow River, three thousand li; (6) 麗河西北至黃河一千五百里, *Li He xibei zhi Huang He*, Li River northwest of Yellow River, one thousand five-hundred li; (7) 黃河水源, *Huang He shuiyuan*, source of the Yellow River (the Selden Map adds *shui* to emphasize that this is a terrestrial river rather than a cosmological connection); (8) 星宿海, *Xingxiu Hai*, Star Constellation Sea (note the shift from a constellation map to circles indicating islands); (9) 古里国, *galiguo*, Calicut.

In Shaanxi (陝西) Province: (A) 臨洮, Lintao, and 鞏昌, Gongchang (in yellow circles on the Selden map); (B) 夔, *Fenye* markings for the constellations *gui* (鬼, ghost), *bi* (壁, wall) and *jing* (井, well) (in red circles on the Selden map).

The mapmaker seems particularly sensitive to changing historical conditions, especially those requiring a reassessment of traditional Chinese geographical knowledge. The map depicts change across a large extent of eastern Asia from approximately the Amur River basin in the north, which replaces the Gobi Desert on earlier Chinese maps, to the Maluku

Islands (Moluccas) in the south, where both the Spanish and Dutch are indicated. The eastern border of the map follows the Kuroshio current of the western Pacific, and includes textual references to both the current and the trans-Pacific route of the Spanish.¹⁷

In the west, in the middle of the left side of the map and beyond the Malay Peninsula, India is identified

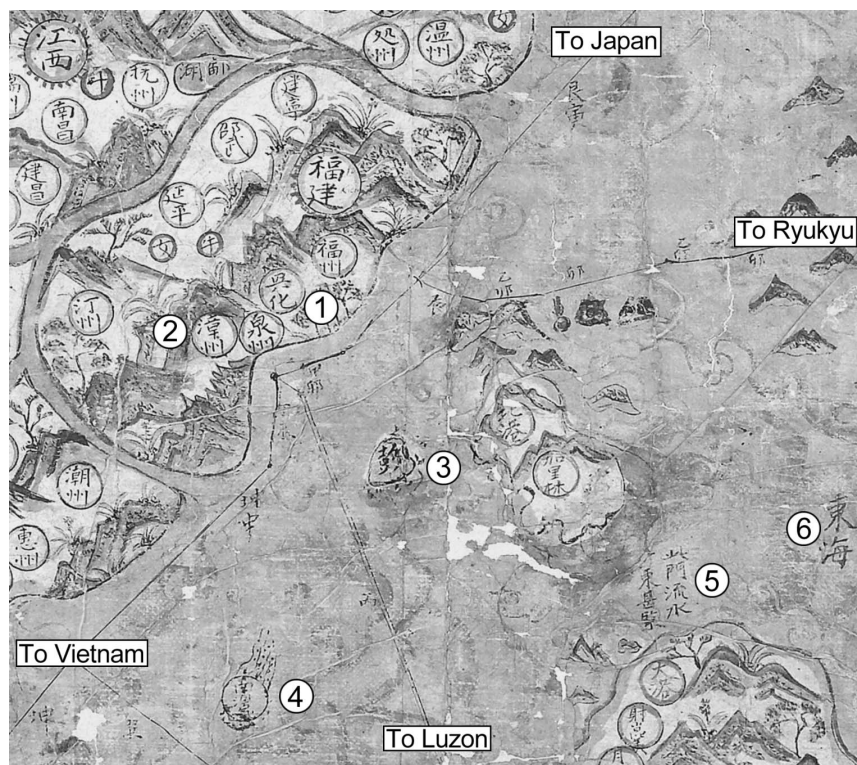


Fig. 7. Selden map of China. Detail showing Fujian, Taiwan and the navigational point off Fujian near (1) Quanzhou (泉州) and (2) Zhangzhou (漳州). Also visible are (3) the Penghu Islands (澎湖), (4) Pratas Island and Reef (南澳氣), and (6) the Eastern Sea (東海). Between Taiwan and Luzon (5) the caption reading 此門流水東甚緊, *ci men liushui dong shen jin*, 'This passage, flowing east, extremely tight', indicates the beginning of the Kuroshio current. Oxford, Bodleian Library, MS Selden Supra 105. (Reproduced with permission from The Bodleian Library.)

by the port of Calicut, a location not shown on the Ming encyclopaedia map (see 9 in Fig. 6). Beyond the subcontinent, in the western Indian Ocean, a gourd-shaped sea echoes the tradition that the source of China's Yellow River (黃河水源, *Huang He shuiyuan*) lay in what was commonly known as the Star Constellation Sea (星宿海, *Xingxiu Hai*), which is marked here by a scatter of little open circles with a central dot (see 8 in Fig. 6) Here the break with traditional cosmology is particularly sharp—severing the linkage between the stars of the Milky Way and the Yellow River as the cradle of Chinese civilization and replacing it with physical geography.

The Compass Rose, Scale Bar and Trunk Route

At the top of the map are a compass rose, a scale bar, and an empty rectangular bordered box. On the reverse are drafts for two scale bars as well as the four

marks indicating the box (see Figs 2 and 4). Stephen Davies, who makes the important observation that there were two different north–south orientations to the map to allow for magnetic declination, discusses these features in greater depth in the accompanying article in this issue.¹⁸ Here we note a different, emblematic, dimension to the compass rose as well as its possible relationship to certain kinds of drafting tools.

The compass rose is composed of an outer and an inner circle. Twenty-four rays, each marked with one of the twenty-four cardinal directions along with eight major compass directions, surround a small circle reading *luojing* (羅經, compass). Below the compass is a scale bar divided into ten sections, each marked with an 'x', and each subdivided into ten sections with a longer line for the half mark. The scale bar is perpendicular to the due south (牛, *wu* / 正南, *zhengnan*) line of the compass itself. Both appear to indicate a declination of approximately

six degrees.¹⁹ This southward orientation corresponds to the famous ‘south pointing needle’ (指南針 *zhi nan zhen*) mentioned in texts from the Song Dynasty (960–1279) into the late Ming.²⁰ The two directional rays *ding* (丁) and *bing* (丙), one each on either side of due south, are extended in black-ink lines down to the scale bar.

The small empty box seems to be, as Davies has suggested, a miniature version of the map itself, defining the declination of both compass and scale bar in relation to the basic frame of the map.²¹ When Michael Shen Fuzong saw the Selden map in 1687, he distinguished between a *gepan* (格盤)—a strange phrase meaning ‘pattern board’ but likely a reference to the box—and the *luojing* of the label on the map.²² It is unclear why, on the reverse of the map where there is a similar box, the scale bars and the trunk route were first drafted without this declination (see Fig. 4). On the front, it would appear that the drafting marks for the box were drawn first, then the scale bar at an angle to it and, finally, the compass rose, from a line perpendicular to the scale bar.

The presence of a compass rose on a Chinese map is not typical, and the need to measure declination as well as plot and identify the routes seems to be the principal reason for its inclusion. The actual compass used for geomantic (堪輿, *kanyu*) orientation that Selden obtained together with the map also suggests that the compass had broader cosmological significance. Shen’s 1687 description was elaborated upon by Thomas Hyde, who wrote, presumably informed by Shen:

The words in this circle are not really the names of any winds though in this case used for them but are the names of their *Times* without any grammatical signification such as are used in their solar dials otherwise noting the *China Hours* which are of ours *Two-hours*; all taken out of their *Cycle* whence also are taken the names of their *Lunar Months* for every year different names, until the *sayd* cycle is finished in 5 years and again repeated for ever.²³

Hyde was describing the *ru xiu du* system (入宿度), in which the compass marks correspond to the twenty-four hours of the day for charting the sun as it moves through the constellations of the twenty-eight lunar mansions. In this light, we see that, while the compass rose was clearly intended for identifying and orienting the directional markings on the routes on the Selden map, it also served as a cosmological substitute for the inadequacies of the *fencye* markings for the Ming provinces on the encyclopaedia map to connect the vast space of the Empire.

As if to emphasize this, the representation towards the top of the map of the sun on the right and the

moon on the left recalls the iconography of the Chinese myth of the intertwined creator deities Nüwa and Fuxi.²⁴ In many tomb and other paintings from the Tang dynasty the pair are depicted holding a drafting compass (*gui*, 規) and a measurement square (*ju*, 矩) with the sun above and the moon below them. The centre of the sun and moon in those images often has radiating spokes similar to those of the compass rose. Moreover, in the tomb paintings, chains of circles and lines representing constellations connect the sun and moon, as is often the case in later printed divination diagrams.

By contrast, on the Selden map the sun and the moon merely frame the compass, scale bar and pattern box. As with the similar removal of constellation lines from the Star Constellation Sea, the cosmological elements seem of secondary interest on the Selden map. They have given way to a rather more technical and mathematical role for the compass rose. This symbolic adornment of the sun and moon as well as the compass rose seems to have been designed to make the diagrammatic tradition of the *tu* (which also goes back to Fuxi’s magic squares) more material by associating it with directional data and travel times for particular sea routes.

The introduction of the compass rose on the map is thus not merely a tool for declination, but also an indicator of a method of navigation more reliant on charts, magnetic compasses and directional data and less on star and sun positions and thus, by implication, cosmology.²⁵ The visualization of these techniques also seems to be an indication of the increasing importance and visibility of mathematical literacy during the sixteenth and seventeenth centuries in East Asia, which took shape variously in terms of accounting, geometric drawing and practices of linear algebra.²⁶

The Route Lines

All the routes on the map are clearly marked with straight lines similar to those used for the draft of the trunk route on the reverse. They appear to have been drawn by starting at a given marked point (*yong*, 用), opening a drafting compass to the length determined by the scale bar, creating a small arc with the compass and, finally, using perhaps a geomantic compass, the drawing of a line at a given directional angle to the arc. Each line is then labelled with the directional heading from the *luojing*. Good examples are the two lines for the principal route, extending from two directions along the coast of Fujian near the heavily inked *yong* for Quanzhou (see Fig. 7).

Three short lines lead away from this point off the coast of Quanzhou, two of which are marked *jiamao* (甲卯, 82.5°) and *dingwei* (丁未, 202.5°). One of these lines continues to the northeast (*genyin*, 艮寅 or 52.5°) toward the Goto Islands (五島, *Wu dao* or five islands) off Nagasaki (*Longzishaji* for the Portuguese ‘Languesaque’ 籠仔沙机) and nearby Hirado (*Yulin dao* or ‘fish-scale island’, 魚鱗島)

(Fig. 8). A second line goes southwest (*kunshen*, 坤申 or 232.5°) toward the Da Nang Peninsula (在峴港) and Hoi An (會安), off the coast of modern Vietnam (Nguyen Cochinchina) between Thi Nai or Qui Nhon (新州) and Quang Nam (廣南), the launching point for Southeast Asian trade. The third line is marked *bing* (丙, 165°) and heads towards Luzon and Manila. At navigational turning

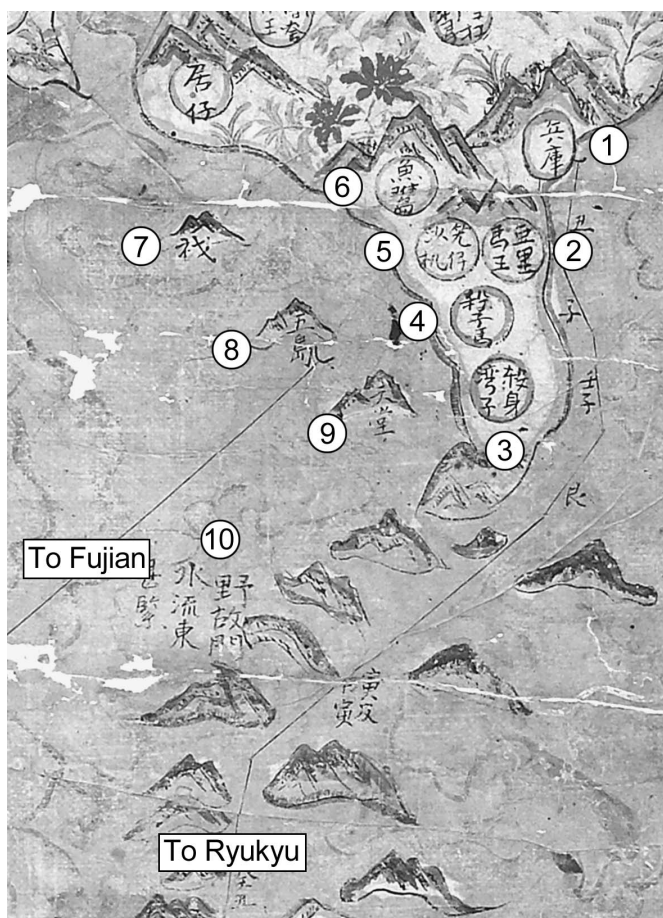


Fig. 8. Southern Japan on the Selden map of China. The red chrysanthemums near ‘fish-scale island’ (Hyogo/Firando) are unique on the map. The western (left) mercantile trunk route goes to Fujian and Vietnam. The eastern route is the traditional tributary route, dating back to the fifteenth century, from Fujian to Ryukyu to Hyogo. Oxford, Bodleian Library, MS Selden Supra 105. (Map reproduced with permission from The Bodleian Library.)

(1) 兵庫, *Hyogo* (in Japanese): the port receiving early Ming embassies; (2) 亞里馬王, *Yalima wang*, possibly Shikoku Island or Kochi Castle; (3) 殺身灣子, *Shashen wanzi*, Kagoshima Bay; (4) 殺子馬, *Shazima*, Satsuma; (5) 籠仔沙机, *Languesaque*, transliteration of the Portuguese ‘Languesaque’ or Nagasaki; (6) 魚鱗島, *Yulin dao*, lit. ‘fish-scale island’ for Hirado (Firando); (7) 衣戈, *Yige*, Iki Island; (8) 五島, *Wu dao*, the five islands or Goto Islands: same characters and meaning in Japanese; (9) 天堂, *Tiantang*, lit. ‘paradise’, translation of Amakusa Islands (天草, Heaven’s Grass); (10) 野故門水流東甚緊, *Yegu men shuiliu dong shen jin*, ‘Yegu passage, eastward current, very tight’ (eastward current, indicating the Kuroshio current).

points, such as on the route to Ryukyu or the southern route from Guangdong to Luzon, small arcs can be seen made by the drafting compass that also serve as *yong* for other routes. No earlier surviving example of this technique is known.

The written directions on the western edge of the map for separate voyages from Calicut in India (古里国) to Aden (阿丹国), to Zufar/Salalah (法兒国) and to Ormuz (忽魯謨斯) offer a clue as to how the map might have been understood as a tool related to navigation. They indicate that, as with most rutters, the scale of distance is based on the system of measuring time through *geng* (更) or ship's watches.²⁷ But the directions also employ the word *ji* (計), meaning physically to plot or draft, rather than simply using what are often in the literature called *zhenlu* (針路) or 'needle paths'. For example, similar data to that on the Selden map is found in the rutter *Shunfeng Xiangsong* that was owned by Archbishop William Laud in the 1630s, but there the word *zhen* or 'needle' was used as a verb when giving instructions for navigating rather than the Selden map's *ji* or 'plot'.²⁸

Needle paths involved only a sequence of bearings (memorized or recorded in a manuscript rutter) from a given point, unlike a chart on which those points are related to each other. The contrast is perhaps clearest with the famous Mao Kun charts associated with the Zheng He voyages, first published in the 1620s in the *Wu beizhi*, on which the routes described in terms of *zhenlu* curve from port to port and are merely illustrative of the textual directions that literally follow the routes.²⁹ The probability that the *Wu beizhi* maps derive from a scroll rather than a chart also means that the routes tend to go in one direction in tributary fashion, rather than illustrating the more multi-directional and branching paths of a trading system.

Quanzhou

Aside from the *yong* off the coast of southern Fujian, marked in a line darker than normal, the clearest evidence on the map for the importance of Quanzhou as a trading centre is the number of routes in the vicinity (see Fig. 7). The annotations show that all led away from the port—northeast to Japan, southeast to Manila and southwest to Vietnam. Quanzhou had a long history as a centre for trade with Southeast Asia and the Indian Ocean for many families of the Fujianese or Min diaspora, so it is not surprising that an understanding of routes would be tied to that port.³⁰

The contested nature of this navigational point off Quanzhou and Zhangzhou can be found in the

contemporary work by a customs official from Zhangzhou named Zhang Xie. In his *Dongxi yangkao* (東西洋考, 'Study of the Eastern–Western Oceans'; 1617–1618), Zhang explains that from 1594 Quanzhou and Zhangzhou engaged in an active controversy over Xiamen (Amoy) Island as a centre of maritime trade and debated the possibility of splitting the Eastern and Western routes between the merchants of the two cities. The result, according to Zhang, was that the customs office was moved in 1617 in an effort to reduce the power of Quanzhou. Quanzhou authorities, however, subsequently took over the Amoy garrison in 1621 and held onto it until the attacks by Zheng Zhilong in 1626–1627.³¹

The Selden map seems to depict this period of struggle between Quanzhou and Zhangzhou, placing the latter just slightly further inland (see 2 in Fig. 7). The differences between Zhang's account and the Selden map are substantial, but they overlap enough to suggest nearly contemporary production. Like the Selden map, Zhang mentions the Spanish in a famous account of Luzon (呂宋, *Lusong*) in *juan* (chapter) five of his book. Although book and map each list nine ports for Luzon, they agree on the names of three only. Zhang lists just four of the seven ports on the Selden map's depiction of coastal Vietnam. Zhang uses the term *folangji* (佛郎機) for the Portuguese and Spanish rather than the Selden map's *huaren* (化人), although, interestingly, both Zhang and the map use *hongmao* (紅毛) for the Dutch.

Irrespective of the subtle differences in language, Zhang's book and the Selden map share a certain understanding of trade dynamics. Rather than linking routes tightly to specific ports, as a traditional tributary account would have done or as the manuscript rutter *Shunfeng xiangsong* does, Zhang's classified list of ports in the table of contents at the beginning of his book is effectively a taxonomical hierarchy. The regional clustering of ports on the Selden map functions in similar manner, especially around Quanzhou where levels of trade with regions such as Luzon, Vietnam and Japan were high. Here large clusters of ports and cities have no direct connection to a route, making a distinction between local and regional commercial networks along the coast and the longer-distance ocean trade routes. The longer-distance routes carried the bulk of the important global flows of silver coming from mines in Japan, Spain's American colonies and the Dutch and English trading companies to feed the Ming empire's need for a currency standard.³²

What the Selden map makes clear, as do neither Zhang's book nor the *Shunfeng xiangsong* and the *Wu beizhi*, is the increasing importance of the global

silver cycle in the shaping of East Asian trade and trading routes, and indeed traditional trading cities like Quanzhou. While routes on the Selden map still appear to point to the South China Sea as the central area of trade, as had been extensively described in rutters and travel writings from, especially, the Song (960–1279) and Yuan (1271–1368) dynasties, other aspects of the map point to the increasing significance of the Japanese and Spanish silver trade.³³ This influx of silver alters the cartographical situation completely and raises different issues of context. Although the Eastern Sea (東海, *Donghai*) is labelled in two places, the Southern Sea or *Nanhai* is not identified at all. Taken together with the marking of the north-flowing Kuroshio current from Luzon in the Philippines up along the Ryukyus and a legend on the eastern side of Luzon that refers to the presence there of the Spanish, this nomenclature suggests that the mapmaker had a strong interest in trading relations to the east and that the silver trade that passed through Manila was important to him or his patrons.

Two separate routes to Manila from the mainland come from Guangzhou and Quanzhou. Off Luzon, the reefs and rocky shoals in the shipping lanes leading into Manila Bay are particularly detailed. The *toujin jiao* (頭巾礁, turban reef or Capon Island) along the northern approach to the bay is named and so is *jiawan men* (甲万門, thousand-shell gate or, probably, the Maricaban Strait) to the south. Additionally, the two relatively new landings on Taiwan, which had become an important resupply point for merchant ships moving towards Japan from Manila and Vietnam in the first decades of the seventeenth century, are given visual prominence.³⁴ All this contributes to a recentring of trade near Fujian, connected to the silver trade with Japan and Manila. It also suggests a decentring of trade away from the Ming Empire that the military considerations of the *Wu beizhi* and the administrative ones of Zhang Xie do not effectively comprehend.

Landscape

Given the technical nature of the compass and the routes as well as the economic and geopolitical questions involved, the efforts made for the aesthetic dimension of the Selden map seem all the more surprising. The style of the depiction of mountains, rivers and seas associates the map with the Chinese landscape painting tradition known as 山水, *shanshui* (literally 'mountain water'), in which the painting lets the observer enter, as it were, the landscape itself.³⁵ Likewise, the juxtaposition of mountains and seas as well as the quasi-mythic elements

on the western edge of the map brings to mind the classical geography called the *Shanhai jing* (山海經, 'Classic of Mountains and Seas'), which by the late Ming period was seen as a quasi-fictional text because of its tales of monsters and fabulous places. One could even link such gestures towards the landscape to the revival of the popular novel and the fashion for gardens as well as the depiction of flora on the porcelain and lacquer ware of everyday life in a merchant household.³⁶ In bringing elements from many of these genres and media together, the map is indeed one of the more interesting visual artefacts of the Chinese merchant diaspora we have from the late Ming dynasty.

Given this, surprisingly little attention seems to have been paid by the mapmaker to the oceans. The sea is colour-washed in a yellowish green with faint and conventional wave patterns. Around the Korean peninsula in the north, to the south and west of Borneo, and in the areas to the south of the Maluku, a darker shade of green was used. In the case of the Borneo area, the new sea colour blots out what was formerly an area of land. In the south-eastern corner, the green may also be a correction that removes a former connection between Java and the chain of islands extending eastward to Timor and the broader area of the Maluku. Apart from these alterations, the map does not appear to have been much corrected.

Our interest may be attracted to the unusual shipping routes, but the most eye-catching part of the map is the land, most of which is shown as highly mountainous. Unlike on some European maps (and indeed the textual descriptions of the *Shanhai jing*), no animals or monsters appear, but between the peaks and ridges lies a rich array of plant life. Many motifs are repeated. Some of the smallest plants are difficult to identify, but predominant are orchids, peony, pines, bamboo, cedar, palms, loquat and plane trees. Among these perhaps the most visually striking, and one of the clearest identifiable features on the map from a distance despite their small size, are two splashes of red colour in southern Japan (see Fig. 8 and Plate 6, bottom left).³⁷ These appear to be chrysanthemums, a flower that in Japan referred not to the imperial throne (for which the appropriate colour is yellow) but often to true love.

The red chrysanthemums are located just above Hirado, the home of one of the wealthiest and most powerful Chinese merchants of the 1610's Li Dan (李旦, aka Li Xu, 李旭, Andrea Dittis, Rey de China and Captain China, d. 1625). If the map were indeed made for Li Dan, as will be suggested below, the two flowers could be an allusion to his marriage in 1614

to a Japanese lady. Alternatively it could celebrate the betrothal in Nagasaki in April 1618 of one of his three daughters to another wealthy Chinese merchant, Goquan.³⁸ In either case, the extraordinary prominence of the two red chrysanthemums in southern Japan raises the possibility that not only was the map made for display, but that it might have been specifically commissioned as a gift symbolizing the uniting of important merchant families.

The trees are largest in the upper-left corner of the map, possibly because more space was available here in the remote interior of the continent. In style they correspond to traditional depictions offered in many painting manuals and depicted on commodities such as porcelains. Again, it is possible to identify species. Starting in the extreme top left corner of the map, and going from left to right, top to bottom, we find cedar (楠), plum (李), willow (柳), bamboo (竹), camphor (樟, with butterflies), pine (松) and palm (棕). Vera Dorofeeva-Lichtmann has noticed that the pine tree is placed on Kunlun Mountain (崑崙山), the traditional dwelling place of the gods of creation, Nüwa and Fuxi, and the location of the *muhe* (木禾), a giant tree producing unlimited grain (see 3 in Fig. 6, left).³⁹

The distribution of each tree species corresponds roughly to the appropriate latitude of its natural growth, but all would have been found as imported specimens in the gardens and compounds of Chinese settlements in mid-latitude cities such as Manila. These are also the types of trees found in contemporary horticulture such as *penjing* (盆景, basin scenery) and *penzai* (盆栽, basin cultivation), the Chinese forerunners of *bonsai* and the more elaborate Vietnamese *hòn non bô*. All have traditional associations as well. The clustering of bamboo, pine and plum, for example, represented the ever-green 'three friends of winter' (*suihan sanyou*), symbols of the scholar-gentleman's and samurai's attributes of flexibility, perseverance and purity.

Symbolism apart, each tree species, depicted with such attention to detail, can be seen as emblematic of what can be called the 'littoral societies' of maritime Southeast Asia.⁴⁰ The Ming Empire is portrayed in traditional terms, that is, connected by the rivers that functioned as vital commercial arteries, enabling the transport of goods and providing focuses of trade, and that delineated provincial boundaries. In Southeast Asia, riverine ports are shown nestling in the valleys amidst the hills and mountains from which highland goods and forest products were brought down for trade. A number of such commodities appear on the map. In India as well as Southeast Asia, red sandalwood (紫檀), represented on the map

as small red-trunked trees, was a particularly valued commodity, specifically referred to in the inscription at Aceh, Sumatra, which reads 'Sappanwood place near Aceh' (蘇木達即亞齊, *Sumu da ji Yaqi*).

On the islands to the west of Sumatra, depicted in the lower left corner of the map, various species of palm extend the range of wealth in economic resources portrayed in the Selden map (see Plate 6, top left). And on the Malay Peninsula a row of what appear to be eight aquilaria trees (the source of cambalac or agarwood) next to a red banana tree also suggests the importance of tree plantations in providing forest products and food (see Plate 6, top right). The landscape thus appears to mix attention to specific commodities of trade and general features of the natural world of the East Asian littoral with the more conventional aesthetically oriented networks of domestic merchants in the Ming Empire or in Japan.⁴¹ Once again we see, on the Selden map, an interface or marriage between two different social worlds.

Connections with European Mapping of East Asia

Although no Chinese or Southeast Asia maritime charts survive from before the arrival of the Portuguese, it is well attested that the Portuguese had obtained from East Asian merchants charts that bore some resemblance to the Selden map. For instance, the large chart with labels in Javanese captured by the Portuguese Viceroy of India, Afonso de Albuquerque, was reported to show the world from Portugal and Brazil to Taiwan and the Ryukyus and 'the navigation of the Chinese and Gores, how their lines and routes are followed by the ships, and the hinterland, and how the kingdoms border on each other' [italics added].⁴² The map was lost in a shipwreck in 1512, but happily Albuquerque had already had Francisco Rodrigues translate the eastern part from Javanese into Portuguese so that King Manuel could 'really see where the Chinese and Gores come from, and the course your ships must take to the Clove Islands, where the gold mines are, and the islands of Java and Banda, of nutmeg and mace, the land of the King of Siam, and also the end of the navigation in the land of the Chinese, the direction it takes and how they do not navigate farther' [italics added].⁴³ We are left in no doubt that sea routes were clearly marked on early sixteenth-century East Asian charts showing the kingdoms and islands between Java and the Ryukyus just as they would be, so strikingly, on the map produced approximately a century later and now in Oxford.

If shipping routes had indeed been shown on merchant maps in East Asia since, possibly, the fifteenth century or earlier—from which they arrived in due course on Portuguese charts of the region—it is reasonable to suppose that other features on the Selden map that are also found on the Portuguese charts may have likewise originated in this older mapping tradition of the South China Sea. It is noteworthy that the outlines of the reefs

and island of Pratas (南澳氣, *Nan'ao qi*), the Parcel Islands (萬里長沙似船帆樣, *Wanli changsha si chuanfan yang*, 'The Paracels resembling the shape of a sail'), and the Spratleys (萬里石塘, *Wanli shitang*) in the South China Sea on the Selden map are conceptually more coherent and navigationally useful than the shapes found on sixteenth-century Portuguese charts and subsequent European maps of the region (Fig. 9).

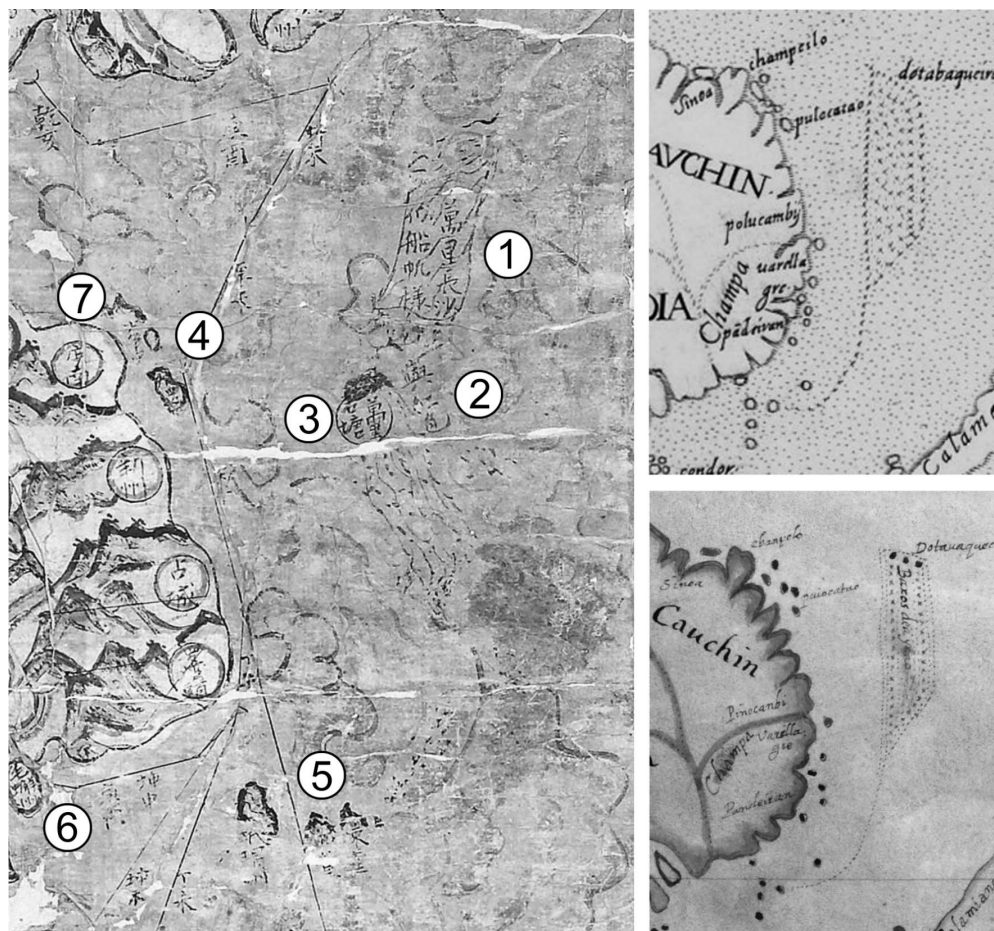


Fig. 9. Left: detail from the Selden map of China showing the Parcel and Spratley islands, accompanied respectively by the mimetic form of a 'sail' and a 'snake with veins'. Oxford, Bodleian Library, MS Selden Supra 105. (Map reproduced with permission from The Bodleian Library.) Right: The Paracels and Spratley islands from Figures 10 and 11 (top and bottom respectively). In both these cases, the 'sail' and the 'snake' elements have been merged. (Maps reproduced with permission from the Hong Kong University of Science and Technology Library, Hong Kong, and the British Library, London, respectively.)

(1) 萬里長沙似船帆樣, *Wanli changsha si chuanfan yang*, 'The Parcel islands (10,000 isles) resembling the shape of a sail.' The *Wanli changsha* are generally accepted to be the Paracels; (2) 嶼紅色, *Yu Hongse*, Red Islands, probably a transliteration of the Vietnamese term for the Paracels, Hoang Se (lit. 'Yellow Sands'); (3) 萬里石塘, *Wanli shitang*, the Spratleys (?). This attribution from the texts of the period is today an issue of international sovereignty. The large cluster above the circle is filled with red dots, suggesting a connection with the adjacent inscription *Hongse*; (4) 在峴港, Da Nang Peninsula; and會安, Hoi An. The unidentified island is possibly Cù-lao Chàm. The inscriptions are difficult to read; (5) 里東 (?), for the eastern-most island. Possibly Con Dao (west) and Cuo Lao Thu (east). The inscriptions are difficult to read; (6) 毛蟹洲, *Maoxie zhou*, Mekong Island; (7) 廣南 *Guangnam*, Quang Nam.

The inscriptions on the Selden map help explain why the Paracels and Spratleys appear on Portuguese and other European charts and printed maps as a parallelogram with a tail. This form was derived from the merging of the Chinese folk tradition of the Spratleys' resemblance to a sail with another Chinese tradition according to which the islands were said to look like the head of a 'snake with veins'.⁴⁴ In comparison with European maps of Southeast Asia based on the Portuguese chart tradition, the maker of the Selden map appears to have had a much clearer idea of these islands and to have understood the problem of navigating in their vicinity. Much, though, was lost in the transfer to European charts of information taken from captured maps or derived from local pilots.

The exchange of information was not all one way, however, and it would be wrong to conclude that the Selden map represents a static cartographic tradition, unchanged since before the arrival of the Portuguese. The Europeans' notion of East Asia was in many ways a product of debates over the Treaty of Zaragoza (1529), which tried to finalize the division of the world between the Portuguese and Spanish that had begun at Tordesillas in 1494. The Spanish settlement of the Philippines after 1571, along with the arrival of the Dutch and English in the 1580s and 1590s and the emergence of Tokugawa Japan as maritime challengers to the joint Iberian crown, reopened these questions.

Simultaneous and competing efforts by the Japanese, Dutch and English to depict East Asia on maps suggest the importance of new economic and geopolitical forces in the region in the late sixteenth and early seventeenth centuries. The number of Japanese charts that survive from this period points to the development of a more substantial trading identity than Chinese slurs about *wokou* pirates would indicate. Nakamura Hiroshi has remarked that Japanese portolan charts increasingly omitted the Indian Ocean after 1616 as a reflection of the actual routes plied by the Japanese.⁴⁵ The Japanese chart *Ko Karuta* (c.1613) owned by Kadoya Shichirojiro, a Shirako merchant venturer and ship owner who received an early Red Seal permit for helping Tokugawa Ieyasu escape death in 1582, and who relied on Portuguese charts, highlighted the same trunk route, from Nagasaki to Quang Nam, as found on the Selden map. The VOC's cartographer Hessel Gerritszoon also created a comprehensive chart to show the South China Sea (the *Indische Noord* of 1621). The English chartmaker Gabriel Tatton appears to have been working on a similar chart before his untimely death in Japan in 1621.⁴⁶

These Japanese, Dutch and English charts all implicitly rejected Iberian claims, both separate and joint (the 60-year personal union had begun with Philip II in 1580), to sovereignty over East Asian waters.

The most immediate reasons for Chinese merchants to reframe their own understanding of East Asian trading routes in the early seventeenth century were not concerned directly with sovereignty but with the interruptions to trade caused by struggles over it. The Spanish (*huaren* 化人) and the Dutch (*hongmao* 紅毛) are depicted jointly occupying the Malukus and, specifically, Ternate (万高, *wanlaogao*).⁴⁷ Their united action proved deeply disruptive to trade by setting off a series of Dutch blockades and reprisals that had their greatest effect on privately owned Chinese junks. The Dutch had removed the Portuguese from Ambon (俺汶, *Anwen*) in 1605, with the help of forces from Ternate, and had begun building a massive fortress there. In response, Spain in 1606 staged a large-scale invasion of Ternate from Manila, with some thirty-six vessels and twelve hundred soldiers, out of fear that the Chinese, the Japanese, the Dutch and the English all had designs to oust the Iberians from the Malukus. A stalemate and division of the island between the Spanish and Dutch ensued after the exile of the sultan to Manila in 1606–1607. Ternate is the one place on the Selden map where conflict between the Spanish and the Dutch had come to have a direct impact on Chinese merchant shipping.

The problem at Ternate may be the reason that the Selden map, especially if it were made in Manila or by someone in contact with the Spanish and Portuguese, appears similar in its general framing of East Asia to what is known of a Spanish manuscript map dating from the 1590s or early 1600's. Although the original manuscript map does not survive, two derivative versions are known, a printed one made sometime after the original composition extant in only one exemplar and a manuscript copy made in Madrid for the English envoy Charles Cornwallis in 1609 (Figs. 10 and 11).⁴⁸ These maps depict an area stretching from the equator to 50°N in latitude while also covering forty degrees of longitude, in modern terms, from approximately 100°E to 140°E. Excluding the reference to the Indian Ocean, the Selden map covers a slightly larger area, from perhaps 50°N to 10°S in latitude and from about 95°E to 140°E in the north and 95°E to 130°E in the south in terms of longitude. This has the effect on the Selden map of placing Manila precisely in the centre of the right-hand side of the map (see Fig. 3).

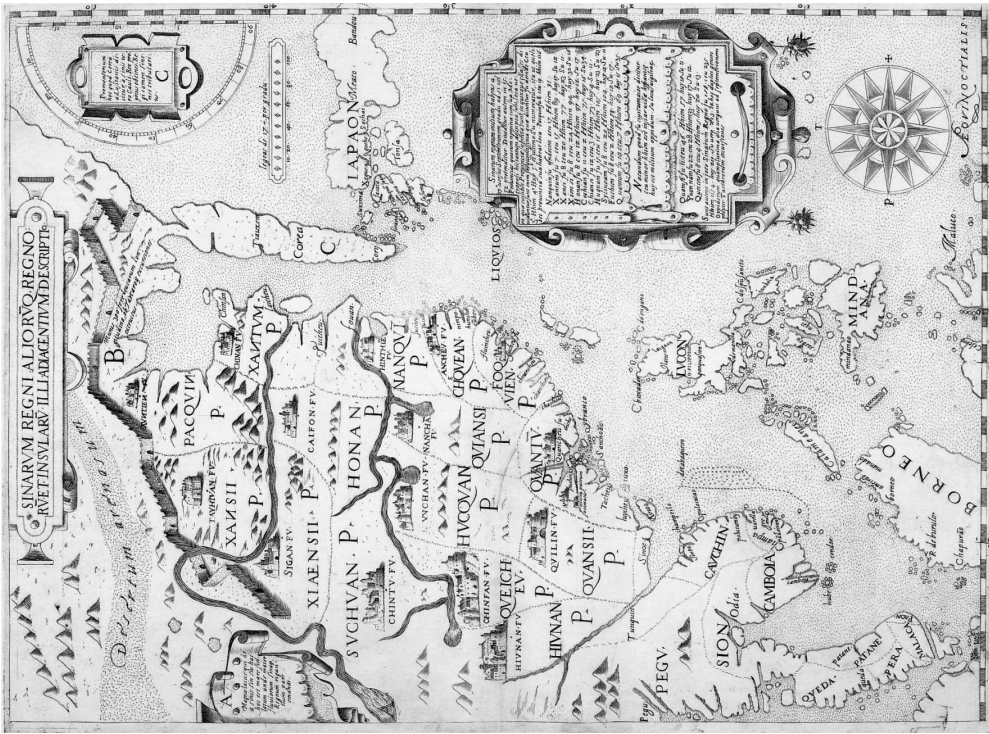


Fig. 10. Copperplate map of East Asia entitled *Sinarum Regni aliorumque regnorum et insularum illi adiacentium descriptio*, c.1597–1609, 47 × 35 cm. The undated and anonymous map was copied and printed from a now-lost Spanish draft that had recently arrived in Spain, probably from Manila, that had been completed in Madrid by 1609. The cartouche, which contains information taken from a Ming census gives the number of administrative divisions for each province and concludes: 'in toto Sinarum Regno su 156 ceu, 235 Hhien, 1154 huy, zii su vero 213'. Note the 'sail' of the Paracels (see Fig. 9). Hong Kong University of Science and Technology, 67400 1590.554. (Map reproduced with permission from Hong Kong University of Science and Technology Library, Hong Kong.)

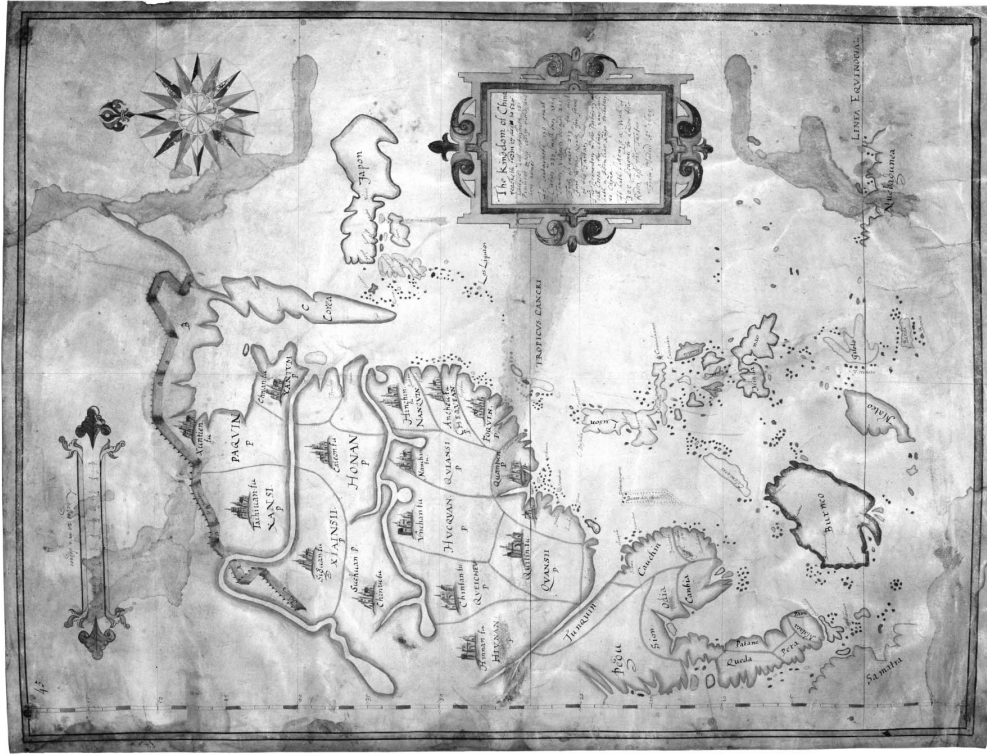


Fig. 11. Manuscript copy, made in Madrid in 1609 for the English envoy Charles Cornwallis, of the Spanish map of East Asia (see Fig. 10). The shorter English version of the inscription notes that 'The Kingdom of China' has '150 great Cities, 235 small ones, 1154 townes, villages decayed 211, forts of guard 213'. This map shows more to the south than the printed version and includes the whole of Borneo and the Malukus. Note the 'sail' of the Paracels (see Fig. 9). British Library, Cotton Augustus, II.ii.45. (Map reproduced with permission from the British Library.)

On the two maps derived from the Spanish manuscript map, the location of Beijing (*Shuntian* or 'Xuntien Fu') along the central axis of the map defines the parameters of East Asia as much as the Straits of Malacca and Japan do for the western and eastern borders. Somewhat surprisingly, there was little precedent before these Spanish maps among either the Iberians or the Chinese for placing Beijing on the central meridian of a map of East Asia.⁴⁹ As Abraham Ortelius in Antwerp and other Spanish and Portuguese mapmakers did in the 1570s and 1580s, and indeed as the compiler of the Selden map did, the maker of the Spanish manuscript map had used a printed map of the Ming Empire not centred on Beijing as his model for the mainland. Moreover, on the Spanish maps, Beijing, Quanzhou ('Chanchieu') and Manila all appear along a single meridian slightly to the left of the map's centre, at approximately 18° on a scale of zero to forty on the printed version (see Fig. 10), suggesting a Spanish desire to make connections between Beijing and ocean trade.

This re-alignment would have appeared strange to the large number of local merchants long familiar with the Quanzhou to Manila route, since the direction of the Spanish route did not run due south. On the Selden map, Manila, Quanzhou and Beijing likewise fall along a single diagonal. This line, however, follows the directional heading of *bing* (丙, 165°), which is the marked direction for the route from Manila to Quanzhou, and parallels the right *bing* line that is drawn from the compass to the scale bar. This south-southeastern line also fits modern longitude values for Manila (121°E), Quanzhou (118.6°E) and Beijing (116.4°E) in relation to true north. It could be that the Selden map's compiler was trying to find a value for declination, a heatedly disputed problem at the time. Or it could be that the Selden mapmaker was simply adjusting known navigational data to allow for the errors of these Spanish maps that were emerging into circulation as part of the propaganda battle over claims to sovereignty. What seems to be in evidence in these late sixteenth- and early seventeenth-century European and East Asian maps, then, may more appropriately be described as a contested understanding of East Asia than as just reciprocal transfers of knowledge, in which, as the Selden map reveals, Chinese merchants played an active and innovative role.

The Date and Composition of the Selden Map

Beyond the clear reference to the events of 1605–1606 on the Selden map there are, unfortunately, no markings to help identify its precise provenance. The

dense clusters of ports in Vietnam, Japan and the Philippines, as well as the trunk route itself running between these regions, seem to offer some hints. So far, the emerging scholarly consensus has been that the Selden map was drawn sometime between 1618 and 1624.⁵⁰ It appears to fit into a historical window after the publication of Zhang Xie's 1617–1618 treatise on maritime trade and before the merchant-pirate Zheng Zhilong began to build up his own maritime empire through trading networks converging on the Penghu (Pescadores) Islands, Taiwan and Fujian from 1624 to 1626. The Dutch set up a base on Penghu (澎湖; labelled simply peng 彭 on the Selden map) in 1622, but the Selden map shows the Dutch only on Ternate. As research progresses, and the context is narrowed, the date range is closing.

Blockades

One reason for compiling a comprehensive image of Chinese trade routes could have been the Chinese merchants' anxiety to find ways of circumventing the Dutch blockades that began after 1606. The Dutch legal theorist Hugo Grotius's ideology of 'free seas' and 'just war' was used to support the seizure of both Iberian ships and any merchants trading with them. After 1609, the Dutch had an operational base in Japan at Hirado, and the English followed in 1613 with the help of Li Dan. In 1614, the Dutch had obtained permission from the States General of the Netherlands for the VOC to engage in sustained action against the Spanish and Portuguese from Ambon and Ternate. All too often this resulted in the capture of Chinese merchant junks, as in the spring of 1616 when, according to rumours circulating in Hirado, between twenty-five and thirty-five Chinese junks filled with Spanish silver fell into Dutch hands.⁵¹ By 1618, however, it was clear in both Manila and Hirado that, because of the monsoon patterns, the Dutch were having to retreat to the Malukus and Java each June to await the winds coming from the southeast in July, leaving the seas to the Chinese merchantmen.⁵²

The English, on the whole, did not participate in the Dutch blockades. They had made peace with Spain and Portugal and had no particular desire to disrupt Chinese shipping. They did, however, seize the ships of some Chinese merchants—from Banten (Bantam), Java, in 1619 and off Sumatra in 1622—in their attempts to reclaim debts.⁵³ Then from January 1621 to May 1622 they joined with the Dutch, as the 'Anglo-Dutch Joint Fleet of Defence', to engage in blockades of Manila. Even more significantly, in the summer of 1620 an English vessel

named the *Elizabeth*, on its way to Hirado to join this fleet, seized a ship captained by a Japanese off Taiwan. The ship's cargo was at least partly owned by the Chinese merchant Li Dan. The action, which was to have major political reverberations in the area, not only may explain how the Selden map reached England, but also raises the possibility that it was made in, or at least passed through, Manila.

The *Elizabeth*

It is a pity that the East India Company's records appear relatively complete in all cases of piracy and blockading by the English except for the activities of the *Elizabeth* in August 1620.⁵⁴ In no instance is mention made of anything resembling the Selden map, yet the adventures of the *Elizabeth* may be crucial to the history of the map. The relevant events have to be pieced together as best possible.

What is clear is that in the summer of 1620 a Chinese junk, or perhaps a Japanese 'frigate', assumed the Dutch were safely out of the way for the monsoon season and set out from Manila for Nagasaki by way of Macao, putting in at Taiwan for fresh supplies.⁵⁵ Among those on board the junk were a Portuguese pilot Diego Fernandez and two Spanish priests, Pedro Manrique de Zuniga and Luis Flores, who were trying to smuggle themselves into Japan disguised as merchants. By chance, the *Elizabeth* had stopped at Taiwan as well, and seeing the Iberians there, felt justified in seizing the 'frigate', which they later claimed was Portuguese. The captured ship was full of silk, ginger and cotton that had been bought on the mainland with Manila silver and was intended to be sold on the Japanese market. After a lengthy process, the main cargo was eventually confiscated by Japanese authorities on the grounds that it belonged to Japanese and Chinese merchants (including Li Dan) who had been abetting the Spanish. But the *Elizabeth's* captain, the unpopular Edmund Lenmyes, was widely rumoured to have taken a chest of gold before the ships reached port, and if Selden's future map and compass were on board, they possibly fell into the hands of Gabriel Tatton, the *Elizabeth's* chartmaker.

The Japanese authorities were anxious not to give the Ming rulers the impression they supported piracy. At the same time they feared Spanish and Portuguese Catholicism as a disruptive influence, preferring to side instead with English, Dutch and Chinese merchants as less of a threat to local political stability. But by December, the Japanese were threatening to impound the goods captured by the *Elizabeth* and to imprison its crew for piracy. During the ensuing

obscure and largely secret negotiations over the crew and cargo, in which Li Dan became implicated as having a share in the cargo and as a potential smuggler of the priests, the map (assuming it had been captured) would have remained hidden as evidence of the English not fully cooperating and of Li Dan's collaboration with the Spanish.

All concerned—Li Dan, the English and the Dutch—tried to protect their respective organizations by focusing attention on the priests who had been captured and who would have most likely known nothing of the map as opposed to the nature of the cargo. The result was that the priests, together with the Japanese captain of the ship and more than 120 residents of Nagasaki, were executed in August and September 1622 in what came to be called the 'Great Martyrdom'. A year later, in 1623, a sizable part of Li Dan's possessions in Hirado were impounded, and the English disbanded their factory at Hirado, to which Li owed a debt of 6000 *tael*, under a cloud of malfeasance by its chief factor Richard Cocks.

What archives survived the episode and returned to London—among the items were Gabriel Tatton's charts, Richard Cocks's diary, and Cocks's library of Japanese books—were dispersed because of the deaths of the main people involved.⁵⁶ If the Selden map had been brought to Japan on the *Elizabeth*, there is good reason to suppose it also reached England sometime in 1624, although the records are totally silent in the matter. It is not clear when Selden acquired the map. He may have got it, along with the *Codex Mendoza*, from Samuel Purchas in 1626 or around the time Laud acquired the *Shunfeng xiangsong* sometime before 1637. All that is certain is that many such objects circulated in early seventeenth-century London, and we know about most of them only because of Laud's and Selden's donations to the Bodleian.

Li Dan as Map Patron?

If it is assumed that the Selden map had indeed been captured by the *Elizabeth*, it has also to be assumed that it owed its creation in the first place to Li Dan, a person who has left only a murky record in the archives, although more traces than many other such merchants. By the early 1620s, Li Dan was sufficiently established as a merchant to send others, including his brother, on trading voyages. According to most sources, Li had been born in Quanzhou, Fujian, emigrated to the Chinese quarter in Manila known as the Parian, and became a successful businessman before, on falling into debt over an unpaid 40,000 *tael* in Manila, he was sentenced to the

Spanish galleys that were patrolling the coasts of Luzon around 1608. He escaped to Hirado, Japan, where, with substantial capital investment from Chinese merchants, wealthy Japanese individuals, and Dutch and English trading companies, he built up a huge shipping empire. Li Dan's ships sailed from Japan as far as Siam, and they plied routes that took them to the ports of Champa, Tonkin, Manila, Taiwan, Guangzhou and Quanzhou. From July 1617, Li was also regularly sending ships to Taiwan, to where he moved to assist the Dutch in 1623–1624 after some of his wealth had been confiscated in Japan.

If any Chinese merchant were to be in a position to commission a piece as extensive as the Selden map, it would seem to have been Li Dan. We have already noted a possible motive, the marriage of his daughter to another powerful merchant. He owned a well-appointed compound in Hirado. Over the years 1615–1621, he raised 6,250 silver *tael* (c.234.4 kg) of English investment alone, claiming through agents at Banten on Java that he had extensive contacts in the Ming Empire itself. The final payment from the English (1,500 *tael*) reached him in January 1621, six months after the English seem to have unknowingly captured his goods in the *Elizabeth* episode.⁵⁷ If the rumours of Chinese merchants are to be believed, he had a much larger 30,000 *tael* investment fund assembled from Osaka and Nagasaki merchants, the Bankufu or Shogun's government itself as well as Fujianese merchants.⁵⁸ The Japanese hardly dared touch him, and he enjoyed too many connections in Japanese society to be burned publically in the Great Martyrdom.

The Selden map almost certainly was not made in Japan. It shows only the southern part of the country and details are poor compared with those for Luzon and the coast of Vietnam. Many of the actual labels on Japan are simply *zhou* (州), meaning province, and the scale-like sections of the upper part of the single island look like a traditional eighth-century Gyoki map, but one hastily copied or perhaps memorized. Like Japan on the Selden map, Gyoki maps frequently framed Japan using Sado Island (佐渡州, *Zudou Zhou*), Kyushu and Shikoku (labelled 亞里馬王, *Yalima Wang*, on the Selden map). Some unique transliterations of famous Honshu tourist sites that would have been little known in China are given, such as *Yishi* (伊勢, Ise Shrine) and *Qidao Shan* (七島山, 'Seven Island Mountain'), the latter an idiomatic reference to, with depiction of, Mount Fuji. The map does reflect a reasonable knowledge of the dense scatter of the islands off the southwest coast of Kyushu, which

Chinese and European traders frequented, as well as Tsushima Island (水剩馬, *Shuishengma*), gateway for trade with Korea.

The Selden map could easily have been made in Manila or Fujian. In Manila, an artist could have had access to one of the Spanish maps of East Asia or seen the manuscript version. However, if it were made in Manila, Li Dan himself almost certainly never saw it, since he remained in Japan during this period. Li's son, Li Guozhu (known to Europeans as Augustin), though, did travel to Manila from Nagasaki in the summer of 1618, which also fits with the general timeline.⁵⁹ Regardless of the map's provenance, which further research may reveal, the traces that do survive about the Li family in the historical record, along with the pastiche of source materials used to create the map itself, offer a sense of how such a map would have been constructed and the reasons why it would have been made. The Japanese Red Seal ship trade, the arrival of Dutch and English traders in the 1610s, and the expansion of Fujianese merchant networks like those of Li Dan in Hirado, had all made the trunk route passing Quanzhou popular with Japanese, Chinese and European ships carrying silver and increasingly subject to new kinds of cartographical techniques.

An Object of Global Significance

However sparse definitive information about the history of the Selden map may be, the map offers a rich cartographical image of the economic dynamism of seventeenth-century East Asia. This in itself is remarkable, because commercial records tend to be fragmentary and incomplete. Unlike the institution-based activities of the Dutch and English in the area, most Chinese economic activity was the responsibility of individual merchant families, whose records were not preserved in company archives. Yet the map's maker was able to draw on an impressive variety of sources to configure trade relationships to focus on the sea rather than inland waterways. He also enriched his image with allusions to contemporary understandings of sovereignty, nature, space and time.

The map also gives new insights into English thinking about the oceans, commerce and empire in the early seventeenth century. That Selden came to value it for its public interest—specifically wanting it to go to the Bodleian, the only library in England at the time open to non-university members—is telling.⁶⁰ For Selden, his Chinese map could be used to demonstrate that measuring the sea was a

way of establishing a kind of dominion or possession in East Asia and to give a global and universal character to his own arguments about closed and proprietary seas. In the Latin printed edition of his *Mare Clausum* (1635), Selden had first publically articulated the argument that sovereigns could exert dominion over the seas. With the first Navigation Act of 1651 regulating British shipping and the supporting English translation of *Mare Clausum* (1652), closed-seas arguments came to be seen as necessary for articulating policy for the Atlantic. Selden's concept of closed seas defined by contract law and the technical ability to measure space dominated English thinking until the overturn of the Navigation Acts during the American Revolution and the active pursuit of free-trade policies in East Asia in the Opium War.

The Selden map thus obliges us to pause to reconsider some fundamental assumptions, notably the privileging of the Atlantic world as the birthplace of modernity, science and capitalism, and the concomitant view of the West as Atlantic-centred. Likewise, the map prompts reflection on historical methodology in the way it draws attention to the importance of intertwined external political and commercial relationships when assessing seventeenth-century East Asia. Claims to the ocean were not merely asserted by sovereign states so much as negotiated by a series of sovereign and contractual stakeholders utilizing what were perceived as shared, rather than 'free', resources.

Exchange networks in the seventeenth-century as developed by entrepreneurs like Li Dan, or by organizations like the English and Dutch East India Companies operating at considerable distances from their metropolitan bases, pushed contractual relations ahead of state formation.⁶¹ The efforts of Zheng Chenggong and Zheng Jing, the successors to Li Dan's commercial empire who themselves ousted the Dutch from Taiwan in 1662, revealed the failure of Dutch free-seas policies, supposedly rooted in natural law, compared with English efforts to close the seas through legislation.⁶² In the end, part of the development of the massive Qing Empire that succeeded the Ming in 1644 was a reaction to complex commercial developments that had already begun in the previous period as suggested by the Selden map itself.

It is appropriate that the Selden map has been rediscovered in an age that sees itself as digital and global. Dismissive notions of mere 'piracy' in commodity exchange and information transmission in seventeenth-century East Asia, echoed in debates of

the twenty-first century, point to what is missed when historical trends are reduced to the internal activities of countries or empires. In its depiction of the environment and its emphasis on relationships that were, in the context of the day, global, the Selden map shows that these are not entirely new matters. The cartography of the Selden map in effect asks the viewer to examine the way trade is shaped by, and in turn reshapes, the natural world. In its perspective—not that of a snapshot but of process—as well as in its content, the Selden map is a remarkable and so far unique creation from early seventeenth-century East Asia.

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This article was commissioned at the Discovering the Selden Map of China Colloquium, Bodleian Library, Oxford, September 2011.

NOTES AND REFERENCES

1. Nathan Sivin and Gari Ledyard, 'Introduction to East Asian Cartography', in *The History of Cartography*, vol. 2, book 2: *Cartography in the Traditional East and Southeast Asian Societies*, ed. J. B. Harley and David Woodward (Chicago, University of Chicago Press, 1994), 23.
2. Gavin Menzies, *1421: The Year China Discovered the World* (London, Bantam, 2002). On Menzies, see Geoff Wade, 'The Liu/Menzies world map: a critique', *e-Perimtron* 2:4 (2007): 273–80. Menzies' primary cartographic evidence comes from the Piri Reis chart and Fra Mauro maps as well as the *Wu beizhi* and the Korean Kangnido map tradition (c.1402).
3. Bodleian Library, MS Selden Supra 105. When David Helliwell, Curator of Chinese Collections at the Bodleian, and I opened the map, I noticed the unusual sea routes marked on it. Helliwell has been systematically recataloguing the seventeenth-century collection of Chinese materials in the Bodleian and in Europe more generally; see his 'Chinese Books in Europe in the 17th Century', <http://www.bodleian.ox.ac.uk/users/djh/17thcent/17th.htm>, and the 15 February 2012 entry for his blog *Serica*, <http://oldchinesebooks.wordpress.com/2012/02/>. Because the map itself has no title in Chinese, Helliwell has accepted 東西洋航海圖 (*Dongxi yang hanghai tu*) coined by Chen Jiarong as the Chinese name for the map.

4. For shipping data, see Iwao Seiichi, *Shuin-sen Boeki-shi no Kenkyu* (Tokyo, Ko Bun Do, 1958), 107 and passim; Li Tana, *Nguyen Cochinchina* (Ithaca, NY, Southeast Asia Program Publications, 1998), 62–65. The diplomatic documents can be found in Hayashi Akira et al., *Tsuko ichiran* vol. 8 (Tokyo, Kokusho Kankokai, 1912–1913), 481–87.

5. See Stephen Davies, 'The construction of the Selden map: some conjectures', *Imago Mundi*, 65:1, 97–105.

6. At the time of going to press (summer 2012), I have been unable to consult Timothy Brook's book, *Who Drew the Selden Map?* (London, Profile Books), which has been advertised as due for publication in 2013.

7. British Library, MS Sloane 853, fol. 23.

8. See Thomas Hearne, 'An Extract and particular Account of the rarities in the Anatomy School', Bodleian MS Rawl. C 865, reprinted in R. T. Gunther, *Early Science in Oxford*, vol. 3 (Oxford, Hazell, Watson and Viney, 1925), 264–74; and Thomas Hearne, *Hearne's Remarks and Collections*, vol. 1, ed. C. E. Doble (Oxford, Clarendon Press, 1885), 70. The passage in Hearne implies that the Anatomy School actually received a copy of the map: 'Today Mr. Halley coming to ye Library, Dr Hudson shew'd him Mr. Selden's large MSt Map of China (whereof there is a Copy amongst Dr. Bernard's MSS. That is to be put into the Anatomy Schoole) to wch Dr. Hyde added some Explicatory Notes. Mr. Hally having taken a view of it, concluded it to be full of faults, from some wch he knew to be so from his own observations'.

9. 'Codicil', 11 June 1653, in David Wilkins, *Works of John Selden*, vol. 1 (London, 1726), lv. The compass that accompanied the map is now Oxford Museum for the History of Science, 44055.

10. The original (lost) manuscript circulated in the summer of 1619 at the request of Buckingham, the new Lord High Admiral, but James I wanted it changed, and it was rejected on its second submission. See G. L. Toomer, *John Selden: A Life in Scholarship*, vol. 1 (Oxford, Oxford University Press, 2009), 388–432; David Berkowitz, *John Selden's Formative Years* (Washington, Folger Library, 1988), 54–55, 308–9. Selden tells his version of the story (mistakenly remembering it as 1618) in *Vindiciae Joannis Seldeni* (London, Cornelius Bee, 1653), 15–28. Selden finally published a revised version during the ship-money controversy under Charles I as *Mare Clausum seu De dominio maris* (London, William Stanesbeius, 1635). The English edition appeared in support of the first Navigation Act as *Of the Dominion, Or, Ownership of the Sea*, transl. Marchmont Nedham (London, William Du-Gard, 1652), at which time Selden's map could be seen in his house, Carmelite, in Whitefriars. The relevant passages on the measurement of the sea are in book 1, chapter 22, (1635), 91–97; (1652), 135–45.

11. Grotius's work had been translated into English by Richard Hakluyt from *Mare Liberum* (Leiden, 1609), a second edition appeared in 1618. See Hugo Grotius, *The Free Sea*, transl. Richard Hakluyt, ed. David Armitage (Indianapolis, Liberty Fund, 2004).

12. Samuel Purchas, 'The Map of China, 皇明一统方輿備覽, taken out of a China Map printed with China characters, etc. gotten at Bantam by Capt. John Saris' [*Huang Ming yitong fang yu bei lan*, 'Comprehensive directional view map of the Imperial Ming'], in *Purchas his Pilgrimes*, vol. 3 (London, William Stansby, 1625), 400–1.

13. The word *tu* was used as a general term for maps, but it could also refer to a wide range of diagrammatic material in printed primers and encyclopaedias, for stellar diagrams and even ancestral charts (宗支圖本, *zhongzhi tuben*). See

Francesca Bray, 'Introduction', in *Graphics and Text in the Production of Technical Knowledge in China*, ed. Francesca Bray, Vera Dorofeeva-Lichtmann, Georges Métailié (Leiden, Brill, 2007), 1–5; Vera Dorofeeva-Lichtmann, 'The political concept behind an interplay of spatial "positions"', *Extrême-Orient, Extrême-Occident* 18 (1996): 9–33; and Michael Lackner, 'Die Verplanung des Denkens am Beispiel der *tu*', in *Lebenswelt und Weltanschauung im frühneuzeitlichen China*, ed. H. Schmidt-Glitzner (Stuttgart, Franz Steiner Verlag, 1990), 134–56.

14. *Bianyong Xuehai qunyu* [便用學海群玉, 'Convenient to use: seas of knowledge, mines of jade'], revised by Wu Weizi (Fujian: Xiong Chongyu from Jianyang, 1607), *juan* (chapter) 2. See Koos Kuiper, *Catalogue of Chinese and Sino-Western Manuscripts in the Central Library of Leiden University* (Leiden, Leiden University Library, 2005), 70–75. For similar encyclopaedias, see Wu Huifang, *Ming-Qing shiqi de minjian shenghuo shilu* (Taipei, National Cheng-chi University, 2001), 641–59. The surviving copy of the encyclopaedia, now at Leiden University Acad. 226, was most likely obtained in Batavia by the Dutch missionary collector Justus Heurnius in the late 1620's. It, like many of the books in the Bodleian's collection from the same period, is a good example of the kinds of materials brought to overseas Chinese settlements in Southeast Asian ports. On such printing, see Lucille Chia, *Printing for Profit: The Commercial Publishers of Jianyang* (Cambridge, Harvard University Press, 2002); and on the Chinese books circulating in Manila, see idem, 'Chinese books and printing in the early Spanish Philippines', in *Chinese Circulations*, ed. Eric Tagliacozzo and Wen-Chin Chang (Durham, NC, Duke University Press, 2011), 259–82. Examples of printed maps that circulated outside of China include sheet maps like Yu Shi, 'Gujin xinsheng zhi tu' [Map of China past and present] (Longxi County, Fujian, Jinsha Studio, 1555), and the Purchas, 'The Map of China' (see note 12), as well as the 1579 version of Luo Hongxian's atlas *Guang yutu quan shu*.

15. John Moffett has called attention to the *fenye* markings on the map. On *fenye* versus geomancy or the 'Form' vs. 'Compass' schools, see especially Richard Smith, *Fortune-tellers and Philosophers: Divination in Traditional Chinese Society* (Boulder, Colorado, Westview Press, 1991), 67–70, 134–39; and John B. Henderson, 'Chinese cosmographical thought: the high intellectual tradition', in Harley and Woodward, *History of Cartography* (note 1), 2:2: 210, 216–24.

16. Emma Teng, *Taiwan's Imagined Geography* (Cambridge: Harvard University Asia Center, 2006), 58.

17. Specifically a notation in the northern islands of the Ryukyus, 野故門水流東甚緊 (*Yegu men shuiliu dong shen jin*, 'Yegu passage, eastward current, very tight') and one between Luzon and Taiwan, 此門流水東甚緊 (*ci men liushui dong shen jin*, 'This passage, flowing east, extremely tight'): see Figs. 1 and 2. A remarkably similar formulation with different directional headings occurs in Bernhard Varenius, *Geographia Generalis* (Amsterdam, Elzevier, 1650), 201, who writes, 'Similis motus versus Boream observatur in ostio freti Manilentis ad Philippinas. Ita in Japone motus incitatissimus a portu Xibuxia versus Arimam' [A similar motion towards the north is observed in the Strait of Manila near the Philippines. Likewise in Japan a strong motion from the port of Xibuxia towards Arima']. Francois Caron, head of the VOC's Hirado factory in the 1620's seems a likely source for Varenius's information. In an empty space east of Luzon is the inscription 化人番在此港往來呂宋 (*Huarenfan zaichi gang wanglai Lusong*, 'Spanish

foreigners go back and forth from this harbour to Luzon [Manila]), indicating the trans-Pacific silver route.

18. Davies, 'The Construction of the Selden map' (see note 5)

19. Declination is notoriously difficult to determine in this period. The English theorist of magnetism William Gilbert in *De Magnete* (London, 1600) complained about the inaccuracy of Portuguese figures. Several Spanish and Portuguese, including the Italian Jesuit Christoforo Borri, were actively collecting new measurements in the 1610s, and in London in 1635 Henry Gellibrand discovered that magnetic declination not only varied according to place but shifted over time. Joseph Needham could only find two 'Chinese' measurements of declination in the early seventeenth century, both for Beijing, from Xu Guangxi (confusingly 5°40' east) and Mei Wending scoffing at Adam Schall's claim to have found over 7° of western declination by sundial measurement. See Alexander Wylie, 'The Magnetic Compass in China.' *Chinese Researches* (Shanghai, 1897), 157, cited by Joseph Needham, with Wang Ling and Kenneth G. Robinson, *Science and Civilisation in China*, vol. 4: *Physics and Physical Technology*, pt. 1, *Physics* (London, Cambridge University Press, 1962), 310. Like Needham, I have not found the originals of these suspicious citations. The new calculations of A. Jackson, A.R.T. Jonkers and M. Walker, 'Four centuries of geomagnetic secular variation from historical records', *Philosophical Transactions of the Royal Society of London*, ser. A, 358 (2000): 957–90, suggest a figure closer to –5° on a line running west of Beijing down through Malacca on the western Malay Peninsula and across central Sumatra.

20. See Zhang Xie, *Dongxi yangkao* (东西洋考; 1617–1618), 9:1; translated in Needham, *Science and Civilisation in China* (note 19), 4:1: 291–92.

21. Davies, 'The construction of the Selden map' (see note 5)

22. British Library, MS Sloane 853, fol. 23.

23. *Ibid.*

24. Nüwa and Fuxi were believed to live on Kunlun mountain (see Fig. 6 left, no. 3). They are best known from the Tang dynasty (618–906) tomb paintings and banners recovered at Astana in Xinjiang, China. See Uyeno Aki, 'Paintings of Fu-hsi and Nu-wa from Astana', *Bijutsu kenkyu* 292–293 (March 1974–May 1974).

25. Compare Zhu Yu's *Pingzhou Ketan* (1119), which argues that the 'south pointing needle' (*zhinan zhen*) is used when weather makes it difficult to see the sun, stars and coast. Cited in Needham, *Science and Civilisation* (see note 19), 4:1: 279.

26. See the suggestive comments in Roger Hart, *The Chinese Roots of Linear Algebra* (Baltimore, The Johns Hopkins University Press, 2011), in the context of broader observations by Kapil Raj, *Relocating Modern Science: Circulation and the Construction of Knowledge in South Asia and Europe* (Basingstoke, Palgrave Macmillan, 2007); Mary Poovey, *A History of the Modern Fact* (Chicago, University of Chicago Press, 1998), 29–91; and Jack Goody, *The East in the West* (Cambridge, Cambridge University Press, 1996), 49–81.

27. *Geng* (literally 'change' as in changing of the ship's watch) indicated both time and distance. As a measure of distance, it usually fell between 14 and 20 miles depending in part on the strength of monsoon winds and currents. Mei-Ling Hsu, 'Chinese marine cartography: sea charts of pre-modern China', *Imago Mundi* 40 (1988): 112 n2.

28. *Shunfeng Xiangsong* (順風相送), Oxford, Bodleian Library, Laud Or. 145, inscribed 'Liber Guil. Laud Archibpi Cant et Cancillar Universit Oxon 1637', and

reprinted in Xiang Da, ed. *Liang zhong hai dao zhen jing* (Beijing, Zhonghua shu ju, 1961), 78–80.

29. On the use of the word *zhen* to describe compass-bearings in the section on Zheng He in Mao Yuanyi's massive *Wu beizhi* (武備志, 'Treatise on Armament Technology', preface 1621, presented to throne 1628), see Joseph Needham, with Wang Ling and Lu Gwei-djen, *Science and Civilisation in China*, vol. 4: *Physics and Physical Technology*, pt. 3: *Civil Engineering and Nautics* (Cambridge, Cambridge University Press, 1971), 564. Digital versions of the maps can be seen at the Library of Congress's American Memory site, [http://memory.loc.gov/cgi-bin/query/h?ammem/gmd:@field\(NUMBER+@band\(g7821rm+gct00058\)\)](http://memory.loc.gov/cgi-bin/query/h?ammem/gmd:@field(NUMBER+@band(g7821rm+gct00058))). On the *Wu beizhi* more generally, see the translation by J. G. V. Mills of Ma Huan's *Yingyai Shenglan* (compiled 1451) of the 1413, 1421 and 1431 expeditions. The first printed edition was *Jilu huibian*, ed. Shen Jiefu (c.1617). The history of the editions is in Mills, ed. and transl., *Ying-yai sheng-lan: The Overall Survey of the Ocean's Shores 1433* (London, Hakluyt Society, 1970), 37–41. Mills (239) and Needham referred to the charts as the 'Mao Kun' map, believing it derived from a scroll in the collection of Mao's grandfather (d. 1601). On navigational notations on charts, see J. J. L. Duyvendak, 'Sailing directions of Chinese voyages', *T'oung Pao* 34 (1938): 230–37, which compares the 'Mao' charts with the *Shunfeng Xiangsong* (see note 28); and in the same issue 'The true dates of Chinese maritime expeditions in the early fifteenth century', 341–42. The scholarship around the *Wu beizhi* maps emerged in a series of debates among Mills, Duyvendak and Paul Pelliot (also in *T'oung Pao*) in the 1930's, which had in the background questions about British, Dutch, French and potentially Japanese empires in Southeast Asia.

30. See in particular Angela Schottenhammer, *The Emporium of the World: Maritime Quanzhou* (Leiden, Brill, 2001); Billy So, *Prosperity, Region and Institutions in Maritime China: The South Fukien Pattern* (Cambridge, Harvard University Press, 2000); John Chaffee, 'Song China and the multi-state and commercial world of East Asia', *Crossroads: Studies on the History of Exchange Relations in the East Asian World 1* (2010): 33–54; E. B. Vermeer, ed. *Development and Decline of Fukien Province in the Seventeenth and Eighteenth Centuries* (Leiden, Brill, 1990); Wang Gungwu, 'Merchants without empire: the Hokkien sojourning communities', in *The Rise of Merchant Empires*, ed. James Tracy (Cambridge, Cambridge University Press, 1990), 400–21; Hugh Clark, *Community, Trade and Networks: Southern Fujian Province* (Cambridge, Cambridge University Press, 1991).

31. Zhang Xie, *Dongxi yangkao* (see note 20), 6:21, 7:22, 9:2; Ng Chin-Keong, *Trade and Society: The Amoy Network on the China Coast*, (Singapore: Singapore University Press, 1983), 47.

32. For a description of the silver cycle, see Dennis Flynn and Arturo Giráldez, 'Cycles of silver: global economic unity through the mid-eighteenth century', *Journal of World History* 13:2 (2002): 391–427; Richard von Glahn, *Fountains of Fortune* (Berkeley, University of California Press, 1996); William Atwell, 'International bullion flows and the Chinese economy circa 1530–1650', *Past and Present* 95:1 (1982): 68–90.

33. The key work defining the South China Sea through the eastern and western routes was Chen Dazhen, *Dade Nanhai zhi* (c.1307), a description of the Dade era (1297–1307) of the Yuan dynasty. See also Wang Dayuan, *Daoyi zhilue* (Quanzhou, 1349), and its reference to southern 'island peoples'. For the revival of this concept, see Wang Gungwu, 'The Nanhai trade: early Chinese trade in the

South China Sea', *Journal of the Malayan Branch Royal Asiatic Society* 31:2 (1958): 1–135; and Wang Gungwu, 'Early Ming relations with Southeast Asia—a background essay', in *The Chinese World Order*, ed. John Fairbank (Cambridge, Harvard University Press, 1968).

34. The ports labelled are 北港 (*beigang*, 'northern port' or Tayouan Bay) and 加里林 (*jiali lin*, 'Jiali forest' or Soulang near the future Fort Zeelandia), in addition to the adjacent 彭島 (*Pengdao* for Penghu or the Pescadores).

35. In this respect, the Selden map can be recognized as an example of what Denis Wood and John Fels, *The Natures of Maps* (Chicago, University of Chicago Press, 2008), 6, have called the 'cartographic construction of the natural world', highlighting concepts of the natural as they emerge from maps.

36. Two popular historical novels from the 1590s that were profoundly influential among Chinese maritime merchants are Luo Guanzhong's fourteenth-century *Yuanyi Sanguo zhi* (研義三國志, 'Three Kingdoms Romance', 1522, 1592), and Luo Maodeng's *Sanbao taijian Xiyangji tongshu yanyi* ('Sanbao the Eunuch's Travels to the Western Ocean', 1597). The latter revived the story of Zheng He's travels and the associated geography. The former was popularized through a 1592 Fujianese illustrated edition by the publisher Liu Longtian. Selden's edition of it (Oxford, Bodleian Library, Sinica 51/1-6) was an offprint entitled 新製全像大字通俗研義三國志傳 (*Xinqin Quanxiang Dazi Tongshu Yanyi Sanguozhi Zhuan*, 'newly engraved, fully illustrated, great-writing, everyday novel Three Kingdoms History narrative'). On the consumption of this kind of art on porcelains and in garden design, see Robert Batchelor, 'On the movement of porcelains: rethinking the birth of the consumer society as the interaction of exchange networks, China and Britain, 1600–1750', in *Consuming Cultures: Global Perspectives*, ed. John Brewer and Frank Trentmann (Oxford, Berg, 2006), 79–92; and Robert Batchelor, 'A taste for the interstitial (間): translating space from Beijing to London', in *Spaces of the Self*, ed. David Sabean and Malina Stefanovska (Toronto, University of Toronto Press, 2012).

37. My thanks to Catherine Delano-Smith for drawing my attention to these as we inspected the map at the 'Discovering the Selden Map of China Colloquium', Oxford, September, 2011.

38. For Li Dan's marriage, see Richard Cocks, *Diary of Richard Cocks Cape-Merchant in the English Factory in Japan 1615–1622*, ed. Edward M. Thompson (Hakluyt Society, 1883), 2: 27, 33. The manuscript of Richard Cocks' diary is now British Library, Additional MS 31,300 and MS 31,301. On Li Dan (Li Tan) generally, see Iwao Seiichi, 'Li Tan, chief of the Chinese residents at Hirado', *Memoirs of the Research Department of the Toyo Bunko* 17 (1958): 27–83; Ang Kaim, 'Shiqi shiji de fulao haishang', in *Zhongguo haiyang fazhan shi lunwen ji di qi ji*, ed. Tang Xiyong (Taipei, Academia Sinica, 1999), esp. the letter from Li Dan to Yan Siqi, 74–75; Tonio Andrade, *How Taiwan Became Chinese* (New York, Columbia University Press, 2007), 12–13. Li does not seem to have converted to Catholicism, although he did have a son who went by the name Augustin. Iwao Seiichi ('Li Tan', 36) counts at least three daughters. Li seems to have been in a strong position to extend his commercial power-base though the building up of family networks.

39. On Kunlun, see Lihui Yang et al. *Handbook of Chinese Mythology* (Oxford, Oxford University Press, 2008), 160–63. Kunlun Mountain is the prototype for the idea of the Western paradise in Chinese mythology.

40. The term 'littoral society' is from Charles Wheeler, 'Re-thinking the sea in Vietnamese history. Littoral society in the integration of Thuan Quang, seventeenth–eighteenth centuries', *Journal of Southeast Asian Studies* 37:1 (2006): 123–53; as well as idem, 'The case for boats in Vietnamese history: ships and the social flows that shaped Nguyen Cochinchina, 16th–18th centuries', in *Of Ships and Men: New Approaches in Nautical Archaeology*, ed. Paolo Calanca et al. (Paris, Ecole française d'Extrême-Orient, forthcoming). See also Bennet Bronson, 'Exchange at the upstream and downstream ends: notes toward a functional model of the coastal state in Southeast Asia', in *Economic Exchange and Social Interaction in Southeast Asia: Perspectives from Prehistory, History, and Ethnography*, ed. Karl Hutterer (Ann Arbor, University of Michigan Press, 1977), 39–52.

41. For examples of newly rising urban merchant aesthetics in the Ming period, see Craig Clunas, *Superfluous Things* (Urbana, University of Illinois Press, 1991); Timothy Brook, *The Confusions of Pleasure* (Berkeley, University of California Press, 1998); and in Tokugawa Japan, see Eiko Ikegami, *Bonds of Civility: Aesthetic Networks and the Political Origins of Japanese Culture* (Cambridge, Cambridge University Press, 2005).

42. 'a navegação dos chines e gores [Ryukyu Islanders?], com suas lynhas ey caminhos deretos por omde as naos hiam, e ho sertam quaes reynos comsynavam huns cos outros'. Letter from Afonso de Albuquerque to King Manuel, 1 April, 1512, in *Cartas de Affonso de Albuquerque, seguidas de documentos que as elucidam*, vol. 1 (Lisbon, Academia Real das Sciencias, 1884), 64–65. See Armando Cortesão and A. Teixeira da Mota, *Portugaliae monumenta cartographia* (Lisbon, 1960), 1: 79–80, and 2: 122–30; J. H. F. Sollewijn Gelpke, 'Afonso de Albuquerque's pre-Portuguese "Javanese" map, partially reconstructed from Francisco Rodrigues' Book', *Vijdragen tot de Taal-, Land- en Volkenkunde* 151:1 (1995), 76–99; and Joseph Schwartzberg, 'Southeast Asian nautical maps', in Harley and Woodward, *History of Cartography* (see note 1), 2:2: 828–29.

43. 'ver verdadeiramente os chins donde vem e os gores, e as vossas não ho caminho que am de fazer përa as ilhas do cravo, e as minas do ouro omde sam, e a ilha de jaoa e de bamdam, de noz nozcada e maçãs, e a leira deirrey de syam, e asy ho cabo da terra da navegação dos chins, e asy para omde volve, e como daly a diamte nam navegam'. Letter from Albuquerque to King Manuel, 64–65 (see note 42).

44. The idea of a snake with veins coming out of the Spratleys appears in Wang Dayuan, *Dao yi zhi lue* (Quanzhou, 1349), 93. *Nan'ao qi* is the term used for the Pratas Islands (see Fig. 7) in the Zheng He maps of the *Wu beizhi*. The form is found as late as the 18th century.

45. For the Kadoya chart, see the reproduction in Nakamura Hiroshi, 'The Japanese portolanos of Portuguese origin of the XVIIth and XVIIIth centuries', *Imago Mundi* 18 (1964): 24–44, esp. fig. 4; idem, *Goshuinsen kokaizu* (Tokyo, Nihon Gakujutsu Shinkokai, 1965), 550–51; and Peter Shapinsky, 'Polyvocal portolanos: nautical charts and hybrid maritime cultures in early modern East Asia', *Early Modern Japan* 16 (2006): 4–26.

46. Gerristzoon's chart is Berlin, Staatsbibliothek zu Berlin-Preussischer Kulturbesitz, T.7557. See the reproduction in Sarah Tyacke, 'Gabriel Tatton's maritime atlas of the East Indies, 1620–1621', *Imago Mundi* 60:1 (2008): 49. Both Ortelius (1587) and Jan Huygen van Linschoten, *Itinerario, Voyages ofte Schippvarert* (Amsterdam, Cornelis Claesz, 1596), between 22–23, had made maps of East Asia as well. The Linschoten map appeared as 'Insulae

Moluccae & cra.', re-engraved by Robert Becket in John Wolfe's translation of Linschoten (London, 1598), between 6 and 7.

47. The term *wanlaogao* for Ternate was still being used in the 18th century, see chapter 2 of Chen Lunjiong, *Haiguo jian wen lu* (1731), in *Ming bian zhai cong shu* 6 (Changsha, Yu shi, 1867).

48. The printed version entitled 'Sinarum Regni aliorum regnorum et insularum illi adiacentium description' and dateable to c.1597–1607, is now in the Hong Kong University of Science and Technology Library, G7400 1590.S54. The English copy, presumably produced in Madrid 1609 to demonstrate to the English the success of Spain against the Dutch in Ternate three years earlier reached Robert Cotton and is now in the British Library at Cotton Augustus, I.1.45. Sarah Tyacke has suggested Gabriel Tatton may have been the copyist (personal communication, 16 January, 2012). It is not inconceivable that Selden himself would have seen the English copy, as he frequently used the library.

49. See Cordell Yee, 'Traditional Chinese Cartography and the Myth of Westernization', in Harley and Woodward, *History of Cartography* (see note 1), 2:2: 173–74.

50. Chen Jiarong, 'Brief analysis of the composition, date, features, names and routes of the Selden Map of China' (編繪時間、特色及海外交通地名略析, in Chinese), *Hai jiao shi yan jiu* 2 (2011): 52–66, suggests 1624. This approximate date was also the view of many participants at the Bodleian Library's 'Discovering the Selden Map of China Colloquium', September 2011, and at the 'Pirates, Silk, and Samurai: Maritime China in Global History Conference', October 2011. See also Timothy Brook, *The Troubled Empire* (Cambridge, Harvard University Press, 2010), 215–26; Tonio Andrade, *Lost Colony* (Princeton, Princeton University Press, 2001), 25. For the general context to these debates, see John Wills, ed., *China and Maritime Europe, 1500–1800: Trade, Settlement, Diplomacy and Missions* (Cambridge, Cambridge University Press, 2012).

51. Richard Cocks to John Saris, 15 February 15, 1617, in Purchas, *Purchas his Pilgrimes* (see note 12), 1: 410.

52. This was an argument made by the captain Juan Cevicos in a printed commentary to letters from the Edo-based Franciscan Luis Sotelo (executed 1624) and Date Masamune. Sotelo had accompanied the Japanese embassy and snuck back into Japan on one of Li Dan's ships in 1622. See Juan Cevicos, ed., *Discurso del Doctor Don Juan Cevicos, Comissario del S. Officio* (Seville, Antonio Moreno, 1628).

53. In the general disarray surrounding the English shift from Banten to Jakarta, newly christened as Batavia after the Dutch seizure in 1618–1619, a decision had been made onboard the ship *Unicorn* in April 1619 to seize Chinese junks off Java as payments for debts of Chinese merchants in Banten. The complex story is in 'Consultations at Bantam and Correspondence, 1618–1619', British Library, IOR, G/21/3A, vol. 1: 29–34. The idea of a seizure of the Selden map off Banten or Sumatra, which I now regard as mistaken, went into my original memo about the map, sent to Timothy Brook, Benjamin Elman and Haun Saussy in February 2008, whence it was incorporated into some of the Bodleian's early website accounts of the map.

54. This history has to be pieced together from diverse records, such as *Histoire de la religion chrétienne au Japon* (Paris, C. Douniol, 1869), 1: 450; Tetsujo Ugai, ed., *Hekija Kankenroku*, vol. 1 (Enzan zohan, 1861), 20; Jacinto Orfanel, *Historia Eclesiastica de los sucesos de la cristiandad de Japon* (Madrid, Alonso Martin, 1633), 141–52; and documents transcribed in Anthony Farrington, ed., *The English*

Factory in Japan, 1613–1623 (London, British Library, 1991) as well as the *Diary of Richard Cocks* (see note 38), and the letter of William Eaton to the East India Company from Hirado, 12 December, 1620 (BL, IOR E/3/7, fol. 277–278). For a reconstruction of the journey of the *Elizabeth*, see Tyacke, 'Gabriel Tatton's maritime atlas' (note 46), 58 (appendix 2).

55. The license-holder was an Osaka merchant named Jojin: see Tetsujo Ugai, *Hekija Kankenroku* (note 54), 20.

56. The chartmaker Gabriel Tatton had died on 12 September 1621 when, drunk, he fell overboard; see Tyacke, 'Tatton's Maritime atlas' (see note 46), 44. The captain of the *Elizabeth*, Edmund Lenmyes, died in Aceh on 25 April, 1623 on a voyage there from Batavia. Cocks died in the Indian Ocean on 27 March 1624 on the way back to London (and a potential trial) on the *Royal Anne*. See the respective ship's logs, BL India Office L/MAR/A XXXV and XXXVIII. Richard Cocks' diary (see note 38) runs from June 1, 1615 to January 14, 1619 and from December 5, 1620 to March 24, 1622, thus omitting entirely the *Elizabeth* affair. Evidence of the survival and dispersal of Cocks's book collection can be seen in the copies of individual volumes of the *Azuma kagami* (Edo, 1605); volumes 41 and 42 are now in Trinity College Dublin, MS 1645, given by the Archbishop of Dublin John Parker; other volumes are in Cambridge University Library, FJ.274.17, acquired with the library of Bishop of Ely John Moore in 1715. These may have originally been sold off at the same time as the Selden Map, since the Cambridge volume is marked Oxford 1626 by a previous owner. Cocks mentions in 1616 buying 54 volumes for his library in Kyoto; compare Peter Kornicki, *The Book in Japan* (Leiden, Brill, 1998), 313, so presumably this was once a complete set.

57. The English seem to have been unaware of Li Dan's connection with the captured junk, to judge from Cocks, *Diary* (see note 38), 2: 324.

58. See the 6 April 1625 report of Wang San, an owner of a junk travelling from Quanzhou to Batavia, to the Dutch VOC printed in *Daghregister gehouden in 't Casteel Batavia* (The Hague, Martinus Nijhoff, 1896), 139–40, which also gives a good account of the junk trade).

59. Thompson, *Diary of Richard Cocks* (see note 38), 2: 60. See Iwao Seiichi, 'Ming mo qiao yu Riben Zhina maoyi shang yiguan Augustin Li Guozhu zhi huodong', in *Helan shidai Taiwan shi lunwen ji*, ed. and transl. Xu Xianyao (Taipei, Foguang renwen shehui xueyuan, 2001), 131–54; Andrade, *How Taiwan Became Chinese* (see note 38), 14; and Leo Blussé, 'The rise of Cheng Chih-Lung', in *Development and Decline of Fukien Provence*, ed. E. B. Vermeer (Leiden, Brill, 1990), 254.

60. In *Table Talk*, Selden defined 'public interest' by writing that 'All might go well in the Commonwealth, if every one in the Parliament would lay down his own Interest, and aim at the general good ... We destroy the Commonwealth, while we preserve our own private Interests and neglect the public'. Samuel Reynolds, ed., *The Table Talk of John Selden* (Oxford, Clarendon Press, 1892), 85. Sir Thomas Bodley opened his University library in 1602 for the benefit also of (gentlemen) scholars in the Republic of Letters. For an assessment of this publicness in a European context, see Gabriel Naudé, *Advis pour dresser une bibliotheque* (Paris, Targa, 1627).

61. See the developing argument in Jane Burbank and Frederick Cooper, *Empires in World History* (Princeton, Princeton University Press, 2010), 183; Lauren Benton, *A Search for Sovereignty: Law and Geography in European Empires* (Cambridge, Cambridge University Press, 2009); and Sailha

Belmessous, *Native Claims: Indigenous Law against Empire* (Oxford, Oxford University Press, 2011). Burbank and Cooper build upon the critique of the Westphalian interpretation of international law in Benno Teschke, *The Myth of 1648* (London, Verso, 2003). On the semi-independence of Dutch and English corporate structures, see Philip Stern, *The Company-State: Corporate Sovereignty and the Early Modern Foundations of the British Empire* (Cambridge, Cambridge University Press, 2011); and Kerry Ward, *Networks of Empire. Forced Migration in the Dutch East India Company* (Cambridge, Cambridge University Press, 2009). The

interweaving of such relatively autonomous networks in the 18th century is explored in Paul Van Dyke's landmark, *The Canton Trade: Life and Enterprise on the China Coast, 1700–1845* (Hong Kong, Hong Kong University Press, 2006).

62. On the death blow to Dutch 'free-seas' ambitions in East Asia, see Andrade, *Lost Colony* (note 50). In our own times, the volatile questions of fishing and petroleum rights along the very routes in the South China Sea and off Taiwan and the Ryukyus depicted on the Selden map and the issue of defining sovereignty and property rights in relation to the ocean are actively debated.

*La redécouverte de la carte de Selden: une carte chinoise des routes maritimes
d'Asie orientale, datée de 1619 environ*

La redécouverte de la carte de Chine de Selden (MS Selden Supra 105) à la Bodleian Library en 2008 donne l'occasion de réexaminer l'histoire de la cartographie chinoise et les débats autour des étendues maritimes de l'empire Ming. La carte décrit un réseau de routes maritimes chinoises, allant du Japon à Aceh, et implique des techniques de cartographie jusqu'alors inconnues. Dans cet article j'attire l'attention sur les éléments exceptionnels de la carte, notamment sa représentation des routes maritimes et de la végétation, j'envisage ses sources et je suggère un éventuel commanditaire.

Die Wiederentdeckung der Selden-Karte: eine chinesische Karte der ostasiatischen Schiffsrouten um 1619

Die Wiederentdeckung der Selden-Karte von China (MS Selden Supra 105) in der Bodleian Library 2008 gibt uns die Möglichkeit, die Geschichte der chinesischen Kartographie und die maritimen Ausmaße des Ming-Imperiums neu einzuschätzen. Die Karte zeigt ein Netz chinesischer Schifffahrtslinien von Japan bis Aceh und lässt den Einsatz bisher unbekannter Kartentechniken vermuten. In diesem Beitrag beschäftigt sich der Autor vor allem mit den ungewöhnlichen Teilen der Darstellung, besonders den Eintragungen der Seerouten und der Vegetation, mit den Quellen der Karte und er stellt Überlegungen hinsichtlich des möglichen Auftraggebers an.

*El mapa Selden redescubierto: un mapa chino de hacia 1619 de las rutas de
navegación del este asiático*

El redescubrimiento del mapa Selden de China (MS Selden Supra 105) en la Bodleian Library en 2008 ofrece la oportunidad de reevaluar la historia de la cartografía china y debatir acerca de las dimensiones marítimas del Imperio Ming. El mapa muestra una red de rutas marítimas chinas que van de Japón a Aceh, y sugiere unas técnicas de realizar mapas hasta ahora desconocidas. En este artículo quiero llamar la atención sobre los elementos singulares de este mapa, en particular, su representación de las rutas de navegación y de la vegetación, considero sus fuentes, y sugiero un posible patrón.



Plate 5. The recently rediscovered Selden map of China (c.1619). Ink and watercolour on paper. Approx. 158 × 96 cm. Its outstanding feature is the system of shipping routes and emphasis on ports in Southeast Asia, from Japan to Sumatra, that bound the region's mountainous hinterlands and littorals together through trade. Oxford, Bodleian Library, MS Selden Supra 105. (Reproduced with permission from The Bodleian Library.) See pages 37, 97.



Plate 6. Details from the Selden map of China to show the map's 'painterly' style and the realistic portrayal of vegetation. Top left: palms on the islands west of Sumatra. Top right: a row of eight aquilaria trees, suggestive of a plantation, with a red banana tree. Bottom left: Japan, with the two red chrysanthemums that stand out prominently on the map (see Batchelor, Figure 8). Bottom right: the Paracel and Spratley islands with, between them, the island, touched up in red, that served as the datum point in the map's construction. Oxford, Bodleian Library, MS Selden Supra 105. (Reproduced with permission from The Bodleian Library). See pages 50, 51, 52 (Batchelor) and 100 (Davies).

Annex 548

Robert J. Antony, "Turbulent Waters: Sea Raiding in Early Modern South East Asia", *The Mariner's Mirror*, Vol. 99, No. 1 (Feb. 2013)

The Mariner's Mirror 99:1 (February 2013), 23–38

Turbulent Waters: Sea Raiding in Early Modern South East Asia

Robert J. Antony

Between 1500 and 1860 piracy in South East Asia was a multinational enterprise, involving European, American, Chinese, Japanese, and indigenous sea raiders. Although Western pirates occasionally made their way into South East Asian waters, they never posed as much of a threat to the prosperity and stability of the area as the buccaneers had done in the Caribbean. Their presence virtually disappeared in the archipelagos by the early eighteenth century. Chinese and Japanese pirates also sporadically infiltrated the area during the entire period, and indigenous forms of piracy continued and expanded throughout the whole region during the eighteenth and nineteenth centuries.

Key words: piracy; maritime raiding; slavery; South China Sea; South East Asia

Late in the summer of 1579 a plunder-laden *Golden Hind* slowly sailed its way across the unfamiliar Pacific Ocean homeward bound for England. When Francis Drake finally made landfall some two months later his reception on the nameless island was less than friendly. After the islanders tried to loot his vessel, a furious Drake christened the place the ‘Island of Thieves’. Drake, however, was neither the first nor the last European to encounter larcenous natives in the Western Pacific and Malay Archipelago. In the eyes of many European explorers and traders, bloodthirsty pirates and savage headhunters infested the turbulent waters of South East Asia. To the indigenes, however, it was the European interlopers who were the thieves and robbers. They not only stole native goods and lands but also assaulted native cultures.

Although the earliest recorded incidents of piracy in South East Asia date from the fifth century, it reached its heyday between 1750 and 1860. The region was ideal for pirates – rich and busy trade routes inadequately protected by strong states and navies, a maze of islands crisscrossed by narrow straits that created commercial bottlenecks, and coasts lined with dense mangrove swamps that provided safe havens for outlaws. As Adam Young has explained, ‘Piracy waxed and waned over the centuries according to the flow of local and global trade, and the power of regional polities to control this trade and exert their influence in the region.’¹ Besides the European enclaves, the entire region was divided into numerous rival kingdoms and tribal groups, whose incessant warfare assured that no single power dominated the region or its sea lanes. In fact many local polities actually supported marauding as a means of wealth and power. Piracy kept pace with the expansion of trade and colonization. Numerous indigenous and foreign peoples actively engaged

1 Young, ‘Roots of Contemporary Maritime Piracy in Southeast Asia’, 2.

in sea raiding: Muslim Malays, Bugis seafarers, Iranun and Balangingi slave traders of Sulu, and Sea Dayak headhunters of Borneo, as well as Chinese, Japanese, and European traders, renegades, and outlaws. Piracy, which followed regular annual cycles according to the rhythms of monsoons and commerce, was an integral part of the social, political, and economic life of South East Asia.

Yet before the appearance of Europeans in South East Asia, Western notions of piracy were unknown in the region. As John Crawfurd noted in the 1850s, 'there is no name in Malay and Javanese, or indeed in any other native [South East Asian] language, for piracy or robbery on the high seas.'² Indeed the terms 'pirate' and 'piracy' were European constructs that came with colonization. Fundamentally, for Western merchants and officials anyone who operated outside the colonial trading system or who opposed them was a pirate. In the sixteenth and seventeenth centuries, the Portuguese and Dutch, who attempted to monopolize the spice trade, believed it their right and duty to suppress as pirates both indigenous and foreign interlopers. Piracy frequently was used as an excuse for intervention and extension of European power and culture in South East Asia. The suppression of piracy therefore became a crusading and civilizing mission intricately entwined with colonialism.³

In the colonial era, for most Westerners 'pirates' were an exoticized and treacherous 'other'. The terms 'Malay' and 'Illanun' (Iranun) became synonymous with pirate. Many Europeans would have agreed completely with the Dutch official, C. T. Elout, who wrote in 1820 that the Malays 'are all pirates'. Three years later, John Anderson, a Malay Translator for the British Government, explained that 'the inhabitants on that Coast [Sumatra] are addicted to piracy'.⁴ Similarly, to the Spanish in the Philippines, native sea raiders were simply 'Moros' – infidel Muslims or Moors who, like the Barbary corsairs of the Mediterranean Sea, had to be eradicated for the sake of Christianity, civilization, and trade.⁵ In the colonial mindset, I would suggest, Moros, Malays, and Iranuns came to symbolize all that was brutal, threatening, and sinister.

What Europeans labelled piracy, however, carried certain connotations that may not have been conceived by the natives of South East Asia. The modern notion of 'piracy' developed in the West out of a particular set of historical circumstances of intense commercial rivalries and warfare among the emerging European nation-states of the early modern period. Piracy was defined as any act of robbery on the high seas or on shore, but emanating from the sea, committed for private gain by individuals not holding a commission from a 'civilized state'.⁶ As Anthony Reid has pointed out, because Europeans did not consider Asian polities as legitimate or civilized states, therefore their maritime conflicts were automatically labelled as piracy and had to be suppressed as such. Yet for European states, which were *de facto* civilized, any state-sponsored maritime raiding was labelled privateering and therefore legitimate.⁷ Such

² Crawfurd, *A Descriptive Dictionary*, 353.

³ Barrow, *A Voyage to Cochinchina*, 351; see also the insightful discussion in Pérotin-Dumon, 'The Pirate and the Emperor', esp. 28–9.

⁴ Cited in N. Tarling, *Piracy and Politics in the Malay World*, 19, 21.

⁵ See, for example, Warren, *Iranun and Balangingi*, 11–2, 72–3, 81.

⁶ Quote in the 1944 edition of the *Oxford English Dictionary*, cited in Reid, 'Violence at Sea', 19.

⁷ *Ibid.*, 19–20; similarly Pérotin-Dumon forcefully argues that piracy was defined by the political interests of imperial powers; see 'The Pirate and the Emperor', 26, 28–9, 31.

hypocrisy must have been obvious to most Asians.

For many South East Asians, actually, raiding was a way of life closely tied to war, slavery, and trade. Throughout the region intertribal warfare was an important aspect of society and warfare was related to maritime raiding. While viewed as a criminal act by Europeans, raiding was actually a respectable profession pursued not only by individuals but by entire communities and even kingdoms. It was a common means for warriors and chiefs to increase their power and prestige. Unlike in the West or in China, maritime raiding did not necessarily involve criminality or rebellion against society. Raiders were not antisocial dissidents living on the fringes of society. Rather, they were often respectable members of their communities and, in fact, many were popular heroes, admired for their courage and moral fortitude. One such hero, Raja Ismail, was born into nobility in the Siak Sultanate in the mid-eighteenth century and sought his fortunes as a sea raider. His power and authority were firmly based on raiding.⁸ According to Sultan Husain of Singapore, what Europeans called piracy 'brings no disgrace' to Malay rulers.⁹ Piracy enabled communities to work outside colonial administrative jurisdictions and patterns of trade, thereby allowing them a degree of independence. In this area of the world, Richard Leirissa has suggested that piracy was a type of trade based on theft rather than exchange.¹⁰

This article, which is based on various primary and secondary sources in English and Chinese languages, explores three forms of 'piracy', or more aptly 'maritime raiding', between 1500 and 1860 in South East Asia: Western, East Asian, and native South East Asian. Although Western pirates and freebooters occasionally made their way into South East Asian waters, they never posed as much of a threat to the prosperity and stability of the area as the buccaneers had done in the Caribbean. Their presence virtually disappeared in the archipelagoes by the early eighteenth century, as European governments began to earnestly suppress piracy around the world. Chinese and Japanese pirates also sporadically infiltrated the area during the entire period. Indigenous forms of piracy or maritime raiding continued and even expanded throughout the whole region during the eighteenth and early nineteenth centuries.

Western pirates, privateers, and adventurers

Beginning with the Age of Discovery in the sixteenth century, not only European explorers but also outlaws, renegades, and adventurers scattered throughout the Orient from the Persian Gulf to the Pacific Ocean. They were joined by Western pirates, some working out of their home countries or American colonies, while others operated from bases in the Indian Ocean and elsewhere in Asia. By the late seventeenth century Madagascar and its satellite island, St. Mary's, had become infamous pirates retreats for the likes of Henry Avery, William Kidd, Samuel Burgess, Thomas Tew and others.¹¹ Some Europeans, mostly deserters and runaways from the burgeoning colonial service, went native and joined forces with indigenous sea raiders in South East Asia. They routinely served as gunners, pilots, and even

8 See, for example, the detailed descriptions in Hashim, *Hikayat Siak*.

9 Cited in Reid, 'Violence at Sea', 19.

10 Leirissa, 'Changing Maritime Trade Patterns in the Seram Sea', 112.

11 See, for example, the testimonies of John Dann (1696) and Adam Baldrige (1699) in Jameson, *Privateering and Piracy*, 165–70, 180–5.

as commanders on Asian vessels. These explorers, renegades, and pirates left an indelible mark on the maritime history of the East in the early modern era.¹²

Francis Drake entered the Pacific Ocean in 1577 as an interloper and a pirate. At the time virtually the entire Pacific had been claimed by the Spanish, while the Portuguese had claimed the Indian Ocean and much of South East Asia as its own. Yet neither country was ever strong enough to keep others out. Drake was the first Englishman to cross the Pacific and to challenge the Iberians. His voyage clearly showed that the riches of the East were at the mercy of anyone daring and able enough to take them. Although his motives for crossing the Pacific remain unclear, plunder was undoubtedly on his mind. The *Golden Hind* was a floating arsenal, armed well beyond the needs for carrying on peaceful trade. While most of his loot had been taken from Spanish ships and settlements on the Pacific coast of America, after his unfriendly encounter on the Island of Thieves, Drake continued to the Philippines and then on into the Celebes Sea where he attempted unsuccessfully to rob a Portuguese trading ship. In the Spice Islands (Moluccas), he tried to cheat the Sultan of Ternate out of his duty on six tons of cloves, although he ultimately paid for them with silver he had stolen from the Spanish. Drake returned to London in 1580 with a boatload of booty – silver, gold, jewels, and cloves worth perhaps £600,000, possibly earning for his investors a staggering 4,700 per cent profit. The queen, too, likely received a share worth £300,000, an amount that exceeded a year's Exchequer receipts. And this was at a time when England was nominally at peace with Spain and Portugal.¹³

Drake was not alone. Throughout the late sixteenth and seventeenth centuries, European pirates and privateers continually pillaged shipping in South East Asia. Any vessel was a potential target. In this era of empire-building, as Pérotin-Dumon and others have argued, war and commerce went hand in hand, and 'when the two elements were combined in a predatory and aggressive trade, it was piracy'.¹⁴ In 1565 the Spanish explorer Miguel Lopez de Legazpi attacked 'Moro' trading ships off the Philippine coast. During his circumnavigation of the globe in 1586 to 1588, the Englishman Thomas Cavendish captured a Manila galleon and several years later another expedition plundered Portuguese ships in the Straits of Malacca.¹⁵ In 1600, during the Dutch war of independence against Spain, the explorer and merchant, Oliver van Noort entered South East Asian waters intending to plunder Spanish galleons as well as Chinese trading junks and other native craft. After he was driven away by a makeshift Spanish flotilla under Antonio de Morga, van Noort completed his circumnavigation of the globe and returned to Holland a hero. Three years later, his countryman Jacob van Heemskerck attacked a Portuguese carrack, the 1,400-ton *Santa Catarina*, on route from Macao to Goa, and carried away a cargo of Japanese copper, American silver, and Chinese silks and porcelains valued at 1,200,000 pesos. Although Heemskerck was a Dutch admiral and Portugal and the Dutch Republic were

12 See Scammell, 'European Exiles', 641–2.

13 First-hand accounts of Drake's voyage around the world are in Penzer, *The World Encompassed*.

14 Pérotin-Dumon, 'The Pirate and the Emperor', 29; see also Antony, 'Introduction: The shadowy world of the Greater China Seas', 9.

15 Scammell, 'European Exiles', 650.

at war at the time, nonetheless, to his victims he was nothing more than a freebooter.¹⁶

During the seventeenth century, Dutch, English, French, and Danish sea rovers repeatedly robbed indigenous, Chinese, Japanese, and Arab trading vessels around Sumatra, Java, and the Malay Peninsula.¹⁷ In the 1620s the heavily armed ships of the British and Dutch East India Companies joined forces to attack Chinese junks trading at Manila. By the last half of the seventeenth century some 250 pirates, many originally Caribbean buccaneers, were operating in Asian waters from bases on Madagascar, Réunion and other islands.¹⁸ During the mid-1680s the buccaneer William Dampier was aboard several pirate ships that robbed Spanish and Portuguese vessels between Manila and Malacca.¹⁹ In 1683 the English freebooter Samuel White had organized a fleet of native craft, sanctioned by the King of Siam, to pillage shipping in the Bay of Bengal and off the coast of Aceh. The last important pirate of this epoch was Robert Culliford, who sailed out of Madagascar in 1696 to plunder his way across the Indian Ocean to the Straits of Malacca. That summer, off the coast of Burma, he plundered several Muslim vessels and a Portuguese merchant ship carrying gold and silk valued at £12,000.²⁰

After 1700 the number of Western pirates, other than those who had gone native, had greatly diminished. The effects of European suppression campaigns were being felt even in the far corners of South East Asia. Privateering replaced piracy as wars continued in Europe and overseas. In 1708 Bristol merchants organized a privateering enterprise with two ships and a complement of 333 men, with Woodes Rogers as commander and William Dampier as chief pilot, to seek out and capture Spanish vessels in the Pacific and beyond. Among their prizes was a Manila galleon that was captured off the coast of California.²¹ During the Napoleonic Wars the eastern seas swarmed with French privateers seeking out British merchant ships. The on-and-off conflicts among the European powers in the sixteenth to eighteenth centuries made firm distinctions between piracy, privateering, and outright warfare problematical in South East Asian waters, as elsewhere around the globe.

Chinese and Japanese pirates

The situation in South East Asia was further complicated by the persistent presence of Chinese and occasionally Japanese pirates in the region over the entire period. They came in several waves. First, the century from 1550 to 1650 was a time of sporadic raids by Chinese and Japanese pirates, mostly the so-called *wakō*, who combined trade with piracy. The second wave peaked in the last two decades of the eighteenth century, when Chinese pirates joined forces with Tay Son rebels in Vietnam to conduct regular raids in Chinese and South East Asian waters. This was followed by a period of intermittent forays that continued until the start of the third

16 See the detailed discussion in de Morga, *Sucesos de las Islas Filipinas*; also see Borschberg, 'The Santa Catarina Incident of 1603'; and van Veen, *Decay or Defeat?*, 190–1.

17 See, for example, the comments of Barrow, *A Voyage to Cochinchina*, 350–1.

18 Scammell, 'European Exiles', 651, 653.

19 See Dampier, *A New Voyage Round the World*.

20 On White see Collis, *Siamese White*; on Culliford see Rogoziński, *Honor Among Thieves*, 105–8.

21 On this privateering venture see the first-hand account by Rogers, *A Cruising Voyage Round the World*, especially ch. 13.

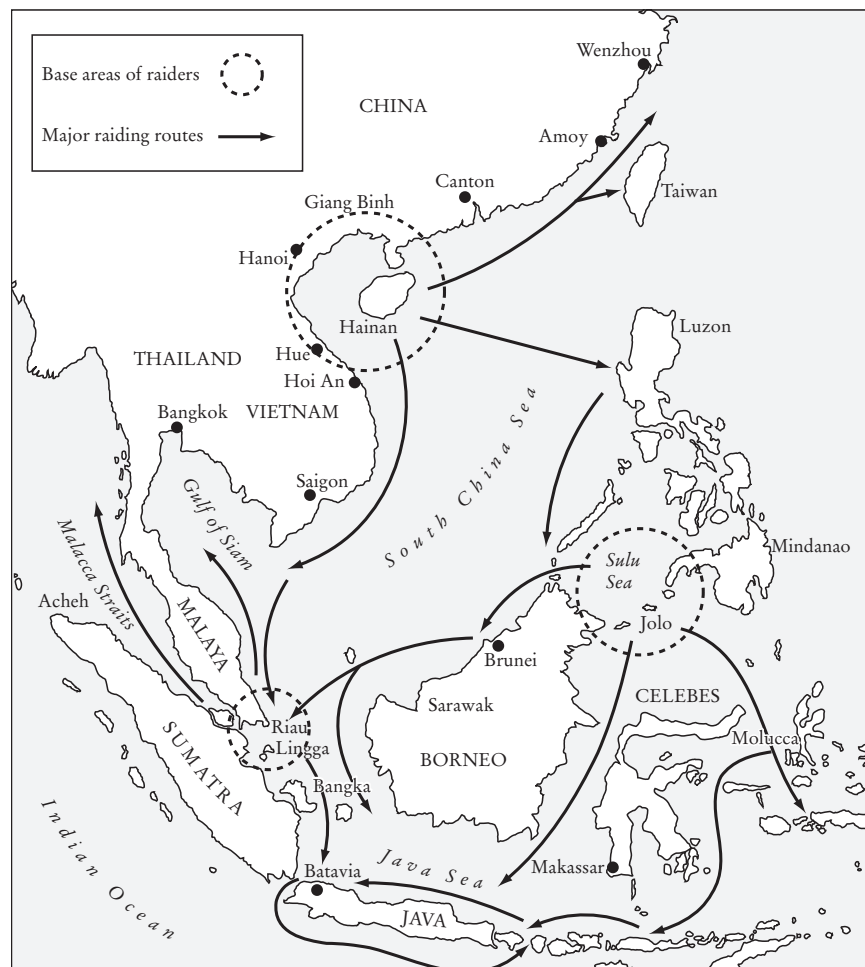


Figure 1 Maritime raiding in the South China Sea, about 1750–1860

wave of Chinese pirate activity in South East Asia, which lasted from the 1830s through the 1850s (see figure 1).

The sixteenth and early seventeenth centuries were a time of change and instability not only in the West but also in Asia. In China, the Ming Dynasty pursued a rigid closed-door policy that criminalized sea merchants, and at the end of the century the country was mired in a destructive dynastic war that lasted until 1683, when the Manchus finally consolidated their authority over all of China. During much of this same period, Japan was embroiled in a century-long civil war that ended with the establishment of the Tokugawa Shogunate in 1603. Under these troubled conditions, disgruntled Chinese merchants and masterless Japanese warriors took to the sea as pirates and smugglers. During these two centuries a number of South East Asian trading ports, such as Hoi An, Malacca, Pahang and Manila, became thriving emporia frequented by Chinese and Japanese smugglers and pirates. As long as they caused no trouble, local rulers and merchants encouraged their business.²²

In the mid-sixteenth century, members of the wealthy Xu family from Huizhou, who were involved in the Malacca trade and had Malaccan wives, turned to smuggling

²² See Antony, *Like Froth Floating on the Sea*, 22–7; and Chin, 'Merchants, Smugglers, and Pirates', 49–50.

and piracy when the Ming government imposed strict prohibitions on overseas trade. Xu Dong, in particular, co-operated with Japanese and Portuguese adventurers on combined trading and raiding ventures in South East Asia. Other smuggler-pirates, such as Li Guangtou and Lin Jian, collaborated with the Xu family in South East Asia, South China, and Japan. Lin Jian, for instance, had established his headquarters in Pahang, where he controlled a large fleet of junks that regularly plied the South China Sea both for trade and for plunder. In 1547, in conjunction with Xu Dong, Lin led a fleet of 70 junks from Pahang to pillage the Zhejiang coast.²³

After Xu Dong fled China in 1548, one of his subordinates, Wang Zhi, grabbed control of the Xu syndicate and became the most powerful merchant-pirate in the South China Sea. Before moving his base of operations to Japan, Wang earlier had been active as a merchant-pirate in Siam. After surrendering to the Ming government, however, instead of receiving a pardon, he was beheaded in 1559.²⁴

Lin Feng was another important Chinese pirate who operated in the seas between Guangdong, Taiwan, and the Philippines in the 1570s. From bases on Taiwan, Lin's fleets sallied forth with the monsoons each year to plunder shipping across the entire South China Sea. In 1571 and 1572, after raids on the Guangdong coast, he sailed to Luzon where he established a fortified trading base. Two years later, in command of a fleet of over 30 junks, he pillaged Hainan Island and afterwards assaulted the Spanish stronghold at Manila. For nearly a year he challenged Spanish authority in the Philippines, until finally being driven away by an armada under Juan de Salcedo. Over the next decade Lin remained active in the region, until disappearing from the historical record in the late 1580s.²⁵

Japanese pirates also appeared in South East Asian waters where they attempted to mingle trade with plunder. In the 1550s Vietnamese officials reported the activities of Japanese pirates on their coast. In 1585 a Japanese merchant-pirate named Shirahama Kenki arrived in Cochinchina in five large ships and plundered several coastal villages. Four years later, when he tried to return as a 'lawful merchant', Vietnamese officials apprehended him and threw him in jail.²⁶ Also in the 1580s the Spanish reported Japanese pirates who repeatedly harassed shipping and towns in the Philippines from bases on Luzon. In 1582, for example, Japanese pirates in ten ships attacked coastal settlements, wounded many native inhabitants, and stole food and other items. In that same year, Juan Pablo de Carrion described an encounter with a *wakō* fleet in Cagayan Province. Several years later, the Spanish governor reported that the problem of Japanese pirates was getting out of hand; recently, he complained, Japanese pirates attacked the islands every year.²⁷

In the turbulent Ming-Qing dynastic wars of the mid-seventeenth century over 3,000 Chinese, fleeing the Manchu invaders, settled on the sparsely populated coast of Vietnam where many of them subsisted as pirates and fishermen. Letting their hair grow long (like outlaws and rebels) and marrying Vietnamese women, they stubbornly held on to their Ming loyalism and Chinese customs, while at the same

23 Zheng, *Chouhai tubian*, 322–3.

24 Matsuura and Bian (eds.), *Mingdai Dongya haiyu*, 40–1; and Chin, 'Merchants, Smugglers, and Pirates', 50–1.

25 Matsuura and Bian (eds.), *Mingdai Dongya haiyu*, 49–51.

26 Tuan, *Silk for Silver*, 21.

27 Blair and Robertson, *The Philippine Islands*, vol. 6, 182–3; vol. 34, 384–5.

time integrating into Vietnamese society.²⁸ About the same time, Zheng Zhilong and his son, Zheng Chenggong, were building their maritime empire in the South China Sea. From bases, first on Xiamen and later on Taiwan, they carried on a triangular trade mixed with piracy and extortion in China, Japan, and South East Asia. The success of the Zheng syndicate's vast network depended on its connections and support from the overseas Chinese communities that had spread throughout South East Asia, such as the Ming loyalist communities in Vietnam mentioned above. It was said that all ships sailing in this wide zone were liable to attack unless they paid tribute to the Zheng family. Only the death of Zheng Chenggong in 1662 saved the Philippines from attack after the Spanish authorities had refused him tribute.²⁹

From about 1790 to 1802 Chinese pirates co-operated with Tay Son rebels in Vietnam on regular seasonal raids up and down the coast from Wenzhou in South China to Saigon in South Vietnam. Following the monsoons, each year in the spring pirates set off from their bases on Hainan Island, Giang Binh, and Hai Phong on the Sino-Vietnamese frontier to plunder towns and shipping on the China coast, and then after returning to their bases and refitting in the autumn they set sail for raids along the coasts of Vietnam and Gulf of Siam.³⁰ In the late 1790s, there were even reports of Chinese pirates, who occasionally allied with Bugis raiders, extending their activities to the Sunda Strait, where they robbed Dutch and native trading vessels. Much of this piracy involved the kidnapping of people and the trafficking of them as slaves. The Chinese actually carried on a brisk slave trade in South East Asia in the early modern era.³¹

After the Tay Son Rebellion was crushed in 1802, Chinese pirates continued their excursions on the Vietnamese coast, Malay Peninsula, and Philippine Islands, until the huge pirate leagues in South China were suppressed in 1810.³² To give one specific example, in 1806 a well-organized gang of Chinese and Malay pirates, numbering about sixty to eighty men armed with swords and firearms, attacked a Malay boat and murdered the entire crew near the port city of Malacca. According to the depositions of arrested pirates, the Chinese gang members came from Guangdong and were 'newcomers' to the area. They appeared to be seasoned pirates. Their leader was a man known only by his alias, *Tua ania*, which means something like the 'Bully Tua' or the 'Newcomer Tua' in local dialects. The gang belonged to a much larger piratical syndicate run by 'respectable' businessmen in Malacca.³³

After a respite of several years, another surge of Chinese piracy in South East Asia began in the 1820s and lasted until the 1860s. John Crawfurd reported that in the late 1820s Chinese pirates, who operated in waters between the Java Sea and the Gulf of Siam, repeatedly kidnapped hundreds of young men and women and sold them into slavery in Siam.³⁴ The disturbances of the Opium War (1839–42), followed by the suppression campaigns of British warships in the 1840s and 1850s around

28 Xu and Xie, *Da Nan shilu*, 3.

29 See Antony, *Pirates in the Age of Sail*, 48–9, and translation of a primary source, 111–14.

30 Xu and Xie, *Da Nan shilu*, 35–6; on the connections between Chinese pirates and Tay Son rebels see Murray, *Pirates of the South China Coast*, 32–56.

31 Rutter, *The Pirate Wind*, 37; see also Ota, *Changes of Regime*, 125–6.

32 Xu and Xie, *Da Nan shilu*, 43, 47–8.

33 Fernando, *Murder Most Foul*, 75–86.

34 Crawfurd, *Journal of an Embassy*, 226–7.

Hong Kong, drove many Chinese pirates into South East Asian waters. Between 1839 and 1849, the *Dai Nam Thuc Luc* (*Veritable Record of Vietnam*) recorded over forty separate incidents of Chinese pirates plundering towns and ships on the Vietnamese coast. Most of these pirates followed the same seasonal patterns as the earlier marauders – leaving bases on the Sino-Vietnamese border in the fall to plunder the south.³⁵ In many cases, too, pirates continued to call at Hong Kong to sell their loot and recruit gangs. In 1857 Chinese pirates abducted a British seaman, Edward Brown, off the Vietnamese coast and held him for several months. During his captivity, the pirate chief forced Brown to train his men in the use of modern armaments and to assist on several attacks on passing junks. Although most of the actions took place in Vietnamese waters, the pirates regularly returned to Hong Kong to refit, sell their booty, and enlist gang members.³⁶

Not only Vietnam but also the whole Malay Archipelago suffered from the surge in Chinese piracy at this time. Although pirates sometimes attacked Western merchant ships their chief targets were the smaller and poorly armed native trading vessels. Occasionally European renegades joined with the Chinese pirates as gunners and pilots. Chinese piracy became such a huge problem that it disrupted foreign trade at the great entrepôts of Singapore and Batavia. Nevertheless, as was the case with Hong Kong, unscrupulous merchants in Singapore and on many of the surrounding islands continued to outfit pirates despite the government's attempts at suppression.³⁷ It was not until the early 1860s, with the stepped-up campaigns of Western steam warships, that Chinese piracy in the whole region was brought under control.³⁸

South East Asian raiders and warriors

What about indigenous forms of piracy? According to Drake the inhabitants of his Island of Thieves – most likely Palau or Yap in the Eastern Caroline Islands – were unrelenting and incorrigible larcenists. While they brought out trifles on pretence of honest trade, their true intentions were to steal whatever they got their hands on: 'for if they received anything once into their hands, they would neither give recompence nor restitution of it, but thought whatever they could finger to bee their owne'. Successive waves of natives came out in canoes to the *Golden Hind* and when Drake and his men rejected their supplications, the islanders hurled stones at the foreigners. To rid his ship of these unwelcome visitors Drake fired his guns, killing perhaps 20 natives (see figure 2).³⁹

Other European explorers had similar experiences in the Western Pacific and Malay Archipelago. In 1521 Ferdinand Magellan happened upon another group of islands that he called the Ladrones or the 'Pirate Islands', which make up the Marianas, after the natives stole one of his boats. On another island, wrote Antonio Pigafetta, 'the inhabitants . . . entered the ships and stole whatever they could lay hands on, so that we could not protect ourselves'.⁴⁰ Later Borneo natives kidnapped members of Magellan's crew. Likewise when other Spanish explorers visited

35 See the numerous official reports in Xu and Xie, *Da Nan shilu*, 205–62.

36 Brown, *Cochin-China*, 20–102.

37 *Report*, 1856–57, 68–9.

38 *Report*, 1861–62, 8.

39 Penzer, *The World Encompassed*, 64–5.

40 Cited in Lessa, *Drake's Island of Thieves*, 117.

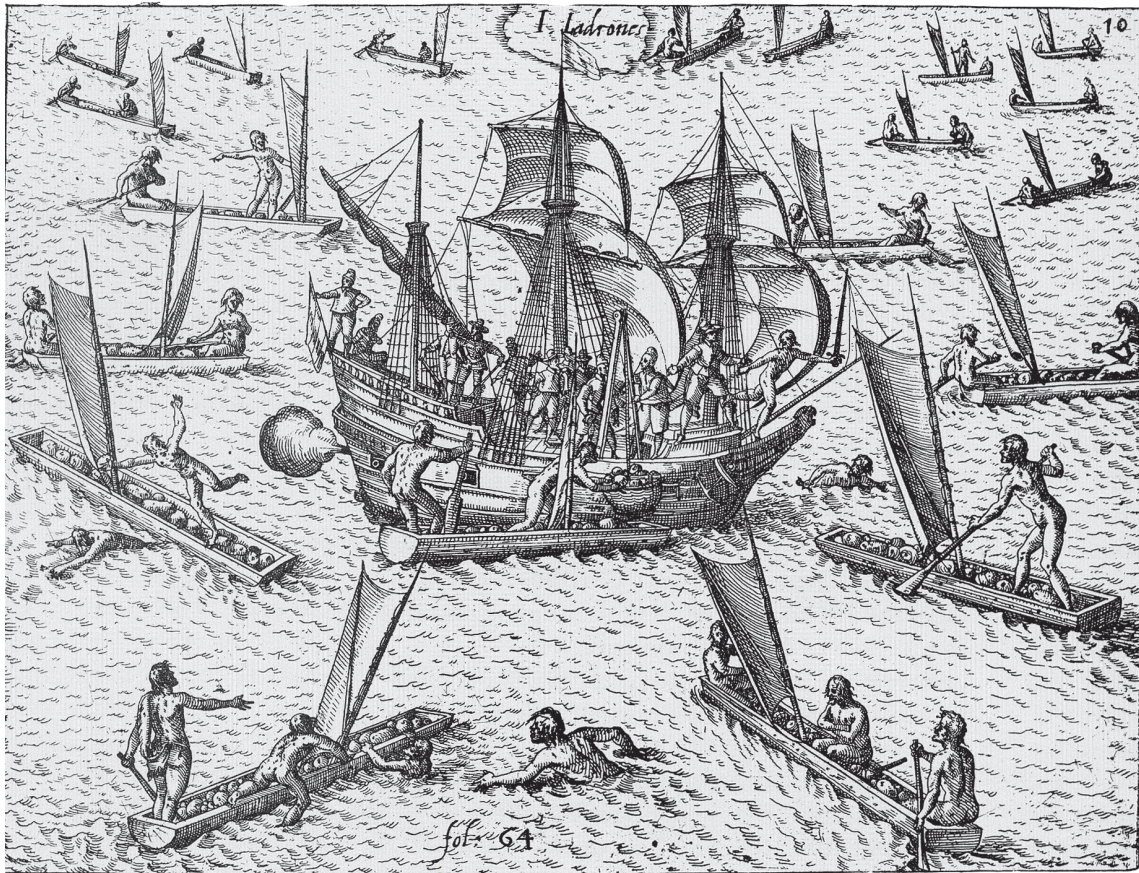


Figure 2 Pacific islanders attacking a Western ship (from de Bry, *Collection des Grands and Petis Voyages*)

Mindanao, in the southern Philippines, they found the natives to be devious and treacherous, earning one small cove on the island's southern tip the name 'Deceitful Bay'.⁴¹ And opposite the island of Balambangan, off Borneo's northern tip, there was the infamous 'pirates' point'.⁴²

What are we to make of these native pirates? As William Lessa explained, 'The aggressive and thieving actions of the islanders were not the result of a sudden transformation of character brought on by the foreigners'⁴³ Robbery and violence had existed long before the Europeans had arrived, and were, in fact, closely related to the endless inter-tribal wars among the islanders. Treachery, deceit, and thievery were all instruments of political policy. Chiefs, kings, and sultans organized forces of maritime warriors and they also allied with sea raiders, whom they relied upon to rob and debilitate their enemies. Maritime marauding was one of the key strategies used by political leaders to expand their prestige, wealth, and power. The seizure of scarce and valuable resources, particularly slaves and weapons, was a major motive for wars. The accumulation of slaves, not territorial aggrandizement, was the basis of political power and wealth; warriors needed weapons for slave raids. As a result

41 Account of Captain Carteret, Commander of the sloop *Swallow* in 1766, in *Voyages in the Southern Hemisphere*, 616.

42 Forrest, *A Voyage to New Guinea*, 374.

43 Lessa, *Drake's Island of Thieves*, 254.

piracy tended to be rampant during wartime but diminished during peacetime. Distinctions between warfare and piracy became meaningless.

The dynamics of indigenous piracy or sea raiding changed dramatically in the second half of the eighteenth century, as did the number of incidents. Piracy surged at a time of economic vitality across the whole region as South East Asia was drawn into the emerging global economy. In some areas raiding became closely tied to the burgeoning China trade, as well as to European expansion and colonialism. Trading and raiding were interconnected and related to the commercial rivalries and network-building between Asian and Western traders who sought to obtain export commodities to trade in China. As the Chinese economy grew so too did the demand in China for South East Asian products, especially culinary exotics like birds' nests, sharks' fins, and sea cucumbers, as well as for pepper, pearls, tortoise shells, and tin. European traders also actively sought these same local products to trade in China. Because there was always a shortage of labourers to procure these products, slave raiding became a big business. The unrelenting need for slaves perpetuated raiding and war.⁴⁴ Piracy went virtually unchecked for nearly a century between 1750 and 1840, not only because many native polities fostered raiding, but also because European governments were occupied with problems back home, particularly the Napoleonic Wars (1799–1815).

In the late eighteenth and early nineteenth centuries the Sulu Archipelago was one of the major centres for South East Asian sea raiding. Its towns and villages, which were built up mainly on piles above the water for easy access to boats, were notorious as pirate lairs and black markets.⁴⁵ Iranun and Balangingi raiders, and their Tausog overlords, created a highly organized, large-scale operation which extended throughout insular South East Asia and to the shores of Thailand and South Vietnam. Sulu sultans and *datus* (chiefs or nobles) supported raiders for a percentage of the booty. For instance, in 1775 after Sulu pirates pillaged a British warehouse in Balambangan, the sultan received a share amounting to 45 pieces of artillery and gunpowder, plus a 'contribution' of 3,000 pesos from the raiders.⁴⁶

Marauding cruises were regular, annual undertakings, dubbed by their victims as the 'Pirate Winds'.⁴⁷ In the winter during the north-east monsoons raiders set sail from their Sulu bases for the Celebes, Borneo, Java, Sumatra, and Malacca, and in the autumn they returned home with the south-east monsoons (see map 1). Sometimes cruises lasted up to three years. They sailed in double-decked *prahus* up to 100 feet long with 50 to 80 fighters and 100 oarsmen. Accustomed to sailing in fleets of 20 to 50 vessels, and occasionally as many as two hundred vessels, their fleets could have several thousands of men. Warriors were armed with knives, swords, spears, flintlock rifles, swivel guns, and even brass cannon (mostly between 6- and 24-pounders) that they had procured from European and Chinese merchants.⁴⁸ The warrior-raiders were mostly freemen and viewed marauding as a hereditary and honourable profession.

44 For several first-hand documents on Sulu slave raiding, see Antony, *Pirates in the Age of Sail*, 146–8; and for a detailed discussion on Sulu maritime raiding, see Warren, *The Sulu Zone*.

45 'Malay Pirates', 244–5; and Rutter, *Pirate Wind*, 28–9.

46 Keppel, *The Expedition to Borneo of H.M.S. Dido*.

47 Rutter, *Pirate Wind*, 28.

48 So lucrative was the gun business by the early nineteenth century that manufacturers in England actually began producing custom-made firearms for Sulu customers.

The rowers were slaves, who were only expected to fight in emergencies.⁴⁹ In 1798 one fleet, which consisted of 25 ships with 500 fighters and 800 rowers, captured 450 people who were sold into slavery; included among the captives were three Spanish priests, one of whom was sold for 2,500 pesos. In 1812, during his six-month stay in Sulu, J. Hunt, the Lieutenant Governor of Java, noted that a thousand people had been kidnapped and sold into slavery in this single market.⁵⁰

Captives, who were sold as slaves, were the chief source of booty as well as of regional trade. They were important to the economy both as a unit of production and as a commodity of exchange. According to Owen Rutter, 'slaves were more lucrative than loot, and easier to dispose of'.⁵¹ The capital at Jolo, called the 'Algiers of the East', became 'a pirate mart and a clearing town for slaves'.⁵² In fact, by the end of the eighteenth century, Jolo was the largest slave market in the region and the hub for long-distance slave raiding. Perhaps half of its population was slaves. Between 1770 and 1870, an estimated 300,000 slaves were trafficked by raiders in Sulu. While many slaves were put to work harvesting, procuring, and processing jungle and marine products for the China market, others worked as agricultural and domestic labourers. A large number of captives were simply traded as commodities in areas outside the Sulu Archipelago, while others were retained by the raiders as oarsmen. Chinese settlers in Malaya were always eager buyers of female slaves, which they took as mistresses. Elderly and infirm captives often were sold to headhunters in Borneo for human sacrifice. Jolo was an open market where European, Chinese, and Bugis merchants came to trade, and where raiders could sell slaves and booty and refit their ships. Trading, slaving, and raiding overlapped and complemented each other.⁵³

Another important raiding base was centred around Singapore on the islands of Riau, Galang, and Lingga, which were the traditional core of the Kingdom of Johor (see map 1). Piracy was as ancient in this area as elsewhere in the region, and was pursued for many of the same reasons, namely war, slavery, and trade. Groups of Malay Muslims, such as the Orang Laut (often labelled as 'Sea Gypsies' in European sources), were nomadic seafarers who spent most of their time on ceaseless trading and raiding expeditions throughout the archipelagos.⁵⁴ As one writer explained, 'The ordinary Malay trader was a merchant and pirate by turns, as opportunity served.'⁵⁵ Raiding was a normal part of the life cycle. Edward Presgrave, the Registrar of Imports and Exports at the British colony of Singapore, reported in 1824: the Orang Laut gathered agar-agar, seaweed, tortoise shells, and other marine products each spring to sell to European buyers for the China market, and then in the summer they set out on raiding expeditions in the Straits of Malacca as far north as Kedah. By early autumn they returned home to dispose of their booty and 'pass listless lives' until the cycle began again in the following spring.⁵⁶ As in Sulu, local princes supplied the Malay raiders with weapons and opium and in return they claimed

49 Rutter, *Pirate Wind*, 33–5.

50 Hunt, 'Some Particulars Relating to Sulo in the Archipelago of Felicia', 51.

51 Rutter, *Pirate Wind*, 49.

52 Ibid., 29.

53 For a concise overview of slave raiding and markets, see Warren, 'Slave Markets and Exchange'.

54 'Malay Pirates', 243.

55 Mills, *British Malaya*, 223.

56 Cited in Tarling, *Piracy and Politics*, 39.

‘shares of the plunder, the female captives, the cannon, and one-third of all the rest of the booty’.⁵⁷ In the nineteenth century Iranun raiders sometimes co-operated with Malay pirates and used Lingga as a forward base for inter-regional raiding operations on the western Malay Peninsula. They abducted people to sell into slavery and plundered trading vessels, which carried valuable cargoes of edible marine products, pepper, and weapons.⁵⁸

From the 1760s onward there emerged an intricate clandestine trading network, which involved raiders and merchants. Booty was brought to the markets at Riau, Lingga, Galang, and later, after its founding in 1819, Singapore, where Western, Bugis, and Chinese traders exchanged foreign commodities – textiles and opium from India and ceramics from China – for stolen goods. Galang, for example, was an important marketing centre for the pirate trade, dealing not only in the slave trade but also the buying and selling of booty and the outfitting of raiding vessels. A Malay merchant, who had been abducted by pirates in the mid 1820s, described how the raiders brought their stolen goods (rice, ebony, and sundry piece goods) and thirty-nine captives to Galang to sell; the captives were sold to Chinese traders who lived on the island.⁵⁹ The illegal trade became so important and lucrative that in 1782 English merchants actually provided a vessel to raiders so that they could plunder ships carrying pepper in the Sunda Strait.⁶⁰ Apparently they had no scruples about obtaining valuable cargo through plunder and illicit trade.

Piracy surged in the region between 1784 and 1836. For the Orang Laut and other sea peoples in Johor this was a time of crisis following the Dutch invasion of Riau (1784), and the establishment of British settlements at Penang (1786), Malacca (1795), and Singapore (1819). Adding further to the general malaise was the insistent warfare between Bugis and Malays, as well as endemic tribal conflicts. In this anarchy native trading vessels suffered the most, especially the smaller, poorly armed vessels from Cochinchina (southern Vietnam). Occasionally raiders also attacked Western vessels, usually when at anchor or becalmed; the brutality towards Western sailors was sometimes horrendous.⁶¹ The mounting disturbances became particularly worrisome to Europeans at Singapore who feared continued attacks on native shipping – what they labelled ‘piracy’ – would destroy the commerce of the port. In 1823, according to Sir Stamford Raffles, although the attacks on Western vessels were rare, they were ‘extremely frequent on native vessels, and afford serious obstacles to that intercourse by which the productions of the neighbouring nations are collected at this emporium, and our wares and manufactures disseminated in return’. The British colonial government reported a few years later that the shores and islands between Singapore and Malacca were ‘infested with piratical praus’. Some ten years later, according to British and Dutch reports, the problem of piracy in the Malacca Straits had actually increased.⁶²

In the eyes of the colonial powers piracy was a barbaric custom that Europeans

57 ‘Malay Pirates’, 245.

58 See first-hand accounts in St John, ‘Piracy in the Indian Archipelago’.

59 Ota, ‘The Business of Violence’, 135.

60 Ota, *Changes of Regime*, 129.

61 See, for example, the case of the British sailor William Edwards, whose tongue was cut out by ‘Malay Pirates’ in 1845, in Antony, *Pirates in the Age of Sail*, 151–2.

62 See Tarling, *Piracy and Politics*, 28–9, 69, 80.

had a duty to suppress for the sake of commerce and civilization. In one writer's view, the Malays were 'Barbarous and poor, therefore rapacious, faithless, and sanguinary. These are circumstances . . . which militate strongly to beget a piratical character.'⁶³ Another writer saw indigenous piracy as 'abhorrent to humanity and the principles of all civilized governments'. In Raffles's formula, the British were the 'parents' and the indigenes the 'children', whereby 'humanity demands our interference' in eliminating piracy.⁶⁴ On the one hand, natives had to be encouraged to adopt the 'industrious habits' of the West, and on the other hand, Western navies had to implement aggressive campaigns against the pirates and their supporters.

Beginning in 1836 the British and other European powers began to adopt effective piracy-suppression campaigns, not only around Singapore but elsewhere in South East Asia. Perhaps the most effective measure was the deployment of steam gunboats to the region and their relentless destruction of pirate vessels and strongholds. Whenever possible the subdued pirate communities were forcefully resettled in new areas away from their original power bases, where they were expected to engage in the legitimate pursuits of agriculture and commerce. By 1860 their campaigns had become so successful that piracy ceased being a serious problem in South East Asia for about a century.⁶⁵

Conclusion

In South East Asia, as elsewhere around the world, piracy was intricately linked to both trade and war. 'The prize of piracy is economic,' according to Pérotin-Dumon, 'but as historic phenomenon, the dynamics that creates it is political'.⁶⁶ Indeed, European colonial states defined piracy chiefly in political and cultural terms according to their own interests. Their sharp legal distinctions between illegitimate (piracy) and legitimate (privateering) forms of maritime raiding would have been lost on most South East Asians. For the latter, sea raiding, or what the colonialists called 'piracy', was fundamental to statecraft and political power. Raiders were warriors and heroes, not criminals. As Raffles explained at the start of the nineteenth century, among South East Asians, raiding 'is considered as an honourable profession, especially for young nobles and needy great men'.⁶⁷ Often too it was a legitimate, state-sponsored enterprise deeply entwined with trade, war, and slavery. Only gradually and grudgingly did indigenous rulers come to accept Western notions that 'piracy' was a crime that needed to be eliminated. As a legal concept and a cultural construct imposed by Western colonialists, piracy in any form became a stigma of backwardness and barbarism. Its suppression therefore became an important and necessary component of modernization.

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63 'The Piracy and Slave Trade of the Indian Archipelago', 145.

64 Tarling, *Piracy and Politics*, 16, 64.

65 *Report, 1861-62*, 8.

66 Pérotin-Dumon, 'The Pirate and the Emperor', 26.

67 Tarling, *Piracy and Politics*, 15.

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Annex 549

J. Hardy & S. O'Connor, "China advances with Johnson South Reef construction," *IHS Jane's Defence Weekly*
(19 Sept. 2014)

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Satellite imagery dated 14 August 2014 shows ongoing construction and development of the new island on Johnson South Reef in the Spratly Islands. (PLEIADES © CNES 2014, Distribution Airbus DS / Spot Image S.A. / IHS)

Satellite imagery provided by Airbus Defence and Space illustrates substantial and significant progress in China's construction of an island on Johnson South Reef in the Spratly Islands.

Until early 2014 the only manmade feature at the reef was a small concrete platform that housed a communications facility, garrison building, and pier. This platform has now been surrounded by an island that is approximately 400 m across at its widest points and has an area of about 100,000 m².

Workers have built a reinforced seawall around the whole island. There are also two roll-on/roll-off (ro-ro) docks and a pier on the northwest side. Foundations for what could be a large building can be seen on the southwestern side, while other elements include desalination pumps, a concrete plant, and a fuel dump.

Johnson South Reef is not the only Chinese construction site in the Spratly Islands. Images dated 13 September and released by Chinese state media show similar construction on Huayang Reef, known internationally as Cuateron Reef. The images of Cuateron Reef, which is part of the London Reefs group and on the southwest side of the Spratlys, show desalination plants, cranes, and drills, along with piles of construction materials.

AISSlive ship tracking data reported by *IHS Jane's* in June 2014 showed *Ting Jing Hao*, a dredger responsible for most of China's land reclamation in the Spratlys, had visited Cuateron Reef three times since September 2013, most recently 10 April to 22 May 2014.

Ting Jing Hao was responsible for the lion's share of dredging at Johnson South Reef and has also visited Gaven Reefs, which is in the centre of the Spratly Islands and close to Itu Aba (Taiping Island). Itu Aba is occupied by Taiwan.

Images released by the Philippine government in August also showed substantial reclamation by China at Kennan (Chigua) Reef: one of the Union Reefs and surrounded by other reefs occupied by Vietnam.

COMMENT

In all the cases outlined above, China is building islands around concrete platforms

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that it constructed on the reefs during the 1980s and 1990s. As previously reported, China's extensive programme of land reclamation in the Spratlys ignores the 2002 Declaration on the Conduct of Parties in the South China Sea, a non-binding statement that committed the disputing countries to avoid escalating the situation by construction or militarisation of the features they occupy.

As also previously reported, China is not the only country to ignore this declaration: Vietnam and Taiwan have both extended and upgraded facilities on their respective islands. However, Beijing's activities in the Spratlys in the past 12 months are a major challenge to the status quo as they create land masses that are capable of supporting garrisons in areas very close to the other countries' occupied territories.

The history of conflict in the South China Sea suggests that such bases could be used as jumping-off points for assaults on these nearby features, although so far China has preferred to emphasise its claims in the region by using paramilitary maritime vessels and blockades.

Related articles:

- [China expands runway, harbour at Woody Island](#)
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 **SouthChinaSea** Oct 15, 2014

It is imperative for ITLOS to make a decision really quick and act on the memorial that the Philippines filed in January and invalidate PRC's anachronistic 9 Dash line claim. This will put an end to China's hegemonic and devious plan to take over SCS. That has to happen first. Only then the US, Japan, ASEAN will have the UN mandate and the moral authority to chase these Beijing's "rights protection fleet" back to where they belong at their official southernmost territory - Hainan island.

[Like](#) [Reply](#)


 **CerebrusMaximus** Sep 21, 2014

Another note ...

China has no claim to the East or South China seas. Their historical claims are false, and pure propaganda; out and out lies, to be even more accurate. Just look at the maps that the Philippines has on display, dating back hundreds of years; the earliest from the 1300s or 1400s. One can see that China never extended its dominion to the South China Sea; Hainan island was the farthest reach of China at its imperial height.


China is a liar, a cheat, and an outlaw state. Xi Jinping and his cronies should be brought to justice before an international court of law.

[Like](#) [Reply](#)

 **konkrate** Sep 22, 2014

China's claims to the Spratly islands covers the periods that include Imperial, republican and communist times. The Republic of China (Taiwan) put out the later 9-dash claim back in 1947 which even then was before the independence of places like Vietnam and Malaysia from their colonial masters and just after the Philippines got their nominal independence from the USA. The USA never gave the Spratly Islands to the Philippines probably in consideration of the Republic of China at the time. The Republic of China after WWII had reclaimed all of the Paracel Islands and Spratly Islands and controlled them until the end of the Civil War in 1949. Before that the Republic of China established the first outpost in the Spratly Islands on Taiping Island, which they retained even when they retreated to Taiwan. The People's Republic of China then took over the ownership of the Paracels and Spratlys.

[Like](#) [Reply](#)

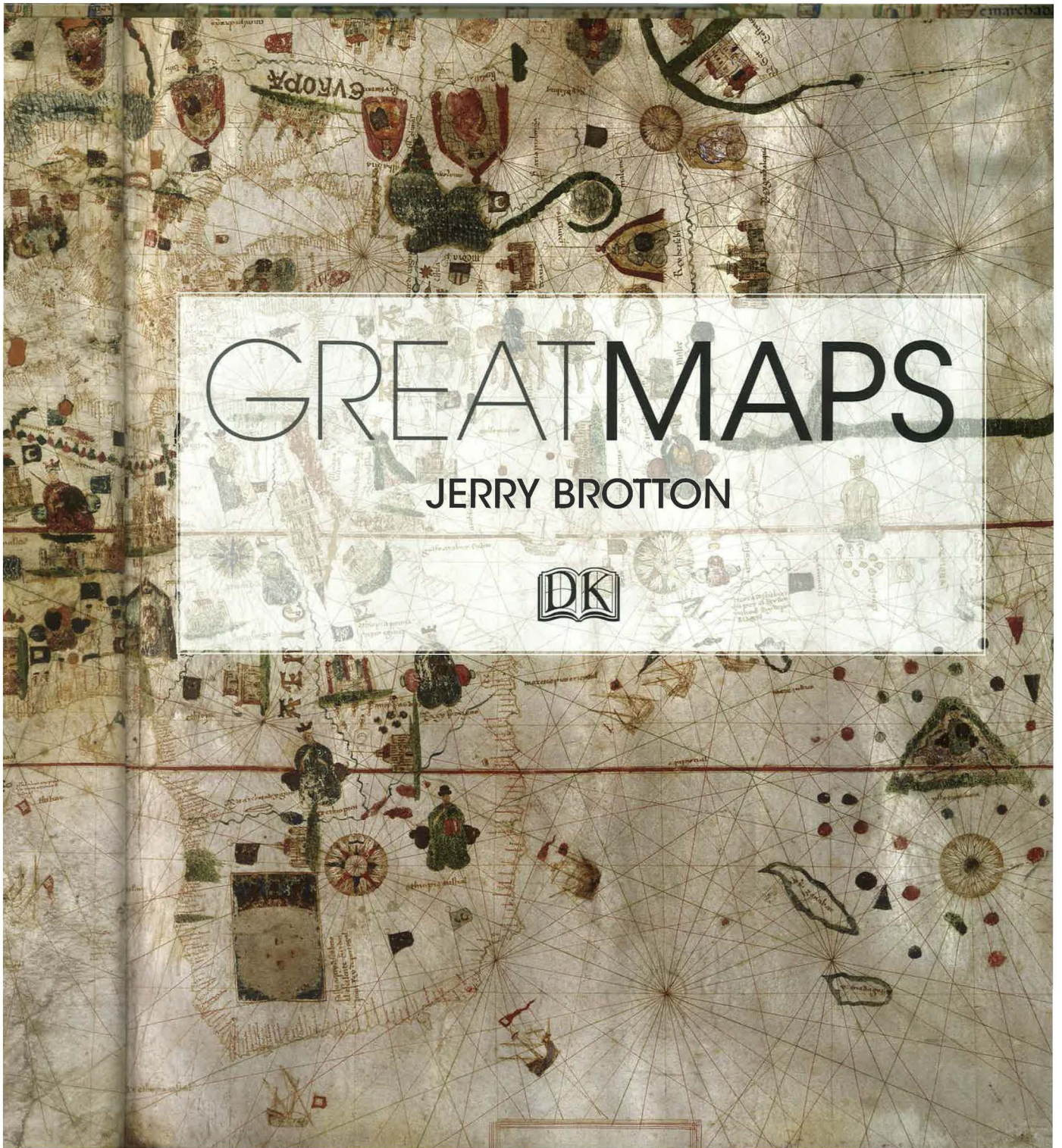
 **mary hong** Sep 22, 2014

[@konkrate](#) This reply will separate facts from fictions and correct many of your errors here and below:

1. Raising the issue of late independence for Vietnam, Malaysia or the Philippines from their colonial masters was a weak argument for Chinese claim an irrelevant to the overall

Annex 550

Jerry Brotton, *Great Maps: The world's masterpieces explored and explained* (2014)



GREAT MAPS

JERRY BROTON





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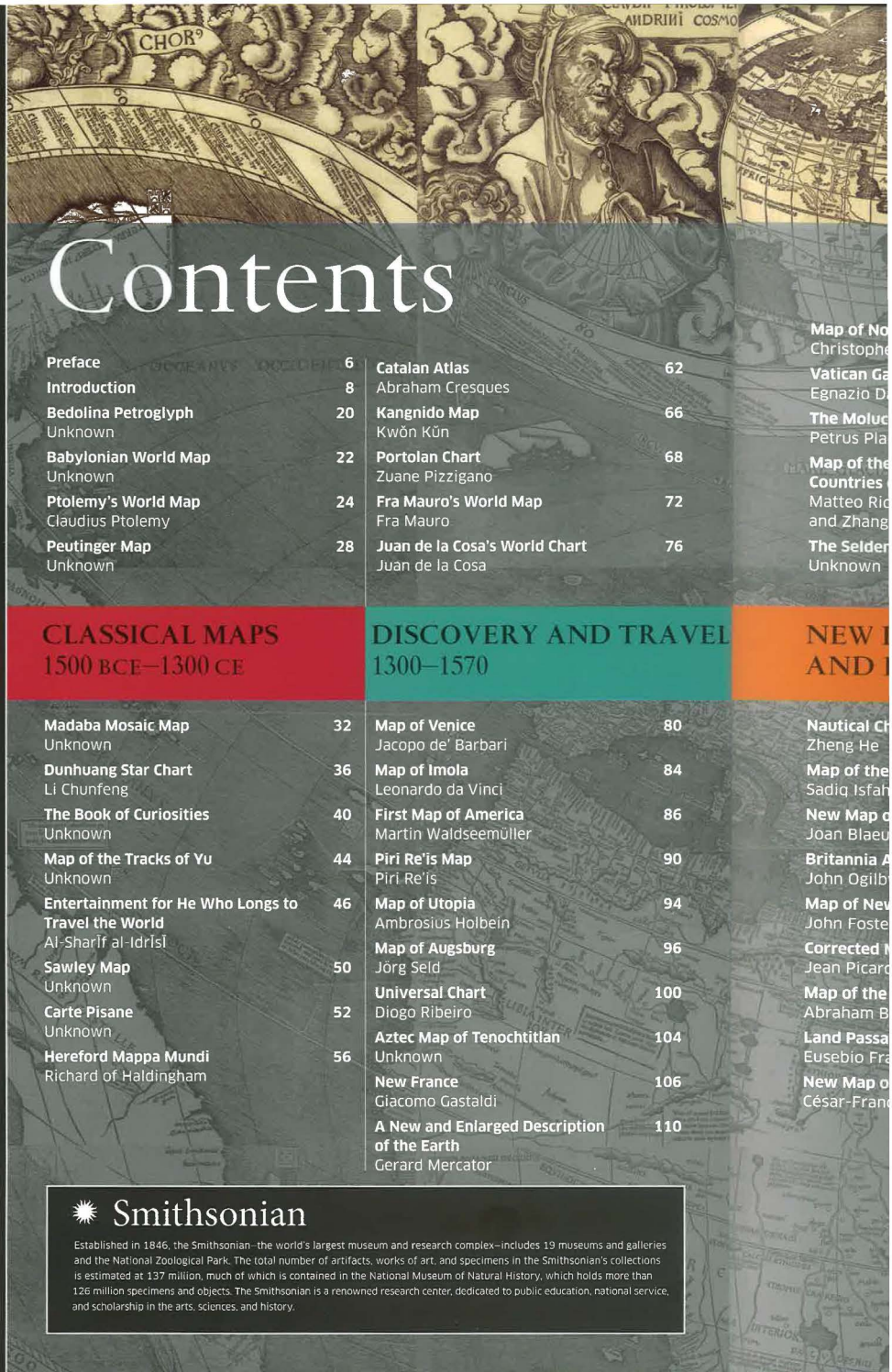
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AUTHOR'S NOTE
This book is dedicated to my father,
Alan Brotton



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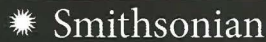
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Established in 1846, the Smithsonian—the world's largest museum and research complex—includes 19 museums and galleries and the National Zoological Park. The total number of artifacts, works of art, and specimens in the Smithsonian's collections is estimated at 137 million, much of which is contained in the National Museum of Natural History, which holds more than 126 million specimens and objects. The Smithsonian is a renowned research center, dedicated to public education, national service, and scholarship in the arts, sciences, and history.

Map of the Ten Thousand Countries of the Earth

1602 ■ WOODBLOCK PRINT ON MULBERRY PAPER ■ 5 FT 11½ IN × 12 FT (1.82 M × 3.65 M)
 ■ JAMES FORD BELL LIBRARY, MINNEAPOLIS, MINNESOTA, USA



SCALE

MATTEO RICCI, LI ZHIZAO, AND ZHANG WENTAO

Known as the "Impossible Black Tulip" of cartography because of its rarity, beauty, and exoticism, Matteo Ricci's map is a remarkable fusion of early 17th-century

European and Chinese geographical knowledge, which offered China its first glimpse of America. Ricci, an Italian Jesuit leading the Society of Jesus's missionary work in



China, was also a gifted scientist who believed that understanding Chinese culture and learning was central to his goal of converting the locals to Christianity.

A Chinese-European collaboration

In 1584, Ricci established a Jesuit mission in Zhaoqing, southern China. He drew a map on the wall using European characters, and when admiring Chinese officials requested that he made the map “speak Chinese,” he drew a new version using Mandarin. Both maps have since been lost, but they provided the prototype for this one, begun in 1601 when Ricci traveled to Beijing at the invitation of the Ming emperor Wanli. It was a truly collaborative project, published by the Ming printer Zhang Wentao on six huge blocks of wood using brown ink on mulberry

paper, a method used for making large screens to be displayed in semipublic places. Ricci was also assisted by the renowned Ming mathematician and geographer Li Zhizao who, following the map’s completion, became one of Ricci’s most celebrated converts to Christianity.

Ricci’s oval projection is taken from the Flemish cartographer Abraham Ortelius’s famous 1570 world map in his atlas *Theatre of the World*. He also borrows from other European mapmakers, including Mercator (see pp.110–13) and Plancius (see pp.122–25). These are fused with Chinese sources provided by Li Zhizao, which gave Ricci the closest insight into the country’s geography ever afforded a European. Strikingly innovative, it places China near the center of the map, and introduces a graticule (coordinate grid), which was unfamiliar to

Chinese eyes. The Chinese admired it for its novelty and use of astronomical and cosmographical observations, which were so important for Ming policy; Ricci used it to convince the Chinese of the primacy of a Christian God capable of creating such a world.



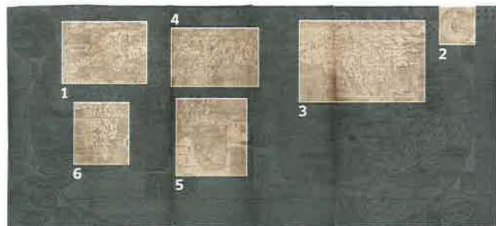
MATTEO RICCI

1552-1610

Known as the “Apostle of China,” Ricci was trained in Rome as a Jesuit. He entered the order in 1571 and began his missionary work in the Portuguese colony of Goa, India, in 1578, before moving to China in 1582.

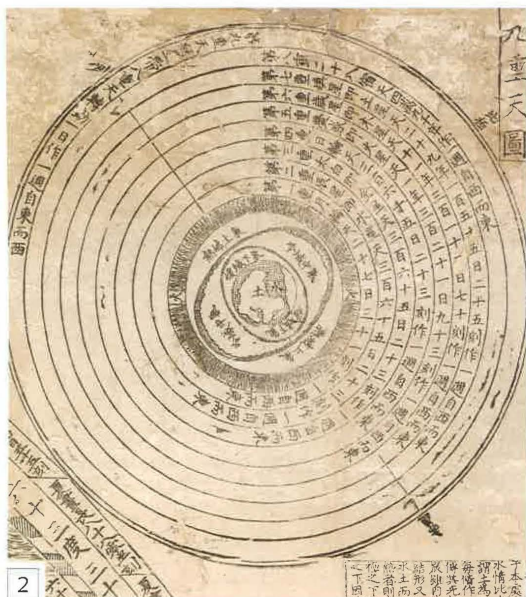
Ricci started work in Macao, at that time the center of Christian missionary efforts in China. He learned the Chinese language and began expanding his religious mission. Ricci then traveled to Zhaoqing in Guangdong Province, southern China, where he began mapmaking and compiling the first dictionary transcribing Chinese into a European language (Portuguese). Appointed Major Superior of the Jesuit mission in China, Ricci was subsequently invited to Beijing in 1601 and appointed adviser to the Ming emperor Wanli. He established the city’s oldest Catholic church, and worked on his world map alongside astronomical projects.

Visual tour

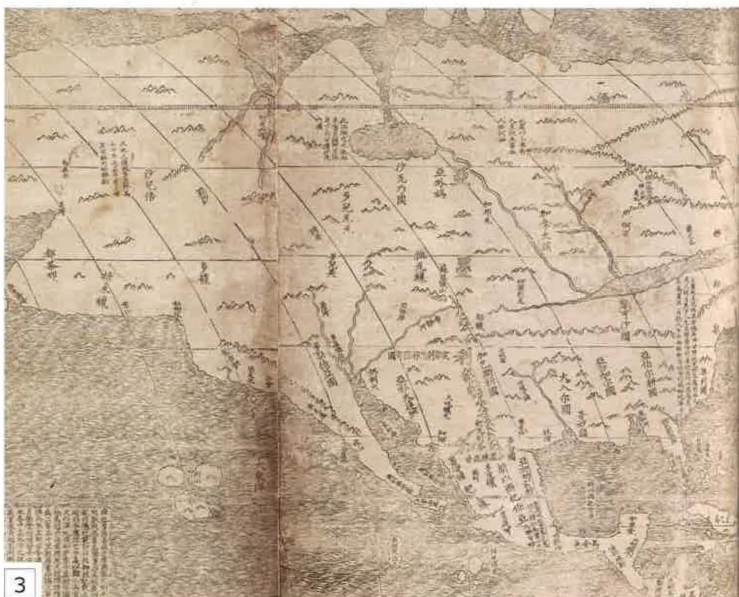


KEY

▶ **EUROPE** Although it is described here for the Chinese reader in glowing terms—pious, rich, and powerful—Europe is drawn surprisingly badly. The Rhine flows from the Danube and an unidentified river connects the Black Sea with the Baltic. Ricci's notes are little better: according to him, dwarves live in the northeast, while St. Patrick's legendary banishment of snakes from Ireland is ascribed to England.



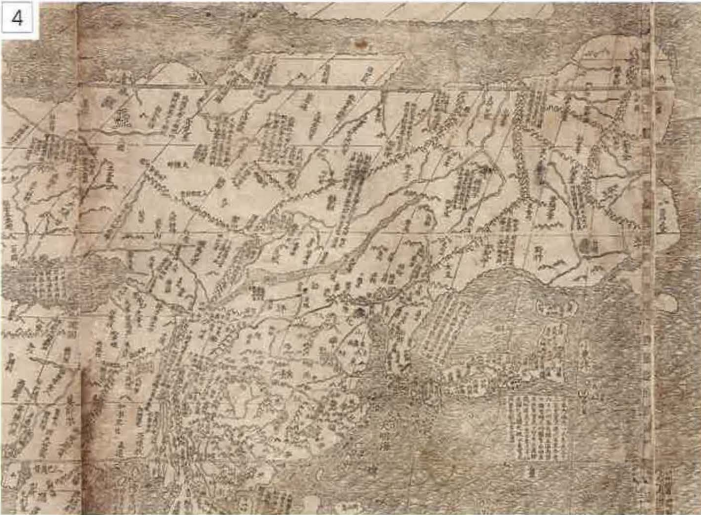
▲ **DIAGRAM OF THE PLANETARY SYSTEM** In line with Jesuit teaching, Ricci's cosmological diagram ignores Copernicus's heliocentric theories. Instead, Ricci's resolutely geocentric system, based on Ptolemy, locates the Earth at the center of the universe—happily coinciding with Chinese beliefs. This diagram even shows China in the middle of the tiny terrestrial globe. Its nine concentric circles represent the planets, culminating in the fixed heaven. The Earth is surrounded by two oval rings of air from cold and warm regions, enveloped by fire.



▲ **NORTH AMERICA** America is shown to a Chinese audience for the first time, although its accuracy is somewhat questionable. A lake incorrectly stretches from the Arctic to the St. Lawrence River; although Labrador is named correctly, Florida is described as the "Land of Flowers," while in another region called "Ka-na-t'o-erh" (possibly meaning Canada), "the inhabitants are excellent" and "kind to strangers," but their mountainous neighbors "kill, fight, and rob one another all year round."

▼ **CHINA AND JAPAN** Ming China regarded itself as *Zhōngguó*, (The Middle Kingdom), the political and cultural center of the world and is shown here in great detail along with Korea and Japan. Ricci adjusted Ortelius's prime meridian so it ran through the Pacific because he believed the Chinese objected to "our geographies pushing China into one corner of the Orient."

4



▼ **MALACCA AND THE SOUTHERN CONTINENT** Ricci's grasp of his Chinese sources often seems confused: Malacca, he says, "abounds in flying dragons which coil around trees." The Malay Peninsula contains the first description of a cassowary, a rare bird, while the southern continent is named "parrot country" after Plancius (see pp.122-25), and alludes to European discoveries on the Australian coast.

5



◀ **SOUTHERN AFRICA** Following Portuguese voyages around the Cape of Good Hope (a voyage Ricci experienced himself in 1578), the map shows southern Africa in reasonable detail. It gives southeast Africa its Portuguese name of "Monomotapa" and Ricci cannot resist speculating on the existence there of "an animal with a head like a horse, a horn on his forehead," concluding, "One wonders if it is a unicorn."

6



IN CONTEXT

Almost as soon as the Jesuit's Society of Jesus was founded in 1540, China was identified as a place for missionary work. One of the Society's founders, St. Francis Xavier, died trying to establish the first Chinese mission in 1552, before its formal establishment in Macao in 1563. Ricci and his fellow Jesuits attempted to pursue a policy of conversion that involved complete assimilation within Chinese culture, from learning its language to adopting its dress codes. The result was a remarkable period of east-west cultural and scientific change, led by the brilliant Ricci.



▲ Matteo Ricci pictured with his first convert in China.

The Selden Map

c.1608–1609 ■ INK ON PAPER ■ 5 FT 2¼ IN × 3 FT 1¼ IN (1.58 M × 96 CM) ■ BODLEIAN LIBRARY, OXFORD, UK



UNKNOWN

Old maps are constantly being discovered—many, as in the case of this beautiful, enigmatic map whose secrets are only now being revealed, found languishing in dusty libraries. The Selden map was rediscovered at the beginning of the 21st century in the basement of Oxford University's Bodleian Library, where it had been sitting neglected for nearly a century. It is now regarded as the most significant Chinese map of the last 700 years.

The map shows the entirety of Southeast Asia and its maritime sea routes at a scale and in a style unknown in any comparable Asian map of the period. Virtually nothing is known about its makers, although it is thought to have been made around 1608–09 in the late Ming dynasty. The map first entered the Bodleian Library in 1654, when it was bequeathed as part of the collection of the English scholar, John Selden, which is how it acquired its name.

Oceanic trade in the Ming dynasty

Exquisitely drawn and painted with black ink on enormous sheets of paper—glued together to make one vast piece, possibly to hang on a wall—the map is oriented in usual Chinese style with north at the top. It shows Southeast Asia centered on Ming China, stretching from the Indian Ocean in the west to the Spice Islands in the east, including the Moluccas (see pp.122–25). To the north is Japan, and to the south, Java. Beyond these obvious elements, the map poses a series of puzzles. It has a European-style compass rose and scale bar, which were unknown on Chinese maps for centuries. Instead of putting Ming China in the middle—the Chinese word for China, *Zhōngguó*, means the “middle kingdom”—the chart's creators have made the unprecedented

decision of placing the South China Sea at its center. The map's main emphasis is on a series of seaborne trade routes plotted using compass bearings, shown radiating outward from the port of Quanzhou, on the eastern Chinese coast (near Taiwan, in the middle of the map). These shipping routes reach as far as Calicut in India, shown on the map's western edge, and also describe how to sail to commercially important locations such as Oman on the Arabian Peninsula and Hormuz in the Persian Gulf. This appears to be a chart centered on the sea, not the land and, as such, it represents the beginning of a whole new era of cartography and of the use of maps in Ming-dynasty China.

JOHN SELDEN

1584–1654

Selden was an English scholar specializing in legal history, as well as a historian, an antiquarian, and a politician.

It is not known how or when Selden acquired this map, but he was a renowned polymath. In particular, he was a distinguished law scholar and a prodigious collector of manuscripts, especially those with Oriental origins. Selden was one of the first English scholars to show an interest in Persian, Arabic, and Chinese learning, and his work inspired others. When he died, Selden bequeathed more than 8,000 manuscripts to the Bodleian Library at his alma mater, Oxford University. The collection includes not only this map, but also the *Codex Mendoza* (see pp.104–105).



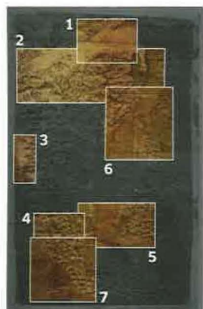
A rich cartographical image of the economic dynamism of 17th-century East Asia

ROBERT BATCHELOR, *THE SELDEN MAP REDISCOVERED*





Visual tour



KEY

► **BEIJING AND THE GREAT WALL** In keeping with Chinese tradition, the city of Beijing is prominently marked on the map, as is the Yellow River (below left) and the provincial boundaries (which look more like river channels). Across the center run the crenellated fortifications of the Great Wall of China, stretching from Shanghaiuan to Lop Lake. Much of the existing wall shown here was constructed by the Ming dynasty and was begun as early as the 7th century BCE.



◀ COMPASS AND SCALE BAR

Among the map's many unique features are its compass rose and scale bar—elements that are absent from earlier Chinese maps. The compass rose has 72 points, and as if to emphasise its novelty, *luojing* (compass), is written in the middle. The scale bar is also unprecedented. It represents one Chinese *fen* (foot) at a scale of approximately 1:4,750,000. Both of these features demonstrate that the Chinese cartographers possessed extensive knowledge of European maps.



◀ CALICUT AND THE INDIAN OCEAN

On the far left lies Calicut, a port on the west coast of India, and one of the most important trading centers in the Indian Ocean. The Bay of Bengal is absent, but notes describe how to sail from Calicut to Yemen, Oman, and Hormuz. This suggests the map's maker was drawing on descriptions of the early 15th-century voyages across the Indian Ocean by Ming-dynasty explorer Zheng He (see pp.134-37).



◀ SUMATRA

The island of Sumatra, in modern-day western Indonesia, is depicted as another key location. It was the westernmost point in the network of trading routes across the South China Sea, the entrance into the Indian Ocean, and a pivotal location in the fierce rivalry between the Dutch, English, and Portuguese over control of the spice trade.





▲ **THE MOLUCCAS** Situated at the confluence of a series of maritime trade routes running north, south, and west, sit the spice-producing islands of the Moluccas (see pp 122–25). These lush, tropical volcanic islands, shown here in the eastern part of modern-day Indonesia, were central to the economy of the entire region.



▲ **TRADING PLACES** The east coast of China, centered here on Quanzhou, is the map's commercial center of gravity. From here, a spidery network of trade routes can be seen heading off to all four points on the globe, connecting the Ming empire to the rest of the world's commerce.



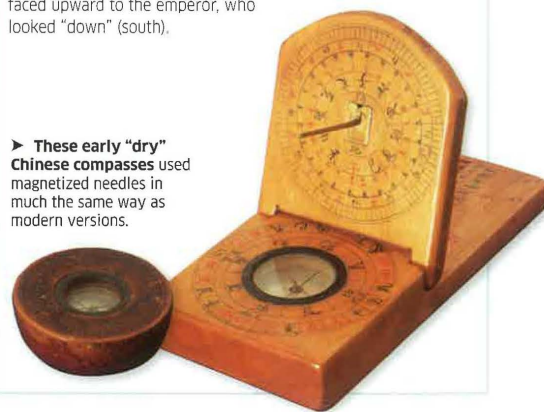
► **ARTISTRY** Even relatively peripheral details, such as the islands at the westernmost point on the map, are rendered with loving detail. As much as this is a map about maritime trade and global commerce, the unknown mapmaker also pays close attention to the flora and fauna of the region.



IN CONTEXT

Chinese navigators had been using *luojing* (compasses) that pointed *zhinan* (south) since at least the 10th century. Some were “dry-pivots,” attached to a post, whereas others were floating compasses, where a magnetized needle was placed in a basin of water. Readings were used to draw *zhenjing* (compass manuals), the equivalent of European “rutters”—written descriptions of how to sail from one place to another, listing ports, islands, and currents, all based on compass readings. Most Chinese maps, like Selden's, have north at the top because imperial subjects faced upward to the emperor, who looked “down” (south).

► These early “dry” Chinese compasses used magnetized needles in much the same way as modern versions.



Nautical Chart

1628 ■ WOODBLOCK PRINT ON PAPER ■ 4 IN × 5¼ IN (10CM × 14.5 CM) PER PANEL
 ■ LIBRARY OF CONGRESS, WASHINGTON, DC, USA



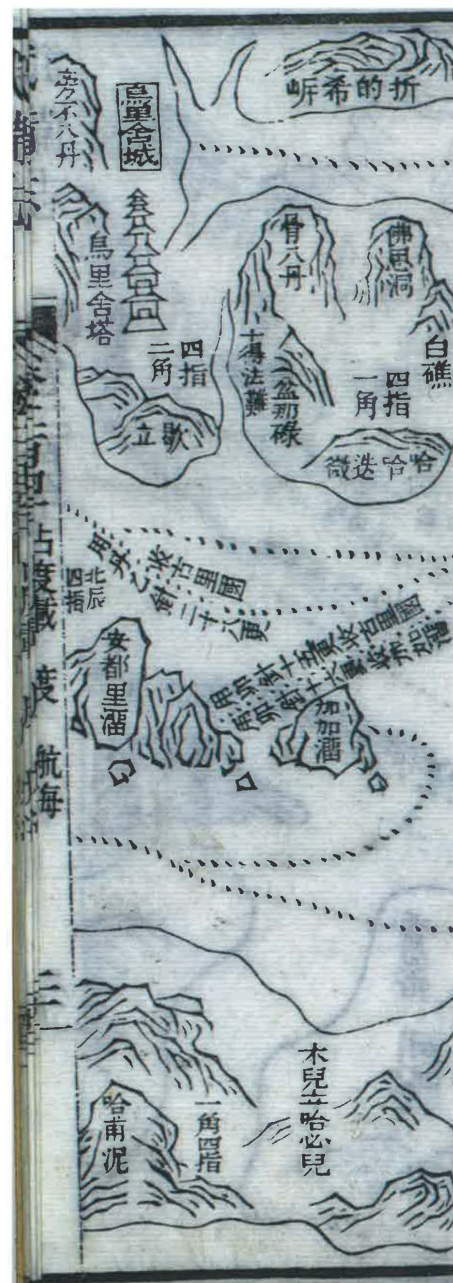
SCALE

ZHENG HE

Between 1405 and 1433, the Chinese Ming dynasty dispatched Admiral Zheng He on one of history's most ambitious series of maritime expeditions, stretching 7,500 miles (12,000km) from Nanjing in eastern China to Hormuz in the Persian Gulf and Mombasa on the east coast of Africa. Zheng He's seven voyages were vast logistical operations that involved hundreds of ships and thousands of soldiers, motivated by various imperial, commercial, and diplomatic ambitions. Although maps and charts from the original voyages have not survived, a later version was reproduced in a vast compendium of military technology and preparations, titled *Wubei Zhi*, written by the Ming officer Mao Yuanyi (c.1594–c.1641).

Exploring the oceans

The charts draw mainly on Zheng He's last voyage in 1431–33, but also include data accumulated over the previous expeditions. Originally designed as a strip map measuring 7¾ in × 18ft 4¼ in (20cm × 5.6m), they were cut down to fit 40 pages in the *Wubei Zhi*. Running from right to left, the charts begin in Nanjing and end in Africa, naming 530 places as they move east to west, although the orientation and scale shift constantly according to the importance and information gleaned from specific regions. The coverage of particular regions also reflects Chinese preoccupations: the Ming territories are given 18 pages and Southeast Asia has 15, while Arabia and eastern Africa have just six. More than 50 sea routes cover the maps and are shown as dotted lines, often supplemented by detailed sailing instructions based on compass bearings, providing a wealth of information on ports, coastlines, and islands, as well as the depth and flow of water. Despite the charts' many distortions due to their size, they are a remarkable record of one of the great and often overlooked periods of seaborne exploration.



ZHENG HE

c.1371–1433

Born into a Muslim Hui family in Yunnan Province, Zheng He was castrated by an invading Ming army in the 1380s, before entering service in the royal household.

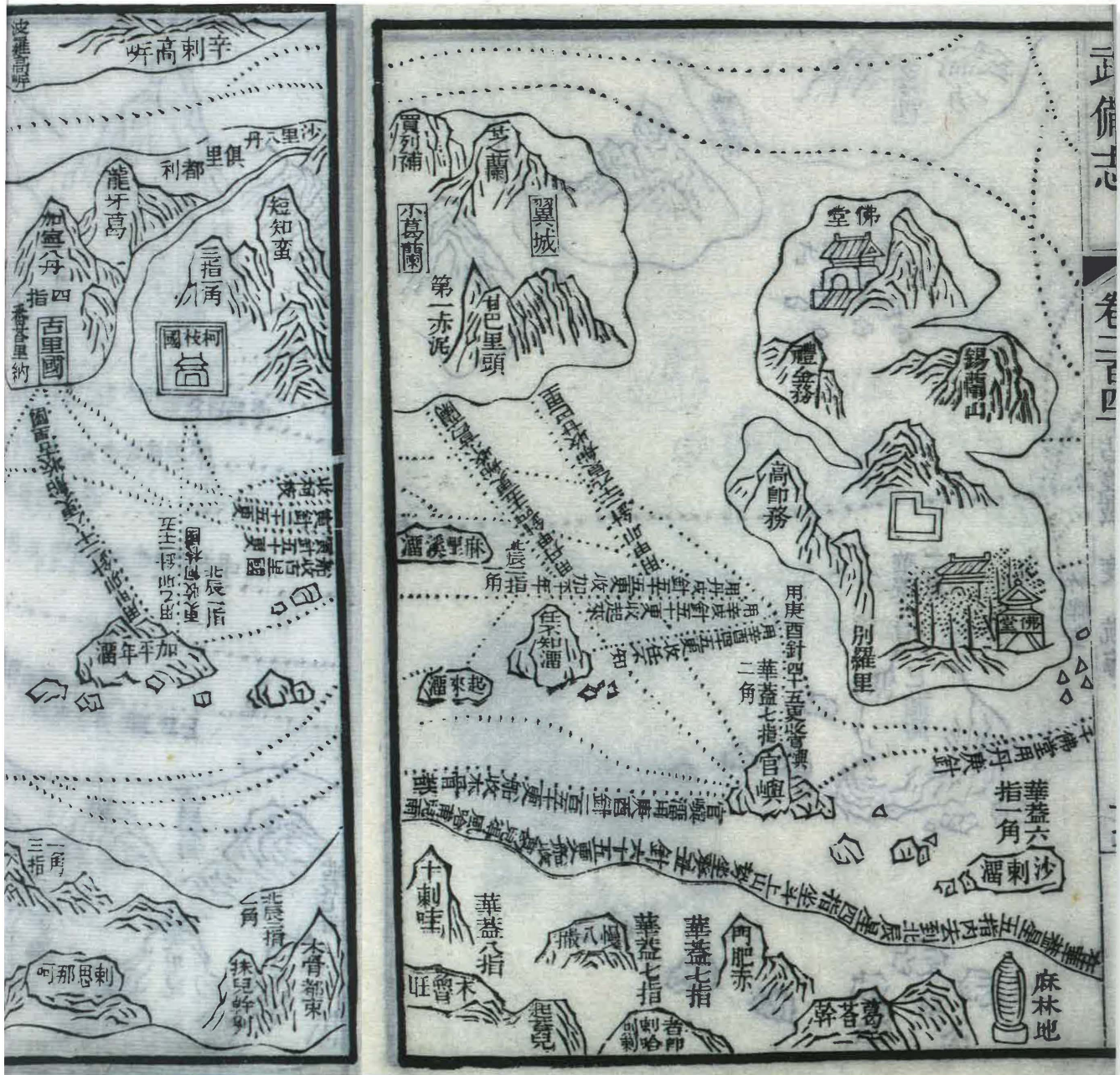
Zheng He served as a eunuch to Zhu Di, the future Yongle Emperor. He led several of Zhu Di's military campaigns against internal and external forces, and, in 1405, was appointed admiral of the first of seven seaborne voyages. These were intended to impose the Ming dynasty's commercial control over the Indian Ocean, and develop relations with Arabia and Africa. In July 1405, a fleet of more than 300 ships and 28,000 crew left China, traveling between Southeast Asia, India, the Arabian Peninsula, and eastern Africa. Zheng He's expeditions dwarfed those of later Portuguese and Spanish voyages.



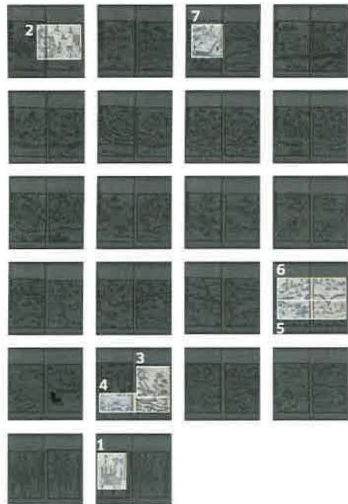
We have... beheld in the ocean, huge waves like mountains rising sky-high, and we have set eyes on barbarian regions far away



ZHENG HE

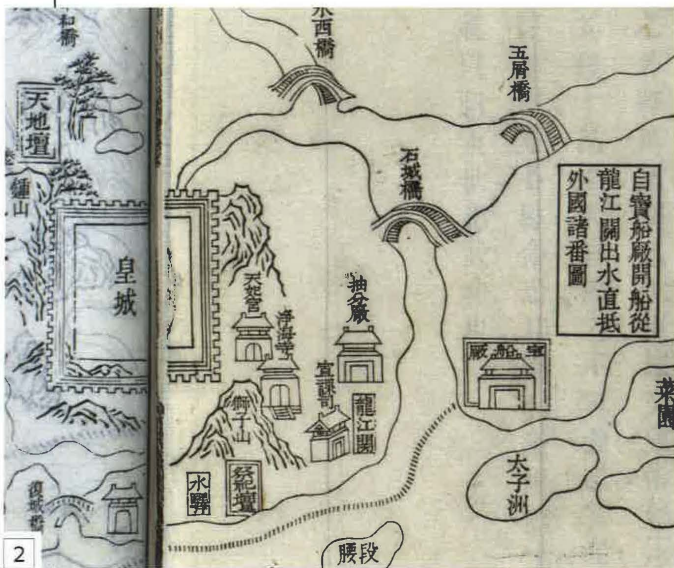


Visual tour



KEY

► **NAVIGATING BY THE STARS** The book culminates in an exquisitely drawn three-masted vessel, one of the smaller ships used on Zheng He's expeditions. It is surrounded by commentaries of just five of the many constellations that were used by Zheng He's pilots to navigate across the ocean. The map records that their voyage has been successful thanks to accurate astronomical observations.



2

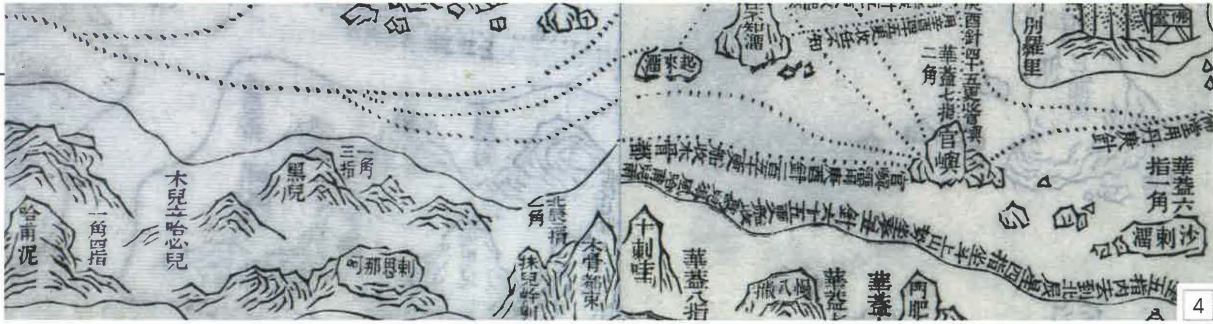
► **NANJING** In 1368, the first Ming emperor Hongwu founded the dynasty's capital at Nanjing on the Yangtze River. This is represented by the square cartouche on the left, and several identifiable imperial buildings. Across the river by the imperial shipyard, a dotted line marks the departure of Zheng He's fleet in 1405.

► **INDIA, AFRICA, AND SRI LANKA** This section, oriented with north to the left, has southern India, including Cochin, at the top, Sri Lanka to the right, and the Maldives to the bottom left. In 1409, Zheng He erected a trilingual stone tablet in Chinese, Tamil, and Persian in Galle, Sri Lanka, listing his dedications to Islamic, Hindu, and Tamil deities.

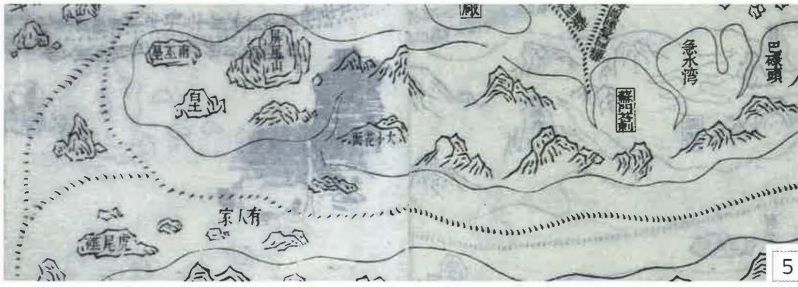


3

織女星七指爲母看西北布司星八指



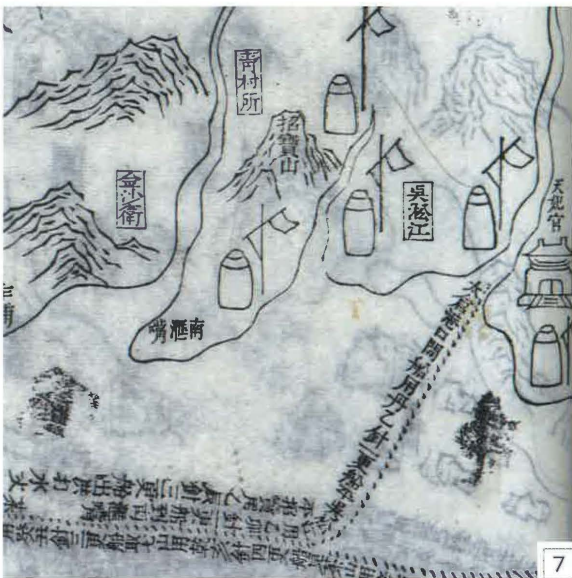
▲ **THE CHINESE IN EASTERN AFRICA** The sea routes and ports along the eastern African coast run from right to left (or south to north), with the Maldives shown at the top. The map is dominated by Mozambique to the bottom right and Mombasa to the left. Zheng He first visited the region on his fifth voyage in 1418.



◀ **SUMATRA** Western Sumatra is drawn here at the confluence of a series of sea routes. It was a pivotal commercial location between southern China and the Indian Ocean, and is where Zheng He stored trade and fleet goods in 1413.



▲ **BURMA** Zheng He's charts show coastlines in great detail, including those of Burma, which would have been familiar territory to a Ming commander. The region of Tenasserim lies to the top right, with pagodas to the left, while the Nicobar Islands stand off the coast, with the compass route to India leading off to the left.



◀ **THE EAST CHINA SEA** The chart's scale and orientation shifts constantly. The East China Sea around Shanghai and the Huangpu River is on a very large scale, and shows ports, flag poles, and coastal features. Precise terms describe sailing routes off the coast, with west at the top.

IN CONTEXT

Chinese maritime navigation drew on a long and distinguished astronomical tradition, which enabled admirals like Zheng He to use reliable stellar observations to navigate across the Indian Ocean. The colossal size of his fleet allowed him to travel with teams of experts who could assist with practical and astronomical navigation. It is claimed the largest of the so-called Treasure Ships that carried Zheng He and his deputies were more than 330 ft (100 m) long, although around 200 ft (60 m) is now considered a more realistic estimate. With nine masts and four decks, these were some of the largest wooden ships ever built. The fleet also included warships, patrol boats, and troop and horse transports in one of maritime history's most logistically ambitious expeditions.



▲ This illustration depicts a magnificent nine-masted 15th-century Chinese ship, similar to the kind that Zheng He would have used.

Annex 551

D.K. Phuc, et al., *Vietnam's National Sovereignty over Hoang Sa (Paracel) and Truong Sa (Spratly) Archipelagoes*

VIETNAM UNION OF SCIENCE AND TECHNOLOGY ASSOCIATIONS

UNIVERSAL KNOWLEDGE COLLECTION

Dinh Kim Phuc (Chief Author)

Duong Danh Huy - Nguyen Xuan Dien

Hoang Viet - Dinh Ngoc Thu

**VIETNAM'S NATIONAL SOVEREIGNTY
OVER HOANG SA (PARACEL) AND
TRUONG SA (SPRATLY)
ARCHIPELAGOES**

TRI THUC PUBLISHER

“An Vinh commune, Binh Son district, Quang Nghia prefecture is close to the sea. Offshore to the northeast are many islands and approximately 130 mountains separated by waters which can take from a few *trống canh*¹ to a day to travel across. Streams of fresh water sometimes can be found on these mountains (islands). Within the islands is an over 30-*lí*² long, flat and vast golden sand bank, on which the water is so clear that one can see through. The islands are home to innumerable swift nests and thousands or tens of thousands of other kinds of birds that alight around humans instead of avoiding them. There are many sea curios like on the sandbank. Among the volutes are the Indian volutes which can be as big as a mat; on their ventral side are opaque beads, different from pearls and as big as fingertips; their shells can be carved into slabs or calcinated to generate lime (for house painting or construction). There are also turbinidae that can be used for furniture inlay, as well as *Babylonia areolata*. All of these species here can be salted for food.

There are oversized hawksbill sea turtles.

There are also soft-shell sea turtles, informally called *trắng bông*, similar to but smaller than the normal hawksbill sea turtles; their thin shell can be used for furniture inlay, and their thumb-sized eggs can be salted for food.

There is a kind of sea cucumbers, informally called *đồn đọt*, which can be seen and caught by divers on the sandbank; they can be used as food after lime treatment, gut removal and drying. Before serving this dish, one should process it with crab-extracted juice and scrape all the dirt off. *Đồn đọt* can be eaten similarly to, and sometimes tastes better than, pork or fish.

¹ Trống canh is the ancient Vietnamese unit for measuring time and equal to 2 hours.

² Lí or Lý is the ancient Vietnamese unit for measuring length and equal to 0.5km.

Foreign boats often take refuge in these islands to avoid storms.

In the past, the Nguyen rulers had established the Hoang Sa Flotilla with 70 sailors selected from An Vinh commune on a rotational basis. Selected sailors receive their conscription-labor order in the first lunar month of the year. The Hoang Sa Flotilla's sailors are provided individually with food sufficient for six months, and they sail on five small fishing boats for three full days to reach the islands (that is, Hoang Sa archipelago). Once settled down on the islands, they are free to catch as many birds and fish as they like for food. They collect goods such as bronze sabres and copper horses, jewelries, silver money, silver rings, copper products, tin ingots, black lead, guns, ivory, golden beeswax, fur and porcelain items, and so on. They also collect plenty of sea turtle shells, sea cucumbers, and volute shells.

The Hoang Sa Flotilla returns to the mainland in the eighth month through Eo seaport. On their return trip, they sail to Phu Xuan Citadel to submit the goods they have collected offshore. The amount of collected materials varies; sometimes the sailors could not collect anything at all.

I (Le Quy Don) have personally checked the records of the former flotilla captain Thuyen Duc Hau, which recorded the amount of collected goods as follows:

In the year of Nham Ngo (1702), Hoang Sa Flotilla sailors collected 30 silver ingots.

In the year of Giap Than (1704), they collected 5,100 catties of tin.

In the year of At Dau (1705), they collected 126 silver ingots.

During roughly five years from the Ky Suu (1709) to Quy Ty (1713), they sometimes collected a few sea turtle shells and sea cucumbers. There were times they only collected cubic tin, a few stone bowls and two copper guns.

Part III

Hoang Sa - Truong Sa Archipelagoes Perpetually Belong to Vietnam

3.1. The March 17, 2009 article “The Root of South China Sea Issue and China’s Fundamental Position” on the website of China Radio International (CRI) wrote: “*On the South China Sea issue, China has so far held indisputable sovereignty, and advocated peace negotiation to resolve international disputes.*”

Accordingly, “China is the country that first discovered and named Nam Sa archipelago [Truong Sa archipelago (*Spratly Islands*) as noted by author], and exercised its sovereignty for the archipelago in the earliest and firmest manner. This fact has sufficient historical evidence and legal basis, and long-term recognition from the international community. During World War II, Japan launched aggression on China, occupying most of China-governed areas, including [end of page]

LIÊN HIỆP CÁC HỘI KHOA HỌC VÀ KỸ THUẬT VIỆT NAM
TỦ SÁCH TRI THỨC PHỔ THÔNG

Đình Kim Phúc (Chủ biên)
Dương Danh Huy - Nguyễn Xuân Diện
Hoàng Việt - Đình Ngọc Thu

Mục lục

**CHỦ QUYỀN QUỐC GIA VIỆT NAM
TRÊN HAI QUẦN ĐẢO
HOÀNG SA-TRƯỜNG SA**

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NHÀ XUẤT BẢN TRI THỨC

"Xã An Vinh, thuộc huyện Bình Sơn, phủ Quảng Nghĩa ở gần biển, về hướng Đông Bắc ngoài biển có nhiều đảo và có nhiều núi linh tinh hơn 130 ngọn. Giữa các núi là biển, cách nhau có chỗ hoặc một ngày đường, hoặc mấy trống canh. Trên các ngọn núi (đảo) thỉnh thoảng có suối nước ngọt. Ở trong các hòn đảo, có bãi cát vàng, dài chừng hơn ba mươi dặm, bằng phẳng và rộng lớn, nước trong nhìn suốt đáy. Ở bên các hòn đảo, có vô số tổ yến, còn các thứ chim thì kể có hàng ngàn, hàng vạn con, dù thấy người, chúng vẫn cứ đậu chung quanh, chứ không hề tránh né. Bên bãi, có rất nhiều hải vật lạ như ốc hoa, có thứ mang tên là "ốc tai voi", lớn như chiếc chiếu, dưới bụng có từng hạt như ngón tay trở lớn, sắc đục không bằng sắc con trai châu; vỏ ốc ấy, có thể tách ra thành phiến, cũng có thể dùng vỏ ốc làm thành vôi (để quét, nề nhà cửa). Lại có thứ ốc được gọi là ốc xà cừ, người ta có thể dùng vỏ thứ ốc này để trang sức các đồ dùng. Lại còn có thứ ốc khác được gọi là ốc hương. Thịt các thứ ốc đều có thể ướp muối dùng làm đồ ăn được.

Có thứ đại mạo (hay đại mối) là con đồi mối rất lớn. Có con hái ba (ba ba biển), mà tục gọi là con trắng bông, cũng giống như con đồi mối, nhưng nhỏ hơn. Mai mòng, người ta có thể dùng trang sức các đồ dùng, trứng như đầu ngón tay cái, có thể ướp muối dùng làm đồ ăn được.

Lại có con hái sâm, tục gọi là con đôn đột. Người ta bơi lặn xuống bãi, bắt được hái sâm, rồi lấy vôi xát bỏ ruột đi, đem phơi khô. Đến khi ăn, dùng nước cua ngâm rồi nạo cho sạch sê, ăn như thịt heo, cá, mà ăn ngon hơn.

Những thuyền lớn đi biển của người Phiên thường khi gặp gió, đều nương đậu ở đảo này.

Ngày trước, họ Nguyễn có thiết lập đội Hoàng Sa gồm 70 suất, lấy người ở xã An Vĩnh bổ sung. Mỗi năm họ luân phiên nhau đi biển, lấy tháng Giêng ra đi nhận lãnh chi thị làm sai dịch. Đội Hoàng Sa này được cấp phát mỗi người sáu tháng lương. Họ chèo năm chiếc thuyền câu nhỏ ra ngoài biển cả, ba ngày ba đêm mới đến đảo (tức đảo Hoàng Sa). Họ tha hồ lượm, tự ý bắt chim, bắt cá làm đồ ăn. Họ lượm được những đồ vật như gương và ngựa bằng đồng, hoa bạc, tiền bạc, vòng bạc, đồ đồng, thiếc khối, chì đen, súng, ngà voi, sáp ong vàng, đồ chiên dạ, đồ sứ,... Họ còn lượm những vỏ đồi mồi, những con hải sâm, những hạt con ốc hoa thật là nhiều.

Đến kì tháng Tám, thì đội Hoàng Sa ấy mới trở về cửa Eo, rồi họ tới thành Phú Xuân trình nạp các vật hạng đã lượm được ngoài biển có khi nhiều, khi ít không nhất định, cũng có lần họ ra đi rồi trở về không.

Tôi (Lê Quý Đôn) từng tra khảo sổ biên của cai đội Thuyền Đức Hầu ngày trước như sau:

Năm Nhâm Ngọ (tức năm 1702), đội Hoàng Sa lượm được bạc 30 thoi.

Năm Giáp Thân (tức năm 1704), lượm được thiếc 5.100 cân.

Năm Ất Dậu (tức năm 1705), lượm được bạc 126 thoi.

Còn từ năm Kỷ Sửu (1709) đến năm Quý Tị (1713), tức là trong khoảng 5 năm, thỉnh thoảng họ cũng lượm được mấy

Phần thứ ba

Hoàng Sa-Trường Sa mãi mãi là của Việt Nam

3.1. Trên trang web của Đài phát thanh quốc tế Trung Quốc ngày 17-3-2009, bài: "Cội nguồn của vấn đề Biển Nam và lập trường nguyên tắc của Trung Quốc" đã viết: "Trên vấn đề Biển Nam, Trung Quốc xưa nay đều có chủ quyền không thể tranh cãi, đồng thời chủ trương giải quyết sự tranh chấp quốc tế qua đàm phán hòa bình."

Theo bài báo này, "Trung Quốc là nước phát hiện và đặt tên sớm nhất cho quần đảo Nam Sa [quần đảo Trường Sa] - (chú thích của tác giả), đồng thời cũng là nước thực thi chủ quyền sớm nhất và bền vững nhất đối với quần đảo Nam Sa. Việc này đã được chứng minh bằng lịch sử và căn cứ pháp lí đầy đủ, nhận được sự công nhận lâu dài của cộng đồng quốc tế. Trong Chiến tranh Thế giới lần thứ hai, Nhật Bản đã phát động cuộc chiến tranh xâm lược Trung Quốc, chiếm đóng phần lớn khu vực của Trung Quốc, trong đó kể cả

Annex 552

James Horsburgh, *Memoirs: Comprising the Navigation to and from China* (1805)

MEMOIRS:
COMPRISING THE
NAVIGATION TO AND FROM CHINA,
BY THE
China Sea,
AND
THROUGH THE VARIOUS STRAITS AND CHANNELS
IN THE
INDIAN ARCHIPELAGO;
ALSO,
THE NAVIGATION OF BOMBAY HARBOUR.

LONDON:

PRINTED FOR THE AUTHOR,

By C. Mercier and Co. Northumberland-court, Strand.

SOLD BY MESSRS. BLACKS AND PARRY, NEAR THE INDIA HOUSE, LEADENHALL STREET; ALSO AT BENGAL, MADRAS, AND
BOMBAY AND PRINCE OF WALES ISLANDS.

1805.

MEMOIR OF A CHART,

EXPLANATORY OF THE

NAVIGATION

OF

THE CHINA SEA.

REMARKS

ON THE

NAVIGATION OF THE CHINA SEA.

I. OF THE UNCERTAINTY WHERE MOST OF THE DANGERS ARE SITUATED, AND ERRORS OCCURRING THEREFROM, TO THOSE UNACQUAINTED WITH THE NAVIGATION OF THIS SEA.

THE vessels which navigate on the China Sea belonging to different countries, and even those belonging to the Chinese empire, are probably of greater magnitude, and more valuable, than any other commercial vessels used in other parts of the globe. These have been ever necessitated to blunder through this confined navigation; totally ignorant of the true situation of most of the dangers, and of several of the islands and principal head-lands.

What is here alluded to, particularly relates to the western part of the China Sea. The extensive groups of dangerous shoals, strewed over the south-east part, from the coast of Palawan to the latitude of nearly twelve degrees north, are so numerous, and therefore generally avoided; that the knowledge of them is very scanty or imperfect.

The limits of the group of shoals, delineated on most charts by the name of Paracels, and comprehending a space in latitude from about eleven and a half to seventeen degrees north, are absolutely unknown, although projected to an extent of nearly half the length of the China Sea. By whom their name was given, when, and on what account, like the knowledge of their limits, appears equally uncertain.

It has been said that the Portuguese of Macao were acquainted with the position of these shoals: but at present they are ignorant respecting them; except that they think them more distant from the coast of Cochin China than placed in the charts.

In most charts, the southern limit of the Paracels approaches to eleven and a half or twelve degrees north latitude; and from this limit southward, between it and Pulo Sapata, are placed several islands, viz. Cambridge Islands, Brothers, or Islands and Bank of the Scorpion's Tail; and Pulo Ceicer de Mer to the westward. Neither the Bank of Scorpion's Tail, nor any of these islands exist, except Pulo Ceicer de Mer, which island, together with some of the neighbouring mountains, or Cape Padaran, have been by those, navigating in error, transmuted into the islands, Brothers, &c. From the same cause have the high islands, said to be on the south part of the Paracels, originated. Ships returning from China by the outer passage, set greatly to the westward of account by the current; and seeing the mountains on the continent about Cape Varela, have imagined these to be islands of the Paracels or Brothers, which the following extracts seem to exemplify.

June 9th, 1789, we passed Pulo Sapata, at the distance of five leagues. Having light winds and calms, two days afterwards saw the land to the north-west, making like high islands; these we thought to be the Brothers: their position to us appeared to agree with Mr. Herbert's description, from the French ship Prince de Conté's Journal. A current had set us somewhat to the westward; and Pulo Sapata being placed in the charts more easterly in its relative distance from the coast of Cochin China than it really is, made us confident that the land we saw was islands, and not the continent. But several years after, when a perfect knowledge of the relative position of the coast, Pulo Sapata, Pulo Ceicer de Mer, &c. were acquired, it was then demonstrable, that the land we judged to be the Brothers was the mountains over Cape Padaran.

April 5th, 1788, the ship Lord Walsingham, from China, made the high land about Cape Padaran. This they set for the Brothers, when their distance is said to be only six or seven leagues from it. Afterwards they saw Pulo Ceicer de Mer bearing W. b. S. and then set this island, as the Brothers also. At this time they had south-easterly winds, and passed between Pulo Ceicer de Mer and the Catwicks, judging the former to be the Brothers.

April 4th, 1788, the ship Locko, from China, at 8 A. M. saw Pulo Ceicer de Mer, and set it for the Brothers. By noon observation they made it in latitude about $10^{\circ} 30'$ north. (N. B. its central latitude is $10^{\circ} 32' 30''$ north.) At sunset they had Pulo Ceicer de Mer (which they call the Brothers) bearing N. N. W. six

leagues; same time Pulo Sapata, S. b. E. five leagues, and the westernmost, or Great Catwick, S. W. b. S. four leagues, by estimation. They passed to the westward, in the channel, between Pulo Ceicer de Mer and the Catwicks, in soundings fifty to forty fathoms, shoaling to thirty fathoms, as they advanced to the westward.

About 1801, an American ship, commanded by Captain Benners, from China, made Pulo Ceicer de Mer, and was confident of its being the Brothers. He observed the latitude with it bearing nearly west, and made it in $10^{\circ} 32'$ north, no other land appearing at the time. It was pointed out to him clearly in 1804, at Canton, that it was Pulo Ceicer de Mer, and not the Brothers, he had seen in his former voyage.

Fleurieu's publication of Marchand's Voyage mentions, that, "on Lieutenant Roberts's General Chart of the World, to accompany the narrative of Cook's Third Voyage, the Two Brothers are placed N. 40° E. from Pulo Sapata about fifteen leagues." And on Mr. Dalrymple's chart of the China Sea (he says) the Brothers are "placed N. 17° W. off the largest Pulo Sapata thirty-three miles."

Captain Marchand, in the Solide, saw the Brothers, and afterwards Pulo Sapata, and by an approximation of the Solide's run from the parallel of the Brothers, to the parallel of Pulo Sapata, Cit. Fleurieu makes the Brothers N. $21^{\circ} 20'$ W. from Pulo Sapata thirty-five $\frac{2}{3}$ miles.

What the Solide took for the Brothers, was Pulo Ceicer de Mer; and the distance of its center from Pulo Sapata is about thirty-four or thirty-five miles, and bears about north 20° west from it; and from the Great Catwick, nearly north, eight to eight and a half leagues. The two hills on Pulo Ceicer de Mer, at a distance, and the rocky islet off its N. W. end, when near it, are the causes of its being set as islands, or the Brothers.

The American ship Devotion, Sept. 6th, 1803, bound to Canton, "steering N. E. b. E. at 2 A. M. saw Pulo Sapata, bearing S. S. E.; same time Middle Island, south four miles. Hove to head to the westward. At 6 A. M. saw Round Island, called the Great Catwick, bearing N. b. W.; passed through between it and a rock, that is distant from it about four miles on the north side. This passage I found free from danger. At noon, the land on the northern board bearing from north-west to north, which is, I suppose, the islands called the Brothers, and Pulo Ceicer de Mer. Latitude observed at noon $10^{\circ} 41' N.$ "

The only land mentioned above, in which they were not mistaken, was Pulo Sapata. What they call Middle Island, was the Great or Westernmost Catwick. What they call Round Island, or the Great Catwick, was Pulo Ceicer de Mer,

between which and the rocky islet of its north-west end they passed ; and the land at noon bearing from north-west to north, which they suppose to be the Brothers, and Pulo Ceicer de Mer, was the high land of the continent, from Cape Padaran to the westward ; the gap in the high land to the westward of the cape inducing them to think this land was islands.

How liable strangers are to be deceived, in this part of the China Sea, by islands delineated on the charts which have no existence ; and the relative situations of those really existing being incorrectly laid down !

The commander of an American ship, returning from China about 1797, being early in the season, experienced a strong current to the westward, by making the high land on the coast of Cochin China, between Cape Varela and Cape Padaran, and imagined it to be high islands of the Paracels.

The American ship *Lovely Lass*, Captain Galloway, returning from Canton by the outer passage, steering S. W. had run sixty-one miles on that course from the preceding noon. When she saw the land at 6 A. M. October 10th, 1801, bearing from W. b. N. to W. S. W. twelve or fourteen leagues, having made only $1^{\circ} 56'$ W. meridian distance from Grand Ladrone in a run of five days. From seeing the land at 6 A. M. they steered south three miles, and S. b. E. twelve miles, the land bearing from W. N. W. to S. W. twelve or fourteen leagues ; then 10 A. M. after which they did not take any bearings. From 10 A. M. to noon steered S. b. E. eight miles, and observed in latitude $12^{\circ} 24' N.$

This land, seen by the *Lovely Lass*, which they thought was high islands on the southern part of the Paracel Bank (as they describe them) must have been the high land on the coast of Cochin China ; by their run from first seeing the land to noon observation. The land first seen at 6 A. M. was the chain of mountains, of which Cape Varela forms the projection to seaward. The southernmost extreme set at 10 A. M. was the high mountain forming false Cape Varela.

The *Lovely Lass*, having made the high land of Cape Varela on a south-west course, proves that she must have crossed over that part of the China Sea, where the Bank of the Paracels is placed in the charts, between the latitudes 13° and $14^{\circ} N.$ or between $12^{\circ} 50'$ and $15^{\circ} 50' N.$ allowing a westerly current to have prevailed at the time. But, at the time they made the coast, they say in the journal (viz. Captain Galloway's) that the current was setting to the eastward : if it had been setting in this direction, on the day they made the land, and that preceding, the *Lovely Lass* must, in this case, have entered on the eastern part of the Paracels Bank, as represented on the charts, to the northward of 14° north latitude. The track of the *Lovely Lass*, and other ships, which have been set by a westerly current

over the southern part of the Paracels, according to their situation on the charts, proves that the southern limit of this group of shoals is far to the northward of the generally supposed one, or that there can be only detached dangers to the southward of $14\frac{1}{2}^{\circ}$ or 15° north latitude, with extensive channels between them. Observations made on the swell, in running down to the westward of these shoals, seem to give weight to this opinion.

The tracks of many ships seem to establish the non-existence of the Brothers, or any other islands hereabout, except Pulo Ceicer de Mer, Pulo Sapata, and the Great and Little Catwicks, in the offing; and Pulo Ceicer de Terre near the shore.

Exclusive of the ships already mentioned, who have traversed the space of sea to the northward of Pulo Sapata, many others have sailed on various courses, without perceiving any islands (or dangers) besides those already mentioned.

The ship Favourite, of Calcutta, returning from Canton in December 1787, made Pulo Ceicer de Mer, when blowing strong and thick weather: they supposed it was the southern island of the Scorpion's Tail; hauled out to the south-eastward, and soon saw Pulo Sapata, which they passed on the east side.

Snow Victoria, from China, December 9th 1789 made Pulo Ceicer de Mer, bearing S. b. W. $\frac{1}{2}$ W.; passed on the east side of it at three or four leagues distance, and then between it and the Catwicks, in the night.

Ship Nerbuddah, returning by the outer passage from Canton, made the high land about Cape Padaran, and shortly afterwards saw Pulo Ceicer de Mer S. S. W.; they passed to the westward of the island, between the islet of its north-west end and Holland's Bank, on the 4th of November 1792.

About 1789, in October, a ship from Bengal stood over to the eastward, about twenty-six leagues from Pulo Sapata, crossing over the position of the Andrada without seeing it. Then tacked with the wind from N. E. and N. N. E. keeping on the starboard tack until in sight of the coast of Cochin China; at which time they tacked to the eastward, and passed over the space assigned to the Paracels, between 12° and 13° north latitude, reaching Manilla on this tack.

In November 1800, the Ship Anstruther, returning from Canton by the Inner Passage, being thick weather, did not see the coast until near Padaran Cape; afterwards she passed to the eastward of Pulo Ceicer de Mer and Sapata, with blowing weather.

Four ships, returning from Canton in company, bound to Malacca Strait, on the 22d of September were abreast of Padaran Bay, when one of them, by making a long tack off shore, could not regain it, the current setting to the south-eastward; she passed to the eastward of Pulo Ceicer de Mer at a great distance, and so far to the

northward of Pulo Sapata, and eastward of that island, that it was not seen from the mast-head. This was in 1803.

The ship *Lord Castlereagh*, of Bombay, in December 1804, returning from Canton by the Inner Passage, went on the east side of Pulo Ceicer de Mer, at a small distance, and then between it and the Catwicks. The tracks of these ships, and many others, favour an inference that the sea is clear of dangers, or islands, for a great space to the northward of Pulo Sapata.

The channel between the Great Catwick and Pulo Ceicer de Mer is wide and safe; that between the Great and Little Catwick appears safe with a favourable breeze in the day, but is seldom used, on account of the reef projecting from the Little Catwick. Many ships however, in cases of exigency, have passed through this channel; and the journals of some others give reason to conclude, that they passed between Pulo Sapata and the Little Catwick in the night, when blowing strong. But by the journals, it cannot positively be learned whether they passed between Pulo Sapata and the Little Catwick, or between the latter and the Great Catwick. Pulo Sapata seems bold to on all sides; but if there is a channel between it and the Little Catwick, it must be narrow, from the reef encompassing this little pyramidal island.

The only account which appears to prove the existence of a reef, to the south-eastward of Pulo Sapata, is that of the Swedish ship *Gottenburg*, in 1744, whose boat is said to have sounded on a reef, having thirteen or fourteen feet water on it when the body of Pulo Sapata bore N. W. b. W. three or four English miles, and deepened to twelve fathoms, standing towards the island. Many people suppose they see this danger in passing Sapata, but differ greatly both in the bearing and distance from the island; some placing it within three miles, and others at three leagues distance from Sapata. Strong rippings, which prevail hereabout, occasioned by changes of current, or a kind of tides, may often seem like breakers, and be marked as dangers, which has frequently happened. But many are of opinion that no reef or danger exists near Sapata on the south-east side. However, by forming an opinion from the whole mass or aggregate of recent descriptions relative to this danger, it is possible that it exists, and must be from three miles to three leagues distant from Sapata; for the island is steep to on the south-east side, several ships having passed very close to it on this side, in cases of emergency. In the American ship, *Caledonia*, they say it is about from two to three leagues off Sapata; high breakers on its north end when they passed very near it, blowing strong with a high sea, returning from Canton in November 1802. But supposes there is about two fathoms on the shoalest part, and will not be easily perceived in moderate weather.

There is some reason to think the Andrada Rock does not exist, from the various positions assigned, by those who are said to have seen it. In some charts it is placed a little under 10° N. latitude, and generally twenty-two to twenty-four leagues eastward from Pulo Sapata. Two Portuguese commanders, belonging to Macao, are said to have seen it; one of them makes the latitude $10^{\circ} 13'$ N. and the other $10^{\circ} 17'$ N.

Captain Galloway, in his journal of the American ship *Lovely Lass*, from China, October 12th, 1801, observed the latitude $9^{\circ} 45'$ N. at noon, and sets the Andrada Rock bearing E. by N. six or seven miles; and four hours afterwards, had three distances of Sun and Moon, which made the rock in longitude $110^{\circ} 18'$ E. and in latitude $9^{\circ} 47'$ N. from observation at noon.

So great a discordance in latitude is inconceivable, and induces a belief that neither of them saw a rock; but possibly some large drifts from the Cambodia rivers (which are common) may have been taken for the Andrada Rock.

On the same passage Captain Galloway, in the *Lovely Lass*, October 17, 1801, passed close to a shoal in a squall; the journal describes it as a shoal of white sand, nearly even with the water's edge, about a cable's length in diameter, and their distance not above half a cable's length from it when it was observed, the water being smooth at the time. He makes it in latitude $6^{\circ} 48'$ N. by account from the noon observation taken three hours before; and exactly on the meridian of the North Natuna, which island he saw twenty-five hours after passing the shoal.

Being so close to this spot, Captain Galloway thinks he could not be deceived; notwithstanding, it may be possible that it was a patch of white coloured fish spawn (called sea saw-dust by Captain Cook) in a limit separating contrary currents.

The Vigio, to the north-east of Pulo Sapata, placed on the charts, is said to have been seen by the ship *Fanny* from Bombay, on the 12th of September 1803. They passed Pulo Sapata at five leagues distance, and two days afterwards saw the Vigio at 5 P. M. 12th September, right ahead. "At 6 P. M. the Vigio, a low and extensive reef, with a tree on its western extreme, a rock towards its eastern extreme, making like a boat's lug-sail, with several rocks between them; the tree then bearing N. b. E. and the eastern extreme of the reef N. E. b. N. distant from us two miles." Latitude of the reef, deduced from noon observation, $11^{\circ} 17'$ N. and its longitude from Pulo Sapata $1^{\circ} 13'$ E. measured by chronometer, which makes it bear N. 44° E. from Sapata 105 miles.

Notwithstanding this explicit description, it is difficult to affirm how a shoal thus depicted can exist in this situation without being often seen. The track from China,

by the Outer Passage, when ships navigated by dead reckoning, being often right towards it; as also is the track of ships going to Canton late in the season. By chronometer, in a thirty hours run from Pulo Sapata, we have passed in a clear day, within two miles of the position of this danger, as here described, and saw nothing, nor did apprehend any danger near us.

Late in the season bound to Canton, ships generally after passing Pulo Sapata, at a few leagues distance, steer N. E. or N. E. $\frac{1}{2}$ N. which courses ought to carry them near this Vigio; the latter course, if a ship passes Sapata at several leagues distance, should carry her well to the eastward of it; and the former course, in this case, right towards it, if there is no westerly current. Numbers of ships, returning from Canton, must often pass very near this situation, when navigating by dead reckoning. Several have been upwards of a degree to the eastward of Pulo Sapata, when on its parallel: and the Gunjavar not obtaining sights for chronometers, in returning by the Outer Passage, until to the southward of Pulo Sapata, found, when altitudes were obtained, that they were $1^{\circ} 40'$ east off Sapata, when on its parallel.

During a period of many years, numbers of ships having crossed over the positions assigned to the Vigio, mentioned above, and that of the Andrada Rock, without seeing either, creates a doubt whether these dangers really exist so near Pulo Sapata as generally supposed. There seems great reason to think, that the nearest danger to the eastward of Pulo Sapata is two degrees distant from that island, or more. However, it is certainly proper to look out for the Vigio, as described by the *Fanny*; and the Andrada and shoal seen by the *Lovely Lass*.

Conformable to what has been said at the beginning of this article, of ships blundering through the western part of the China Sea, two recent examples may be noticed. Last season two ships from China, under the convoy of his Majesty's ship *Dasher*, went by the Inner Passage: they steered too much off shore; made Pulo Sapata and the Catwicks in the night; then blowing strong, were obliged to push through between them. This was dangerous, the weather being dark and unfavourable at the time, and breakers were seen in passing through.

In the same season, 1804-5, the fleet, consisting of nine sail of European ships, under convoy of his Majesty's ship *Atheniense*, returned from China by the Outer Passage. They saw the Great Catwick at midnight, March 13th, and passed it on the east side, at from two to four miles distance, concluding it to be Pulo Sapata. Several of the ships saw Sapata, and also the Little Catwick; but, from their white appearance by moonlight, judged them to be strange sails. The easternmost ship saw breakers, which must have been on the reef that projects from the Little Catwick, a great way to the westward.

II. OF TY-FOONGS *, OR STORMS IN THE CHINA SEA.

THESE tempests are generally confined to the northern part of the China Sea, between the Island Hai-nam and Formosa: there are also severe storms happen near the north end of Luconia; and to the eastward of this island the Bashees and Fomosa; also from Formosa to the Japan Islands: (the latter are called by the Chinese Yat-poon †, or Country of the Sun, from Yat the sun, and Poon a country, expressive of the sun emerging in the mornings from the ocean adjacent to these islands). Ty-foongs are most severe when near the land. As the distance from the China coast is increased to the southward, a proportional decrease in the strength of them is experienced, their violence seeldom extending so far south as 16° N. latitude.

Ty-foongs frequently commence without any previous indication of their approach. A serene sky, with the horizon remarkably clear, is not always a favourable aspect on the coast of China or near it; for often a series of fine weather and calms, favouring the augmentation of heat above the medium temperature, is followed by a Ty-foong, which near the coast generally commence at N. W. or N. N. W. and veer suddenly to north-east and eastward, where they often blow with inconceivable fury, rising the sea in turbulent pyramids, which impinge on each other. From eastward they veer to south-east and southward, then abating in violence. This rotary motion of the wind does not always prevail in Ty-foongs, especially at a considerable distance from the China coast. In such case, after commencing as before at N. W. or N. N. W. they frequently veer to west and south-west, blowing very severe; from thence veering to south and south-east, become moderate in that quarter.

These storms have been known to happen in every month of the year, except January, February, March, and April; but, exclusive of these months, a Ty-foong has seldom been experienced severe in May, November, or December. August, September, and October, are the periods most liable to them, particularly near the equinox in September, appears to be the most precarious time, and the more so, if the change or perigee of the moon coincides with the equinox. Four different sea-

* Ty-foong: great or mighty wind: from Ty, wrote 大 which signifies great, mighty, powerful, supreme; and Foong, wrote 風 signifying wind, in the Chinese language.

† Yat, wrote 日 signifies the sun, or day; and Poon, wrote 邦 signifies country or empire, in Chinese: also called Yang.

sons, when this was the case, Ty-foongs happened on the coast of China; and in three different years ships have been dismasted near the coast lately, on the night of the 21st of September.

On the 13th of September 1798, a Ty-foong did considerable damage; and about the 15th September 1802, the Nautilus of Calcutta, and a Spanish frigate, were lost in a storm near the Lema Islands.

The great violence of a Ty-foong does fortunately soon subside: but gales of wind sometimes blow from the east-north-east or north-eastward steady, for several days, in September and October, near the coast of China: these, however, are not frequent. Some years there is no Ty-foong on the south coast of China; at other times, two or three of these storms have been experienced during one year.

In the months of June, July, and sometimes August, near the coast of Cochin China, and between it and the Island Hai-nam*, from 14° to 19° N. latitude, gales of wind are experienced, which commence from N. N. W. or N. W. out of the gulph of Tonqueen: these gales blow severe, with dark weather and a deluge of rain. From north-west; they commonly veer to west and south-west, and then to the southward, where they abate.

On the west coast of Luconia, or near Cape Bolinao, in September, October, and November, gales are sometimes known. They mostly commence from N. N. W. or N. W. and blow strong, veering to west, and afterwards to south-west or southward, still blowing strong. Heavy falls of rain generally attend these gales, and a cross turbulent sea.

The prognostic of a Ty-foong, described in the Directory, by the clouds having a red appearance, is not a good criterion to judge by: for a hazy atmosphere on the coast of China, preventing land from being seen at great distances, generally prevails in medium or settled weather. And often at the rising or setting of the sun, particularly at sun set, the clouds all round, especially those opposite to the luminary, are tinged with a heavy red by the reflected light, when settled weather. This appearance has often been mistaken as an indication of a Ty-foong.

Neither is an irregular swell a sure warning of a Ty-foong: for frequently a cross swell is prevalent on the coast of China, and near it, in settled pleasant weather. When the summits of the hills, or islands, are completely obscured in deep black clouds, and the horizon below clear in some places, there is then some irregularity

* Hai, wrote 海 in Chinese, signifies sea; and Nam, wrote 南 is south. Hainam (Sea South), or, in South Sea.

in the atmosphere; but generally speaking, Ty-foongs are seldom preceded by any certain sign or indication. The best method to anticipate these storms, is to attend carefully to the marine barometer, for the south coast of China, being situated not far to the southward of the tropic of Cancer: a marine barometer, if well constructed, (which Troughton's are in general) will be liable to a greater fall of the mercury than might be expected in such latitudes, previous to these storms.

In latitude 18° N. on the 21st July 1804, proceeding by the Inner Passage to China, in passing from the coast of Cochin China across the gulf of Tonqueen, the mercury fell considerably before the commencement of a gale of wind from the west-north-westward, out of the gulph, preceding and during the storm; in a marine barometer, by Troughton, the mercury fell from 29.65 to 29.05, being a remarkable great fall for this latitude.

Although it has been observed, that August, September, and October, are the months most liable to Ty-foongs on the coast of China, implicit confidence is not due to such observation; for the severest Ty-foongs have happened either in June or July for several years preceding 1805.

III. DIRECTIONS FROM MACAO ROAD TO BOCCA TIGRIS.

ABOUT the equinox in September, or at a period when a Ty-foong may be apprehended, a ship, by proceeding upwards to Lintin, or further, will have less wind and sea, should one of these storms ensue, than if anchored in Macao Road.

In a Chinese boat, when procurable, or in the ship's cutter or pinnace, an officer may be sent to Macao for the river pilot, while the ship may proceed upwards without anchoring, if the tide or wind is favourable. Abreast of Macao the water is shoal, nearly to the islands on the east side of the channel, but deeper near the islands than it is towards the western shore; and in passing upwards it deepens fast on the eastern side of the channel towards Lantao.

Most of the channels between the islands eastward from Macao are safe to pass through, but in some places are rocks very little above water; and one or two even with the water's edge, which require a good look out. One of these rocks is said to lie at a small distance from the Grand Ladrone, in the channel to the north-eastward of it. There is said to be a bank on which a ship grounded, at the south side

west point, in latitude $20^{\circ} 52' N.$; longitude $116^{\circ} 34' E.$ South-east point, latitude $20^{\circ} 38' N.$; longitude $116^{\circ} 26' E.$ South-west point, in latitude $20^{\circ} 39' N.$; longitude $116^{\circ} 35' E.$: and Pratas Island, in north latitude $20^{\circ} 47' N.$; longitude $116^{\circ} 37' E.$

In April there is light southerly winds, and land and sea breezes on the west coast of Luconia. A ship will get to the northward speedily here at this time; and also up the coast of Cochin China in the same month: In March the current runs constant to the southward, from Pedro Branco, in the entrance of Sincapour Strait, to Pulo Timoan, and light winds are prevalent from north-eastward, which retards a ship in her progress to the northward hereabout, at this period.

VI. ILLUSTRATIVE DESCRIPTION OF THE INNER PASSAGE FROM CHINA:

THE passage to China by the Macclesfield Bank has been preferred during the strength of the south-west monsoon. In returning from China, the same track perhaps will be most expeditious during the months of March and April: but at every other time of the north-east monsoon, the Inner Passage, by the coast of Cochin China, seems preferable. It is shorter than the route by the Macclesfield Bank, but the great advantage derived, is the ease afforded to ships leaving the Grand Ladrone, by steering immediately before the wind, when blowing strong: whereas, being obliged to steer about south-south-east at these times, for the Macclesfield Bank, which frequently brings the wind and sea before the beam, strains deep loaded ships greatly, in proceeding by the outer track. Many ships, in blowing weather, destined to Malacca Strait, have strained so much on hauling up for the Macclesfield Bank, as to render it needful to bear away for the Inner Passage, that they might be enabled to gain upon the pumps. Other ships, by persevering in the Outer Passage, have laboured and strained exceedingly by the cross sea, in hauling up for the Macclesfield Bank: and three ships have been lately known to founder from this cause; in one of which upwards of a hundred men perished, exclusive of other missing ships which have sailed from Chira. Had those ships, in place of carrying sail in crossing from the coast of China towards the Macclesfield Bank, at leaving Macao, steered S. S. W. $\frac{1}{2}$ W. the direct course for the Inner Passage, they most probably would

not have strained in the least ; whereas some of them strained so much, as to start some of their butt ends, and consequently soon filled with water.

Probably, a well found and fast sailing ship, from Canton River, bound to the straits of Malacca or Sunda, will make a shorter passage by adopting the route to the westward of the shoals, than by any of the eastern passages, either to the eastward or westward of Luconia, during any period of the south-west monsoon ; provided she embraces the opportunity of sailing from the river with a south-easterly or favourable wind, which often prevails for several days at a time, during the south-west monsoon.

Several ships, of late years, have left Canton River in August and early in September, bound to Malacca Strait ; and, proceeding by the Inner Passage, along the coast of Cochin China, generally reached Pedro Branco, and sometimes Malacca, in thirty days. Ships bound to India, have left the Grand Ladrone in May ; and in every month of the south-west monsoon, have proceeded by the Inner Passage to Malacca Strait, except June and July. In July, and the latter part of June, perhaps no English ships have chosen the Inner Passage from China ; but in these months, passing up the coast of Cochin China, we experienced very little current to the northward. In those months, the land winds prevailing in the night, must greatly favour a ship's progress to the southward, especially if she keeps near the shore in the night, and stands well into the bays, with the south-easterly breezes in the day. When a ship in this season approaches Cape Padaran, she will generally benefit no more by land breezes in the night ; but a fresh south-westerly monsoon, and sometimes a lee current, will be experienced. The passage from hence to Pulo Aor may be tedious, the prevailing winds being from the south-westward.

If near Cape Padaran, and blowing strong from the south-westward, about the full or change of moon, shelter may be taken, there being anchorage in a small concavity, or indentation of the land, on the south-west side of the bay, where there is fresh water. There is a harbour at the bottom of this great bay ; the entrance is between two reefs, and rather narrow : in the harbour is from four to five fathoms soft ground. The coast of Cochin China furnishes several good harbours between Padaran Bay and 14° N. latitude, almost every inlet being a safe harbour.

When abreast of Cape Padaran, and continuing to gain ground, work to the westward, keeping near Pulo Ceicer de Terre ; and when past it, work near the land until near Britto's Bank, passing without it : may then stretch over for the coast of Cambodia, and work along it to Pulo Oby. The soundings are very regular along this coast, and the land scarcely visible from the deck in eight or nine fathoms water, it being remarkably low. These depths appear sufficiently near for a large ship to

stand to on most parts of the coast of Cambodia. When tacking in eight fathoms, to the north-westward off Pulo Condore, the land was just visible from the deck, like a low wall nearly even with the horizon: eddies within us, at no great distance, seemed to indicate more shoal water on some of the flat banks contiguous to this low coast.

From Pulo Oby, if the wind does not incline much from the southward, a ship will speedily reach the coast of Tringany; and, keeping near the land, will soon proceed to the strait of Sincapour, by the help of squalls or breezes from the coast. If requisite, she may keep the Malay coast on board, and pass to the westward of Pulo Timoan, Pulo Tingy, and the islands, in soundings of eight and nine fathoms, which is safe in the day; and when amongst the islands in the narrow part of this passage, it may be proper to anchor at night, on account of some rocks very little above water, but may be always observed in day-light. There is generally weak tides among these islands near the shore. When approaching the north part of the reef off Point Romania, must keep at a greater distance from the low land in entering the strait of Sincapour.

Notwithstanding what has been mentioned, relative to the passage from Cape Padaran to Sincapour Strait, if the current is found to run strong on the coast of Cambodia against a ship, and prevent her from gaining ground, it may be in such case proper to stand off from the land to a reasonable distance, where it may happen that the current is weaker than near the shore.

American ships depart from Canton River in every month of the south-west monsoon; and several of them make a direct passage to the southward by the Macclesfield Bank: but whether they reach the straits of Banca or Gasper, it is not positively ascertained. It is probable they either proceed to the westward of Borneo, or between Mindora and the Calamianes.

VII. APPOSITE REMARKS FOR THE INNER PASSAGE FROM CHINA, DURING THE NORTH-EAST MONSOON.

THE latitude of Canton Factories is $23^{\circ} 07' 10''$ N.; and by mean of five immersions, and seven emersions of the first satellite of Jupiter, the longitude 113°

14' E. from Greenwich. The Grand Ladrone, called by the Chinese Ty-man-shan*, is in latitude $21^{\circ} 57'$ N. and thirty miles east from the meridian of Canton Factories, by mean of many chronometers. A direct course S. S. W. $\frac{1}{2}$ W. from this island, will carry a ship about mid-channel, between the Taya Islands and the St. Esprit Bank. The latitude of the northernmost Taya Island is $19^{\circ} 57'$ N. and it is $2^{\circ} 37'$ W. from Grand Ladrone by chronometer. These islands are high, particularly the northernmost and southernmost, which extend about N. E. b. N. and S. W. b. S. from each other five or six leagues. From the southernmost island, a high sand bank projects to the north-north-eastward several miles; the soundings very regular to the eastward of it, twenty and twenty-one fathoms, at three miles distance. The Taya Islands are barren and rugged; the channel between them and Hai-nam Head is wide and safe. It has been also mentioned by a Hai-nam pilot, that there are safe channels between some of them. The latitude of the St. Esprit Bank is said to be $19^{\circ} 30'$ N. but of extensive limits: the longitude, or true situation of this bank, is very imperfectly known; it probably bears about S. b. W. $\frac{1}{2}$ W. from the Grand Ladrone. In 1789 the Milford got upon its eastern verge, perceiving the rocks alongside, on sounding had eight fathoms; had several casts of this depth, when they hauled to the eastward, and suddenly got out of soundings on the bank. There is supposed to be danger on the north-west part of this bank, for which reason it has generally been avoided. The Grosvenor had 6 $\frac{1}{2}$ fathoms; and, as few ships have passed over it, there may be less water on some places of the coral ridges. But few vessels having got soundings on the St. Esprit Bank, gives room to suppose that its extent is confined within narrower limits than represented on most of the charts. From the Grand Ladrone to the latitude of 17° N. the current seldom runs strong in the north-east monsoon, except when blowing strong, or near the land. In the months of September and October, from the entrance of Canton River, it sometimes sets in a direction between W. S. W. and W. N. W. from one and a half to two miles an hour, sweeping along (and through the channels amongst) the islands to the westward of Macao. Here a westerly current, generated by the freshes from the river, seems to prevail in most months of the year, but not constant, there being a kind of tides at times.

As the distance from the coast is increased, a decrease of the westerly current ensues; and it seldom runs above a mile an hour, in the direct track from the

* In the Chinese language, Ty, or 大 great, &c.; and Shan, wrote 山 is an insulated hill, mountain, or a high island.

Grand Ladrone to 17° N. latitude, going the Inner Passage ; and mostly governed in its direction and velocity by the course and strength of the wind.

A course steered from the Grand Ladrone S. S. W. $\frac{1}{4}$ W. will, if not effected by oblique current, place a ship about $3^{\circ} 00'$ W. from Ladrone, when she has reached the parallel of 17° N. latitude, which is well to the westward of the north-west limit of the shoals: this limit is uncertain, but does not exceed $2^{\circ} 46'$ W. from Grand Ladrone, and probably much less.

These shoals, commonly called *Paracels*, are the same group as those distinguished by the different names of *Triangles*, *Amphitrite*, *Spectacles*, *St. Anthony's Girdle*, *Lincoln*, &c. The easternmost danger of this group (or chain of groups) is probably that seen by the *Bombay Merchant*, 19th May 1800 ; an extensive reef of breakers, in the form of the letter Δ , with the angular point to the eastward, and small rocks appearing above water, when within three quarters of a mile of it. Each of the legs appeared six or eight miles in length, forming a smooth harbour apparently between them, with an entrance to the westward. The latitude of this shoal, by noon observation, was $16^{\circ} 06'$ N. ; longitude by sun and moon, at 4 P. M. $112^{\circ} 48'$ E. and by chronometer made it in $112^{\circ} 54\frac{1}{2}'$ E.

The *Middlesex*, in 1789, on the passage to China, saw a reef with some rocks above water, in latitude $15^{\circ} 58'$ N. which probably was the same seen by the *Bombay Merchant*. The shoal seen by the *Earl Lincoln*, in latitude about $16^{\circ} 35'$ N. is perhaps very little to the westward, or nearly on the same meridian with that seen in the *Bombay Merchant*: but, excepting the shoal determined by this ship, there appears to be no other belonging to the *Paracel* group, whose position in longitude is known.

The northernmost limit of danger is about $17^{\circ} 03'$ or $17^{\circ} 04'$ N. seen by the *Abergavenny*: the longitude uncertain.

The western and southern limits of this group are unknown. Although in most charts the southern part of them is placed from $11\frac{1}{2}^{\circ}$ to 12° N. latitude, it is probable, if a survey is made, that they may not extend so far to the southward as 14 degrees ; and probably be found, that their southern limit is not far from 15° N. latitude.

From the Grand Ladrone, $2^{\circ} 50'$ W. by chronometer, is clear to the westward of all danger, as far to the southward as $16^{\circ} 12'$ N. And $3^{\circ} 30'$ westward from it, is to the westward of the group down to $13^{\circ} 50'$ N. And probably three degrees west from Grand Ladrone may be clear to the westward of their western limit.

The northern limit of this group of shoals, being apparently $17^{\circ} 04'$ N. and the eastern limit $112^{\circ} 54'$ E. from Greenwich, or fifty miles west from meridian of Grand

Ladrone, it will probably be discovered, on investigation, that their extent on a meridian does not much exceed two degrees to the southward; nor their greatest extent, on a parallel to the westward, much above a degree, or one and a half degree of longitude: although, from the general obscurity in which this group of shoals has been so long enveloped, it is impossible to assign, with precision, any southern, or western limits to them. They are said to be reefs of coral rocks, interspersed with sand banks, having wide channels between some of them; and several low islets, with shrubs and fresh water on two or three of them, seem to be situated near the northern part of the group, between the latitude of $16^{\circ} 30'$ and 17° N.

Being in latitude 17° N. and 3° W. from Grand Ladrone by chronometers, or about $3^{\circ} 10'$ W. if by account, may then steer S. $\frac{1}{2}$ W. to S. b. W. until $3^{\circ} 30'$ W. from Ladrone by chronometers or account; continuing the same course to the southward, as circumstances may require.

In case of thick weather, precluding a knowledge of the longitude by chronometers, and by a stronger westerly current than expected, the Island Pulo Canton is seen; there is a wide channel between it and the main land, with soundings generally from 26 to 34 fathoms in it, which may be chosen, if Pulo Canton cannot be weathered. This island is in latitude about $15^{\circ} 24'$ N. and $4^{\circ} 37'$ W. from Grand Ladrone by chronometers. There is a low island at a few miles distance, off the north-west end of Pulo Canton, with foul ground to the northward of it: and, it is supposed, there may be some shoal water over the foul ground, said to be situated a little northerly from Pulo Canton. This island is high, and of a level appearance when seen from the southward, and may be seen from the deck at eight or nine leagues distance. It is inhabited and cultivated on the west side.

The coast of Cochin* China is mostly all high land; and safe to stand to near the shore, there being no dangers but what are generally visible above water; and the depth is in most places sufficient for ships of any description, within a very small distance of the shore. On the northern part of the coast, there are land breezes at times in the mornings, near the shore, in the early part of the north-east monsoon; and also to the southward, light land breezes happen at times in November. In this month, about Turon, light land and sea breezes have been experienced, with occasional calms; and sometimes strong north-east gales, with much rain and dark cloudy weather. But, in general, the wind most prevalent, even in November and October, and frequently September, is the north-east monsoon, from Cape Turon to Cape Padaran.

* It is by the Chinese called Onam.

The coast of Cochin China abounds with bays and harbours. The following are the best harbours, most of them fit for large ships :

Turon Bay, or Harbour, is safe for ships of any size, where they are sheltered from all winds. Cape Turon, which forms the south-east entrance into the harbour, is in latitude $16^{\circ} 05' N.$ and is $5^{\circ} 23' W.$ from Grand Ladrone by chronometers.

The Island Cham-Callao, or Champella, distant about six leagues from Cape Turon to the south-eastward, affords a channel between it and the main; the depth of water generally from six to eight fathoms, which may be estimated a harbour, the island and main affording shelter from most winds.

Cape San-ho, which is a high bluff point of land, and the eastern side of the entrance into the harbour of Quinhone, is in latitude $13^{\circ} 44' N.$ This cape has some small islands off it, and a little to the northward. Cape San-ho must be passed very close in going into Quinhone Harbour, the western part of the channel being very shoal towards the sandy point. There is deep water in the harbour, and it is very secure when in it; but there is a bar at the entrance, which is thought to have only 3 or $3\frac{1}{4}$ fathoms on it, even though keeping close to the eastern shore, which will prevent large ships from entering this harbour.

Phuyen Harbour is one of the best in the world. The entrance is in latitude $13^{\circ} 22' N.$ about four leagues to the southward of Pulo Cambir, having ten or eleven fathoms water, on either side of a small island lying nearly in the middle of the opening, which is about two miles wide. The entrance leads into three harbours; that to the north-westward, called Vung-Chao, is the best, being completely land-locked, and is spacious and secure, with a cultivated country around.

The harbour on the south side of Cape Varela, called Ong-ro by the natives, and by Mr. Dalrymple Varela Harbour, is small, but appears safe. The funnel over the cape, kept N. N. W. is a leading mark into the entrance of this harbour, soundings nine, eight, and seven fathoms in the middle, shoaling on each side. There is fresh water on the western side of this inlet or harbour. About seven leagues to the southward of Cape Varela is an opening into a spacious bay or harbour, on the south side of which is the harbour and village of Hone-Cohe; and on the north part of this bay are several islets near the entrance of a cove or harbour, which is a kind of basin environed by high land, with soundings in it from fourteen to eighteen fathoms, secured from all winds: but there are no supplies procurable here, it being inhabited by a few fishermen.

Tre Island is in latitude $12^{\circ} 16' N.$ which forms a good harbour within it, there being a passage both to the northward and southward of Tre Island into the harbour;

the soundings seven, eight, and nine fathoms, in the channels between the island and the main. This harbour is formed by Tre Island to the north-east and eastward, and some small islands to the southward; between which and the shore, or between them and Tre Island, the passage is safe. These passages are narrow, and Tre Island, in passing along shore, appears as a projecting part of the main land; and to a stranger will appear so, until very close to the shore; and the channel or harbour within it beginning to open, which leads into a safe haven; in or out of which, by means of the different channels, the navigation is easy, though contracted. A little to the northward of this, is the road and small river of Nhiatrang; the city of this name being a few leagues inland: it is one of the strong posts of the king of Cochin China's dominions.

To the north-north-eastward off Tre Island, at six or seven miles distance, is an island generally called Pyramid Island, which is the most conspicuous in passing along the coast; there is some small islets near it, and one at a considerable distance to the northward.

Camraigne Harbour is one of the best on this coast; the entrance is in latitude $11^{\circ} 49' N.$ on the south side of a large island, taking a direction to the north-westward; the soundings are from sixteen to eighteen fathoms in the entrance, and the same depth nearly throughout the outer harbour, which is secured from all winds by the island without. To the north-westward of the outer harbour is the opening which leads into the inner one; this is also a safe and spacious harbour for ships of any size. Camraigne is the southernmost good harbour on this coast; Padaran being too contracted for large ships. A little southward of Camraigne entrance, there is an opening into a deep bason, having high mountains all round, which is little known.

In clear steady weather, or the wind settled from the north-eastward, any part of the coast of Cochin China may be approached with safety, and coasted along at any convenient distance; but when the weather is thick and unsettled, or the wind inclining from the eastward, it is then prudent not to make the land, until near Cape Varela; the wind from it to the southward seldom inclines much towards the shore, but mostly follows the direction of the coast in the north-east monsoon.

The Island Cambir is a sloping regular island, appearing low and level, when seen at a distance: close to the southward of it are some rugged rocks called the Two Paps. Pulo Cambir is in latitude $13^{\circ} 33' N.$ and nearly on the meridian of Cape Varela; it is about four leagues southward from the entrance of Quinhone Harbour, and nearly the same distance to the northward of Phuyen Harbour (or Vung Chao). Within Pulo Cambir is a safe channel, with different depths in it, generally from ten to fifteen fathoms. A little to the southward of it, and north-

ward from Phuyen Harbour, it is an opening into a small harbour called Couanong, fit for small vessels. A little to the southward of Phuyen entrance is the island Maignia; and about four leagues to the southward of this island, and 6 or 6½ leagues north-westward from Cape Varela, a high conical hill, or mountain, is situated by itself near the sea, called Conical Mountain (or Epervier by the French). Inland from this are high mountains, which terminate a little to the southward; whereby a chasm or valley is formed, between them and the Cape Varela chain of mountains, with low land in it facing the sea, around the bottom of the bay of Phuyen.

Coming from the northward, when Conical Mountain is seen, it may be useful as a mark, to point out the distance from Cape Varela; if night is approaching, or the funnel on the mountain over the cape obscured by clouds.

A little to the southward of Conical Mountain, is a piece of sloping, level land, having a perpendicular rock upon it, similar to the funnel (or pagoda) over Cape Varela, but is only seen when near the shore. The land at the bottom of the bay of Phuyen, between Conical Mountain and the cape, being low facing the sea, renders it dangerous getting into the bay in the night, or in thick weather; particularly with the wind blowing strong from the eastward.

About four or five miles N. ½ W. from Cape Varela, there is a large rock, with some small ones even with the water's edge, near it. This rock has a large stone uppermost, and appears when near, as if placed by art. A hole is perceived through below the upper stone, when abreast; from thence it has been called Perforated Rock. There is a channel between it and the main land, having twenty fathoms water in it, which may be used, if requisite. To the westward and north-westward of this rock is the bay of Phuyen; the land from Cape Varela projecting to the north-west, forms the bay.

Cape Varela is in latitude $12^{\circ} 55' N.$ and in longitude $109^{\circ} 25' E.$ from Greenwich; or from $4^{\circ} 19'$ to $4^{\circ} 20' W.$ from Grand Ladrone, by means of many chronometers; in clear weather it is easily known by a large and conspicuous rock*, resembling a funnel or pagoda, which is situated on the summit of the mountain, whose eastern declivity forms the projection of the cape, called Pagoda Cape by the Portuguese, from the near resemblance of the rock on the mountain to a pagoda. When the summit of the mountain is not obscured by clouds or vapours, the funnel or pagoda is conspicuous, and may be seen at sixty miles distance from the deck of a large ship, either from the northward or southward; but frequently a haze prevails over the land, especially in the north-east monsoon, preventing it from being seen at great distances. When

* The natives call it *Da-hia*.

first perceived in clear weather, coming from the northward, the projecting part of Cape Varela appears insulated from the mountain; the land between being lower than the steep cliffs which front the sea, and forms the cape. When abreast of Cape Varela, at a few leagues distance, the appearance of the land about it seems of the following aspect :



From the latitude of 15° the current increases in velocity to the southward; and when near the land, in the strength of the north-east monsoon, from latitude $14\frac{1}{4}^{\circ}$ or 14° N. to 12° or $11\frac{1}{2}^{\circ}$ N. it oftens runs to the southward, in the direction of the coast; at the rate of forty or fifty miles in twenty-four hours. Beyond these limits it is not so strong; nor is it constantly so, within the limits mentioned. From latitude 14° N. to Cape Varela, the course is about S. $\frac{1}{2}$ E. from Cape San-ho, and may be coasted at any discretionary distance in settled weather. If the land has not been seen before reaching the latitude of Cape Varela, it ought then to be approached close, and continued at a small distance in passing from hence to the southward.

Being abreast of Cape Varela, at from three to five miles distant from it, a south course, or S. $\frac{1}{4}$ E. is fair from point to point for six or eight leagues. In the night, steer south from the cape eight or nine leagues, to give a birth to Pyramid Island and the others near it. Pyramid Island is in latitude about $12^{\circ} 22'$ N. and will be perceived, when passing a few miles without it in the night (if clear), of a conical appearance, like a haycock. About nine leagues more to the southward, nearly in latitude 12° N. is the Water Islands, which are middling high; and may be perceived, when passing near them in the night. Being thus far to the southward, steer S. b. W. or rather more westerly; if the land seems above three or four leagues distant, to get a good sight of the mountain to the southward of Camraigne Harbour. This is an high oblong mountain. When near it in the night, coming from the northward, it may be distinguished from any of the other prominent head-lands, by its great magnitude, and high appearance; sloping down towards the sea with a gradual declivity. The steep cliffs, formed by this mountain towards the sea, are sometimes called False Padaran; but generally False Cape Varela, there being a rock on the mountrain inland resembling a little the pagoda over Cape Varela, but not near so conspicuous. The steep cliffs forming this False Cape * are in latitude

* Called by the natives Mui-davaich. Mui, signifies a cape, or head-land, in the Cochin Chinese language.

about $11^{\circ} 45' N.$ The southernmost part of this high land trends away to the south-westward, and forms the north side of the great bay of Padaran (or Phanran). Do not keep very close to this part of the high land, on account of a small island situated near the shore, with some foul ground about it. Forty fathoms water in this part is close enough to the land in the night.

When abreast of the southern part of the high land of False Cape Varela, steer S. S. W. or S. S. W. $\frac{1}{4}$ W. across the mouth of Padaran Bay. Here the current frequently is deflected from the contour of the coast to the S. S. E. which requires at these times a S. S. W. or S. S. W. $\frac{1}{4}$ W. course to counteract it, in crossing the bay in the night for Cape Padaran, to prevent being carried by the current at too great a distance from the cape.

Cape Padaran * is in latitude $11^{\circ} 21' N.$ and $4^{\circ} 44'$ West from Grand Ladrone by chronometers; it is a high piece of land, and the projecting part of the continent to the south-eastward; having the deep bay of the same name to the northward; and a neck of low land between it and the mountains to the westward, which makes it very conspicuous. When near Cape Padaran, to the southward, the neck of low land is seen, if near the shore; but at the distance ships pass, it is seldom perceptible; which makes Cape Padaran appear insulated from the mountain westward of it. This chasm in the land is generally called the *Gap of Padaran*; and by the natives *Caná*.

The distance from being abreast of the high land of False Cape Varela, across the bay to Cape Padaran, is about eight leagues; and when abreast of this bay in the night, the land is not seen to the westward, it being low at the bottom of the bay near the sea. There is soundings across the bay; forty to fifty fathoms being the general depth in passing, if not far out. From fifty-five or sixty fathoms, the bank shelves with a steep declivity to seaward; where no bottom is got with one hundred fathoms of line.

Steering across the mouth of Padaran Bay, S. S. W. to S. S. W. $\frac{1}{4}$ W. in the night, Cape Padaran will soon be perceived, a little on the starboard bow, or nearly ahead, which cannot be mistaken; there being no other land seen in the night in crossing the bay, from False Cape Varela Mountain, until Cape Padaran is seen to the south-westward, which will be visible at several leagues distance, unless the night is very dark.

When Cape Padaran is seen, steer towards it; passing at from one league to two leagues distance from it in the night. From this situation a course S. W. b. W. will

* Called by the natives *Mui-diu*.

be fair, to pass about the same distance without Pulo Ceicer de Terre ; but in passing Cape Padaran, if it is not above one or two miles distant, then a south-west course will be proper to steer, on purpose to pass a few miles outside of Pulo Ceicer de Terre.

Pulo Ceicer de Terre is in latitude $11^{\circ} 13' N.$ and $4^{\circ} 56' W.$ from Grand Ladrone by chronometers ; and bears from Cape Padaran about S. W. $\frac{3}{4}$ W. five leagues : is small, consisting of a heap of rocks, with a little grass on the central part. When first discernible, a small peak appears, like a boat's sail, or small turret ; this being the most elevated part of the island, and may be visible from the deck of a large ship, at $4\frac{1}{4}$ to 5 leagues distance. There is no danger about this island, except very near it. A sort of prong or spit of rocks projects out from the E. N. E. and W. S. W. extremities of the island, above and under water, to a small distance : and within it, towards the gap of Padaran, lies the bank of Breda ; between which and Pulo Ceicer de Terre is a channel of six or seven fathoms water.

Around the semicircular piece of land which forms Cape Padaran, the water is deep close to the shore, and continues so, until about half way between it and Pulo Ceicer de Terre : the depth then decreases to seventeen, fourteen, and twenty fathoms irregular soundings, when within four or five miles of this island. The soundings about Pulo Ceicer de Terre are, in general, irregular ; seven and eight fathoms when near it ; and overfalls from seventeen or sixteen fathoms, to nine or ten fathoms may happen, when to the southward of the island, at from three or four miles to three or four leagues distance from it : but the shoalest water is near the island ; it deepening in the south part of the channel, towards the Holland's Bank. Pulo Ceicer de Terre, north about four leagues, are overfalls from eighteen to twelve fathoms ; and when bearing from north to N. b. E. the depths are very uneven.

In standing to the southward from Pulo Ceicer de Terre, towards the Holland's Bank, the depth increases to twenty fathoms ; and sometimes to twenty-four, twenty-five, and twenty-six fathoms ; these being the general depths, near the north-west edge of the bank. The channel between the Holland's Bank and Pulo Ceicer de Terre, appears to be about six or seven leagues wide. And when Pulo Ceicer de Mer is not brought to the eastward of S. E. b. S. or S. E. $\frac{1}{4}$ S. it is probable there may be not less than seven or eight fathoms over most of the north-east parts of Holland's Bank. With the easternmost hill of Pulo Ceicer de Mer S. E. $\frac{1}{4}$ S. ; westernmost hill S. E. $\frac{3}{4}$ S. ; and the rocky islet, which lies about four miles from the north-west end of Pulo Ceicer de Mer, a little open with the south extreme of the island S. E. b. S. southerly, had twenty-six fathoms ; our distance from Pulo Ceicer de Mer, about five leagues, having run seven leagues on a S. b. E. course, from

tacking in 11 fathoms near the shore, westward of Point Lagan; from thence deepened to 26 fathoms, where we tacked, with Pulo Ceicer de Mer bearing, as described, without perceiving any part of Holland's Bank.

Although it seems probable, that the north-east end of this bank may not be dangerous, it is known that the western part is unsafe for large ships; particularly so, when the centre of Pulo Ceicer de Mer bears from E. b. S. to E. S. E. distant about 7 leagues; and the low part of the island, which joins the two hills, just discernible from the deck of a large ship, or an elevation of the eye, about 22 feet; the soundings close to this part of the bank, are 23 and 24 fathoms; and by standing on the edge of it, the depth, when under 20 fathoms, decreases in a few cables lengths to 10, 6, and $3\frac{1}{2}$ fathoms rocks, in several places. But the lead, if attended to, and hove quick, will point out a ship's position to be on the edge of the bank, before she is in danger.

The fleet from China, in Jan. 1805, by steering too much southerly from Cape Padaran, got upon this part of the bank, and three of them struck. His Majesty's ship *Grampus* in particular; but was lifted over the Pyramids by the swell, in 22 feet water by the lead, having struck very hard several times. From where these ships struck, the centre of Pulo Ceicer de Mer bore from E. b. S. $\frac{1}{2}$ S. to E. S. E. distance $6\frac{1}{2}$ or 7 leagues; the Gap of Padaran (or Cana) N. 16° E. The sand-hill, on the coast near the sea, about N. N. W.; and the level part of Pulo Ceicer de Mer, which joins the two hills, plain in sight from the quarter deck. Their latitude from $10^{\circ} 38'$ to $10^{\circ} 42'$ N.

The latitude of the centre of Pulo Ceicer de Mer is $10^{\circ} 32' 30''$ N. and it is four or five miles in length, extending north-east and south-westward; and is about seven miles east from the meridian of Pulo Ceicer de Terre. It may be seen about eight leagues from the deck of a large ship; is well cultivated, and inhabited principally by fishermen, who pay a tribute in salt fish and bird-nets, annually, to the King of Cochin China. There is said to be good anchorage along the west side of this island. Some rocks, with a reef, project out about a mile from the north end and south-west part of Pulo Ceicer de Mer. The channel between it and Holland's Bank is safe. The passage between it and the rocky islet off its north-west end, at about four miles distance, also appears safe. From Pulo Ceicer de Mer the Great Catwick bears nearly south 8 or $8\frac{1}{2}$ leagues, and Pulo Sapata about S. 20° E. 34 or 35 miles. The channel between Pulo Ceicer de Mer and the Catwicks being wide and clear, is preferable to that between the former and the Holland's Bank, when the weather is unsettled. The soundings, mid-channel, between the Great Catwick and Pulo Ceicer

de Mer, are from 40 to 46 fathoms. But, in favourable weather, the channel between Holland's Bank and Pulo Ceicer de Terre is that most frequented; and the following remarks may be of utility for this passage.

For a general rule to avoid the Holland's Bank, pass to the southward of Pulo Ceicer de Terre, at from 1 or 2 to $2\frac{1}{2}$ leagues distance. Steering S. W. by W. or thereabout, bring this island to bear N. b. E. $\frac{1}{4}$ E. before losing sight of it from the deck; and when it bears so, may then steer S. W. b. S. for six or seven leagues; and afterwards S. S. W. $\frac{1}{4}$ W. direct from Pulo Aor.

In clear weather you will not be too near the Holland's Bank, when Pulo Ceicer de Mer is plainly seen from the deck, while it bears to the southward of S. E. $\frac{1}{4}$ S. But when it bears from S. E. to E. $\frac{1}{4}$ S. do not rise it more from the poop of a large ship, than to have the summit of the hills just discernible above the horizon: for should the low part of the island between the hills be visible above the horizon, from the poop, you will then be near the western edge of the bank, if the island bears from E. b. S. to E. S. E.

If it is clear weather, and passing Cape Padaran in the night, at three, four, or five miles distance when abreast, steer from S. W. to S. W. b. W. until the Gap of Padaran is open; and when it bears from N. b. E. $\frac{1}{4}$ E. to N. b. E. $\frac{1}{2}$ E. Pulo Ceicer de Terre is then on with it: the bearings of the Gap (when visible) affording correct means to know when approaching Pulo Ceicer de Terre; and also when to steer a direct course from the coast to pass clear of Holland's Bank. When the Gap of Padaran is brought to bear in the night N. b. E. $\frac{1}{4}$ E. having then Pulo Ceicer de Terre in one with it, steer S. W. to S. W. b. S. for six or seven leagues; and then S. S. W. $\frac{1}{4}$ W. for Pulo Aor, which will carry a ship well clear to the westward of Holland's Bank.

Should a ship be abreast of Cape Padaran, and the night become very dark, so as to render the Gap of Padaran imperceptible, a course steered from S. W. $\frac{1}{4}$ W. to S. W. $\frac{1}{4}$ S. will be proper for about twelve or thirteen leagues from the Cape, and then S. W. b. S. or S. S. W. $\frac{1}{4}$ W.

It may be observed, as a further security from danger, that the water deepens to 22, 24, or 26 fathoms towards the north, north-west, and western verges of the Holland's Bank; whereas it shoals (excluding the overfalls) when in the northern side of the channel, near Pulo Ceicer de Terre; particularly to the westward of this island, the soundings are an infallible guide, the depth decreasing to 11 and 12 fathoms in general, at two or three miles distance from the shore; and deepens to 23 or 25 fathoms towards the north-west edge of the Holland's Bank. From 16 to 18

fathoms is a good track in passing from Pulo Ceicer de Terre to the westward, for five or six leagues; and then edging away S. W. b. S. will deepen gradually.

From the west end of the Holland's Bank, the nearest part of Britto's Shoal is distant about 14 or 15 leagues, in a W. S. W. direction, which is a wide channel for passing between them in the night. Near the outer edge of Britto's Bank, the depth is said to be 17 fathoms, which is close enough to approach in the night. Going to China, in April 1792, passed without it in 17 and 18 fathoms, and saw no appearance of the bank: there being 2 or 3 fathoms water on the shoalest parts, it is seldom discerned, except when the sea runs high. Within this bank there is a channel 4 or 5 miles wide, having 12 or 13 fathoms near the edge of the bank, 9 fathoms about mid-channel, and 7 or 8 fathoms near Cow Island and the shore. The east end of Britto's Bank is about 5 leagues south-westward from Point Ke-ga, which is generally mistaken for Tiger Island. This point, when viewed from the eastward, appears to project far into the sea: the rocks forming it, are elevated from the water in detached pieces, and being of a whitish colour, give it the aspect of a city in ruins, when viewed at a distance from the eastward. Over Point Ke-ga, the mountain Taicou is situated; it is easily known, being the nearest high mountain to the sea, and of a more regular and beautiful sloping appearance than any other on this part of the coast.

In the night, if abreast of the high land of False Cape Varela, and blowing strong from the northward, with cloudy weather, render it unpleasant either to heave to, or to run for the channel between Pulo Ceicer de Terre and Holland's Bank, before day-light: you may steer S. b. W. $\frac{1}{2}$ W. for Pulo Ceicer de Mer, the distance being upwards of a degree from False Cape Varela; and pass through the channel between Holland's Bank and the former, which is 3 or 4 leagues wide; the soundings in it irregular, from 11 and 12 to 17 and 20 fathoms, or between Pulo Ceicer de Mer and the high rock about 4 miles from north-west part of it, which appears a safe passage. But the channel to the southward of Pulo Ceicer de Mer, between it and the Catwicks, being wide and clear, is preferable to the former.

If abreast of False Cape Varela, or between it and Cape Varela in the early part of the night, and blowing hard with dark cloudy weather (which has sometimes happened in November and December), make it unpleasant for a stranger to run for any of these channels; he may steer S. $\frac{1}{2}$ W. or S. and pass to the eastward of Pulo Sapata, as if returning by the Macclesfield Bank: the sea being clear of islands or dangers, for a great space to the northward of Pulo Sapata and Pulo Ceicer de Mer.

Pulo Sapata is 22 miles west from the meridian of Cape Varela, or $4^{\circ} 42'$ W. from Grand Ladrone, by chronometers.

Coral Shoal, different depths on it from 10 to 25 fathoms, latitude $9^{\circ} 45'$ N. and 25 miles W. from Pulo Sapata, by chronometers.

Centre of Pulo Condore, $7^{\circ} 02'$ W. from Grand Ladrone, by chronometers.

Pulo Aor, $9^{\circ} 10' 30''$ W. from Grand Ladrone, by mean of many chronometers.

Note.—Exclusive of the Reef extending from the Little Catwick, there is said to be a reef of rocks even with the water's edge, 3 or 4 miles to the eastward of the Great Catwick, in the passage between these two islands.

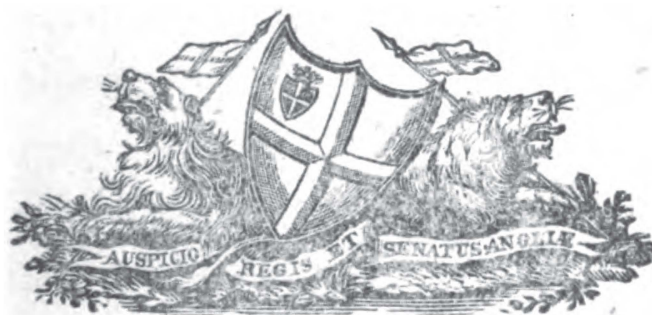
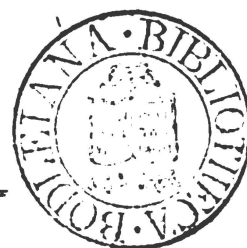
Annex 553

Lawrence D. Campbell, *The Asiatic Annual Register: Or, A View of the History of Hindustan, and of the Politics, Commerce and Literature of Asia, For the Year 1804* (1806)

THE
ASIATIC
ANNUAL REGISTER,
 OR
 A VIEW OF THE HISTORY
 OF
HINDUSTAN,
 AND OF THE
 POLITICS, COMMERCE, AND LITERATURE
 OF
ASIA,

Vol. XI.—For the Year 1809.

BY E. SAMUEL.



LONDON:

PRINTED FOR T. CADELL AND W. DAVIES, (BOOKSELLERS TO THE ASIATIC SOCIETY) IN THE STRAND; AND BLACK, PARRY, AND KINGSBURY, (BOOKSELLERS TO THE HONOURABLE THE EAST-INDIA COMPANY) IN LEADENHALL-STREET.

1811.

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Besides the superior quality of the indigo so obtained, that process presents, amongst others, the following comparative advantages:—

1. The produce is larger. 2. The health of the labourer is not endangered by the effluvia of putrid *miasma*. 3. The heat, expelling most of the fixed air, renders a small degree of agitation, and little of the precipitant necessary. 4. The operation is susceptible of frequent repetition. 5. The indigo dries quickly without acquiring a bad smell. 6. Indigo so prepared, has not the flinty appearance common to fermented indigo; but in softness and levity is equal, or even superior, to Spanish Flora.

The useful publication* from whence this account of Nerium has

been abridged, contains also the description of a new species of *Asclepias*, from the leaves of which the Bunnah people are said to extract a green dye; being a large twining, shrubby plant, brought from Pegu to the botanic garden at Calcutta, in 1795, by Dr. Buchanan, which Dr. Roxburgh names *Asclepias tingens*. Observing, however, that his experiments to obtain the colour above-mentioned failed of success, possibly from want of sufficient information. Some other communications from that scientific person, contained in the same book, and relating to medical productions of India, are very valuable, and well deserve republication in this Register; but the requisite space being wanting, they are reluctantly omitted.

HYDROGRAPHY.

SCARBOROUGH SHOAL.

A very intelligent nautical gentleman gives the following account of this shoal, explored in April, 1806, by Don Francisco Reguelme, captain and brigadier in the Spanish navy, then in command of the Lucia frigate, and three gun boats, sent on the service by admiral Bon Ignacio de Alava, which stationed at Manilla.

Situation of the Shoal.

	°	"	'
North point of the Shoal,	15	12	40
South ditto, ditto,	15	04	00
East } to westward of	8	06	40
West } the meridian of			
Manilla,	3	16	15

distance from the nearest land of Luconia, which is Point Laponas 129 miles.

The situation may be depended upon, having been determined by several astronomical observations.

The extent of the shoal from north to south is $8\frac{1}{2}$ miles,—from east to west $9\frac{1}{2}$ miles; is surrounded with rocks, few of which are above water, and is so steep, that soundings cannot be got, when almost touching them. The other three shoals, laid down in all the charts along the coast of Luconia, called north and south Marroona, (or the double-headed shot) Marsingole, and the Mirabole, do not exist. There is only, along shore, the Bagualatan, or Iba Shoal, on which one Portuguese, two Spanish vessels, and, lately, the Greyhound, were lost.

* Transactions of the Society for the encouragement of arts, manufactures, and commerce, vol. xxviii.

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UNKNOWN REEF.

The ship *Hebe*, captain Leigh, which sailed from Calcutta, on the 24th of March, 1808, was wrecked on the 15th of June last, on an unknown reef, in Bass's Streight, off Port Dalrymple, Van Dieman's Island, the commander, and all the crew, except one Lascar, were saved.

The following is the bearing of the Shoal, as detailed by captain Leigh to lieutenant-governor Patterson.

"The reef on which the *Hebe* struck, and was the occasion of her loss, bears from the flag-staff, on Point Clarence, west three-fourths north, by compass, about five miles distant, and may extend farther to sea; the *Hebe*, it is supposed, went over the middle of it; it is very dangerous, never being dry, though at low water spring tides, the water is discoloured over it. The *Hebe* was on it at the top of high water, drawing thirteen feet, and had not less than two fathoms and a half, the swell being rather high; it has no connection with the Western Reef, but bears from it about north by west true, suppose two miles distant; the outer breakers on the Western Reef, bear from the flag-staff west per compass: Mr. Flinders's bearing being the same.

CUMBRIAN'S SHOAL.

JULY 26, 1809.—Returning by the eastern passage from China, at noon, observed, in latitude 21. 46. north

longitude, per chronometer 121. 25. east, with a light easterly breeze, stood to the southward; and at five P. M. saw an extensive reef of breakers, from the poop, running in a W. N. W. and E. S. E. direction, as near as we could judge. Same time, Tobago Xima bore N. by E. to N. by W. the small island, off ditto, N. by E. $\frac{1}{2}$ E. the breakers E. by N. to E. S. E. latitude 21. 34. N. and longitude, by sights taken at the time, 121. 30. E. our distance, from the nearest part, about four miles. We could plainly perceive rocks among the breakers: stood to the southward until two A. M. when we tacked and stood N. E.: at half past three A. M. Tobago Xima N. by W. to N. by W. $\frac{1}{2}$ W.; the small island just shut on with the S. E. end of the large one: the two northern Bashees S. 25 E. to S. 32 E.; the eastern extremes of the breakers then in sight from the poop, W. N. W. distance five miles, longitude, by sights at the time, 121. 46. E. latitude, by account, 21. 23. N.

This shoal appears a narrow strip, running in an eastern and western direction, its west end 121. 34 east, longitude 21 34. north latitude, east end 121 41.; the longitude is deduced from that of the northern Bassee allowed in 121. 58.; latitude, from the observations of the succeeding and preceding moons, taken by four observers each time, and allowance made for the current experienced between both.

PARACELS.

Extract of a letter from a gentleman on board the Discovery.

In March last we left Macao, with an intention of ascertaining the St. Esprit Bank, cruising about for it several days, particularly in those ports laid down by Horsburgh, &c. without effect, it began to blow a fresh gale from the north-east which induced Mr. R. to push for the Paracels so as to be there in the fair months: it being of more consequence to have them surveyed; and, if possible, to ascertain

every shoal this season. On the 16th of March, in the evening, we made the Amphitrite Islands, forming the northern-most of the Paracels, they are very low with a cocoa-nut tree on the centre of the western-most one. They are formed of white sand and coral, the surface of which is covered with low brush-wood; they bear a great resemblance to some of the islands of the Red Sea, particularly

the Asakows, all of them are surrounded with steep banks of coral, and most of the anchorage is hard sand and rocks; there are few islands which afford good water sufficient for small vessels; the principal ones are the Lincoln, and one called Woody Island, which lies to the eastward of the Amphitrites, at eight miles distance, and is covered with a high jungle; there the fishermen have pitched a few huts for a temporary residence, while they remain here, about half the year, gathering Beech-de-mar, which is a black thick ugly worm; this the Chinese use as a great luxury for making their soups.

In approaching the Amphitrites we descried a large junk, apparently wrecked on a spit of rocks running off the eastern-most of these islands, on which were several Chinese running along the beach waving flags, and beckoning to us, as we supposed, to render them assistance. We stood within half a mile of the island, trying to gain soundings, but could not at the depth of ninety fathoms; it soon after coming on to blow a double-reefed topsail breeze, which obliged us to work off for the night, before we could have any communication with the people.

The next day it continuing to blow fresh, we bore away, and stood to leeward of the islands, gained soundings of forty fathoms a few miles to leeward of them. When near the wreck, we anchored in fifteen fathoms, and sent boats on shore; the poor half-starved wretches were fighting to get to the boats, and it required some trouble, at first, to prevent their overloading them. On the 20th they were all shipped on board the vessel, 360 in the Discovery, and 200 in the Antelope. We gave up our birth to them, and they were crammed into every hole and corner,—the Junk was one of the largest that sails out of China, having upwards of 600 men on board. About the 25th, left the island in a tank, fourteen of whom survived, and arrived in a very weak state at Turon,—several of them, according to

their own information, died; but we could not find any vestiges of them; they had been driven ashore in a northerly gale, two or three days before we relieved them; and their only substance was a few dried fruit, but not a drop of fresh water.

On account of these circumstances Mr. R. postponed the survey till we landed them at Turon, a port on the Cochin China coast, at the distance of 120 miles from the Amphitrites. We were six days getting there; at this place we laid in a large stock of vegetables for the crew, watered the vessels, and again proceeded to finish the survey. After examining the Felidor shoal, and others we fell in with, which you will see by Rup's charts of the islands, and will convey a better idea to you than the confined period of time will allow us to describe.

At Woody Island Mr. R. hired a fisherman as pilot; this man has been among these islands, on and off, for twenty-five years, and is well acquainted with the situation of the whole; he informed us of several shipwrecks, and the means of saving the people.—He mentioned, and accurately described, the Comet and Intrepid to Mr. Ross, and informed us of his having seen these vessels touching at the Amphitrites for water, which some of the boats lying there supplied them with. He told Mr. Ross that the vessels were manned with Europeans and Natives; that the last port they left was Malacca, and that it was their intention of again returning to that port.

After leaving the Amphitrites they, according to our supposition, were lost, off some of the Coral Banks, nearly even with the water's edge in blowing whether, and every soul perished. Towards the latter end of May, after examining the Lincoln southward, and Triton Bank, we proceeded to the coast, as the southerly monsoon began to set in, too fresh for us to work, with safety, down to Sapara, so far out to leeward; on the coast, we experienced very strong tides against us and light airs; at last

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were under the necessity of putting
back to Turon, and water the vessels.
In June, we again left this port and
worked down the coast: on the 21st,
we fell in with a gentleman, who was
to procure us boats, and use his inter-
est with the king of Cochin China,
in forwarding our prospects on the
survey: he fitted our boats at Saigon
for the shoaling parties and expeditions,
but, as we could not work down so
far against the monsoon, they could

not be of any service to us; the next
day we put into a harbour, called
Meatrang, and procured a little re-
freshment for the people. On the
25th, we left this place for Macao
M——, proceeded up the coast, to join
the king, as most of his Native facto-
ries had rebelled, and were assisted,
by a very large fleet of Ladrons. On
the 4th of July we anchored in the
Typa.

Annex 554

Samuel Prior, *All the Voyages Round the World from the First by Magellan, in 1520 to that of Freycinet in 1820*
(1848)

[Galt, John,

ALL THE

VOYAGES

ROUND THE WORLD,

FROM THE FIRST BY

MAGELLAN, IN 1520,

TO THAT OF

FREYCINET IN 1820

—
NOW FIRST COLLECTED,

BY CAPT. SAMUEL PRIOR, pseud.

NEW-YORK: '

WILLIAM H. COLYER, 5 HAGUE ST.

.....

1848.

G 440
G 35
1848

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traordinary, that one of the men, named Daniel Wallis, swam on that occasion, though he could never swim before, nor was able to repeat it afterward. Captain Read manned two canoes, in order to punish these people: but as soon as they saw the English advancing, escaped into the woods, having first cut a hole in the bark's bottom, and sunk her.

Quitting Pulo Condore with a south-west wind on the 4th of June, 1687, intending to cruise off Manilla, the wind soon changed to the south-east, and they were forced on the coast of China, and coming to an anchor on the north-east of St. John's Island, lying in 22 degrees 30 minutes north latitude.

The skirts of this spot, bordering the sea, are for the most part woody: the soil is generally fertile; and in the inland parts there are good pasture-grounds and many groves of trees. They have plenty of tame ducks, cocks, and hens, but no wild fowls: buffaloes, bullocks, goats, and China hogs are very plenty. These hogs are black, have short necks, small heads, short legs, and bellies which sweep the ground. The natives chiefly maintain themselves by cultivating rice. They are tall, raw-boned, straight-bodied men; have tawny complexions, long faces, aquiline noses, small eyes, black hair, and thin beards, which are tied up in knots, or curled in whiskers on each side of their lips. They were formerly very proud of their hair, but the Tartars, when they made a conquest of this country, compelled them to shave their heads, leaving only one lock on the crown of the head, which they permit to grow to a great length, and sometimes it flows loose, though it is generally platted. It is as much as the life of a Chinese is worth, to be found with long hair; and many have been known to abandon their country rather than part with it. They wear no covering for the head, but instead, use an umbrella to shade them from the weather; a large fan is used for the same purpose, if they have but a little way to go. They wear no stockings, but slippers on their feet, and the covering is a light frock and breeches.

The women on this island, as well as those on the continent of China, are compelled to be much at home, on account of the smallness of their feet, which are bound up prodigiously tight in their infancy to prevent their growing, small feet being esteemed a great beauty; for this reason they only stumble about their houses, being obliged to sit down at the end of every two or three steps. They make very curious embroidery for their shoes, and in general are excellent needle-women. The feet of the poorer women are suffered to grow much larger, that they may be able to produce their subsistence. There is a small town on the island, situated in marshy ground, the houses of which are mean, low, and very furnished, and built upon posts.

While at anchor, a Chinese junk lay near them, flat both at the head and stern, having little huts three feet high on the deck, which were covered with palmetto leaves. She had a large cabin, with an altar and lamp burning in it. The hold was divided into several partitions, each so tight, that if a leak should spring in one, the goods in the next would receive no damage. Every merchant has his particular room, where he stows his goods, and sometimes lodges in it himself. This has only two masts, a main-mast and fore-mast; the last has a square sail and square yard, but the main-mast has a sail narrow aloft, like a sloop's sail. In fair weather they use also a top-sail, which in foul weather they haul down on deck, yard and all. The main-mast of the largest junks is as large as that of our third-rate men-of-war, but made all out of one tree, and not pieced as ours are.

too much weight aloft ; and, therefore, desired him to send for his wine and brandy, which would give him an opportunity of striking down some of his guns into the hold. This was not done, which, if it is a proof of Captain Clipperton's negligence, is also a proof he had no suspicion of Shelvock's leaving him, and that, on his part, he had no intention to desert the *Speedwell*.

Between nine and ten o'clock at night, on the 19th, there arose a fresh breeze, so as to oblige both ships to take in their topsails. The gale increasing, the *Success* made a signal for the *Speedwell* to bring-to, which Shelvock readily obeyed, and by seven o'clock both ships were under bare poles, nor able to bear a rag of canvass during the night. On the 20th, about two in the afternoon, the storm abated, when Clipperton made sail, steering south and by east, whereas Shelvock stood away to the north-west, so that from this day they never saw each other till they met by accident in the South Seas. Here, then, properly begins the history of the former's voyage round the world in the *Success*.

The Canaries being the first place appointed for a rendezvous, he sailed thither with such expedition as to arrive on the 5th of March, and having taken on board refreshments, continued, agreeable to his instructions, to cruise in that station for ten days, in hopes of seeing his consort. Being disappointed, he determined to continue his voyage, lest he should miss her at the next place of rendezvous, which was the Cape de Verde islands, and accordingly left Gomera on the 15th, in order to be early at his next station.

On the 21st, in the evening, they saw St. Vincent, one of the Cape de Verdes, and next morning anchored in the bay. They remained here ten days, in hopes of meeting their consort, but in vain, which so discouraged the crew, that Captain Clipperton found it no easy matter to engage them to continue the voyage. These islands, which the Dutch call the Salt islands, from the great quantities of it found there, were discovered by the Portuguese in the year 1572. They are ten in number, viz., St. Jago, St. Lucia, St. Vincent, St. Antonio, St. Nicholas, Blanca, De Sal, Maio, De Fogo, and Bonavista. They extend from the Green Cape 160 leagues into the sea.

On the 29th of May, found themselves in 52 degrees 15 minutes south latitude, being off Cape Virgin Mary, the north point of the entrance of the straits of Magellan ; and the next day entered the straits, and sailing up as far as Queen Elizabeth's Island, sent their pinnace on shore to a fresh water river, which was at this time frozen up. On the 22d, anchored in a fine bay, which, from its depth, they called No-Bottom Bay : the trees on the shore of which were very high, and so loaded with snow as to afford an astonishing prospect.

A canoe came off on the 29th, with two men, a woman, and a boy ; they were of a middle stature and dark complexions ; their faces round, their foreheads low, their hair black, straight, and short ; and they had no clothing except a piece of skin about the waist. They had a remarkable fine streak, of a bright blue colour, round their wrists ; and the men were so extremely jealous, that they could by no means be prevailed on to let the women go on board. They brought wild geese and ducks, which were exchanged for knives, and had a fire in the middle of their canoe, the latter being built of the bark of trees sewed together. They had also with them bows and arrows, and implements for fishing.

On the 20th of July some persons were sent in the pinnace, in order to make a discovery of a passage which a French Tartan is said to have

two afterward. On the 20th saw the Island of Puló Sapata, four leagues distant, and on the 25th the Islands of Aramba; three days afterward Mr. Lauder, surgeon of the Queen Charlotte, died, having been ill for some time, and attended by his brother surgeon, Mr. Hoggan, of the King George. On the 30th of March the ships agreed to separate, and make the best of their way to St. Helena, where the King George arrived the 13th of June, and the Queen Charlotte on the 18th. The former at length reached England, without any occurrence worthy of remark, on the 22d of August; and the latter the 17th of September. Nor was the voyage unfortunate; for though no great gain was made, yet nothing was lost, which, in a new commercial speculation, is not an uncommon occurrence.

MONSIEUR DE LA PEROUSE.—1785-88.

FRANCE becoming jealous of the renown acquired by the English circumnavigators, determined to send out an expedition which, in its scientific equipments, should vie with them in every respect. Two ships were appointed to this service, the *Boussole* and *Astrolabe*, the former commanded by La Perouse, the latter by M. de Langle, both captains in the navy, and men of considerable attainments, besides being assisted by men of science and artists. The voyage is interesting as far as it goes; but, unfortunately, the ships, after quitting Botany Bay, in 1788, have never since been heard of, to the regret of all lovers of science and humanity, on account, not only of the acquirements, but amiable character of the commander.

On the 1st of August, 1785, they quitted Brest, and on the 13th reached Madeira; stopping here three days, they saw Teneriffe on the 19th, and on the 16th of October the Island of Trinidad, barren, rocky, and with a violent surf breaking on the shores, where refreshments not being obtainable, the commander steered for St. Catherine's, on the Brazil coast.

This island is extremely fertile, producing all sorts of fruit, vegetables, and corn, almost spontaneously. It is covered with trees of everlasting green, but they are so curiously interwoven with plants and briars, that it is impossible to pass through the forests without opening a path with a hatchet; to add to the difficulty, danger is also to be apprehended from snakes, whose bite is mortal. The habitations are bordering on the sea. The woods are delightfully fragrant, occasioned by the orange trees, and other odoriferous plants and shrubs, which form a part of them. But amid all these advantages, the country is extremely poor, and totally destitute of manufactured commodities; the peasants are ragged, and almost naked. The soil, which is well calculated for the cultivation of sugar, remains untilled, as they are too poor to purchase slaves for that necessary purpose. The whale-fishery is indeed successful, but it belongs to the crown, and is farmed by a company at Lisbon, which has three large establishments on the coast. They kill about 400 whales annually, the produce of which is sent to Lisbon by the way of Rio Janeiro.

On the 14th of January the navigators struck ground on the coast of Patagonia. On the 25th La Perouse took bearings a league to the southward of Cape San Diego, forming the west point of the Straits of Le Maire. At three he entered the straits, and saw some breakers, which extended about a mile; he also perceived others much farther in the offing, which induced him to steer to the south-east to avoid them. On the 9th of February he was abreast of the Straits of Magellan. Examining the

quantity of provisions he had on board, La Perouse discovered he had very little flour and bread left in store; having been obliged to leave a hundred barrels at Brest. The worms had also taken possession of the biscuits, and consumed or rendered useless a fifth part of them. Under these circumstances, La Perouse preferred Conception to the Island of Juan Fernandez.

The Bay of Conception, in Chili, is a most excellent harbour; the water is smooth, and almost without any current, though the tide rises six feet three inches. The new city of Conception, after the destruction of the old one by an earthquake, in 1751, was not resolved on till 1763. The new town, which contains about 10,000 inhabitants, is the residence of the bishop, and of the major-general, who governs in the military department. This colony makes but little progress in prosperity or population; the influence of the government counteracts that of the climate. The productions of this kingdom, under proper management, would suffice for the food and manufactures of half Europe, and yet the country is destitute of commerce. A few small vessels indeed arrived here yearly from Lima, with tobacco, sugar, and some articles of European manufacture, which the natives can only purchase at second or third hand; heavy duties having been imposed upon them first at Cadiz, then at Lima, and afterward on their entering Chili. They can only give in exchange wheat, (which is of little value,) hides, tallow, and a few planks; so that the balance of trade is always against Chili. The women wear a kind of plaited petticoat, formed of antique gold and silver stuffs. These petticoats, however, are never summoned upon duty but on gala-days, and may be entailed in a family, descending, in regular gradation, from the grandmother to the granddaughter. A small number of females, however, are thus gorgeously habited; the majority have barely sufficient to conceal their nakedness.

At daybreak, on the 15th of March, La Perouse made the signal to prepare to sail. On the 17th, about noon, a light breeze sprung up, with which he got under way. On the 8th of April, about noon, they saw Easter Island. The Indians were unarmed, except a few who had a kind of slight wooden club. Some of them assumed an apparent superiority over the others, which induced La Perouse to consider the former as chiefs, but he soon discovered that these selected persons were the most notorious offenders. Having but a few hours to remain upon the island, and wishing to employ his time to the best advantage, La Perouse left the care of the tent, and other particulars, to his first lieutenant, M. D'Escures. A division was then made of the persons engaged in the adventure; one part, under the command of M. De Langle, was to penetrate into the interior of the island to encourage and promote vegetation, by disseminating seeds, &c., in a proper soil; and the other division undertook to visit the monuments, plantations, and habitations, within the compass of a league of the establishment. The largest of the rude busts upon one of the terraces is fourteen feet six inches in height, and the breadth and other particulars appeared to be proportionate.

A small part of this island is under cultivation. It is, however, generally agreed that three days' labour of an Indian will procure him subsistence for a year. From the ease with which the necessaries of life are procured, La Perouse supposed the productions of the earth were in common. He was convinced, indeed, that the houses were common, at least to a whole village or district. One of these habitations near his tent was three hundred and ten feet in length, ten feet in breadth, and ten feet in height toward the

middle. The whole erection is capable of containing 200 people. It forms a kind of hamlet of itself, but is totally unfurnished. Two or three small houses appear at a little distance from it. La Perouse does not pretend to decide whether the women are common to a whole district, and the children to the republic: but he asserts that no Indian seemed to exercise the authority of a husband over any one of the females. If they are private property, it is a kind of which the possessors are very liberal.

Returning about noon to the tent, La Perouse found almost every man without either hat or handkerchief; so much had forbearance encouraged the audacity of the thieves, that he also experienced a similar depredation. An Indian, who had assisted him in descending from a terrace, rewarded himself for his trouble by taking away his hat. Some of them had dived under water, cut the small cable of the Astrolabe's boat, and taken away her grapnel. A sort of chief, to whom M. De Langle made a present of a male and female goat, received the animals with one hand, and robbed him of his handkerchief with the other.

On the 28th of May they saw the mountains of Owyhee, covered with snow, and afterward those of Mowee, which are less elevated. About 150 canoes were seen putting off from the shore, laden with fruit and hogs, which the Indians proposed to exchange for pieces of iron of the French navigators. Most of them came on board of one or the other of the vessels, but they proceeded so fast through the water that they filled alongside. The Indians were obliged to quit the ropes thrown them, and, leaping into the sea, swam after their hogs—when, taking them in their arms, they emptied their canoes of the water, and resumed their seat.

After having visited a village, M. De Langle gave orders that six soldiers, with a sergeant, should accompany him: the others were left upon the beach, under the command of M. de Pierrevert, the lieutenant; to them was committed the protection of the ship's boats, from which not a single sailor had landed. The party re-embarked at eleven o'clock in very good order, and arrived on board about noon, where M. de Clonard had received a visit from a chief, of whom he had purchased a cloak, and a helmet adorned with red feathers; he had also purchased a hundred hogs, a quantity of potatoes and bananas, plenty of stuffs, mats, and various other articles. On their arrival on board, the two frigates dragged their anchors; it blew fresh from the south-east, and they were driving down upon the Island of Morokinne, which was however at a sufficient distance to give them time to hoist in their boats. La Perouse made the signal for weighing; but before they could purchase the anchor, he was obliged to ~~weigh~~ ^{weigh} it, and drag it till he had passed Morokinne, to hinder ~~the boats from~~ ^{the boats from} ~~driving~~ ^{driving} past the channel.

A fair wind accompanied the navigators on their departure from the Sandwich Islands. Whales and wild geese convinced them that they were approaching land. Early in the morning of the 23d they descried it; a sudden dispersion of the fog opened to them the view of a long chain of mountains covered with snow. They distinguished Beering's Mount St. Elias, on the north-west coast of America.

While the navigators were at the entrance of a bay, they were continually surrounded by the canoes of the Indians. In exchange for iron they were offered fish and variety of skins, as well as sundry articles of dress; and the natives displayed much ability in their commercial dealings; but iron was more eagerly coveted than any other medium of barter. They indeed consented to take some pewter pots and plates, but they received them with indifference. Iron was their favourite metal; a dag-

ger of it hung from the necks of many of them. The report of their arrival having spread itself to the adjacent parts, several canoes arrived, filled with otter-skins, which the natives bartered for knives, hatchets, and bar-iron. The sea otter is supposed to be more common here than in any part of America. The Astrolabe caught one, which probably had escaped from the Indians, as it was severely wounded. It weighed seventy pounds, and perhaps had attained its full growth. The sea otter is an amphibious animal, remarkable for the beauty of its skin. The Indians of Port Français call it *skecter*. Some naturalists have noticed it under the denomination of *saricovienne*, but the description of that animal in Europe has no affinity with this, which has no resemblance to the otter of Canada, nor to that of Europe.

Having taken in as much wood and water as was required, the navigators esteemed themselves the most fortunate of men, in having arrived at such a distance from Europe without having a sick person among them, or any one afflicted with the scurvy; but a lamentable misfortune now awaited them. At the entrance of this harbour perished twenty brave seamen, in two boats, by the surf.

On the 30th of July, at four in the afternoon, La Perouse got under way. This bay or harbour, to which he gave the name of Port des Français, is situated in 58 degrees 37 minutes north latitude, and 139 degrees 50 minutes west longitude. In different excursions, he says, he found the high-water mark to be fifteen feet above the surface of the sea. The climate of this coast is infinitely milder than that of Hudson's Bay, in the same degree of latitude. Pines were seen of six feet diameter and one hundred and forty feet in height. Vegetation is vigorous during three or four months of the year. The men wear different small ornaments, pendant from the ears and nose, scarify their arms and breasts, and file their teeth close to their gums, using, for the last operation, a sand-stone formed into a particular shape. They paint the face and body with soot, ochre, and plumbago, mixed with train-oil, making themselves most horrid figures. When completely dressed, their flowing hair is powdered, and plaited with the down of sea birds; but perhaps only the chiefs of certain distinguished families are thus decorated. Their shoulders are covered with a skin, and the rest of the body remains naked, except the head, on which is generally worn a little straw-hat, plaited with great taste and ingenuity. Sometimes, indeed, the head is decorated with two horned bonnets of eagles' feathers. Their head-dresses are extremely various, the grand object in view being only to render themselves terrible, that they may keep their enemies in awe. Some Indians have skirts of otter-skins. A great chief wore a shirt composed of a tanned skin of the elk, bordered by a fringe of beaks of birds, which, when dancing, imitated the noise of a bell; a common dress among the savages of Canada and other nations in the eastern parts of America. The passion of these Indians for gaming is astonishing, and they pursue it with great avidity. The sort of play to which they are most devoted, is a certain game of chance: out of thirty pieces of wood, each distinctly marked like the French dice, they hide seven; each plays in succession, and he who guesses nearest to the whole number marked upon the seven is the winner of the stake, which is usually a hatchet or a piece of iron.

At length, after a very long run, on the 11th of September, at three in the afternoon, the navigators got sight of Fort Monterey, and two three-masted vessels which lay in the road. The commander of these two ships having been informed, by the Viceroy of Mexico, of the probable arrival

of the two French frigates, sent them pilots in the course of the night. Loretto, the only presidency of Old California, is situated on the east coast of this peninsula, and has a garrison of fifty-four troopers, who furnish detachments to fifteen missions; the duties of which are performed by Dominican friars. About four thousand Indians, converted and residing in these fifteen parishes, are the sole produce of the long labours of the different religious orders which have succeeded each other. A small navy was established by the Spanish government in this port, under the orders of the Viceroy of Mexico, consisting of four corvettes of twelve guns, and one goletta. They are destined to supply with necessaries the presidencies of North California; and they are sometimes despatched as packet-boats to Manilla, when the orders of the court require the utmost expedition.

The company were received with all possible politeness and respect. the president of the missions, in his sacerdotal vestment, with the holy water in his hand, waited to receive them at the entrance of the church, which was splendidly illuminated, as on their highest festivals. he then conducted them to the foot of the high altar, where *Te Deum* was sung in thanksgivings for their arrival. Before they entered the church they passed a range of Indians: the parish church, though covered with straw, is neat, and decorated with paintings copied from Italian originals. A picture of Hell is there represented, in which the imagination of Callot is absolutely exceeded; but the senses of new converts must be struck with the most lively impressions. A representation of Paradise, placed opposite to that of Hell, is supposed to produce less effect on them. The Indians, as well as the missionaries, rise with the sun, and devote an hour to prayers and mass, during which time a species of boiled food is prepared for them: it consists of barley-meal, the grain of which has been roasted previous to its being boiled. It is cooked in the centre of the square, in three large kettles. This repast is called *atole* by the Indians, who consider it as delicious; it is destitute of salt and butter, and must consequently be insipid. The women have little more to attend to than their housewifery, their children, and the roasting and grinding of several grains; the latter operation is long and laborious, as they employ no other means than that of crushing it in pieces with a cylinder upon a stone.

The converted Indians preserve those ancient usages which are not prohibited by their new religion; the same cabins, games, and dresses. The dress of the richest consists of an otter-skin cloak, to cover their loins, and descend below the groin: the most indolent are satisfied with a simple piece of linen cloth, furnished by the mission to conceal their nakedness; a cloak of rabbit-skin, tied under the chin, serves as a veil for their shoulders; the rest of the body remains absolutely naked, except the head, which is sometimes ornamented with hats of straw, curiously matted or plaited. The women have cloaks of deer-skin, tanned: those of the missions make a small bodice, with sleeves of the same material. This, with a small apron of rushes, and a petticoat of stag-skin, which descends to the middle of the leg, is the whole of their apparel. Girls under the age of nine years have only a simple girdle, and boys are completely naked.

The Indians of the *rancheries*, or independent villages, are accustomed to paint their bodies red and black when they are in mourning; but the missionaries have prohibited the former, though they tolerate the latter, these people being singularly attached to their friends. The ties of family are less regarded among them than those of friendship: the children show

no filial respect to the father, having been obliged to quit his cabin as soon as they were able to procure their own subsistence.

A Spanish commissary at Monterey, named M. Vincent Vassadrey Vega, brought orders to the governor to collect all the otter-skins of his missions and presidencies, government having reserved to itself the exclusive commerce of them; and M. Fages assured La Perouse that he could annually furnish twenty thousand of them. The Spaniards were ignorant of the importance of this valuable peltry till the publication of the voyages of Captain Cook: that excellent man has navigated for the general benefit of every nation; his own enjoys only the glory of the enterprise, and that of having given him birth.

New California, though extremely fertile, cannot boast of having a single settler; a few soldiers, married to Indian women, who dwell in the forts, or who are dispersed among the different missions, constituting the whole Spanish nation in this district of America. The Franciscan missionaries are principally Europeans; they have a convent in Mexico. The viceroy is now the sole judge of all controversies in the different missions. Don Bernardo Galves having united all the powers, Spain allows four hundred piasters to each missionary, two of which are appropriated to a parish: supernumeraries receive no salary.

On the evening of the 22d everything was on board, and leave had been taken of the governor and missionaries. On the morning of the 24th they sailed. On the 3d of November the frigates were surrounded with noddies, terns, and man-of-war birds; and on the 4th they made an island which bore west. This small island is little more than a rock of about 500 toises in length. Not a tree is to be seen on it, but a great deal of grass is visible on the top; the rock is much disfigured by the excrement of various birds; the extremities of it are perpendicular like a wall, and the sea broke around it with such violence as to render it impossible to land. La Perouse named it Isle Necker. About an hour past one in the morning La Perouse saw breakers at two cables' length ahead of the ship; the sea being so smooth, the sound of them was hardly heard; the Astrolabe perceived them at the same time, though at a greater distance than the Boussole; both frigates instantly hauled, with their heads to the south-east. La Perouse gave orders for sounding; they had nine fathoms, rocky bottom: soon after ten and twelve fathoms, and in a quarter of an hour got no ground with sixty fathoms. They just escaped the most imminent danger to which navigators can be exposed.

The Island of Assumption, to which the Jesuits have attributed six leagues of circumference, from the angles now taken, was reduced to half, and the highest point is about two hundred toises above the level of the sea. A more horrid place cannot be conceived. It was a perfect cone, as black as a coal, and very mortifying to behold, after having enjoyed, in imagination, the cocoa nuts and turtles expected to be found in some one of the Marianne Islands. La Perouse did not mean to touch at the Bashees, having before been often visited, and having nothing particularly interesting. Having determined the position, he continued his course toward China; and on the 1st of January, 1787, found bottom in sixty fathoms; a number of fishing boats surrounded him the next day. On the 2d of January our navigators made the White Rock. In the evening they anchored to the northward of Ling-ting Island, and the following day lay in Macao Road. Macao, situate at the mouth of the Tigris, is capable of receiving a sixty-four gun ship into its road, at the entrance of the Tupa; and in its port, below the city, ships of 700 tons half laden. The

entrance of this port is defended by a fortress consisting two batteries and three small forts. The Portuguese limits extend no farther than about a league from the city; they are bounded by a wall, and guarded by a few soldiers under a mandarin. This mandarin is, indeed, the real governor of Macao, and the person to whom the Chinese owe obedience. He has not the privilege of sleeping within the enclosure of the limits, yet he may visit the place, inspect the custom-houses, &c. And on these occasions the Portuguese must salute him with five guns. But no European is permitted to set a foot on the Chinese country beyond the wall; an attempt of that kind would subject any person to the mercy of the Chinese; for such an indiscretion large sums might be demanded of him, or he might suffer detention as a prisoner. Some of the officers of the frigates wantonly exposed themselves to this risk; but it fortunately happened that no serious consequences arose from their levity. The Viceroy of Goa appoints all the military and civil officers at Macao. The governor and the senators are nominated by him. He has lately appointed the garrison to consist of 180 Indian seapoys and 120 militia; the soldiers are armed with staves, the officer only being permitted to wear a sword: but on no occasion to use it against a Chinese. If a robber of that nation is detected in breaking open a door, or purloining any effects, he must not be arrested without the greatest precaution; if a soldier, in his own defence, should unfortunately kill him, he is delivered over to the governor, and hanged in the market-place. But if a Chinese kill a Portuguese, he is examined by the judges of his own nation, who make a pompous parade of fulfilling all the formalities of justice, but always connive at the evasion of it. The Portuguese, however, have lately made a spirited effort, which reflects honour on them. A seapoy having killed a Chinese, they shot him themselves in the presence of the mandarin, and would not submit the decision of the affair to those of his own country.

The climate of the ~~road~~ of Typa is, at this season of the year, precarious; most of the crews were afflicted with colds, accompanied with a fever; which yielded to the salutary temperature of the Island of Luconia, when they approached it on the 15th of February. Wanting wood, which he knew was dear at Manillia, La Perouse came to a resolution of remaining twenty-four hours at Marivella to procure some, and early the ~~next morning~~ all the carpenters of the two frigates were sent on shore with the long-boats; the rest of the ships' companies, with the yawl, were reserved for a fishing party; but they were unsuccessful, as they found nothing but rocks and very shallow water.

On the 28th the navigators came to an anchor in the Port of Cavete, in ~~three~~ fathoms, at two cables' length from the town. Cavete, situate three leagues to the south-west of Manilla, was formerly a place of importance. It has now the commandant of the arsenal, a confiator, a few other officers, and 150 men in garrison. The other inhabitants consist of Mulattoes or Indians employed at the arsenal, and, with their numerous families, form a population of about 4000, including the city and suburb of Saint Roch. There are two parishes, and three convents of men. The Jesuits had a handsome house here, which is now in the hands of government. The whole place is now almost a heap of ruins.

Manilla is erected on the bay which also bears its name, and lies at the mouth of a river, being one of the finest situations in the world; all the necessaries of life may be procured there in abundance, and on reasonable terms; but the cloths and other manufactures of Europe are extravagantly dear. The great possessions of the Spaniards in America have not

permitted the government to attend minutely to the Philippines. La Perouse confidently asserts, that a great nation, without any other colony than the Philippines, which would establish a proper government there, might view all the European settlements in Africa and America without envy or regret. These islands contain about 3,000,000 of inhabitants, and that of Luconia consists of about a third of them. These people seem not inferior to Europeans; they cultivate the land with skill, among them have ingenious goldsmiths, carpenters, joiners, masons, blacksmiths, &c. La Perouse says he has visited them at their villages, and found them affable, hospitable, and honest. The Spaniards indeed speak contemptuously of them; but the vices they attribute to the Indians may with more propriety be placed to the government established among them. Coffee, sugar-canes, cotton, and indigo, grow there without cultivation, and it is generally believed that their spices would not be inferior to those of the Moluccas; a general liberty of commerce for all nations would command a sale which would encourage the cultivation of them all; and a moderate duty on all articles exported would soon defray the expenses that government might sustain.

On the 9th of April, according to the French reckoning, and the 10th as the Manillese reckon, our navigators sailed and got to the northward of the Island of Luconia. On the 21st they made the Island of Formosa, and experienced, in the channel which divides it from that of Luconia, some very violent currents. On the 22d they set Lamy Island, at the south-west point of Formosa, about three leagues distance. The tack they then stood on conveyed them upon the coast of Formosa, near the entrance of the bay of Old Fort, Zealand, where the city of Taywan, the capital of that island, is seated. Having been informed of the revolt of that Chinese colony, and that an army of 20,000 men, under the santog of Canton, had been despatched against it, La Perouse resolved to sacrifice a few days to learn the particulars of this event. Only one man could be prevailed on to come on board; whose fish were instantly purchased at his own price, to induce him to give a favourable account of our navigators, should he venture to acknowledge that he had communicated with them. No person could guess at the meaning of any of the answers given by the fisherman to the questions which had been proposed to them.

The whole of the next day a dead calm occurred, in mid-channel, between the Bashee Islands and those of Botol Tabacoxima. It is probable that vessels might provide themselves in this island with provision, wood, and water. La Perouse preserved the name of Kumi Island, which Father Gambil gives it in his chart. In the night of the 25th our navigators passed the strait of Corea, sounding very frequently; and as this coast appeared more eligible to follow than that of Japan, they approached within two leagues of it, and shaped a course parallel to its direction. On the 27th they made the signal to bear up and steer east, and then perceived, in the north-north-east, an island not laid down upon any chart, at the distance of about twenty leagues from the coast of Corea. He named it Isle Dagelet, from the name of the astronomer, who first discovered it. The circumference is about three leagues.

On the 30th of May La Perouse shaped his course east toward Japan, and on the 2d of June saw two Japanese vessels, one of which passed within hail of him. It had a crew of twenty men, all habited in blue cassocks resembling those worn by French priests. This vessel was about 100 tons burthen, and had a single high mast stepped in the middle. The Astrolabe hailed her as she passed, but neither the question nor the answer

was comprehended. She continued her course to the southward, to give the earliest intelligence of two foreign vessels having appeared in seas where no European navigator had ever ventured. At different times of the day seven Chinese vessels, of smaller construction, were seen, which were better calculated to encounter bad weather.

During the seventy-five days, since our navigators sailed from Manilla, they had run along the coasts of Quelpert Island, Corea, and Japan; but as these countries were inhabited by people inhospitable to strangers, they did not attempt to visit them. They were extremely impatient to reconnoitre this land, and it was the only part of the globe which had escaped the activity of Captain Cook. The geographers who had drawn the strait of Tessoy, erroneously determined the limits of Jesso, of the Company's Land, and of Staten Island; it therefore became necessary to terminate the ancient discussions by indisputable facts. The latitude of Baie de Ternai was the same as that of Port Acqueis, though the description of it is very different. The plants which France produces carpeted the whole of this soil. Roses, lilies, and all European meadow-flowers were beheld at every step. Pine trees embellished the tops of the mountains; and oaks, gradually diminishing in strength and size toward the sea, adorned the less elevated parts. Traces of men were frequently perceived by the havoc they had made. By these, and many other corroborating circumstances, the navigators were clearly of opinion, that the Tartars approach the borders of the sea, when invited thither by the season for fishing and hunting; that they assemble for those purposes along the rivers, and that the mass of people reside in the interior of the country, to attend to the multiplication of their flocks and herds. M. de Langle, with several other officers who had a passion for hunting, endeavoured to pursue their sport, but without success; yet they imagined that, by silence, perseverance, and posting themselves in ambush in the passes of the stags and bears, they might be able to procure some of them. This plan was determined on for the next day, but, with all their address and management, it proved abortive. It was therefore generally acknowledged that fishing presented the greatest prospect of success. Each of the five creeks in the Baie de Ternai afforded a proper place for hauling the seine, and was rendered more convenient by a rivulet, near which they established their kitchen. They caught plenty of trout, salmon, cod-fish, harp-fish, plaice, and herrings.

On the 4th, at three in the morning, there was a fine clear sky, and the navigators saw, upon their right beam, at the distance of two miles, in the west-north-west, a great island into which a river discharged itself. The country resembled that at Baie de Ternai, and, though three degrees more to the northward, the productions of the earth differed very little from it. M. de Vaujuas, who had been despatched in one of the boats, took away one of the elk-skins, but not without leaving in exchange for it some hatchets and other iron instruments of infinitely more value. That officer's representation, nor that of the naturalists, did not encourage La Perouse to continue any longer in this bay, on which he thought proper to bestow the name of Baie de Suffren.

At eight in the morning of the 7th, he made an island which seemed of great extent; he supposed, at first, that this was Segalien Island, the south part of which some geographers had placed two degrees too far to the northward. The aspect of this land was extremely different from that of Tartary: nothing was to be seen but barren rocks, the cavities of which retained the snow. To the highest of the mountains La Perouse gave

the appellation of Peak Lamanon. M. de Langle, who had come to anchor, came instantly on board his ship, having already hoisted out his long-boat and small boats. He submitted to La Perouse whether it would not be proper to land before night, in order to reconnoitre the country, and gather some necessary information from the inhabitants. By the assistance of their glasses, they perceived some cabins, and two of the islanders hastening toward the woods.

Our navigators were successful in making the natives comprehend that they requested a description of their country, and that of the Mantchous; one of the old sages rose up, and, with great perspicuity, pointed out the most essential and interesting particulars with the end of his staff. His sagacity in guessing the meaning of the questions proposed to him was astonishing, though, in this particular, he was surpassed by another islander of about thirty years of age. The last-mentioned native informed our navigators that they had a commercial intercourse with the people who inhabited the banks of Segalien River, and he distinctly marked, by strokes of a pencil, the number of days it required for a canoe to sail up the river to the respective places of their general traffic. The bay in which they lay at anchor was named Baie de Langle, as Captain de Langle was the first who discovered it, and first landed on its shore. They spent the remainder of the day in visiting the country and its inhabitants. They were surprised to find among a people composed of hunters and fishermen, who were strangers to the cultivation of the earth, and without flocks or herds, such gentle manners and such a superiority of intellect. The attention of the inhabitants of the Baie de Langle was attracted by the arts and manufactures of the French: they judiciously examined them, and debated among themselves the manner of fabricating the several articles. They were not unacquainted with the weaver's shuttle; a loom of their construction was brought to France, whence it appeared that their methods of making linens were similar to those of the Europeans; but the thread of it is formed of the bark of the willow-tree. Though they do not cultivate the soil, they convert the spontaneous produce of it to the most useful and necessary purposes.

At daybreak, on the 4th of July, La Perouse made the signal for getting under way; early on the 19th he saw the land of an island from north-east by north, as far as east-south-east, but so thick a fog prevailed that none of the points could be particularly discovered. At four the fog, in a great degree, dispersed, and the navigators took bearings of the lands astern, to them to the north by east. The bay, which is the best in which he had anchored since his departure from Manilla, he named Baie d'Estaing. M. de Langle, who first landed on the island, found the islanders assembled round three or four canoes, laden with smoked fish: he was there informed that the men who composed the crews of the canoes were Mantchous, and had quitted the banks of the Segalien River to become purchasers of these fish. In the corner of the island, within a kind of circus planted with stakes, each surmounted with the head of a bear, the bones of animals lay scattered. As these people use no fire-arms, but engage the bears in close combat, their arrows being only capable of wounding them, this circus might probably be intended to perpetuate the memory of certain great exploits. Having entertained conjectures relative to the proximity of the coast of Tartary, La Perouse at length discovered that his conjectures were well-founded; for when the horizon became a little more extensive, he saw it perfectly. In the evening of the 22d he came to an anchor in thirty-seven fathoms, about a league from the land.

He was then abreast of a small river, to the northward of which he saw a remarkable peak ; its base is on the shore, and its summit on all sides preserves a regular form. La Perouse bestowed on it the title of Peak la Martiniere.

On the 28th, in the evening, our navigators were at the opening of a bay which presented a safe and convenient anchorage. M. de Langle reported to La Perouse that there was excellent shelter behind four islands ; he had landed at a village of Tartars, where he was kindly received, and where he discovered a watering place abounding with the most limpid element. From M. de Langle's report, La Perouse gave orders to prepare for anchoring at the bottom of the bay, which was named Baie de Castris.

In this bay the French navigators first discovered the use of the circle of lead or bone, which these people and the inhabitants of Segalien Island wear on the thumb like a ring ; it greatly assists them in cutting and stripping the salmon with a knife, which is always hanging to their girdle. Their village was built upon low marshy land, which must doubtless be uninhabited during the winter ; but on the opposite side of the gulf another village appeared on a more elevated situation. It was seated at the entrance of a wood, and contained eight cabins, larger and better constructed than the first. Not far from these cabins, they visited three yourts, or subterranean houses. They were sufficiently capacious to accommodate the inhabitants of the whole eight cabins during the severity of the inclement season. On the borders of this village several tombs presented themselves, which were larger and more ingeniously fabricated than the houses ; each of them contained three, four, or five biers, decorated with Chinese stuffs, some pieces of which were brocade. Bows, arrows, and the other most esteemed articles of these people, were suspended in the interior of these monuments, the wooden door of which was closed by a bar, supported at each end by a prop.

The women are wrapped in a large robe of nankeen, or salmon-skins, curiously tanned, descending as low as the ankle-bone, sometimes embellished with a border of fringe manufactured of copper, and producing sounds like those of little bells. Those salmon which furnish a covering for the fair, weigh thirty or forty pounds, and are never caught in summer ; those which were taken by the French visitors did not exceed three or four pounds in weight ; but that disadvantage was fully compensated by the extraordinary number and the extreme delicacy of their flavour.

On the 2d of August La Perouse sailed with a light breeze. Segalien Island terminating in a point, a distant horizon of mountains was no longer seen ; many circumstances announced that he was approaching its southern extremity, and that the peak was upon another island. On this supposition, which was realized the next day, the anchor was let go in the evening, as the calm rendered it necessary to anchor at the south point of Segalien Island. This point, which was named Cape Chillon, is situated in 45 degrees 57 minutes north-latitude, and 140 degrees 34 minutes east longitude : it terminates this island, which from north to south is of immense extent, separated from Tartary by a channel terminated by sand-banks to the northward, between which no passage for ships is to be found. This island is Oku-Jesso. Chica Island, abreast of our navigators, divided by a channel from that of Segalien, and from Japan to the Strait of Sangaar, is the Jesso of the Japanese, extending to the south as far as the Strait of Sangaar. The chain of the Kurile mountains is more to the eastward, and, with Jesso and Oku-Jesso, forms

a sea which communicates with that of Ochotsk. The persons of the islanders, which were seen in Crillon Bay, were well-sized, strong, and vigorous: their features were expressive, and their beards descended to their breast; their arms, necks, and backs, were also covered with a profusion of hair. Their middle stature is supposed to be about an inch lower than that of the French. Their skin is tawny, like that of the Algerenes and other nations on the coast of Barbary.

On the 17th they approached Staten Island, of which they had a perfect view. On the 19th Cape Troun was perceived to the southward, and Cape Uries to the south-east by east, its proper direction, according to the Dutch chart: their situations could not possibly have been determined with more precision by modern navigators. On the 20th saw the Company's Island, and reconnoitred the Strait of Uries, though it was very foggy, and ran along the south coast of the Company's Island, at the distance of three or four leagues: it appeared to be barren, without trees or verdure, and even without inhabitants. On the 29th, after a series of foggy weather, our navigators reconnoitred Mareckan Island, considered by some as the first of the southern Kuriles; its extent is about ten leagues from north-east to south-west, and each extremity is terminated by an eminence, a peak or volcano rising in the middle. On the 5th of September, though the fog continued obstinate, the navigators crowded sail in the midst of darkness, and at six in the evening of the same day it cleared up, and enabled them to see the coast of Kamtschatka, the whole of which appeared hideous; the eye surveyed with terror enormous masses of rocks, which, in the beginning of September, were enveloped in snow. The next day they approached the land, and found it agreeable to behold when near; and the base of these enormous summits, crowned with eternal ice, was carpeted with the most beautiful verdure, finely diversified with trees. In the evening of the 6th they made the entrance of Awatsha Bay, or St. Peter and St. Paul. The light-house, erected by the Russians on the east-point of the entrance, was not kindled during the night; as an excuse for which, the governor declared, the next day, that all their efforts to keep it burning had been ineffectual; the wind had constantly extinguished the flames, which was only sheltered by four planks of wood, very indifferently cemented.

The government of Kamtschatka had been materially changed since the departure of the English, and was now only a dependency of that of Ochotsk. These particulars were communicated to our navigators by Lieutenant Kaborof, governor of the harbour of St. Peter and St. Paul, having a serjeant and forty soldiers under his command. M. de Lessops, who acted as interpreter, and who perfectly understood the Russian language, wrote a letter, in La Perouse's name, to the governor of Ochotsk, to whom La Perouse also wrote in French himself. He told him that the narrative of Cook's last voyage had spread abroad the fame of the hospitality of the Kamtschadale government; and he flattered himself that he should be as favourably received as the English navigators, as his voyage, like theirs, was intended for the general benefit of all maritime nations.

In the midst of their labours our navigators devoted intervals to pleasure, and engaged in several hunting parties on the rivers Awatsha and Paratounka, expecting to be able to shoot a few rein-deer, bears, or other quadrupeds, inhabitants of that climate. They were obliged, however, to content themselves with a few ducks or teal, an inferior sort of game, which were considered as a poor compensation for their laborious excursions. But if their own endeavours were not so successful as their

sanguine expectations had predicted, their friends among the Kamtschadales made ample amends for the disappointment. During their stay they had received from the inhabitants of the village an elk, four bears, and a rein-deer, with such a quantity of divers wild fowl, that they found it necessary to distribute a considerable part of them among their crews. This was rendered the more necessary, as they had been cloyed by a superabundance of fish; a single cast of the net alongside of the frigates would have produced sufficient sustenance for half a dozen ships; but there was little variety of species; cod, salmon, herrings, and plaice, were almost the only produce of the net.

The Kamtschadales are of an imitative genius, and fond of adopting the customs of their conquerors. They have already abandoned the yourts, in which they were formerly accustomed to burrow like badgers, breathing foul air during the whole of the winter. The most opulent among them now build isbas, or wooden houses, like those of the Russians: they are divided into three small rooms, and are conveniently warmed by a brick stove. The inferior people pass their winters and summers in balagans, resembling wooden pigeon-houses, covered with thatch, and placed upon the tops of posts twelve or thirteen feet high, to which the women, as well as men, find a ladder necessary for their ascension. But these latter buildings will probably soon disappear: for the Kamtschadales imitate the manners and dresses of the Russians. It is curious to see in their little cottages a quantity of cash in circulation; and it may be considered as a still greater curiosity, because the practice exists among so small a number of inhabitants. Their consumption of the commodities of Russia and China are so few, that the balance of trade is entirely in their favour, in consequence of which it is necessary to pay them the difference in rubles. The Kamtschadales, says La Perouse, appeared to me to be the same people as those of the Bay of Castris, on the coast of Tartary; they are equally remarkable for their mildness and their probity, and their persons are not very dissimilar.

The approach of winter now warned our navigators to depart; the ground, which, on their arrival on the 7th of September, was adorned with the most beautiful verdure, was as yellow and parched up on the 25th of the same month as in the environs of Paris at the conclusion of December. La Perouse therefore gave preparatory orders for their departure, and on the 29th got under way. M. Kailoff came to take a final leave of him, and dined on board. He accompanied him on shore, with M. de Langle and several officers, and was liberally entertained with a good supper and a ball.

Signs of land were seen on the 18th and 19th of October; flights of ducks, and other birds that frequent the shore, were observed. On the 1st of November, after experiencing several vicissitudes of weather, a great number of birds were seen; and, among others, curlews and plovers, two species which are never observed at any considerable distance from land. On the 5th they crossed their own track from Monterey to Macao; and on the 6th that of Captain Clerke from the Sandwich Islands to Kamtschatka, when the birds had entirely disappeared. A heavy swell from the east, like that from the west in the Atlantic Ocean, constantly prevails in this vast sea; they saw neither bonetas nor doradoes, nor anything but a few flying-fish; a distressing circumstance, as their fresh provision was entirely consumed.

Induced by a western gale, La Perouse attempted to reach the parallel of Bougainville's Navigator's Islands, a discovery due to the French.

where fresh provisions might probably be procured. On the 6th of December, at three in the afternoon, he saw the most easterly island of that archipelago, and stood on and off during the rest of the evening and night. Meaning to anchor if he met with a proper place, La Perouse passed through the channel between the great and the little islands that Bougainville left to the south; though hardly a league wide, it appeared perfectly free from danger. He saw no canoes till he was in the channel, yet he beheld several habitations on the windward side of the island, and a group of Indians sitting under the shade of cocoa nut trees, who seemed delighted with the prospect afforded by the frigates.

Expecting to meet with a more considerable island farther west, the navigators flattered themselves they should find a shelter, if not a port, and therefore deferred making more extensive observations till they arrived at that island, which, according to M. de Bougainville's plan, they now approached. At break of day they were surprised not to see land to leeward; nor was it to be discovered till six o'clock in the morning, the channel being infinitely wider than was represented on the chart which was delivered to La Perouse as a guide. They found themselves opposite the north-east point of the Island of Maouna at five in the evening. Being visited by two or three canoes, which came alongside to exchange hogs and fruit for beads, they conceived a favourable opinion of the riches of the island.

Charmed with the beautiful dawn of the following morning, La Perouse resolved to reconnoitre the country, take a view of the inhabitants at their houses, fill water, and immediately get under way—prudence warning him against passing a second night at that anchorage, which M. de Langle also thought too dangerous for a longer stay. It was therefore agreed on to sail in the afternoon, after appropriating the morning in exchanging baubles for hogs and fruit. At the dawn of day the islanders had surrounded the two frigates, with 200 different canoes laden with provisions, which they would only exchange for beads; axes, cloth, and other articles of traffic were treated by them with contempt. While a part of the crew was occupied in keeping them in order and dealing, the rest were despatching empty casks on shore to be replenished with water. Two boats of the Boussole, armed and commanded by Messrs. de Clonard and Colinet, and those of the Astrolabe, commanded by Messrs. de Monti and Bellegarde, set off with that view at five in the morning, for a bay at the distance of about a league. La Perouse followed close after Messrs. de Clonard and de Monti, in his pinnace, and landed when they did. It unfortunately happened that M. de Langle had formed a resolution to make an excursion in his jolly-boat to another creek, at the distance of about a league from their watering place; from this excursion a dire misfortune ensued. The creek toward which the long-boats steered was large and commodious; these, as also the other boats, remained afloat at low water, within half a pistol-shot of the beach, and excellent water was easily procured. Great order was observed by Messrs. de Clonard and de Monti. A line of soldiers was posted between the beach and the natives, who amount to about 200, including many women and children. They were prevailed on to sit down under cocoa trees, at a little distance from the boats; each of them had fowls, hogs, pigeons, or fruit, and all of them were anxious to disposed of their articles without delay, which created some confusion.

While matters were thus passing with perfect tranquillity, and the casks expeditiously filling with water, La Perouse ventured to visit a charming village, situated in the midst of a neighbouring wood, the trees of which

were loaded with delicious fruit. The houses formed a circle of about 150 toises in diameter, leaving an interior open space, beautifully verdant, and shaded with trees, which rendered the air delightfully cool and refreshing. Women, children, and aged men attended him, and earnestly importuned him to enter their houses; they even spread their finest mats upon the floor, decorated with chosen pebbles, and raised a convenient distance from the ground, to prevent offensive humidity. La Perouse condescended to enter one of the handsomest of these huts, which was probably inhabited by a chief, and was astonished to behold a large cabinet of lattice-work, in which as much taste and elegance were displayed as if it had been produced in the environs of Paris. This enchanting country, blessed with a fruitful soil without culture, and enjoying a climate which renders clothing unnecessary, holds out to these fortunate people an abundance of the most estimable food. The trees invite the natives to partake of the bread fruit, the banana, the cocoa nut, and the orange; while the swine, fowls, and dogs, which partake of the surplus of these fruits, afford them a rich variety of viands. The inhabitants of this enviable spot were so rich, and entirely free from wants, that they looked with disdain on the cloth and iron tools, valued by the French visitors, and only deigned to become customers for beads. Abounding in real blessings, they languished only for superfluities.

The boats of the Boussole now arrived loaded with water, and La Perouse made every preparation to get under way. M. de Langle and the same instant returned from his excursion, and mentioned his having landed in a noble harbour for boats, at the foot of a delightful village, and near a cascade of transparent water. He spoke of this watering place as infinitely more commodious than any other, and begged La Perouse to permit him to take the lead of the first party, assuring him that in three hours he would return on board with all the boats full of water. Though La Perouse, from the appearance of things at this time, had no great apprehensions of danger, he was averse to sending boats on shore without the greatest necessity, especially among an immense number of people, unsupported and unperceived by the ships. The boats put off from the Astrolabe at half-past twelve, and arrived at the watering place soon after one; when, to their great astonishment, M. de Langle and his officers, instead of finding a large commodious bay, saw only a creek full of coral, through which there was no other passage than a winding channel of about twenty-five feet wide. When within, they had no more than five feet water; the long-boats grounded, and the barges must have been in the same situation had they not been hauled to the entrance of the channel at a great distance from the beach. M. de Langle was now convinced that he had examined the bay at high water only, not supposing that the tide at those islands rose five or six feet. Struck with amazement, he instantly resolved to quit the creek, and repair to that where they had before filled water; but the air of tranquillity and apparent good humour of the crowd of Indians, bringing with them an immense quantity of fruit and hogs, chased his first prudent idea from his recollection.

He landed the casks on shore from the four boats without interruption, while his soldiers preserved excellent order on the beach, forming themselves in two lines, the more effectually to answer their purpose. Instead of about 200 natives, including women and children, which M. de Langle found there at about half-past one, they were, at three o'clock, increased to the alarming number of 1200. M. de Langle's situation became every instant more embarrassing; he found means, however, to ship his water,

but the bay was almost dry, and he had not any hopes of getting off the long-boats till four in the afternoon. He and his detachment, however, stepped into them, and took post in the bows with his musket and musketeers, forbidding any one to fire without his command; which he knew would speedily be found necessary. Stones were now violently thrown by the Indians, who were up to their knees in water, and surrounded the long-boats, at the distance of about six feet—the soldiers, who were embarked, making feeble efforts to keep them off.

M. de Langle, still hoping to check hostilities without effusion of blood, gave no orders all this time for firing a volley of musketry and swiftness, but shortly after a shower of stones, thrown with incredible force, struck almost every one in the long-boat. M. de Langle had only fired two shots, when he was knocked overboard, and massacred with clubs and stones by about 200 Indians. The long-boat of the Boussole, commanded by M. de Boutin, was aground near the Astrolabe, leaving between them a channel unoccupied by the Indians. Many saved themselves by swimming, who fortunately got on board the barges, which keeping afloat, forty-nine persons were saved out of the sixty-one, of which the party consisted. M. Boutin was knocked down by a stone, but fortunately fell between the two long-boats, on board of which not a man remained in the space of about five minutes. Those who preserved their lives by swimming to the two barges, received several wounds; but those who unhappily fell on the other side were instantly despatched by the clubs of the remorseless Indians.

The crews of the barges, who had killed many of the islanders with their muskets, now began to make more room by throwing their water-casks overboard. They had also nearly exhausted their ammunition, and their retreat was rendered difficult, a number of wounded persons lying stretched out upon the thwarts, and impeding the working of the oars. To the prudence of M. Vaujaus, and the discipline kept up by M. Mouton, who commanded the Boussole's barge, the public are indebted for the preservation of the forty-nine persons of both crews, who escaped. M. Boutin had received five wounds in the head and one in the breast, and remained above water by the cockswain of the long-boat, who had himself received a severe wound. M. Colinet was discovered in a state of insensibility, arm fractured, capnet-ropes of the barge, with two wounds on the head, an eye, and a finger broken. M. Lavaux, surgeon of the Astrolabe, and M. de Langle were called to the operation of the trepan. M. de Lamanon, the Boussole, and nine other persons were massacred, with Talio, master-at-arms of the Astrolabe, and the two crews. M. le Postillier, who commanded the long-boat, did not desert his post till he was left alone; when, having exhausted his ammunition, he leaped into the channel, and, notwithstanding his wounds, he preserved himself on board one of the barges. A little ammunition preserved him, and completely exhausted on the infuriated crowd; afterwards at length extricated themselves from their lamentable situation.

At five o'clock the officers and crew of the Boussole were informed of this disastrous event; they were at that moment surrounded with about 100 canoes, in which the natives were disposing of their provisions with security, and perfectly innocent of the catastrophe which had happened. But they were the countrymen, the brothers, the children of the infernal assassins, the thoughts of which so transported La Perouse with rage, that he could with difficulty confine himself to the limits of moderation, or hinder the crew from punishing them with death.

On the 14th of December La Perouse stood for the Island of Oyolava, which had been observed before they had arrived at the anchorage which proved so fatal. This island is separated from that of Maouna, or of the Massacre, by a wide channel, and vies with Otaheite in beauty, extent, fertility, and population. At the distance of about three leagues from the north-east point, he was surrounded by canoes, laden with bread fruit, bananas, cocoa nuts, sugar-canes, pigeons, and a few hogs. The inhabitants of this island resemble those of the Island of Maouna, whose treachery had been so fatally experienced. Some exchanges were conducted with these islanders with more tranquillity and honesty than at the Island of Maouna, as the smallest acts of injustice received immediate chastisement.

On the 17th they approached the Island of Pola, but not a single canoe came off; perhaps the natives had been intimidated by hearing of the event which had taken place at Maouna. Pola is a smaller island than that of Oyolava, but equally beautiful, and is only separated from it by a channel four leagues across. The natives of Maouna informed our visitors that the Navigator's Islands are ten in number, viz., Opoun, the most easterly, Leone, Fanfoue, Maouna, Oyolava, Calinasse, Pola, Skika, Ossamo, and Ouera. These islands form one of the finest archipelagoes of the South Sea, and are as interesting with respect to arts, productions, and population, as the Society and Friendly Islands, which the English navigators have so satisfactorily described. In favour of their moral characters, little remains to be noticed: gratitude cannot find a residence in their ferocious minds; nothing but fear can restrain them from outrageous and inhuman actions. The huts of these islanders are elegantly formed: though they disdain the fabrications of iron, they finish their work with wonderful neatness, with tools formed of a species of basalt in the form of an adze. For a few glass-beads they bartered large three-legged dishes of wood, so well polished as to have the appearance of being highly varnished. They keep up a wretched kind of police; a few, who had the appearance of chiefs, chastised the refractory with their sticks, but their assumed power seemed generally disregarded; any regulations which they attempted to enforce and to establish were transgressed almost as soon as they were promulgated. Never were sovereigns so negligently obeyed, never were orders enforced with such feeble shows of authority.

Imagination cannot figure to itself more agreeable situations, which render of their villages. All the houses are built under the shade of trees, which render them delightfully cool; they are seated on the principal object in their architecture is to protect them from the excessive heat, the islanders never abandon the idea of elegance, and they are furnished with blinds, which accommodate several ways to prevent the intrusion of the potent rays of the sun. The natives repose upon fine comfortable mats, which are reserved from all humidity. Nothing can be said, by our captives, of the religious rites of these natives, as no morai was perceived belonging to them. The islands are fertile, and their population is supposed to be considerable. Opoun, Leone, and Fanfoue, are small; but Maouna, Oyolava, and Pola, may be classed among the largest and most beautiful in the South Sea. Cocoa Island is lofty, and formed like a sugar-loaf; it is nearly a mile in diameter, covered with trees, and is separated from Traitor's Island by a channel about a league wide. At eight in the morning La Perouse brought to to the west-south-west, at

two miles from a sandy bay in the western part of the Great Island of Traitors, where he expected to find an anchorage sheltered from easterly winds. About twenty canoes instantly quitted the shore and approached the frigates, in order to make exchanges: several of them were loaded with excellent cocoa nuts, and a few yams and bananas; one of them brought a hog and three or four fowls. It evidently appeared that these Indians had before some knowledge of Europeans, as they came near without fear, traded with honesty, and never refused to part with their fruit before they were paid for it. They spoke, however, the same language, and the same ferocity appeared in their countenances; their manner of tattooing and the form of their canoes were the same, but they had not, like them, two joints cut off from the little finger of the left hand; two individuals had, however, suffered that operation.

On the 27th of December Vavao was perceived, an island which Captain Cook had never visited, but was no stranger to its existence as one of the archipelago of the Friendly Islands; it is nearly equal in extent to that of Tongataboo, and is particularly fortunate in having no deficiency of fresh water. The two small islands of Hoongatonga are no more than two large uninhabited rocks, which are high enough to be seen at the distance of fifteen leagues. Their position is ten leagues north of Tongataboo; but that island being low, it can hardly be seen at half that distance. On the 31st of December, at six in the morning, an appearance like the tops of trees, which seemed to grow in the water, proved the harbinger of Van Diemen's point. The wind being northerly, La Perouse steered for the south coast of the island, which may, without danger, be approached within three musket-shots. Not the semblance of a hill is to be seen; a calm sea cannot present a more level surface to the eye. The huts of the natives were scattered irregularly over the fields, and not socially collected into a conversable neighbourhood. Seven or eight canoes were launched from these habitations, and directed their course toward the vessels; but these islanders were awkward seamen, and did not venture to come near, though the water was smooth, and no obstacle impeded their passage. At the distance of about eight or ten feet, they leaped overboard and swam near the frigates, holding in each hand a quantity of cocoa nuts, which they were glad to exchange for pieces of iron, nails, and hatchets; from the honesty of their dealings a friendly intercourse ensued between the islanders and the navigators, and they ventured to come on board.

Norfolk Island, off the coast of New South Wales, which they saw on the 13th of January, is very steep, but does not exceed eighty toises above the level of the sea. It is covered with pines, which appear to be of the same species as those of New Caledonia or New Zealand. Captain Cook having declared that he saw many cabbage trees in this island, heightened the desire of the navigators to land on it. Perhaps the palm which produces these cabbages is very small, for not a single tree of that species could be discovered. On the 26th, at nine in the morning, La Perouse let go the anchor at a mile from the north coast of Botany Bay, in seven fathoms water. An English lieutenant and a midshipman were sent on board his ship by Captain Hunter, commander of the *Sirius*. They offered him, in Captain Hunter's name, all the services in his power: but circumstances would not permit him to supply them with provision, ammunition, or sails. An officer was despatched from the French to the English captain, returning thanks, and adding, that his wants extended only to wood and water, of which he should find plenty in the bay.

journal of La Perouse proceeds no farther. La Perouse, according to his last letters from Botany Bay, was to return to the Isle of France in 1788. For two years France in vain impatiently expected his return; perhaps the apprehensions of his countrymen may have been more agonizing than his actual suffering: perhaps he has been cast away upon one of the islands of the South Sea, whence he stretches out his arms toward his country for protection. We have not now even the consolation to doubt that he has experienced some dreadful calamity.

—CAPTAIN EDWARD EDWARDS.—1790-92.

ON the 10th of August, 1790, Captain Edwards was commissioned to take the command of his majesty's ship Pandora, of twenty-four guns and 160 men, to proceed to the South Seas; in the first instance, to call at Otaheite and seize the mutineers of the Bounty, who had audaciously rebelled against their commander, committed him with several others to an open boat in the midst of the Pacific Ocean, and then ran away with the ship to the above-mentioned island; and, secondly, to survey Endeavour Straits, in order that the passage to Port Jackson, New South Wales, from India might be expedited, by ascertaining its advantages and dangers. Lieutenant Bligh's voyage (commander of the Bounty) not being round the world, it is not given in this work; but for the information of the reader, it may be proper to state, that it was undertaken in order to introduce that great vegetable necessary of the South Seas, the bread fruit, into the West India Islands, by as many plants of it as could be conveniently carried.

Quitting England, they touched successively at Teneriffe and Rio Janeiro, without any occurrence of consequence but the illness of several of the crew; who, however, recovered as they approached Cape Horn, where the weather was, as usual, cold and tempestuous. January the 31st, saw Cape St. Juan, Staten, and New Year's Islands. March 4th, perceived Easter Island; on the 16th discovered a lagoon island, about four miles in extent, which was called after Lord Ducie; lagoon islands are those which are little better than sand-banks, supposed to be raised by the little animals which form the coral rocks, with a lake, or lagoon, of sea water in the centre, and producing in general little or nothing for the support of human life; hundreds of these are found in the South Seas, and, being a little elevated above the surface of the water, frequently prove dangerous to shipping, especially in the night.

Next day (17th) saw another of these islands, which was named after Lord Hood, about six miles long, with several kinds of trees, but no appearance of inhabitants. Two days afterward observed a third, which received the name of Carysfort Island, after his lordship; on the 22d passed Matei, and next day anchored in Matavai Bay, Otaheite. Early in the morning a canoe with one man visited them, who expressed the greatest satisfaction, and was astonished to see Lieutenant Hayward, (one of the Bounty officers,) as, he said, the mutineers told them that Captain Bligh and the others had gone to Whyteetakee to settle along with Captain Cook, who was still living there. Christian, however, chief of the mutineers, with nine companions more attached to him than the others, and several Otaheitean men and women, had slipped the Bounty's cable in the night, and, leaving the remaining part of the crew on shore, went off, nobody knew whither.

the management of the sword and the lance, they would not be inferior to any troops of this description in Europe.

The exterior commerce of the kingdom is principally carried on from the seaports of Concepcion, Coquimbo, and Valparaiso; but the latter has the greatest share of trade, arising from its central situation and its vicinity to the capital. The measured distance between St. Jago and Buenos Ayres they could not learn, but understood that the post travels from thence to the capital of Chili in twenty days; and that the country, from Buenos Ayres until it reaches the foot of the Cordilleras, which run in a northern and southern direction, and pass to the eastward of St. Jago, is one entire desert, without trees or any other sort of vegetation, and that it is so completely a level plain, that even a hillock does not appear on its surface. The nearest silver mine to St. Jago is at the distance of about seven leagues, and the nearest gold mine is to the north-east of the city, at the distance of about thirty leagues.

The houses in Valparaiso, on account of the earthquakes which frequently happen in South America, like those in St. Jago, consist of the ground-floor only; the walls are built with mud, and plastered over with a preparation of lime; they are convenient, well adapted to the climate, and are in general handsomely furnished. In the town and in the village of Almandrel there are six churches, within the diocese of the archbishop of St. Jago, but under the direction of a vicar, who resides at Valparaiso, and is amenable for his conduct to the archbishop. The town and its neighbourhood are under the jurisdiction of the governor, who receives his appointment, with a salary of 4000 dollars per annum, from the King of Spain; but he is nevertheless under the immediate orders and control of the captain-general. All civil and military causes are heard at St. Jago. Capital offences are seldom committed; a man was found guilty on a charge of felony, and hanged about three years before their arrival, a punishment that was seldom known to be inflicted.

Nothing particular happened in the voyage round Cape Horn, and thence to St. Helena, where the Discovery arrived on the 2d of July, the Chatham having got thither before her. Here, in consequence of the hostilities with Holland, Captain Vancouver took a Dutch East Indiaman, the *Macassar*. On the 12th of September made the western coast of Ireland; when, having seen the Discovery safely moored in the Shannon, he proceeded to London, resigning the command of the ship to Lieutenant Baker, and taking with him such books, papers, and charts, as were necessary to lay before the lords of the admiralty, relative to the services performed. In the course of this long voyage of four years eight months and twenty-nine days, the Discovery lost by disease, out of one hundred men, only one, and five by accidents; and in the Chatham not one died from disease or otherwise.

CAPTAIN ETIENNE MARCHAND.—1790-92.

CAPTAIN MARCHAND, hearing of the success of some voyages to the north-west coast of America for furs, by English adventurers, proposed to the commercial house of Baux, in Marseilles, a similar expedition; which being agreed to, an effective ship, the *Solide*, of 300 tons, ten guns, and fifty officers and seamen, was placed under his command, and he sailed from Marseilles the 14th of December, 1790. January 15th, anchored for three days in Port Praya, St. Jago, after which nothing of

any importance occurred till they saw Staten Land from the mast-head the 1st of April, and by the 20th had sailed quite round Terra del Fuego into the great South Sea, when they encountered the first heavy storm so common in these regions.

Want of water compelled him to shape a course for the group of islands called Marquesas, discovered by Mendana in 1595, and since visited by Cook. June 12th, discovered them, the vicinity of land having been indicated for some days before by flights of terns, sea-swallows, and several other birds, which are known not to proceed far from the shore. Steering for the Bay of Madre de Dios, they were met by many natives in canoes and swimming, blowing conchs, singing, and beating time on the sides of the canoes, at the same time pointing out where water was to be procured. Several women at the same time displayed their charms, offering them by no unequivocal signs to the seamen. Before the *Solide* reached the bay, a flotilla of canoes surrounded her, many having come even from the Island of Dominica. One of their old men, after pronouncing a harangue, tied a piece of white cloth in the rigging, understood to be the signal of peace, and crying out, *Tayo! Tayo!* meaning friend. Toys were distributed freely among them, and looking-glasses excited much admiration and astonishment. The crowd soon increased so much, that it was no longer possible to work the ship but on being requested to retire, they complied in a very orderly manner each seeming to seek his own island, though at considerable distances.

Early the next morning the ship was surrounded by above 500 natives, all eager to go on board; but in the meantime stripping off, with their fingers alone, pieces of iron and copper, which it would have required instruments and time for an European to remove. A gun was fired over their heads; but instead of intimidating, it only served to increase their audacity; a shot, which struck the rocks, had for a moment some little effect, till, recovering their alarm, several threw sticks on board, and struck their lances against the sides of the ship; one snatched a musket from one of the men protecting the boats, and others attempted to remove the leaden pump from the stern; a man of less humanity than Marchand would probably have answered these hostile demonstrations as hostilely; but only firing two muskets sufficiently close for them to hear the balls whiz over their heads, order was in some degree restored. Women and young girls in hundreds flocked on board, anxious to dispose of their persons for nails, beads, and other trinkets and implements; and lest their overtures should not be sufficiently understood, the men were eager to become their interpreters. A blunderbuss of one of the watering party going off, accidentally wounded a native by breaking a bone of the arm; this excited some fear among them, but no revenge; the surgeon, Roblet, proceeding on shore to dress it, found the arm very skilfully managed, so as to display no small share of surgical knowledge; presents and caresses were given to prevent any unfavourable impression from this unfortunate occurrence.

In an excursion into the woods the same day, by the captain, one of the natives snatched his musket and ran off; but, in attempting to pursue him, was immediately recalled by the danger of his servant, whom he found seized by half a dozen islanders, who soon let go their hold, though not without carrying away his hat and a box he had under his arm. By the interference of a chief, however, the musket was restored the next day. Several fruits and vegetable refreshments were procured, with abundance of water, but scarcely a hog or fowl; for, though they did not

seem scarce, the owners would not part with them. Marchand, therefore, set off in the boats for some other bays in the neighbourhood, and at the second in his way procured twelve fine hogs, the natives civilly carrying the individuals of the party on shore and on board again, on account of a dangerous landing place. At another bay they were not so successful in their pursuit, though received equally friendly; several petty thefts were committed, but on the whole the behaviour of the natives was friendly in a marked degree.

Santa Christina, the only island of the group hitherto visited, is about seven leagues in circumference, the land high and rocky, the latter seeming of a volcanic nature, many portions of it barren, and, taken on the whole, is infinitely less fruitful than either of the Society Islands; so that the people have by no means the superfluities of the Otaheiteans. Bread fruit and cocoa nuts are here much more scarce. The sugar-cane is, however, very fine; also a large species of chestnut. The islanders well remembered the name of Captain Cook, who touched here; but not a single European article of any description was now observed among them, and to almost all of them they seemed utter strangers. Rats are excessively numerous, and destroy much of the food of the islanders; the hogs are small, but sweet and well-tasted; a variety of birds abound in the woods, and enliven them with their songs; rock-fish are in plenty in the bay; and the shark is little regarded by the islanders, who swim about seemingly regardless of its fierce and ravenous attacks.

The people are confessedly the finest race in the South Sea for beauty of person, the whole being very tall, well-formed, inclining to corpulency without being so, their chests and shoulders broad, their limbs muscular, and their activity on land or in water equally remarkable; the common height is about five feet ten inches, but great numbers exceed six feet. Their colour is a bright brown, their hair of several shades, as flaxen, auburn, black, either long or curling. The countenance is open and frank, the nose being either flat or aquiline, the eyes large and black, and the teeth regular. They are in general naked, except a piece of cloth, made of the bark of a tree, tied round the loins for the sake of modesty; but tattooing is so general, and so well and neatly executed, that this might almost be fancied a species of clothing of itself. The women are equally remarkable for beauty of person; their clothing is not much more, but the tattooing considerably less than in the other sex; in fact, clothing is an encumbrance, as much of their time is spent in the water. The licentiousness of the greater part is, however, shameless and disgusting; even children of eight years old were publicly prostituted.

Their weapons are lances, a sort of sabre, pikes or javelins, and clubs; their canoes are rude and ill formed, bearing no comparison to the elegance of those of Otaheite. The houses are built on stone platforms raised from the ground, as if they were exposed to inundations from the sea; and likewise they use very curious stilts, apparently for the same reason, on which they stalk about with great expedition. The scoop-net and sweep-net constitute their fishing implements; their hatchet is of a hard species of stone; their household utensils consist of calabashes and various others, formed of wood; and the great article of cloth is made from the bark of the paper mulberry tree.

June 20th, at midnight, quitted the anchorage of Santa Christina, and next morning discovered high land in the north-west quarter, adjoining which were several isles, upon which the officers and seamen conferred the name of Isle Marchand. Some sandy bays were perceived, with a

few rivulets of fine water running into them: a few natives came on board, some without hesitation, others with the strongest symptoms of terror; they spoke the same language, were of the same colour, and in other respects differed little or nothing from those of Santa Christina, this being merely an extension of the Marquesas group; but they seemed utterly unacquainted with their visitors, or with European commodities; for among them all they preferred glass bottles to everything else. Appearances of other islands were distinguished, one of which, to windward, he could not reach, but called it Baux's Island, after the owners of his ship; two others, not much elevated above the surface of the water, were named the Two Brothers; while two more received the appellations of Masse's and Chanal's Islands, after the first and second officers of the *Solido*. The cluster had given to it the general name of the Revolution Islands. Marchand's Isle is about ten or eleven leagues in circumference, Baux's about fifteen; the former in 9 degrees 21 minutes south latitude, 142 degrees 19 minutes west longitude; the latter in 8 degrees 48 minutes south latitude, 142 degrees 31 minutes west longitude.

June 25th, lost sight of these islands, steering for the north-west coast of America. Indications of land, such as birds, sea-weed, drift-wood not long in the water, and obscurities in the horizon, which, however, they had not time to examine, were perceived occasionally during the run to the American coast, which was seen on the evening of the 7th of August, near to Cape Engana, or Edgcombe. They anchored at Pitt's Island, in Norfolk Sound, called by the natives Tchinkatanay, and next morning about 140 men, women, and children, came round the ship singing, which, it seems, is their usual practice on first becoming acquainted with strangers, bringing some furs, which they seemed very well to know the value of by the price demanded. In this traffic they have already acquired great skill and finesse, showing off their articles to the best advantage, and examining and detecting the faults of those given to them in return with great minuteness. Woollen clothes were in the greatest request, many of the natives being entirely clothed with them, of English manufacture: they obstinately adhered to what they considered the value of their skins, and even when the ship was preparing to depart would not reduce the price; one hundred otter-skins prime, two hundred and fifty cub otter-skins, thirty-six whole bear-skins, fifteen half skins, thirty-seven seal-skins, sixty beaver and racoon-skins, a bag of squirrel-skins, a carpet of mountain rat-skins, and a quantity of otter-skins cut into slips and worn, constituted their purchase here; the latitude of the cove where the ship lay was 57 degrees 4 minutes north, and longitude 137 degrees 59 minutes west. Tchinkatanay Bay is well protected by high mountains on all sides, their summits covered with snow which appears never to melt, and their brows with wood which never comes under the axe. The sea-otter, on which skin the Chinese place so much value, is about two feet ten inches in length, the tail about twelve or thirteen inches, the fur is extremely beautiful, and for a prime skin from sixty to ninety dollars are sometimes given at Canton. Its beauty varies in some measure with the season; those killed in March, April, and May, being esteemed the best; black is the general colour, but there are many of a brownish hue; the weight of the body, which, though insipid, is eaten by the natives, is from seventy to eighty pounds. The natives of this bay were rather short in stature, their noses snubbed and sharp, their eyes small and sunk in the head, their cheek-bones prominent, their faces round, their colour reddish or of a light brown, but dirt and the admixture of various pig-

ments render it difficult to determine precisely what their natural hue is. Their favourite weapon is a metal dagger, fifteen or sixteen inches long, in which they take no little pride, keeping it always in the highest polish. They take two meals a day, about noon and in the evening, before which periods they regularly left the ship to be on shore in good time. They treat the women with attention, not giving them the laborious work which is imposed by some other tribes on the coast of North-West America; and the men likewise seem to feel pleasure in nursing their offspring, which is not often the case among savages. The women are reserved and modest; and the men, as may be supposed from this circumstance, rather jealous, forming a remarkable contrast to the people of the South Sea Islands, and showing the superiority in moral feeling of the people of a cold or temperate to those of a tropical climate, both being equally savages, and, of course, ignorant of the decencies of civilized life. Their language is excessively harsh and uncouth, requiring at once a strong nasal aspiration and a guttural effort; it seems, however, from what could be collected, that it is copious and varied, from the nicety with which the most minute parts of an animal, or other trivial things, were called and described.

Marchand quitted this place the 21st of August for Queen Charlotte's Islands, and distinguished Cloak Bay, where he anchored; but found few skins, a vessel having been there recently, which had carried them all off. A chief invited them to visit his habitation, forming a parallelogram, from forty-five to fifty feet in front by thirty-five in depth. Six, eight, or ten trees, cut and planted in each front, form the enclosure of a habitation, and are fastened to each other by planks ten inches in width; the partitions, six or seven feet high, are surmounted by a roof a little sloped; in the middle of the roof is made a large square opening, affording at once entrance to the light and an exit to the smoke; there are also sometimes a few small openings in the sides. These houses have two stories, though only one visible, the lower one being in fact under ground, the descent to which is by half a dozen of steps, and here they reside during the winter. To one of the boats despatched to trade came a chief and several of his tribe, who, though possessed of several skins, seemed disinclined to part with them, except at a high price, repeating frequently the name of *Englishmen*, as if they would give more than their present visitors. The arms supplied by them were in general so bad, that one discharge with a ball or shot would probably have burst them. At length, when the boats seemed prepared to depart, the natives, who had hitherto held out for fire-arms, or blankets and woollen clothing, were willing to accept less valuable articles, such as boilers, pewter basins, pots, kettles, and a variety of other things of a similar nature.

While they were quitting the place, a brig, about 200 tons burthen, with a tender along with her, hove in sight; but showing no colours and Marchand not wishing to speak with any stranger, no intercourse took place between them; but, from the accounts of the natives, they turned out to be English. Fish, particularly of the shell kind, are numerous here; water also is plentiful, and of excellent quality; seals sport about in the bay; whales appear off its mouth; birds are very numerous; but the only quadruped observed was the dog. The natives are very fond of gambling, by means of thirty small sticks variously disposed; their women were modest, any intercourse that took place with the seamen being entirely from interested motives, and evidently not from constitutional incitements. Another boat was now despatched down to Rennell's

Stait, to try for furs there, their success hitherto being much inferior to their expectations ; a good harbour was called after the second officer, Chanal's Harbour ; but, after a fatiguing excursion for several days, very few skins could be procured. The Solide's course was now directed to Berkeley's Sound, in latitude 49 degrees, most other spots seeming to have been already stripped of their commodities by English rivals.

September 4th, got sight of the land in this neighbourhood, and the next evening anchored ; on the morning of the 7th they saw five canoes approaching them, with six or seven men in each, who, having no skins themselves, directed the ship to proceed in a direction they pointed out, where several were to be procured. These people were fairer than those on that part of the coast they had left ; and their canoes, besides being larger, were constructed in a very superior manner. Standing in to Berkeley's Sound the day afterward, Marchand perceived a three-masted vessel coming out, when, finding himself anticipated here as well as to the northward, and the stranger also standing to the southward, whither he intended to go, he thought farther competition would not turn out successful, and that the only chance of making the voyage profitable was to proceed at once to China, and sell his skins before there was any competition in the market. The officers agreeing in the propriety of this resolution, they set sail for the Sandwich Islands, in order to take in refreshments for the remainder of the voyage.

October 4th, made Owyhee, the chief of the group. Dreading the character for enterprise and courage acquired by these islanders, Marchand thought it the most expeditious and safest plan to purchase his refreshments under sail, with which he was liberally supplied for iron and other wares ; but among the cargoes of hogs brought off were intermixed many women, whom, however, the Solide's crew very wisely declined to admit on board. The famous mountain Mowna Roa, in Owyhee, was perceived by the Solide about forty-six leagues distant from the island and more than fifty from its summit, and is computed to be from 15,600 to 16,020 feet high, being the highest mountain on the globe, except Himmaleh and Cimborazo. The mountain of Mowee is nearly half this height ; Atooi is also much elevated, being distinguished thirty leagues off. On the 7th quitted the Sandwich Islands for the run across the Pacific Ocean ; and on the 3d of November made the Island of Tinian, between which and Saypan he intended to pass to clear the archipelago, but ultimately ran to the northward of Saypan ; this cluster, though called by Magellan, their discoverer, Ladrone (or Thieves') Islands, are also known now by the name of Mary Ann Islands. On the 17th of November saw the Islands of Botel Tobago Xima, situated at the south end of Formosa ; and three days afterward found the ship in the midst of a fleet of Chinese fishing-boats, the owner of one of which, for seventy dollars, promised to pilot them to Macao, in the road of which the anchor was dropped on the 25th. On comparing dates, it appeared they had lost a day by sailing round the world by the west, and, instead of the 26th, was obliged, next day, to write Sunday, the 27th.

Here the speculation of the voyage turned out truly unfortunate, the sale of skins being prohibited in consequence, as it was supposed, of a new treaty of commerce with Russia, by which the furs of the latter were to have a preference. Two vessels were already here with cargoes of these articles, which could not be sold ; Marchand therefore determined to proceed at once to the Isle of France ; had there been even permission to dispose of the lading, the price of prime otter-skins had fallen from

sixty to fifteen dollars the preceding year. While here an American vessel came in, the captain of which had been at the Marquesas a month before Marchand, but without landing; and who afterward, in proceeding to the north-west, had observed in May that group which, next month, Marchand examined and called Revolution Islands. He therefore was anticipated in the discovery without knowing it: but the American had made no effort to have any intercourse with the natives, or to examine the new lands.

December 6th, quitted Macao, and directed the course so as to strike the bank of the Macclesfield shoal by sounding, in the middle of the China sea; on the 11th saw the Island of Pulo Sapata, and four days afterward that of Pulo Timoan, Pulo Pisang, and several others connected with the latter, which form high land, distinguishable at a considerable distance. The 18th, distinguished the Island of Banca, and passed through Gaspar's Straits with safety, though then little known to French navigators, except by name; a week afterward got sight of the coast of the great Island of Sumatra, and, passing through the Straits of Sunda, made sail for the Isle of France; first seeing, however, the Cocos Islands, in 11 degrees 54 minutes south latitude, a small group thrown 165 leagues to the south-west of Flat Point, the most southern of Sumatra. After making Rodriguez Island, situated 100 leagues directly to windward of the Isle of France, the Solide reached the latter the 30th of January, anchoring in Port Louis, or Port North-West, the principal harbour of that island, after being thirteen months and a half, with the exception of thirty days, constantly under sail.

At this place they remained till the 18th of April, when, getting under weigh, the Solide reached St. Denis, in the Island of Reunion, or Bourbon, situated ninety miles to leeward of the former, remarkable for producing fine coffee and cotton. May 16th, passed Cape Aiguillas, in Southern Africa, steering for the Island of St. Helena, at which Marchand cast anchor the 4th of June. This land is sufficiently high to be discerned in clear weather at the distance of twenty leagues. It presents at first sight nothing but a heap of craggy rocks, with here and there valleys between. On Sugar-loaf Point is seen a small fort, past which it is necessary to proceed, on which is this warning to ships coming in—"Send the ship's boat on shore"—which, if neglected, the fort will sometimes fire at the offender.

James Town, the only one in the island, and situated in a valley of the same name, is commanded by two hills on each side and above it, that on the right being Rupert's, and that on the left Ladder Hill. Several batteries and redoubts scattered in every practicable place, with the steepness of the shores, and the difficulty, or, indeed, impossibility, of ascending the rocks, render landing by an enemy utterly impracticable. The island is therefore impregnable, for the battery of Ladder Hill alone would sink any vessel in the roads, or destroy any boats that attempted a disembarkation. All vessels that require more than twenty casks of water pay anchorage dues, amounting to twenty dollars, or five pounds; foreigners are not charged higher than the English Indiamen. In 1791 and 1792 a great drought afflicted the island, which caused extreme loss and distress. In 1789 were reckoned here 3000 head of cattle, besides considerable numbers of sheep, goats, and poultry, and supplies of potatoes and other vegetables; but the drought of the succeeding years destroyed more than half of the live stock.

The island is situated in the Atlantic Ocean, 300 leagues from Cape

MISSIONARY VOYAGE.

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Negro, the nearest point of Africa, and 600 from Cape Augustine, in South America; it is about twenty-eight miles in circumference, and seems only the calcined summit of an isolated mountain of very great height from its base in the ocean, as the sea, at a little distance from its shores, is unfathomable; nor is there any land nearer to it than 700 miles. The population at this time consisted of 2000 whites, about 600 soldiers, and the same number of slaves.

On the 20th of June crossed the line in 25 degrees west longitude from Paris, and on the 2d of August saw the land of Europe, near to Cape St. Vincent; on the 14th anchored in the inner harbour of Toulon, after an absence of twenty months, being the shortest voyage round the world yet effected.

MISSIONARY VOYAGE.—1796-98.

[THE following voyage, though not strictly round the world, is so connected with our subject—and besides so novel in its design, and so truly benevolent and Christian-like in its object—that we cannot withhold it from our readers; particularly as a more general knowledge of its details must highly interest a community so eminently Christian as our nation, and perhaps add to the funds of a society, in every point of view, so deserving of support and respect.]

THE discoveries made in the great southern sea by the voyages undertaken at the command of his majesty, George the Third, excited wonderful attention, and brought, as it were, into light a world till then almost unknown. Islands, it may be said, innumerable were found to cover the bosom of the Pacific Ocean in different groups. The merchant considered if they would afford any object of commerce; the naturalist eagerly explored the peculiar subject of his researches, and the astronomer sought a station from whence he might observe the transit of Venus over the sun, and deduce from thence useful improvement in the celestial science. Reflections on their unhappy situation had dropped from the pen of the humane, and pity had often swelled the bosom of the compassionate: a few felt for them, not only as men, but as Christians, and wished some mode could be devised of communicating to them the knowledge of that inestimable book, compared with which all besides is pompous ignorance, and all the treasures of the earth lighter on the balance than vanity itself. A Missionary Society was in consequence formed in England, and zealously seconded by their brethren in North Britain.

On notifying their intentions to the public, they met a spirit of zeal and liberality highly encouraging; applications manifold were poured in of candidates for the mission, with subscriptions adequate to the undertaking. None but men the most select for piety were to be admitted; but especially adepts in such useful arts and occupations as would make them most acceptable to the heathen in that state of inferior civilization to which they were advanced. Thirty men, six women, and three children, were approved, and presented to the directors for the commencement of the mission.

List of the Missionaries who embarked on board the Duff, at Blackwall

NO.	NAMES.	AGE.	OCCUPATIONS.
1	Rev. James Fleet Cover,	34	Ordained Minister,
2	— John Eyre,	28	Do. Do.
3	— John Jefferson,	36	Do. Dg.

Annex 555

Charles Darwin, *Geological Observations on Coral Reefs, Volcanic Islands and on South America* (1851)

GEOLOGICAL OBSERVATIONS
ON
CORAL REEFS, VOLCANIC ISLANDS,
AND ON
SOUTH AMERICA:

BEING THE GEOLOGY OF THE VOYAGE OF THE *BEAGLE*,
UNDER THE COMMAND OF CAPTAIN FITZROY, R.N.,
DURING THE YEARS 1832 TO 1836.

BY
CHARLES DARWIN, M.A., F.R.S., F.G.S.
NATURALIST TO THE EXPEDITION.

WITH NUMEROUS ILLUSTRATIONS AND MAPS.

1 P 1439

LONDON:
SMITH, ELDER & CO. 65, CORNHILL.

1851.



ADVERTISEMENT.

THE present Volume is composed of Mr. CHARLES DARWIN'S Geological Observations on Coral Reefs, Volcanic Islands, and South America, which were published separately, at intervals, and constitute the Geology of the Voyage of the *Beagle*, under the command of Captain FITZROY, R.N.

The high estimation in which Mr. DARWIN'S works are held by the scientific world, induces the Publishers to think that a re-issue of these books in one volume, at a greatly reduced price, will be acceptable to the increasing number of students of Geology, and also tend to promote the object which Her Majesty's Government had in view in contributing to the publication of these works.

65, CORNHILL,

October 1851.

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PART I.

THE

STRUCTURE AND DISTRIBUTION

OF

CORAL REEFS.

of this island is left uncoloured. The small adjoining islands are in the same case.—PATCHOW, OR MADJIKO-SIMA GROUPS. *Patchuson* has been described by Capt. Broughton (Voy. to the N. Pacific, p. 191); he says, the boats, with some difficulty, found a passage through the coral-reefs, which extend along the coast, nearly half a mile off it. The boats were well sheltered within the reef; but it does not appear that the water is deep there. Outside the reef the depth is very irregular, varying from five to fifty fathoms; the form of the land is not very abrupt; coloured red.—*Taypin-san*; from the description given (p. 195,) by the same author, it appears that a very irregular reef extends, to the distance of several miles, from the southern island; but whether it encircles a space of deep water is not evident; nor, indeed, whether these outlying reefs are connected with those more immediately adjoining the land; left uncoloured. I may here just add that the shore of *Kumi*, (lying west of Patchow,) has a narrow reef attached to it in the plan of it, in La Peyrouse's atlas; but it does not appear in the account of the voyage that it is of coral; uncoloured.—LOO CHOO. The greater part of the coast of this moderately hilly island, is skirted by reefs, which do not extend far from the shore, and which do not leave a channel of deep water within them, as may be seen in the charts accompanying Capt. B. Hall's voyage to Loo Choo, (see also remarks in Appendix, p. xxi. and xxv.) There are, however, some ports with deep water, formed by reefs in front of valleys, in the same manner as happens at Mauritius. Capt. Beechey, in a letter to me, compares these reefs with those encircling the Society Islands; but there appears to me a marked difference between them, in the less distance at which the Loo Choo reefs lie from the land with relation to the probable submarine inclination, and in the absence of an interior deep water-moat or channel, parallel to the land. Hence, I have classed these reefs with fringing-reefs, and coloured them red.—PESCADORES (west of Formosa). Dampier (vol. i. p. 416,) has compared the appearance of the land to the southern parts of England. The islands are interlaced with coral reefs; but as the water is very shoal, and as spits of sand and gravel (Horsburgh, vol. ii. p. 450,) extend far out from them, it is impossible to draw any inferences regarding the nature of the reefs.

CHINA SEA.—Proceeding from north to south, we first meet the *Pratas Shoal*, (Lat. 20° N.) which, according to Horsburgh, (vol. ii. p. 335,) is composed of coral, is of a circular form, and has a low islet on it. The reef is on a level with the water's edge, and when

• the sea runs high, there are breakers mostly all round, "but the water within seems pretty deep in some places; although steep to in most parts outside, there appears to be several parts where a ship might find anchorage outside the breakers;" coloured blue.—The *Paracells* have been accurately surveyed by Capt. D. Ross, and charts on a large scale published: but few low islets have been formed on these shoals, and this seems to be a general circumstance in the China Sea; the sea close outside the reefs is very deep; several of them have a lagoon-like structure; or separate islets (*Prattle, Robert, Drummond, &c.*) are so arranged round a moderately shallow space, as to appear as if they had once formed one large atoll.—*Bombay Shoal* (one of the *Paracells*) has the form of an annular reef, and is "apparently deep within;" it seems to have an entrance (*Horsburgh*, vol. ii. p. 332) on its west side; it is very steep outside.—*Discovery Shoal*, also, is of an oval form, with a lagoon-like space within, and three openings leading into it, in which there is a depth from two to twenty fathoms. Outside, at the distance (*Horsburgh*, vol. ii. p. 333) of only twenty yards from the reef, soundings could not be obtained. The *Paracells* are coloured blue.—*Macclesfield Bank*: this is a coral bank of great size, lying east of the *Paracells*; some parts of the bank are level, with a sandy bottom, but, generally, the depth is very irregular. It is intersected by deep cuts or channels. I am not able to perceive in the published charts, (its limits, however, are not very accurately known) whether the central part is deeper, which I suspect is the case, as in the great *Chagos Bank*, in the Indian Ocean; not coloured.—*Scarborough Shoal*: this coral shoal is engraved with a double row of crosses, forming a circle, as if there was deep water within the reef: close outside there was no bottom, with a hundred fathoms; coloured blue.—The sea off the west coast of *Palawan* and the northern part of *Borneo* is strewed with shoals: *Swallow Shoal*, according to *Horsburgh*, (vol. ii. p. 431,) "is formed, like most of the shoals hereabouts, of a belt of coral-rocks, with a basin of deeper water within."—*Half-Moon Shoal* has a similar structure; Capt. D. Ross describes it, as a narrow belt of coral-rock, "with a basin of deep water in the centre," and deep sea close outside.—*Bombay Shoal* appears (*Horsburgh*, vol. ii. p. 432) "to be a basin of smooth water surrounded by breakers." These three shoals I have coloured blue.—The *Paraquas Shoals* are of a circular form, with deep gaps running through them; not coloured.—A bank, gradually shoaling to the depth of 30 fathoms, extends to a distance of about 20 miles from the northern part of *Borneo*, and

to 30 miles from the northern part of *Palawan*. Near the land this bank appears tolerably free from danger, but a little further out it is thickly studded with coral shoals, which do not generally rise quite to the surface; some of them are very steep to, and others have a fringe of shoal-water round them. I should have thought that these shoals had level surfaces, had it not been for the statement made by Horsburgh "that most of the shoals hereabouts are formed of a belt of coral." But, perhaps, that expression was more particularly applied to the shoals further in the offing. If these reefs of coral have a lagoon-like structure, they should have been coloured blue, and they would have formed an imperfect barrier in front of *Palawan* and the northern part of *Borneo*. But, as the water is not very deep, these reefs may have grown up from inequalities on the bank: I have not coloured them.—The coasts of *China*, *Tonquin*, and *Cochin-China*, forming the western boundary of the *China Sea*, appear to be without reefs: with regard to the two last-mentioned coasts, I speak after examining the charts on a large scale in the atlas of the *Voyage of the Favourite*.

INDIAN OCEAN.—*South Keeling* atoll has been specially described: nine miles north of it lies *North Keeling*, a very small atoll, surveyed by the *Beagle*, the lagoon of which is dry at low water.—*Christmas Island*, lying to the east, is a high island, without, as I have been informed by a person who passed it, any reefs at all.—*CEYLON*: a space about eighty miles in length of the S.-western and southern shores of these islands has been described by Mr. Twynam, (*Naut. Mag.* 1836, pp. 365 and 518); parts of this space appear to be very regularly fringed by coral-reefs, which extend from a quarter to half a mile from the shore. These reefs are in places breached, and afford safe anchorage for the small trading craft. Outside, the sea gradually deepens; there is 40 fathoms about six miles off shore: this part I have coloured red. In the published charts of *Ceylon* there appear to be fringing reefs in several parts of the S.-eastern shores, which I have also coloured red.—At *Venloos Bay* the shore is likewise fringed. North of *Trincomalee* there are also reefs of the same kind. The sea off the northern part of *Ceylon* is exceedingly shallow; and therefore I have not coloured the reefs which fringe portions of its shores, and the adjoining islets, as well as the *Indian promontory of Madura*.

CHAGOS, MALDIVA and LACCADIVE ARCHIPELAGOES.—These three great groups which have already been often noticed, are now well known from the admirable surveys of *Capt. Moresby* and *Lieut.*

Annex 556

Capt. Camilo de Arana, Spanish Directorate of Hydrography, *Pilot of the Philippine Archipelago* (1879)

English Translation

[...]

**NAVIGATION
IN THE
PHILIPPINE ARCHIPELAGO,**

based on the most recent documents

BY

CAMILO DE ARANA,

COMMANDER

PUBLISHED BY ORDER OF THE ADMIRALTY.

[...]

MADRID

DIRECTORATE OF HYDROGRAPHY

CALLE DE ALCALÁ, NO. 56.

1879.

[...]

1122

[...]

CHAPTER XXI
THE PARAGUA [PALAWAN] STRAIT

[...]

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[...]

Shoals near the course.

Swallow Shoal. It was discovered by the *Swallow* in 1801 and seen by the *Investigator* in 1813; it is about 2.7 miles to the NNE of the Royal Charlotte Shoal.

It extends 3.75 miles east northeast and west southwest and is 1.25 miles in width, being formed like most of the shoals in these waters, from a ring of stones and coral, with a basin of deeper water within it. The large rocks at the eastern end of the shoal, are mixed with very white sand

THE PARAGUA [PALAWAN] STRAIT

and have an elevation of 1.5 to 3 meters and the largest is located at latitude 7° 23' N. and longitude 120° 2' 48" E.

[...]

Ardasier Bank. This bank, which is very extensive, has only been partially examined; it is probable that the Ardasier North and South breakers, the Gloucester breakers and also those that Mr. Dallas saw in 1860 are shallow patches of this large bank. Its southern part, which forms one

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[...]

of the northern boundaries of the Paragua [Palawan] Strait, has been examined by the *Rifleman*; the general direction of this part is ENE 5° N WSW 5° S with an extension of 20 miles; but its outline is very irregular. Several patches with a depth of 5.5 and 9.1 meters were found near the shelf; the shallowest part that was discovered had only 3.8 meters of water and was located at latitude 7° 36' 37" N. and longitude 120° 22' 35" E., very close to the position assigned to the South Ardasier Breakers.

Investigator Shoal. It was examined by Captain Crawford of the hydrographic Commission's vessel *Investigator*, in 1813; it is an extensive shoal whose western tip is located at latitude 8° 5' N and longitude 120° 43' 35" and its eastern extreme is located at latitude 8° 10' N. and longitude 121° 2' 25" E: it measures 4 miles from north to south.

[...]

Alicia Annie Shoal. Captain R. Kirby reported having seen a reef at latitude 9° 25' N. and longitude 121° 31' 55" E., forming a lagoon 3 miles in length north-northwest and south-

[...]

southeast. It has a low, hill-shaped sand bank at its northwest end and a reef of rocks at its southeast end, with several loose rocks around it. There were remains of a shipwreck at the southeast end and a reef with four moored boats; inside the lagoon there was a boat that was apparently fishing. Soundings were taken at a quarter of a mile from southeast end, but no bottom was found with 182 meters of line. First Thomas shoal was sighted the next day, and according to the chronometer, it was 2 miles west of its position on the chart.

First and Second Thomas Shoals. According to the chart, they appear to have been discovered in 1839. The first is placed at latitude 9° 18' N. and longitude 115° 53' E; the second seems to be an extensive shoal 9 or 10 miles in length from north to south and 4 miles in width; its southern part is located at latitude 9° 41' N. and longitude 121° 59' 25" E.

Northeast Investigator Shoal. It is located at latitude 9° 15' N. and longitude 122° 36' 25" E., and the charts show some rocks on top of it.

[...]

NÚM. 176.

DERROTERO

DEL

ARCHIPIÉLAGO FILIPINO,

redactado según los documentos más recientes

POR

DON CAMILO DE ARANA,

CAPITAN DE FRAGATA.

PUBLICADO DE ORDEN DEL MINISTERIO DE MARINA.

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CALLE DE ALCALÁ, NÚM. 56.

1879.

Precio: 8 pesetas en la Península, 11 en Ultramar.

CAPITULO XXI.

PASO DE LA PARAGUA.

VARIACION DE LA AGUJA 1° — 10' NE. EN 1877.

Escollos en la medianía de la derrota.

Los siguientes peligros que están en la medianía de la derrota de los buques que toman el paso de la Paragua al cruzar el mar de China, fueron reconocidos en 1863 y 1866 por el teniente de navío J. W. Reed, mandando el buque de guerra inglés *Rifleman*, á excepcion de los bajos Luisa y Real Carlota que fueron examinados por el capitan Bate con el *Royalist*, en 1850 y 1854.

Bajos Luonta del S. Comprenden un grupo de cuatro bajos de coral, el más S. de los cuales tiene como 1 milla de extension, y es de forma de herradura con la abertura hácia el NE.: entre las puntas del bajo hay 47 metros de agua. La profundidad general del agua sobre el bajo es de 3,6 y 5,5 metros y cerca de su extremo NO. tiene una piedra casi á flor de agua. La extremidad S. de la parte media del bajo está situada en lat. 4°—59'—30" N. y long. 118°—51'—40" E. y demora de punta Barram al N. 76° O. distante 81 millas.

El bajo que queda más al O. de este grupo, demora al O. $\frac{1}{4}$ NO. á 7 millas del anterior, tiene 2 millas próximamente de longitud del NO. al SE. y como 0,75 de milla de anchura: la profundidad del agua sobre él es de 3,6 y 5,5 metros; pero en su extremo SE. hay una piedra ahogada casi á flor de agua y otra igual en el extremo NO.: la última se halla en 5°—2'—15" N. y 118°—43'—40" E.

Romplentes de Luconia. En la extremidad oriental de un bajo, en el que en algunos sitios se encuentran sondas

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ge para el N. un poco al O., conservando una distancia próximamente de 30 millas de la costa, hasta el paralelo de $11^{\circ} - 12'$ N., en donde se inclina gradualmente para el NE., sin acercarse á la punta N. de la Paragua más de 23 millas. El banco es acantilado, con 73 y 91 metros junto á la línea de los 182 metros. Hay varios manchones sueltos de 27,5 á 36,5 metros, arena gorda y fragmentos de coral, en los cuales hay algunos sitios de 13,7 y 16,5 metros coral, junto al cantil. El más N. y de menor fondo que se ha encontrado hasta ahora, tiene 12,8 metros de fondo, está á 1,5 milla por dentro del veril del banco y se halla situado en lat. $11^{\circ} - 28' - 45''$ N. y long. $125^{\circ} - 13' - 25''$ E. Desde él demora la colina N. de la Paragua, al E. $\frac{1}{4}$ SE. un poco al E.; la ladera occidental de la cordillera de la Mesa (de que se habló al tratar de la costa de la Paragua) al ESE. 5° S.; la isla Cadlao al S. 53° E.; y la Matinloc al S. 42° E. Está á 26 millas de distancia de la parte más próxima de la isla y la profundidad del agua en sus inmediaciones varía de 36 á 72 metros.

La calidad del fondo en las cercanías de los manchones es en general arena fina; pero en el centro del banco, principalmente frente á la parte N. de la Paragua, predomina un fango verdoso y duro. El banco, por la parte N., no parece tan acantilado como en el centro de la isla, habiéndose encontrado 293 metros de fondo á 4 millas de la línea de los 180 metros.

Escollas en las proximidades de la derrota.

Bajo Swallow. Fué descubierto por el *Swallow* en 1801 y visto por el *Investigator* en 1813; está como á 2,7 millas al NNE. del bajo Real Carlota.

Se extiende 3,75 millas en direccion E. $\frac{1}{4}$ NE. y O. $\frac{1}{4}$ SO. con 1,25 millas de anchura, estando formado como la mayor parte de los bajos de estos mares, por un anillo de piedras y coral, con una laguna interior de más fondo. Las grandes

pedras que velan en su extremo E. están mezcladas con arena muy blanca, tienen una elevacion de 1,5 á 3 metros y la mayor se halla situada en $7^{\circ}-23'$ lat. N. y $120^{\circ}-2'-48''$ longitud E.

Romplentes. Mr. Dallas, al venir del naufragio del *Fiery Cross* para Labuan en los botes, en 1860, dice vió rompientes en lat. $7^{\circ}-38'$ N. y long. $120^{\circ}-6'-25''$ E.

Romplentés Ardasier del S. Están colocadas en las cartas en lat. $7^{\circ}-34'$ N. y long. $120^{\circ}-21'-25''$ E. (1). El *Birman*, en 1853, varó en un arrecife, que se supuso ser el Ardasier del S. y que su capitan situó en lat. $7^{\circ}-37'$ N. y long. $120^{\circ}-10'-25''$ E. El buque tenia 3,6 metros de agua á proa y 5,5 por el costado: se tendió un ancla por la popa en 55 metros, pues el barco estaba metido dentro de una laguna, que tenia una salida estrecha al SE., de 5,5 á 9,1 metros de fondo. Cuando salió el buque, se ciñó el viento, que era del SO., y poco despues se avistaron las piedras Swallow á 8 millas de distancia por el SO.

Mr. Russell en el *Reynard* en 1864, pasó sobre un extenso arrecife, obteniendo en él sondas de 15,5 metros; pero que parecia tener sitios de muy poco fondo. Mr. Russell situó el extremo NE. de este bajo en lat. $7^{\circ}-41'$ N. y long. $120^{\circ}-27'-25''$ E., y el extremo SO. en lat. $7^{\circ}-35'$ N. y long. $120^{\circ}-25'-25''$ E.: esta última posicion está muy próxima á la que se asigna á las rompientes Ardasier del S.

Rompientes Gloucester y Ardasier. Son dos bajos dudosos; el primero está situado en las cartas en $7^{\circ}-50'$ latitud N. y $120^{\circ}-27'-25''$ long. E., y el segundo en lat. $7^{\circ}-56'$ N. y long. $120^{\circ}-14'-25''$ E. Horsburgh hace notar que la posicion del Ardasier es muy dudosa.

Banco Ardasier. Este banco, que es muy extenso, sólo ha sido reconocido parcialmente; es probable que las rompientes Ardasier del N. y del S., Gloucester y tambien las que Mr. Dallas vió en 1860, sean manchones de poco fondo de este gran banco. Su parte S., que forma uno de los limi-

(1) *Nautical Magazine*, 1854, pág. 110.

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tes N. del canal para el paso de la Paragua, ha sido examinado por el *Rifleman*; la dirección general de esta parte es ENE. 5° N—OSO. 5° S. en una extensión de 20 millas; pero su contorno es muy irregular, Cerca del cantil se encontraron algunos manchones de 5,5 y 9,1 metros de fondo; la parte más somera que se descubrió, sólo tenía 3,8 metros de agua y se hallaba situada en 7°—36'—37" lat. N. y 120°—22'—35" long. E., muy próximo por consiguiente á la posición asignada á las rompientes Ardasier del S.

Bajo Investigator. Fué examinado por el capitán Crawford del buque de la Comisión hidrográfica *Investigator*, en 1813; es un extenso bajo cuya punta occidental está situada en lat. 8°—5' N. y long. 120°—43'—35" E. y su extremidad oriental se encuentra en 8°—10' lat. N. y 121°—2'—25" long. E.: tiene 4 millas de N. á S.

Cayo marino. Es un bajo dudoso colocado en las cartas en lat. 8°—30' N. long. 120°—33'—25" E.

Bajos Shea del SO. y NE. Estos bajos fueron descubiertos por Mr. Shea, mandando el *Buckinghamshire*, en 1833. El primero de ellos parecía consistir en dos arrecifes de piedras, con grandes rompientes que se extendían 1,5 milla en dirección E. $\frac{1}{4}$ SE.—O. $\frac{1}{4}$ NO. y $\frac{1}{2}$ milla de N. á S.; el centro de este bajo se situó, por observaciones del sol, luna y estrellas, en lat. 8° N. y long. 121°—7'—25" E.

El otro bajo, que se vió á la siguiente mañana, parecía consistir en dos bancos en seco de arena blanca, con una restinga de piedra que se extendía desde ellos hácia el O. como á 2 millas, la cual se consideró situada en lat. 8°—30' N. y long. 121°—31'—25" E.

Banco Glasgow. Mr. Baird, mandando el *Glasgow* (según el *Nautical Magazine* de 1865, pág. 52) descubrió un banco en lat. 8°—39' N. y long. 121°—43'—25" E. Al parecer se extendía 3 millas para el NE. y se componía de arena y picos de piedra que en algunos sitios se elevaban á 6,5 y 9,7 metros sobre el nivel del mar.

Bajo Alicia Annie. El capitán R. Kirby refiere haber visto un arrecife en 9°—25' lat. N. y 121°—31'—55" lon-

gitud E., formando laguna, y de 3 millas de extension del NO. $\frac{1}{4}$ N. al SE. $\frac{1}{4}$ S. Tiene una pequeña elevacion de arena en forma de colina en su extremo NO. y un arrecife de piedras en el del SE., con algunas piedras sueltas por su alrededor. Habia restos de un naufragio en el extremo SE. y un junco con cuatro botes atracados; dentro de la laguna habia un bote al parecer pescando. Se sondó á 0,25 milla del extremo SE. sin encontrar fondo con 182 metros de cordel. Al dia siguiente se avistó el primer bajo Tomás, y segun el cronómetro, estaba 2 millas al O. de la posicion que le asigna la carta.

Primero y segundo bajo Tomás. Segun la carta, parecen haber sido descubiertos en 1839. El primero está colocado en $9^{\circ}-18'$ lat. N. y $122^{\circ}-5'-25''$ long. E.; el segundo parece ser un extenso bajo de 9 á 10 millas de longitud de N. á S. por 4 millas de anchura; su parte S. está situada en lat. $9^{\circ}-41'$ N. y long. $121^{\circ}-59'-25''$ E.

Bajo Investigator del NE. Está situado en latitud $9^{\circ}-15'$ N. y long. $122^{\circ}-36'-25''$ E., y en las cartas se señalan algunas piedras sobre él.

Bajos Pensilvania y Sabina. Uno de los bajos dudosos, Pensilvania, está colocado en las cartas como 17 ó 18 millas al NE. del Investigator del NE., en lat. $9^{\circ}-31'$ N. y long. $122^{\circ}-35'-25''$ E., y hay otros tres manchones del mismo nombre, el primero en lat. $9^{\circ}-47'$ N. y long. $122^{\circ}-56'-25''$ E., el segundo como á 4 millas y el tercero á unas 10 millas para el NO. del primero.

El bajo Sabina, situado en la carta en lat. $9^{\circ}-43'$ N. y long. $122^{\circ}-46'-55''$ E., fué descubierto por Mr. French, mandando el *Sabina*, de Nueva-York, en 1836, el cual vió piedras sobre las que rompía la mar con fuerza. (*Nautical Magazine*, 1836, pág. 601.) French cree que seria uno de los bajos dudosos denominados Pensilvania, lo cual es muy probable.

Mr. E. Routh, mandando el *Bombay*, en compañía del *Henry Clay*, vió rompientes que sus observaciones colocaron cerca de la posicion del bajo Sabina.

Annex 557

“China: The Voyage - The China Sea - Macao - Cumsingmoon, &c. &c.,” *New York Times* (10 Feb. 1853)

CHINA.

The Voyage--The China Sea--Macao--Cumsingmoon, &c. &c.*Correspondence of the New-York Daily Times.*U. S. SHIP SUPPLY, HONG KONG, }
CHINA, Nov. 25, 1852.

My last letter was from Anjer, a small town situated on the western extremity of the island of Java. We left that place on the afternoon of the 23d of August, with an abundance of fruit and vegetables on board, and six sheep and one bullock as an addition to our complement of living creatures. On this day, too, the ship sustained a great loss in the death of "Punch," the dog who spoke the Dutch galliot. We were three or four days in getting through the Straits of Sunda, in consequence of the currents and head winds. Here we fell in with the American ship *Panama*, bound to Shanghai, only seventy-six days from New-York, while we were in our one hundred and twelfth.

We had a good run through the Java Sea, meeting with nothing remarkable except a very singularly shaped water spout, and, passing through Gaspar Straits, entered the China Sea on the 27th. Through the greater part of this we ran with a very light southwest monsoon, (sometimes, indeed, it was quite calm,) averaging, on the entire passage from Anjer, considerably less than a hundred miles a day. On the 12th of September we took a moderate head wind, and by the 15th our ship had beaten up to the Ladrone Islands, but supposing ourselves to leeward, we very foolishly stood off the land, without waiting to ascertain the fact. Next morning we made the land well to windward of our port, and, after considerable hesitation, the ship ventured in close enough to secure a pilot. I never was in this vessel before, but the old lady does not appear to fancy the land much, this cruise, until she gets into a safe harbor, when, if she can only lie still, and keep herself outwardly bright and clean, she seems to think she is performing all the service for which she is designed by the Government. This is a pretty piece of presumption for a store-ship, certainly; and she is playing now, or would play in the squadron, the part of the jackdaw among the peacocks.

In the China Sea we passed numerous picturesque islands, with which nothing of interest is connected, except that Malay pirates lurk around them, ready to pounce upon any vessel unprepared for them. In truth, the whole sea, from the mouths of the Tigris to every quarter, is a nest of pirates, who can only be swept from their cruising grounds by a force of light-draft steamers, carrying a long gun or two each. This class of ves-

sels would be of more actual service here than all the sailing vessels that ever were on the station.

While in the China Sea, and just after crossing the equator, we saw another remarkable water-spout which formed very near the ship, to windward, and, coming rapidly down to leeward, burst within a quarter of a mile of us. This was a most beautiful waving crystalline cone, and at one time, on the sun's coming out brightly, every prismatic hue was reflected from it.

It was at sunset on the 16th of September, that we anchored in the outer roads of Macao. Our passage from New-York was just 135 days. That night we received orders to proceed to Cumsingmoon, a little harbor about fourteen miles distant, in which the flag-ship was lying. In obedience to these orders, we were under way the next morning early, and about noon we reached the anchorage to which we were bound; and, amid showers, squalls, and the meetings and congratulations of old friends and former shipmates, we came to.

Cumsingmoon, which word means *Golden-sun-born-Pass*, is one of those harbors of which there are a half a dozen or more in China, where receiving-ships, used to assist in smuggling opium, are anchored. There are five of them in that place, one of which is an American bottom, and another wears the American flag. A large portion of the inhabitants of Cumsingmoon, like those of all the cities, towns, or villages on the coast of China, are literally a floating population; that is, boats are their homes. The village itself is but a collection of a few bamboo huts. During every summer there is strowed along the beach a settlement of oystermen, who seem to drive a very brisk trade. They go out in their boats every day, at low water, and obtain oysters by diving for them, and returning at the flow of the tide, pass the remainder of the day in opening them. After this the oysters are dried in the sun, and then packed and sent to Canton. The oysters are very large, so much so as to be coarse, but very tolerable lime is made of the shells. There are many of these settlements along the coast which yield a very handsome revenue to the Chinese Government. For the privilege of this place alone, the oystermen pay the Mandarins \$3,000 a year. As cold weather approaches these oystermen, with their families and huts, emigrate southwardly, and on the return of Spring, they again begin to make their appearance at the North.

While lying at Cumsingmoon we had what the Chinese call a *sing-song*, which is Chinese theatricals. For several days many persons were engaged on shore in erecting an immense frail-looking building. This was indeed a singular struct-

ure; there was not a nail in it, but the whole frame was built of bamboo, lashed with rattan. The roof was of palm-leaf, and the sides, which were ornamented with some of the most remarkable paintings I ever saw, were of matting. Altogether it was an ingenious contrivance, and, most unquestionably, would prove a great improvement on our circus tents. The *sing-song* drew together a great concourse of people from the neighboring towns and villages, and for a week Cumsingmoon was quite gay. The company performing was from Canton, and it was said by the long-tailed critics that they played their parts tolerably well. Although amused, I was not much interested in the Chinese plays, of course. To me there came nothing but confused sounds of gongs, squibs, and crackers, and squeaking voices. The idea that the Chinese have of music, is one of the most absurd conceivable. They appear to endeavor to attune their voices to a small pipe, which keeps up a run-

ning accompaniment with every singer in the operas, an instrument resembling nothing in sound that I know of, except the bag-pipes with a very distressing cold. Besides this, the accompaniments consists of bells, symbols, a pig-skin drum,—which sounds a little like the castanets—a gong, and occasionally a few fire-crackers. Late every evening we had some tumbling by these people, at which they equalled in many respects the *RAVELS*, and they were but a fifth or sixth-rate company.

We were to have returned to Macao on the 14th of October, but on the evening of the 13th it commenced blowing a gale at Cumsingmoon, which lasted several days. Outside this was a very severe typhoon; many China boats were lost, and quite a number of ships sustained much damage. Several, bound to California and elsewhere, put back to Hong Kong, where a few of them were condemned as unseaworthy. At the conclusion of the gale we ascertained that our destination was changed from Macao to Hong Kong. Consequently, on the 20th, we left Cumsingmoon, and anchored in the harbor of Hong Kong at 2 o'clock on the morning of the 21st.

This is truly a magnificent harbor. The bay, which is very large, is formed by a cluster of high islands and the mainland. The principal one of these islands gives its name to the harbor. It is about twenty-two miles in circumference, and generally barren and very mountainous; the highest peak, which is near the north-east part of the

island, has an elevation of about two thousand feet above the sea. This is the English colony in China. The town, named Victoria, is situated on the north side of Hong Kong Island, towards its west end. From its position, it is fast becoming a place of great importance. Much pains seem to have been taken in laying out this place. Built for the most part, upon the side of a hill, it is always clean, and the streets are broad and well-graded. Both public and private buildings seem to be constructed with taste and care, and admirably adapted to the climate. For genuine hospitality and civility to strangers, this little town is not surpassed by any place I wot of. The only real objection to it is the extreme heat in Summer. The surrounding mountains shut off entirely the south-west monsoon, rendering town and bay not only hot but sweltering. Besides the English settlement, there is a Chinese town here, with narrow streets, crape shawls, silks, and fireworks, like all other Chinese towns.

During the early part of this month we had a regatta in the harbor, which continued for three days. There was much sailing and pulling about, yelling among the Chinese, and betting among the English and Americans. The day previous to that upon which the race of the large yachts was to come off, a new Yankee schooner appeared in the bay. This was the *Atalanta*, belonging to Mr. FORBES, the American Consul at Canton. She is nearly the same model as the *America*, but not so large. Though not entered for the race, the *Atalanta* accompanied the squadron a part of the distance, and after passing ahead and to windward of every vessel, put her helm up and soon disappeared again. On the evening of the last day of the regatta, the Club gave a ball, and the gay season of Hong Kong then commenced. We gave a little dance ourselves, a few nights since, with which our friends from shore appeared quite pleased; and, though but a store-ship, having set the example, we trust that the flag-ship will follow it, in order to return, in some measure, the civilities we have all received. J. K. D.

Annex 558

“Arrival of the Flying Cloud-Interesting Sketch of the Passage from China to New York”, *New York Times* (25 Nov. 1854)

Arrival of the Flying Cloud—Interesting Sketch of the Passage from China to New-York.

The celebrated clipper ship *Flying Cloud*, under the command of Captain CRESSY, arrived at this port yesterday, with a cargo of silks and teas, to GRINNELL, MINTURN & Co.

The Captain has furnished us with the following interesting account of the passage :

The *Flying Cloud* experienced very heavy weather in the China Sea. On the 2d August she split several sails, and was hove too for twelve hours under bare poles, with royal and topgallant yards on deck, during a violent gale, commencing at N., and veering to N. W. and S. S. W., accompanied with a perfect deluge of rain.

August 3.—The weather being still bad, with every appearance of a continuation, and having a poor crew, decided on proceeding to the southward, *via* Gooloo and Celebes Seas, and Macassar Strait, consequently steered for Mindooa Strait. 4th and 5th had much better weather, fine at intervals; got good observations for lat. and lon., which indicate a current of fourteen miles in twenty-four hours, setting N. 57 2. 6th. At 3 P. M. the wind failed for ten or fifteen minutes, and then sprung up light from eastward and commenced raining. Taking the ship aback, braced around the yards, and trimmed sails for an east wind. When it again changed suddenly to S. W., fresh breeze and much rain, taking the ship aback the second time, braced and trimmed by the wind, head to S. S. W. Weather much the same until 4 A. M., when it cleared up and continued fair until 11, and then commenced raining. Nothing in sight. Reduced sails to three topsails, jib, and fore-topmast stay-sail. At 3:30, judging the ship to be to the southward of the strait, and not wishing to approach nearer to the land until the weather cleared up somewhat; filled away again, and stood in S. E. by S. with the same sail on. At 11 raining again; 11:30 prepared to wear ship; 12, men at stations for wearing ship. At this time the weather lighted up, and became more clear, seeing good for at least six miles. In lat. $12^{\circ} 10' N.$, lon. $110^{\circ} 56' E.$, by dead reckoning, which was certainly not correct, as in that position there would not have been more than twenty-two fathoms of water, and soundings would have been indicated by the color of the water.

On the 7th, at 15 minutes P. M., with six men on the fore-castle, with orders to keep a good lookout, for land breakers or white water, the captain and mate on the poop for the same purpose, and without seeing anything, the ship ran upon a sunken rock so as to bring her load line forward 3 or 5 feet out of water, immediately hove everything aback, the ship swinging quickly around, head to the southwest, where she hung thumping heavily for 15 or 20 minutes, and large pieces of her shoe coming up along-side. Shortly after striking one of the lookout men came running aft to say there was a large hole in her bottom, which proved on examination to be a part of her keel broken off. Ordered the pumps to be sounded and to get the boats in the water; found 17½ inches. Almost simultaneously with these orders, the wind ceased entirely, and the rain poured down in torrents; in a few moments more she gave one tremendous thump and slipped off the rock, at which time the pumps showed 18½ inches; set one gang of men at the pumps; others to get in the boats; same time faint breeze sprung up from the eastward and veered gradually around to the South and S. S. W., increasing as it veered, hauled off by the wind; judged the rock not to exceed 30 or 35 feet in diameter, with from 6 to 12 feet water upon it, and of a dark brown color; the ship making eleven inches water an hour throughout the day. 8th, 30 minutes P. M., saw Catalive Mountain on Mindoro, bearing east distant by estimate 50 miles, assuming this to be correct, it places the ship in lat $13^{\circ} 28' N.$,

lon. $119^{\circ} 34' E.$, and indicates a current setting north, $80^{\circ} 2'$, 52 miles in 2 days. Instead of north, $57^{\circ} 2'$, 26 miles in the same time, as indicated by the observations of the 4th and 5th.

Taking this current—indicated by seeing the land—so have been running in the same direction, and with the same velocity from the 5th to 6th, at noon it would place the ship in lat. $12^{\circ} 16' N.$, long. $120^{\circ} 18' E.$, which is 22 miles to the south and 3 miles to the east of a sunken rock, with 9 feet water on it, as laid down in *Raper's Maritime Positions* $12^{\circ} 36' N.$, long. $120^{\circ} 15' E.$, through the latitude does not agree by 22 miles. I am inclined to think it must be the same upon which the *Flying Cloud* struck, and that there was a more northerly current, (which is verified by her swinging so as to head steady to S. W.) than subsequent observations would seem to warrant. It is represented on Hosburgh's charts, issue of 1845, as a shoal called "Hunter," and in such a manner as to lead one to suppose it a shoal of 4 miles in extent, and that there would be no danger in approaching it in the day time, as white colored water would be seen in time to avoid it. Had very bad weather for the four days succeeding, and when passing through the Straits, on the 10th, in a violent squall, blew away the foresail. The ship was eight days passing through Soelous Sea, with faint airs and calms, to Pascelean Straits, where she was obliged to anchor in the night, during a fresh squall, with thick weather and rain from the eastward. Here lost chain and anchor on getting under way. Was seventeen days hence becalmed, drifting about with the current, making the distance of 350 miles to Cape William, in Macassar Straits, where she took a breeze and arrived at Angier four days after, (Sept 10,) forty days from Hong Kong. Left Angier 11th September, at midnight; had three days' good run, when the wind fell off, and has continued very light, with the exception of five days off Cape of Good Hope; very dreary weather up to Nov. 14, on which day saw Hermuda. Same night, was struck by a heavy squall in a sudden change from S. W. to N. W., which struck foretopmast so badly as to render it necessary to strike the mast of everything above the topgallant yard, since which have experienced a continual succession of really bad weather up to the time of taking a pilot, Wednesday night, 22d inst.

The New York Times

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Annex 559

“Marine Intelligence”, *New York Times* (16 June 1858)

MARINE INTELLIGENCE.

NEW-YORK... TUESDAY, June 15

Cleared.

Steamer Chesapeake, Crowell, Portland, H. B. Cromwell & Co.

Ships Far West, Bennett, New-Orleans, W. T. Frost; Tzar, Fales, Union Island, Robert & Williamson.

Barks Exact, Walker, Savannah, Sturges, Clearman & Co.; Golden Age, Routan, Galveston, Wakeman, Dimon & Co.

Brig Matilda, Richardson, Elizabethport, C. & E. J. Peters.

Schooners E. Brooks, Gardner, Newport, master; L. A. Edwards, Shackelford, Charleston, Dollner & Potter; Lucien, Sabiston, Beaufort, Davis & Holmes; G. S. Adams, Chase, Bridgetort, master; W. A. Ellis, Nichols, Charleston, J. Smith & Co.

Arrived.

Steamship Arago, Lines, Havre, and Cowea June 2, with mdse. and 125 passengers to Wm. S. Drayton. The Arago has had constant westerly winds, and a rough passage for the season. June 8, lat. 47, lon. 35 10, exchanged signals with Br. bark Queen, bd. E.; 12th 4 P. M., lat. 42 45, lon. 56, exchanged signals with ship Nonpareil, bd. E.; 13th 9 A. M., lat. 42 20, lon. 67 30, exchanged signals with a double topsail ship showing a private signal, red and white, with "V" in the centre, atg. N. E., 14th, 2 P. M., lat. 40 50, lon. 68 30, passed a 4 masted English pro-peller, bd. E.

Steamship Marion, Foster, Charleston 57 hours, with mdse. and passengers to Spofford Tileston & Co. Monday, 14th, 11:20 A. M., Hatteras bearing W. by S., exchanged signals with steamship Florida, hence for Savannah.

Steamship Augusta, Woodhull, Savannah 60 hours, with mdse. and passengers to Saml. L. Mitchell & Son, Sunday, 6 P. M., off Hatteras, exchanged signals with steamship Keystone State, fm Philadelphia for Charleston.

Steamship Huntsville, Post, Savannah 60 hours, with mdse. and passengers to H. B. Cromwell & Co., Sunday, at 4 1/2 P. M., off Cape Hatteras, steamship Keystone State, Monday, 8 o'clock A. M., off Chincoteague, passed steamship Jos. Whitney.

Steamship Memphis, Watson, Charleston 60 hours, with mdse. and passengers to H. B. Cromwell & Co.

Steamer Kennebec, Hand, Philadelphia and Cape May, with mdse. and passengers to F. Perkins.

Steamer Pelican, Aldrich, Providence, with mdse. to Isaac Odell.

Steamer Charles Osgood, Smith, Norwich and New London, with mdse. to E. H. Rockwell.

Brig Atlantic, (of New-Haven,) Merrill, Mayaguez, P. R., June 1, with sugar and molasses to H. Trowbridge & Son, of New-Haven, where the brig is bound.

Brig Alpha, (Br.,) Curry, Windsor, N. S., 13 ds., with plaster, bound to Newark, N. J.

Bark Danl Webster, (of New-Haven) Ward, Guayama, P. R., 11 ds., with molasses to Wyhe & Bro., of New-Haven, where the vessel is bound.

Brig Henry Leeds, (of Rockland,) Grant, Rockland 6 ds., with granite, for Fort Richmond.

Schr. Adeline, (Dan.,) Ulrichsen, Rio Janeiro May 1, with coffee to order.

Schr. R. A. Wood, Crammer, Georgetown, D. C., 5 ds., with coal to American Coal Co.

Schr. Franklin, Hunt, Lubec 6 ds., with lath. &c., to Sturges & Co.

Schr. Sperwer, (Dutch,) Lamack, Boston 4 ds., in ballast to Funch & Meincke.

Schr. Alvarado, Stanley, Calais 6 ds., with lumber to Jed. Frye.

Schr. Richmond, Pitcher, Calais 13 ds., with lumber to Jed. Frye.

Schr. Wren, (Br.,) Coe, Wareham, Mass., in ballast to D. B. De Wolf.

Schr. Woodbridge, (of Baltimore,) Watts, St. Jago de Cuba June 1 with tobacco, &c., to Merrill & Abbott.

Schr. Mary Alice, Welsh, Ponce, P. R., 13 ds., with sugar to Sturges & Co.

Schr. Shylock, Hawes, Rockland 4 ds., with stone, for Fort Richmond.

Schr. St. Lawrence, Hickey, Bangor 6 ds., with lumber, bound to Alexandria.

Schr. Viola, Treworky, Machias 7 ds., lumber to order.

Schr. Giraffe, Mitchell, Addison 6 ds., lumber to master.

Schr. Zulma, Dobbin, Machias 6 ds., lumber to order.

BELOW—A herm. brig

WIND—During the day, from N. E. to E. N. E.

Sailed.

Steamship Hammonia, (Ham.,) Schwensen, for Hamburg. Ships Chicago, Chase, Liverpool; Atlantic, —; Endeavor, Doane, San Francisco. Bark John Wesley, McClure, Richmond.

By Telegraph.

BOSTON, June 15—Arr. ships Sea King, Barker, Liverpool; Zone, Wells, New-Orleans; barks Manchester, Chaney, Africa; F. W. Porter, Bissau, Africa; brigs Golden Lead, Johnson, New Orleans; Enoch Benner, Stoddard, Aux Cayes.

CHARLESTON, June 15—Arr. ship Alliance, Cardiff. HAMPTON ROADS, June 15.—Arr. ship Vulture, 98 ds. from Callao.

NORFOLK, June 15.—Arr. schr. Laverty, 6 ds. from St. Thomas.

Disasters, &c.

HONG KONG, April 13.—The Am. ship Courser, Cole, with teas, from Foo-chow-foo, for New-York, has to be added to the list of wrecks on the Pratas Shoal. The second night out from the Min, the master thinking, as usual in cases where the trap catches, that he was midway in a channel over 100 miles wide, suddenly found himself bumping among the breakers. By midnight of the 4th, as the ship struck at 9:20 P. M., she was half full of water, and had to be abandoned. The first of the Courser's three boats that arrived brought the mate and nine of the crew; two of their comrades were lost in a futile attempt to board a fishing-boat, which, it is said, had opened fire on them. The second mate, in another boat, came in the same night, and the captain, in the third, was picked up by the Furna and taken to Macao about the same time that the mate arrived here.

Spoken, &c.

Charles Lex—bark, from Port-au-Prince for Philadelphia, June 5, in Crooked Island Passage.

John Scrobie—brig, for Matanzas, 8 ds. out, June 12, lat. 39 30, lon. 72 28.

Foreign Shipping Intelligence.

[PER EUROPA]

Arrived from New-York—May 21, Zephyr, at Constanti-ple; 27th, Fredonia, Emily, and M. E. Jones, at Cadiz; June 2, Rhine, at Deal; 3d, Adeline, at Dover; James, at Falmouth; Australia and Ellen Austin, at Liverpool.

Arrived from New-Orleans—May 23, Catalina, at Cadiz; June 2, Augusta, at Copenhagen; Resolute, at Liverpool; 3d, Metropolis and E. G. Barney, at do.; 4th, National Eagle, Elizabeth Norris, Samuel Curling, S. Blaachard, and Tempest, at do.

Arrived from Philadelphia—June 4, Star of the West, at Liverpool.

Arrived from Boston—April 27, Santiago, at Bombay; June 1 David Kimball, at Newport.

Arrived from Baltimore—June 2, Voyageur, at Cork

Arrived from Savannah—June 2, Willard, at Liverpool; 3d, Nicholas Biddle, and Elgin, at do.; 5th, Sebastieok, at do.

Sailed for New-York—June 1, Gebhard, at Bremen; Vertwoven, at Texel; 2d, Empire, at Liverpool; 3d, Margaret Tyson, at do.; 5th, Frank Flint, at do.; 2d, Milton, at Glasgow.

Sailed for City Point—June 3, Lydia, from Liverpool.

Sailed for Boston—June 2, Rising Sun, from Liverpool.

Sailed for Savannah—June 4, Monterey, from Liverpool.

The Voyageur, from Baltimore arrived at Queenstown on the 2d inst., and reports that she was thrown on her beam ends May 19, and lost bulwarks, mainmast, sails, &c., and was obliged to throw overboard 900 bushels of corn.

The Pleiades, from Liverpool to Philadelphia got ashore on Arklow Bank on the 2d inst., but came off during the night.

EAST INDIA SHIPPING.

Arrived from New-York, April 3, Benefactor, at Hong Kong; April 13, Winged Racer, at Penang.

Arrived from Boston—March 28, Mary Slade, at Batavia; 27th, the Santiago, at Bombay.

Sailed for New-York—March 29, Union for Woeung.

Sailed for Boston—March 1, Hollander, at Palang; April 17, Oxenbridge, at Calcutta.

Foreign Ports.

At Guayama, P. R., June 4, brigs Sarah, Lancaster, for New-Haven in 20 ds.; Ocean Spray, Stubbs, do. do. 5 ds.; Magnet, Shackford, for New York in 15 ds.; Saml Otis, Gilchrist, for do. in 20 ds. Schrs. Mecca, Edgitt, for Richmond in 15 ds.; E. Crowell, Griggs, for New-York in 12 ds.

At St. Thomas, June 2, barks Mary Adding, Gangea, (Br.) Sea Breeze, Brigs Wm. A. Brown, Flora, R. B. Minturn, Gipsey, Arosesta. Schrs. Geo. Mangham, Wm. S. Copes.

[PER ABAGO]

Havre—May 28, in port, Mercury, French, of and for New-York June 12; Omega Morse, do do. 1st; Arabia, of Brunswick, Harding, for New-York 4th; Ocean Steed, of Bath, Strickland, for New York 15th; Roger Stewart, of Brunswick, for New Orleans 1st; Nuremberg, Schneidau, of and for New-Orleans 15th; Heidelberg, Rodewald, do. do. 30th; Sybil, of Bath Jenkins, unc.; Saml. Adams, of Salem, Gay, do.; Somerset, of Warren, Martin, for Wales and U. S. June 4; Medallion, of Richmond, Theobald, for New-Orleans May 31; Galusha, of New-York, Garrett, unc.; Maritana, of Providence, Williams, for New-Orleans June 4; Moonlight, of Boston, Pendleton, unc.; Northampton, of Bath, Cotter, do.; Alfred Storer, of Waldobero', do.; Ann Washburn, of Boston, Merryman, do.; Felicia, of New Orleans, Balls, for New-York June 25.

Arr. at Liverpool, May 30 ships Albert Gallatin, New-Orleans; Lady Sale Charleston; 31st, M. W. Babcock, Porto Rico; Pilot Fish, New-York; Nathl. Thompson, Shannon, New-Orleans; Henrietta Macey, Nickerson, New-Orleans; Elizabeth Bibby, Gibson, Aspalchicola, Lady Franklin, Jordan, Mobile.

Also arr., 29th, Jabez Snow, New-Orleans; Samuel Dunning, Scofield, Mobile; J. P. Harwood, Andrews, New-Orleans; Europa, (str.), Boston.

Sid., 30th, E. A. Hall, Sawyer, New-York; Yemassee, Childs, Charleston; Philadelphia, Poole, New-York; Pleiades Winslow, Philadelphia; 31st, Caravan, Sands, New-York; Chas. S. Pennell, Melcher, New-Orleans; Lucy, Redding, Boston.

From the Shipping Gazette, June 1.

Newport—May 20, arr. Wirtemberg, McLellan, Havre. Bordeaux—May 28, sid. from the Roads, Montpellier, Clay, New-Orleans.

Rochelle—May 24, sid. Kron Princess Louisa, Lie, New-York and Boston.

Brouwershaven—May 30, sid. Arnold Coninger, Hasha-ken, New-York.

Hamburg—May 29, arr. steamship Borussia, Trautmann, New-York.

Cuxhaven—May 29 arr. Miami Schwarty, N. Orleans. Crenstadt—May 24, arr. Picayune, Brooks, N. Orleans.

Valencia—May 25, sid. Jno. A. Brown, Brown, Cardiff. Trieste—May 27, arr. White Cloud, Havana.

Deal—June 1, passed, England's Queen, Ruggles, Mobile, for Hamburg.

Off the Start—May 30, Rhine, Moore, New-York, for London.

Lisbon—May 18, put in, Ella E. Badger, Carlton, Liverpool, for Calcutta.

Gravesend—May 30, sid. Plymouth Rock, Hammond, New-York.

From the Shipping Gazette, May 31.

Deal—31st, arr. F. W. Bailey, Mitchell, Callao.

Havre—May 29, part of the cotton landed at Nantes, from American ship Lizzie Boggs. Diser, from New-Orleans, took fire on the Quay—the damage done is estimated at about 8,000f.

Off the Wight—May 26, ship Charles Crooker, Murray, for London.

Manila—March 24, sid. Dragon, for Boston; April 2, Price of the Ocean, London.

Hong Kong—April 12 arr. Argonaut, Norton, Singapore; Waverly, Smith, Siam.

Batavia—March 28, arr. Mary Slade, Boston; April 1, Eliza Thornton, Maxwell, London. Sid., March 16, Kepler, Havana; Crystal Palace, China; 31st, Mary S. Slade, Hong Kong.

Singapore—April 6, arr. North Wester, Gregory, Cardiff; 8th, America, Voss, Rio Janeiro; 20th, Northern Light, Drake, Sydney.

Penang—April 12, arr. Winged Racer, New-York; 14th, W. H. Lewis, Rangoon. Sid., 7th, bark Oak, New-York; 17th, Live Yankee, Singapore and China.

Rangoon—March 16, sid. Ceylon, Bassett, Penang.

Calcutta—April 17, sid. Oxenbridge, Mathews, Boston; 21st, Daylight Dickson, Mauritius; 23d, Cœur de Lion, Loewick, Bombay.

Trieste—May 25, arr. Adams, Avery, New-Orleans; China Keazer, Mobile.

Venice—May 25, arr. W. S. Lindsay, Gray, New-York. Helvoet—May 28, sid. Fosca Helena, De Wael, Phila.

Marseilles—May 27, sid. C. H. Seaman, Elkfield, New-York.

From the Shipping Gazette, May 29.

Hong Kong—March 30, arr. ship Atmosphere, San Francisco; April 3, bark Benefactor, New-York; Orpheus, Philadelphia; 4th, Flying Fish, San Francisco; 7th, Storm King, Bangkok; Typhoon, Singapore; Lightning, Calcutta.

Shanghai—March 27, arr. bark Maury, London. Sid., March 29, ship Union, Wiley, New-York.

Calcutta—April 21, arr. ship Zingari, Mauritius. Arr. at the Motherbank, May 28, ship Charles Crooker, Callao 126 ds.

Annex 560

“Marine Intelligence”, *New York Times* (19 June 1858)

MARINE INTELLIGENCE.

NEW-YORK...FRIDAY, June 18

Cleared.

Steamship North Star, Jones, Havre, &c., D. Torrance.
Ships Forest City, Tyler, Glasgow, Dunham & Dimon;
Dr. Barth, Meyer, Hamburg, J. E. Ansnack; Chilo, Hol-
lis, Bombay, D. J. & W. D. Bacon.
Barks Clarence, Stubbs, West Indies, T. Trowbridge,
Dwight & Co.; N. H. Gaston, Maxwell, Barbadoes, Bish-
op & Bros.
Brigs Rolling Wave, Lloyd, Wilmington, Ingalls & Ca-
man; Hampden, Young, Bangor, Brett, Son & Co.; E.
Hemington, Jones, Mystic, Brodie & Pettes; Gen. Pierce,
La Dieu, Norfolk, J. R. Dow.
Schooners Rainbow, Havener, [Elizabethport, master;
Jonas Smith, Lynch, Wilmington, J. Smith & Co.; Lady
Adams, Davis, Somerset, S. Kenny; Nerissa, Burgess,
Plymouth, S. Godwin.

Arrived.

Steamer Kennebec, Hand, Philadelphia and Cape May,
with mdse. and passengers to F. Perkins.

Steamer Osprey, Kenney, Providence, with mdse. to
Isaac Odell.

Steamer Sarah, Jones, Philadelphia, with mdse. to N.
Briggs.

Steamer Sophia, Ely, Philadelphia, with mdse. to N.
Briggs.

Ship Adelaide, Wakeman, Elide Island, (Lower Califor-
nia,) 87 ds., with guano to order. The Adelaide sailed
from San Francisco Dec. 9, 1857, and arrived at Elide
Island (lat. 28 40 15 N., lon. 114 32 30 W.) Dec. 17. On
the 18th of March, while lying at anchor, had a heavy
gale of wind from the N. W. ship pitching heavily, and
lost 60 fathoms of chain and an anchor. Crossed the
Equator in Pacific 16 ds., lon. 122 W. April 13, 4:20 P.
M., lat. 24 22 S., lon. 128 19 W., the N. E. point of Hen-
derson's Island bore S. E. 10 miles. May 4, passed Cane
Horn, 45 ds. out. May 6, lat. 56 44 S., lon. 64 48 45 W.,
exchanged signals with a large French frigate, stg. W.
May 8, at daylight, passed a bark on same tack. May 12,
10 o'clock P. M., the Island of South Georgia bore S. S. E.
10 leagues. May 16, lat. 45 11 S., lon. 35 25 W., passed
side-planking of some ship. May 23, lat. 23 48 S., lon.
27 16 W., at daylight, made a sail on the lee bow, under
topsails, her fore and mizen topgallants gone; seeing a
flag at her mizen masthead, took it for a signal of distress
— ran down to her, and found her a French bark, deeply
laden, close-hauled for the coast of Brazil, her rudder in
a damaged condition, as she was steering with tackles
from outriggers on each quarter, the flag of distress at
her mizen masthead being her flag, or dog-vane, about the
size of our Union Jack; exchanged signals, but could not
make out her numbers. May 24, at noon, Martin Vass
Rocks bore W. 16 miles, and Island of Trinidad 40 miles
W. May 26, 3 1/2 A. M., lat. 12 49 S., lon. 31 02, passed a
bark under double reefed topsails, stg. S. W.; 7 A. M.,
same day, passed a ship and a bark, under double reef'd
topsails, stg. S. W. May 27, 5 1/2 A. M., lat. 9 13,
lon. 32 58, passed a ship stg. N. E.; 10 A. M., same day, a
bark stg. S. S. W. May 31, at midnight, crossed the
Equator, in Atlantic, lon. 38 45, 7 1/2 ds. out. June 7, 10 1/2
A. M., lat. 17 59 N., lon. 56 41 W., passed a narrow strip
of green water, extending N. E. to S. W., as far as the
eye could see. June 16, 7 A. M., exchanged signals with
an Am. frigate, stg. S. E.; 4 P. M., same day, took a pilot
from pilot-boat No. 7. (Elwood Walter.)

Ship Telesar, (of Nantucket,) Lovell, Calcutta 131 ds.,
with linseed, hides, &c. to Cartwright & Harrison. Left
Sands Head Feb. 6, passed the Cape April 7. Experi-
enced much light weather in the Atlantic; 12th inst., on
the northern edge of the Gulf Stream, experienced a
heavy S. W. gale.

Ship Resolute, Freeman, Liverpool May 11, with mdse
and passengers to Williams & Gulon. Took a pilot from
boat No. 7, in lat. 40 02, lon. 72.

Bark Osprey, (of Salem,) Nash Cienfuegos June 2,
with sugar &c., to Thompson & Hunter.

Bark Alexina, Baxter, Remedios 14 ds., with sugar,
&c., to Crosby, Crocker & Co.

Brig Isaiah, (Br.) Fitzpatrick, St. John, N. B., 6 ds.,
with lumber to Stephen Thorne. 14th inst., off East
Chou, (Holmes' Hole,) saw six fore and aft schooners and
one brig ashore, high up on the beach; the latter vessel
was full of water—a fishing-smack alongside, supposed
engaged in stripping her.

Brig Wencnah (of Bucksport,) Dow, Malaga and Gib-
raltar, May 17, with lead, &c., to H. D. Brookman & Co.
The bark Gem of the Sea, Miller, for New-York, sld. in
co. from Gibraltar. Left, schr. Central America, Snow;
for New-York in 6 ds.

Brig Wencnah (of Bucksport,) Dow, Malaga and Gib-
raltar, May 17, with lead, &c., to H. D. Brookman & Co.
The bark Gem of the Sea, Miller, for New-York, sld. in
co. from Gibraltar. Left, schr. Central America, Snow;
for New-York in 6 ds.

Brig Wheaton, (of Eastport,) Larkin, Monte Christo
(St. Domingo) June 4, with hides, &c., to Kolf & Per-
suhn. Left no Am. vessels.

Schr Saxon, McDermot, Machias 6 ds., with lumber to
Mayhew, Talbot & Co.

Schr. Evergreen, (of New-London,) Hinckley, Baracca
June 7, with fruit, &c., to master.

Schr. Havelock, (Br.) Cole, Hillsboro', N. B., 5 ds.,
with plaster, bound to Newark, N. J.

Schr. Isaac Toucey, Gould, New-Bedford, in ballast.

Schr. J. A. Dix, Phillips, Gloucester, with fish.

Schr. O. Spelman, Spelman, Albany, for Providence.

Schr. E. Wollen, Dibble, Albany, for New-Haven.

BELOW—1 bark, south of the Highlands, Schr. Thos.
M. Holcombe.

WIND—Sunrise, from northward, and light; sunset,
S. S. E., light.

Sailed.

Ships Isaac Webb, Bryer, Liverpool; R. Morse, Ding-
more St. John, N. B.; Harrisburg, —, Barks Con-
stitution, (Brem.) Laner, Rotterdam, Evelyn, Harring-
ton, St. Michael's; J. Godfrey, Clark, San Francisco.
Brig C. H. Kennedy, Randall, Nuevitas, and others.

Memoranda.

The original protest of Capt. Henry F. Cole, of the ship
Coursier, of Boston, lost on the Pratas Shoal, has been re-
ceived by the Europa. It sets forth that she sailed for
New-York on the 2d day of April, 1858, with a cargo of
tea and sundries; that nothing occurred until Sunday,
the 4th day of April, when the weather was thick and
hazy; had no observation; at 10 o'clock in the evening,
the ship going about ten knots she struck on the northern
point of the Pratas Shoal, the ship remaining hard and
fast, with keel apparently broken. Captain and crew
left the ship, with thirteen feet of water in the hold, stir-
ring very heavily, and deck split open. The captain
and most of the crew safely reached Hong Kong on the
8th and 9th of April, meeting with piratical fishermen
on the way. One boat, with the first mate, capsized
alongside one of the fishermen, and two of the crew were
drowned; the log-book was then lost, and all valuable
and papers taken away by the pirates. Signed

APRIL 9, 1858. HENRY F. COLE,
and attested by O. E. Roberts, Vice-Consul U. S. A. at
Hong Kong.

By Telegraph.

BOSTON, June 18—Arr. ship Commodore, Bliss, Key
West, Bark Hollander, Millett, Padang, Brigs Mason
B. Davis, O'Neil, Hayti; Queen of the South, Chapman,
New Bedford; Julia, Sheffield, Galveston. Schrs. D. F.
Sawyer, from Fayal; W. B. Horsey, Colburn, St. Barts;
Marcia Farrow, Pillsbury, Matanzas. Sailed this after-
noon—U. S. storeship Release.

Spoken, &c.

Ann Elizabeth—brig, of and from Norfolk for St. Do-
mingo, 13 ds., June 6, lat. 26 30 N., lon. 59 30.

Cambria—ship, of Bath, bound E., May 22, lat. 52 46,
lon. 26.

D. Durbar—brig, from West Indies for New-York, June
11, lat. 35 24, lon. 74 28.

Fury—Br. bark, of Londonderry, bd. E., June 14, 2 P.
M., lat. 40 45, lon. 66 54.

India—whale ship, Howland, of and for New-Bedford,
and 19 ds. from St. Helena, 34 mos. out, with 2,000 bbls.
wh. and sp., May 17, lat. 2 42 N., lon. 33 W.

Liverpool—bark, (whaler, of South Dartmouth,) Smith,
6 mos. out, last from off River La Platte bound to west
coast of Africa, had 150 bbls. sperm, April 19, lat. 29 S.,
lon. 9 30 E.

Northern Light—steamship, from New-York for Bre-
men, June 14, 4 P. M., lat. 40 40, lon. 67 25.

Zetland—Br. ship, from Liverpool for Quebec, May 16,
lat. 45 57, lon. 9 54.

—◆—

Foreign Ports.

Esido Island, Lower California—(Per ship Adelaide. Wakeman, at this port)—Arr., Dec 3, 1857, Am. ships Sierra Nevada Penhallow, from San Francisco; 17th Adelaide Wakeman, do; 22d, Empress of the Sea, Wilson, do.; Am. brig Boston, (whaler, Scannon, fm. Margarita Bay; Feb. 2, Am. schr. Victoria, Kemp fm. San Francisco; 9th, Br. ship Claremont, Burgoyne, fm. do.; 12th Am. ship Martha, Baldrey, do.; Am. schr. Marine, Scannon, fm. Margarita Bay; March 19, Am. scl r. Teresa, Eastburn, fm. San Francisco. Sailed—Dec. 22, whaling brig Boston, for Margarita Bay; Feb. 5, ship Sierra Nevada, for New York; Feb. 16, schr. Victoria, for Gulf of Mexico. In port—Am. ship Empress of the Sea, Wilson, for Hampton Roads April 10; Br. ship Claremont, Burgoyne, for Glasgow May 1; Am. ship Martha, Baldrey, unc., June 1; Am. schr. Teresa, Eastburn, for San Francisco soon.

At Baracoa, June 7, schr. D. Davidson, for New York June 11.

Annex 561

“Loss of the Ship Alfred Hill”, *New York Times* (31 July 1861)

The New York Times

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July 31, 1861

Loss of the Ship Alfred Hill.

BOSTON, Tuesday, July 30.

The ship Alfred Hill, from Boston for Hong Kong, is a total loss. She went ashore on Paracel, North Shoal, May 15. Crew saved.

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Annex 562

David Jude Sta Ana, "China builds more Spratly outposts", *The Philippine Star* (24 May 2011)

Fri | 03/06/2015 11:55pm | Forex: \$1:44.125

FOLLOW US:

China builds more Spratly outposts

By DJ Sta. Ana, News5 | Updated May 24, 2011 - 12:00am



Satellite photos show Chinese-occupied islands located within the Kalayaan Island Group. The reef fortresses and supply platforms are equipped with VHF/UHF communications equipment, search radars as well as naval guns and anti-aircraft guns.

MANILA, Philippines - China has set up military garrisons and outposts within Philippine-claimed territory in the Spratly Islands in the South China Sea.

Documents and photographs obtained by News5 show that the military garrisons and outposts are located on six reefs that are part of the Kalayaan Island Group. Brunei, China, Malaysia, the Philippines, Taiwan and Vietnam are claiming the Spratlys either entirely or in part. The Spratly Islands are located within an area of 150,000 square miles and are made up of some 200 islands, reefs and shoals.

The Aquino administration is expected to push for diplomatic solutions to the dispute as well as joint economic development of the area. But a political analyst said Manila should not surrender its sovereignty and should turn to the international community for help.

The Philippines is claiming only a portion of the Spratlys, known as the Kalayaan Island Group, located in a 64,000- square-mile area and made up of 54 islands, reefs, and shoals.

Included in the Kalayaan Group is Pagasa, also known as Thi Tu Island, the second biggest island in the Spratlys. The Philippines has an airstrip and maintains a small community on Pagasa Island as well as garrisons in eight other islets.

Vietnam occupies 23 islets while China and Malaysia occupy seven each.

The Kalayaan Island Group is part of the province of Palawan and is within the 200 nautical mile exclusive economic zone of the Philippines.

Documents show that of the seven Chinese-occupied islands, six are located well within the Kalayaan Island Group. The military garrisons and outposts were located at Kagitingan (Fiery Cross) Reef, Calderon (Cuarteron) Reef, Gaven Reef, Zamora (Subi) Reef, Chigua (Dong Men Jiao) Reef and Panganiban reef, better known as Mischief Reef.

At Kagitingan Reef, China built a permanent communications and maritime observatory garrison that can house 200 troops. China built a helicopter landing pad, a 300-meter long wharf allowing supply ships and patrol boats to dock, a two-storey barracks and a 500-square meter plantation area. Beijing designated the Kagitingan Reef as its main command headquarters as it is equipped with satellite data transmission, surface and air search radars. This garrison is armed with at least four high-powered naval guns and several gun emplacements.

China built permanent reef fortresses and supply platforms at the Calderon, Gaven and Chigua reefs. These supply platforms can resist winds up to 71 knots and are equipped with VHF / UHF communications equipment, search radars as well as naval guns and anti-aircraft guns. These three supply platforms can also serve as docks for Chinese navy patrol boats.

At Zamora Reef, China has built a permanent reef fortress and supply platform that can house 160 troops. This garrison has a helipad and is armed with four twin barrel 37-millimeter naval guns.

Documents also show that China has built up its facilities at Panganiban Reef. In 1995, Manila and Beijing had a diplomatic dispute when China started building structures on the reef. At that time, China said the structures were shelters for its fishermen but questions were raised as the "shelters" were equipped with satellite communications and radars.

Panganiban Reef now has four building complexes with 13 multi-storey buildings. Fifty Chinese Marines are permanently stationed there and are equipped with satellite communications equipment. China has undertaken several lagoon construction activities at Panganiban Reef. The construction of additional facilities at Panganiban Reef is apparently aimed at establishing pre-positioned bases in the South China Sea, enabling Beijing to project its influence and power in the disputed islands.

Documents also show that apart from the military garrisons and outposts, China is aggressively pursuing large-scale maritime projects aimed at cementing its claim on the Spratlys. These projects include construction of port facilities, airports, navigation buoys, lighthouses, ocean observatories and maritime meteorology networks.

President Aquino had recently voiced the idea of claimant countries jointly developing Spratlys' resources - and sharing in the benefits. Defense Secretary Voltaire Gazmin says this a "good idea," adding that a good neighbor policy may be the best way to resolving the dispute.

"The proposal of the President is why don't we come up with some sort of consortium where all the claimant countries are putting up their resources for a particular project in these areas?" Gazmin explained. "For whatever proceeds we get - we divide, we share equally, which is a very good idea."

But Gazmin said this was just an idea of the President. "It's just one of his (President Aquino) ideas."

"If that is one way of resolving the issue peacefully and at the same time earning from it, not fighting but earning and sharing resources - I guess that is a friendly neighborhood," he said.

Gazmin said any "intrusions" into the Philippine territory would be dealt with diplomatically.

Last March 2, 2011, Manila filed a protest over China's alleged intrusion into Philippine waters where Chinese Navy patrol boats "harassed" the MV Veritas Voyager, a Philippine oil exploration ship.

Political analyst Dindo Manhit of Stratbase stressed Manila should not surrender its sovereignty. While admitting the Philippines is militarily weak, Manhit said Manila can turn to the international community to exert pressure on China or any other claimant country.

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FEEDBACK

Annex 563

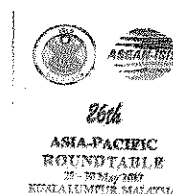
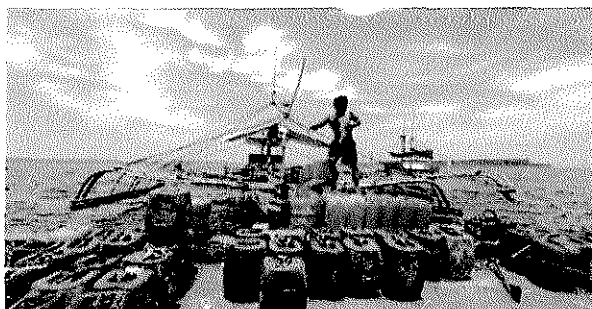
“We should find our own solutions”, *New Straits Times* (26 May 2012)

NEW STRAITS TIMES

28 May 2012

'We should find our own solutions'

SOVEREIGNTY: If outsiders get involved, the region could become an international wrestling ground, China's ambassador to Asean Tong Xiaoling tells Santha Oorjitham in an email interview



A crew member of a fishing boats disembarking at a pier in Masinloc town, Zambales province, 230km from Scarborough Shoal after he and other protesters decided to postpone their trip to the disputed area. AFP pic

Question: What is China's position on Myanmar as it opens up and attempts to rejoin the international community?

Answer: As a friendly and close neighbour with more than 2,000km of common border, China wishes to see stability and development continue in Myanmar more than any other country. It has been China's consistent position to call for respect for the development path chosen by the Myanmar people and early and comprehensive lifting of sanctions against the country. China is willing to work with the rest of the international community to play a constructive role in helping Myanmar achieve stability and development.

Question: How would you describe relations between China and the United States in Asia-Pacific?

Answer: China welcomes the US to play a constructive role in the region, and the US has repeatedly reaffirmed its commitment to stronger cooperation with China in the region.

The two sides launched the consultation mechanism on Asia-Pacific affairs in May last year. Both sides reached much common ground on issues, including China-US relations in Asia-Pacific, their respective Asia-Pacific policies, regional hot spots and multilateral mechanisms.

Naturally, China and the US do not agree with each other on all issues. China believes that the majority of the Asia-Pacific countries are now most concerned about maintaining economic prosperity, strengthening regional cooperation and achieving common development.

There are security challenges to the region. But Asia-Pacific enjoys stability on the whole, which renders it inappropriate to highlight military and security agenda, enhance military presence and reinforce security alliances.

China is open to regional cooperation mechanisms and rules, which should be decided jointly by all the countries in this region. China looks forward to exploring a proactive model of interaction that promotes mutually beneficial cooperation and properly handles differences with the US.

Question: How do you see the relations between China and Asean in the present climate of economic uncertainty?

Answer: East Asia today has maintained fairly fast economic growth and social stability. It is one of the most dynamic regions with the biggest potentials. Free trade agreement development, sustainable development, connectivity, maritime cooperation, social and people-to-people exchanges will be the priorities for China-Asean cooperation. China will, as always, support Asean community building and Asean's leading role in East Asia cooperation.

Global challenges such as food, energy and environmental issues are posing increasing threats to sustainability of humanity. Against this backdrop, no single region or nation could remain unaffected in a globalised world. China and Asean will seize the opportunity, enhance cooperation against the challenges as masters of our own destinies, and advance the strategic partnership between us.

Question: What feedback has China received on Asean leaders' discussion on the South China Sea issue at the recent Phnom Penh summit?

Answer: The South China Sea issue involves disputes between China and some other countries of the South China Sea over territorial sovereignty and maritime jurisdiction. It's not a dispute between China and Asean. Direct negotiations between countries to the dispute is the best way to settle it. This is also confirmed in the Declaration of Conduct (DOC) signed by China and Asean member states.

If countries or international organisations that are not parties to disputes in the South China Sea were to get involved in settling the disputes or even become referees, it would only turn this region into an international political wrestling ground, create more complexity and affect peace and stability in the South China Sea.

Question: Asean leaders have agreed to work on common elements of a Code of Conduct in the South China Sea, aimed at creating a rules-based framework, and that there should not be any interference from outside parties. What is China's stand on this?

Answer: China is ready to work with Asean on discussions about the COC, and has exchanged views on questions concerned. In order to enhance communication and build consensus, China has proposed the creation of a group of eminent persons or experts on COC discussion.

Disputes over the South China Sea should be settled peacefully through friendly consultations and negotiations by sovereign states directly involved. This is a major consensus reached by China and Asean countries in the DOC. The DOC and COC are not dispute-settlement mechanisms. Rather, they are confidence-building measures intended for greater cooperation and mutual trust as well as peace and stability in the South China Sea. Any discussion on the COC formulation has to involve China from the very beginning. China cannot accept any draft of the COC that is imposed upon her.

Question: Is the Asean Defence Ministers Meeting Plus (ADMM+) a duplication of the Asean Regional Forum and why (or why not?)

Answer: ARF is a platform for political and security dialogue and cooperation with the largest membership in Asia-Pacific. We hope that the ARF could further increase political and security mutual trust among parties concerned through dialogue on security issues of shared interest, greater participation of defence officials, and confidence-building measures projects in disaster relief, maritime safety and other pragmatic cooperation on this platform.

The ADMM+, on the other hand, is an important platform for pragmatic cooperation in security and defence between Asean and its full dialogue partners. China hopes that all parties could make full use of this platform to conduct in-depth security dialogue and practical cooperation to enhance capabilities to tackle security threats and promote stability and prosperity in the region.

Ambassador Tong Xiaoling will be a speaker at the 26th Asia-Pacific Roundtable in Kuala Lumpur

Annex 564

David Jude Sta Ana, "China reclaiming land in 5 reefs?", *The Philippine Star* (13 June 2014)

Fri | 03/06/2015 11:56pm | Forex: \$1:44.125

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China reclaiming land in 5 reefs?

By DJ Sta. Ana (The Philippine Star) | Updated June 13, 2014 - 12:00am

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MANILA, Philippines - China is carrying out land reclamation operations in not just one but a total of five areas in the disputed Spratly Islands well within the Philippine maritime zone.

A confidential Malacañang report detailed the land reclamation activities of China in five areas, namely Johnson South (Mabini) Reef, Cuarteron (Calderon) Reef, Hughes (Kennan) Reef, Gaven (Burgos) Reef and Eldad (Malvar) Reef.

The report noted China has focused its land reclamation operations in areas farther from the Philippine mainland.

No such activities were monitored at three other areas, namely Fiery Cross (Kagitingan) Reef, Subi (Zamora) Reef and Mischief (Panganiban) Reef, where China had built military garrisons and communications facilities.

But the report does not rule out the possibility of China doing land reclamation activities in these three areas once the work is done in the first five reefs.

The assessment by both local and international observers is that the expansion of China's existing garrisons in these areas is part of Beijing's ongoing efforts to impose its supremacy over the area.

The Philippine government revealed in March that China was carrying out land reclamation activities in Mabini Reef, part of the Kalayaan Island Group.

The Department of Foreign Affairs released photographs showing how the small Chinese garrison was expanded to almost nine hectares in just two years.

There were speculations that China would build an airstrip in Mabini Reef and, once operational, Beijing can enforce its controversial Air Defense Interdiction Zone

(ADIZ) in the region.

Apparently, China was busy carrying out reclamation work in four more areas, namely Cuarteron Reef, Hughes Reef, Gaven Reef and Eldad Reef.

Senior government officials confirmed to TV5 the Chinese activities, pointing out recent surveillance flights over the area confirmed the presence of dredging and "material displacement" ships.

President Aquino has seen the surveillance photos, which were taken in March and April this year, and was reportedly surprised at the extent of China's activities.

The same Malacañang report estimates Beijing will likely start land reclamation work at Fiery Cross Reef and Subi Reef first.

China has built a formidable garrison at Fiery Cross Reef, where some 200 troops are stationed and which contains air and surface search radars as well as satellite data transmission facilities.

The Fiery Cross garrison also has helicopter landing pads and a wharf. The garrison is heavily armed with naval guns and is considered China's main headquarters within the Philippines' Kalayaan Island Group.

The Chinese garrison in Subi Reef also has around 200 troops stationed as well as helicopter landing pads.

Officials noted, however, that China may hold off any activity at Mischief Reef due to its proximity to the Philippines. They said Beijing expects Manila to adopt a more aggressive diplomatic stance and attract more international attention should there be any land reclamation activity at Mischief Reef.

The Philippines and China already had several clashes over Mischief Reef. From several octagonal structures on stilts, China now has at least four building complexes in Mischief Reef and over a hundred soldiers guarding the communications facilities, docks and landing pad.

The geopolitical analysis website Stratfor pointed out China is using the strategy of oil exploration activities and land reclamation activities to enforce its claim over the disputed Spratlys and Paracel Islands.

In its recent paper on rising tensions between China and Vietnam over the Paracel Islands, Stratfor pointed out Beijing's use of oil exploration activities was one example of its firming up claims and gradually eroding other claimants' ability to challenge its supremacy.

Stratfor says Beijing will continue to push its boundaries using this strategy, as it still has to build up its navy's logistical capability.

"China's navy is not good enough to overcome the logistical challenges such distances present, so its ability to project its dominance throughout the maritime sphere is limited," Stratfor said.

Stratfor added Beijing will continue with its three-step strategy, namely using the nine-dash line as a historical justification for its continued operations in disputed waters.

China is also expected to enforce its claim in "tactically advantageous areas where it has an actual presence," such as the Paracels and Panatag (Scarborough) Shoal near the Philippines.

Stratfor added China would continue to develop its military and technological capability to carefully push its maritime boundaries farther "without antagonizing all of its neighbors at once."

'Thousand year-old friendship'

Despite these recent developments, Aquino and Chinese Ambassador Zhao Jianhua exchanged conciliatory statements and both stressed the territorial disputes do not define the "thousand-year-old friendship" of Manila and Beijing.

Officials showed to TV5 the surveillance photos taken at Gaven Reef, Cuarteron Reef and Keenan Reef.

At Gaven Reef, three dredgers and an ocean tug were seen. One of the dredgers, identified as Tian Jing Hao, has deployed a long hose to suck up seabed material and redistribute this in the reclaimed area.

Another dredger, the Nina Hai Tuo, can also be seen working in another area of Gaven Reef.

China had built a troop and supply garrison at Gaven Reef as far back as 2003.

The garrison has several gun emplacements, including a large bore naval gun. It also had a platform where supply ships can dock.

Officials said the reclamation operations at Gaven Reef are expected to last a month or more, "barring any environmental setbacks."

At Hughes Reef, a lone dredger can be seen and a sizable area has already been reclaimed. Construction equipment can be seen in the reclaimed area.

China had built a permanent reef fortress and supply platform, which also have several gun emplacements and a helicopter-landing pad.

At Cuarteron Reef, a dredger equipped with a long black hose can be seen spreading seabed material over a wide area.

The reclamation work is being done near the Chinese garrison which has been refurbished into a permanent reef fortress with radar and communications equipment.

At Eldad Reef, a ship can be seen anchored off the reef and a backhoe can be seen moving seabed materials.

Philippine government officials estimate that reclamation activities at Calderon and Eldad reefs will last a month.

At Johnson Reef, the reclamation work was completed last March.

Reclamation area

The reclaimed area is estimated to be around 90,000 square meters and the perimeter has been secured to prevent erosion.

Located in one corner of the reclaimed area is a Chinese garrison, which also serves as communications and radar facilities and is equipped with naval guns. A helicopter-landing pad was built in the garrison as well as a small dock.

In their respective speeches Tuesday before the Federation of Filipino Chinese Chambers of Commerce and Industry on the occasion of Filipino-Chinese Friendship Day, Aquino and Zhao expressed confidence that the disputes can be settled.

Zhao described the Philippines-China territorial disputes as "temporary... compared with our thousand-year-old friendship and extensive cooperation."

"China always attached great importance to its relationship with the Philippines, and I believe that we have the wisdom, the patience and the courage to settle the disputes through negotiations and consultations. I am fully confident about the future of China-Philippines relations," Zhao stressed.

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FEEDBACK

Annex 565

E. Wong & J. Ansfield, “To Bolster Its Claims, China Plants Islands in Disputed Waters”, *New York Times* (16 June 2014)

ASIA PACIFIC

To Bolster Its Claims, China Plants Islands in Disputed Waters

By EDWARD WONG and JONATHAN ANSFIELD JUNE 16, 2014

BEIJING — The islands have all that one could ask of a tropical resort destination: white sand, turquoise waters and sea winds.

But they took shape only in the last several months, and they are already emerging as a major point of conflict in the increasingly bitter territorial disputes between China and other Asian nations.

China has been moving sand onto reefs and shoals to add several new islands to the Spratly archipelago, in what foreign officials say is a new effort to expand the Chinese footprint in the South China Sea. The officials say the islands will be able to support large buildings, human habitation and surveillance equipment, including radar.

The island-building has alarmed Vietnam, the Philippines and other Southeast Asian nations that also claim sovereignty over the Spratlys. Since April, the Philippines has filed protests to China against land reclamation at two reefs. This month, the Philippine president, Benigno S. Aquino III, criticized the movements of Chinese ships that he said could be engaged in island-building at two other sites.

Chinese actions have also worried senior United States officials. Defense Secretary Chuck Hagel scolded China for “land reclamation activities at multiple locations” in the South China Sea at a contentious security conference in Singapore in late May.

Critics say the islands will allow China to install better surveillance technology and resupply stations for government vessels. Some analysts say

the Chinese military is eyeing a perch in the Spratlys as part of a long-term strategy of power projection across the Western Pacific.

Perhaps just as important, the new islands could allow China to claim it has an exclusive economic zone within 200 nautical miles of each island, which is defined in the United Nations Convention on the Law of the Sea. The Philippines has argued at an international tribunal that China occupies only rocks and reefs and not true islands that qualify for economic zones.

“By creating the appearance of an island, China may be seeking to strengthen the merits of its claims,” said M. Taylor Fravel, a political scientist at the Massachusetts Institute of Technology.

China says it has the right to build in the Spratlys because they are Chinese territory. “China has indisputable sovereignty over Nansha Islands,” a Foreign Ministry spokeswoman, Hua Chunying, said last month, using the Chinese name for the Spratlys. Chinese officials also contend that Vietnam and the Philippines have built more structures in the disputed region than China, so China is free to pursue its projects.

But analysts note that other countries did not build islands, and that they generally erected their structures before 2002, when China and nine Southeast Asian nations signed the **Declaration on the Conduct of Parties in the South China Sea**. One clause says the parties must “exercise self-restraint in the conduct of activities” that would escalate tensions and must refrain from inhabiting any currently uninhabited land features.

Although the agreement is nonbinding and does not explicitly ban building on the islands or the creation of new ones, some analysts say those activities are covered.

“It’s changing the status quo,” said Carlyle A. Thayer, an emeritus professor of politics at the University of New South Wales in Australia. “It can only raise tensions.”

Since January, China has been building three or four islands, projected to be 20 to 40 acres each, one Western official said. He added that there appeared to be at least one installation intended for military use, and that the new islands could be used for resupplying ships, including Chinese maritime

patrol vessels.

Last month, China set off alarms in the region and in Washington when a state-owned oil company placed an exploratory oil rig farther north in the South China Sea, by the contested Paracel Islands near Vietnam. The rig ignited diplomatic strife and violent anti-China protests in Vietnam.

But the island-building “is bigger than the oil rig,” said the Western official, who spoke on the condition of anonymity to avoid upsetting diplomatic discussions. “These islands are here to stay.”

Officials say Johnson South Reef, which China seized in 1988 after killing about 70 Vietnamese soldiers or sailors in a skirmish, is the most developed of the islands so far. “It’s Johnson Island now; it’s not Johnson Reef anymore,” the Western official said. Filipino officials released aerial photographs last month showing structures and a large ship.

Le Hai Binh, a spokesman for the Vietnamese Foreign Ministry, said in an email statement that Vietnam had sovereignty over the entire Spratly archipelago and that “China has been illegally implementing activities of expansion and construction” around Johnson Reef and other sites claimed by Vietnam.

He said Vietnam demanded that China “immediately stop illegal activities of expansion and construction” on the reef and “withdraw its vessels and facilities from the area.”

The Spratlys comprise hundreds of reefs, rocks, sandbars and tiny atolls spread over 160,000 square miles. Six governments have overlapping claims in the area. China and Vietnam also have competing claims for the Paracel Islands, in the area where the Chinese oil rig still sits. Both areas have abundant fish and some oil and gas reserves.

Jin Canrong, a professor of international studies at Renmin University of China, said he believed that the construction on Johnson South Reef was “a technical test, to see if such things can be done.” Should China want to try island-building on a larger scale, he said, a logical choice would be Fiery Cross Reef, about 90 miles west of Johnson South.

Last month, digital sketches of structures intended for the Spratlys

circulated on Chinese news websites, including that of Global Times, a newspaper owned by People's Daily, the Communist Party mouthpiece. The sketches, labeled a research study, showed a new island with shipping docks, parking lots and an airfield with a runway, airplanes and hangars. Reports said the images were from the China Shipbuilding NDRI Engineering Company, in Shanghai. When asked about the sketches over the phone, a woman at the company said they were "too sensitive" and had been taken off the firm's website. She declined to comment further.

Wu Shicun, president of the National Institute for South China Sea Studies, a government-linked research group on Hainan Island, said Chinese construction was intended mainly to augment the country's fisheries administration and humanitarian relief capabilities, not for military purposes.

"Our facilities are worse than those of both the Philippines and Vietnam," he said. "You see that Vietnam even has a soccer field."

Vietnamese and Filipino naval personnel played soccer during a June 8 conclave on Southwest Cay Island, which is controlled by Vietnam. "Clearly this was meant to enrage the Chinese people," Mr. Wu said. The island has been occupied by the Vietnamese military since the 1970s but is also claimed by China and the Philippines.

Christopher K. Johnson, the chief China analyst at the Center for Strategic and International Studies, in Washington, said China's recent moves were partly to make up for the fact that the Chinese military focused mainly on Taiwan for more than a decade while Vietnam and the Philippines developed facilities on shoals and reefs they controlled.

He said Chinese military officials were probably keeping in mind future long-range naval power projections. "There's no doubt that they would love to have some kind of a naval facility on one of these things," he said.

Chinese military leaders have talked in recent years of building up a navy that can operate beyond what is commonly called the "first island chain" — islands closer to mainland Asia that include the Spratlys and Paracels — to penetrate the "second island chain," which includes Guam and other territories farther east.

Mr. Thayer, the Australian analyst, said he had seen no signs yet that China was building large military facilities or a runway on the new islands. But he said there was a clear conclusion to be drawn from China's actions in both the South China Sea and the East China Sea, where China contends with Japan over islands.

"None of this is an isolated incident," he said. "It seems to be a new plan to assert Chinese sovereignty. This isn't something that will go away. This is a constant thing that will raise tensions, and at the same time no one has a good response to it."

Bree Feng and Chen Jiehao contributed research.

A version of this article appears in print on June 17, 2014, on page A4 of the New York edition with the headline: China, Trying to Bolster Its Claims, Plants Islands in Disputed Waters.

Annex 566

“Transcript of New York Times Interview With President Ma Ying-jeou of Taiwan”, *New York Times* (31 Oct. 2014)



ASIA PACIFIC

Transcript of New York Times Interview With President Ma Ying-jeou of Taiwan

OCT. 31, 2014

Following is a transcript, provided by the Taiwanese government, of an interview with President Ma Ying-jeou conducted by The New York Times in Taipei on Friday. Mr. Ma mainly spoke in Chinese, but briefly answered a question in English.

Read the full story [here](#).

Q. The first question we wanted to ask is, since we have APEC coming up in a week and a half, what has Beijing lost and what has Taiwan lost by your not meeting with Xi Jinping in Beijing?

A: We have always believed that APEC was the most appropriate place for the leaders of the two sides of the Taiwan Strait to meet, as APEC has already settled questions of venue, title, and capacity. Especially in Taiwan, there is great public support, but the mainland has greater misgivings. They fear it may give the outside world the misimpression that there are two Chinas. Yet on many occasions I have stressed that the Republic of China government will not promote a policy of “two Chinas,” “one China, one Taiwan,” or “Taiwan independence.” Our Constitution does not admit of such a thing. The mainland side is a bit overly concerned, so it is a pity that a meeting at APEC cannot take place.

Q. You’ve voiced support for democracy in Hong Kong. Has Beijing’s reaction to the protests in Hong Kong changed your thinking about cross-strait relations, and are you risking cross-strait ties by voicing support for democracy in Hong Kong?

A: I think our support for Hong Kong’s democracy will not be at the expense of cross-strait relations. Since I took office, as concerns cross-strait ties, we have signed 21 agreements and laid down a basic foundation. We have proceeded upon this foundation — namely the 1992 consensus of “one China, respective interpretations.”

That will not be affected. As a matter of fact, every June 4, I release a statement concerning the Tiananmen incident. This time it's a different venue, but the basic concept is the same.

Another key point is that we believe that if mainland China can practice democracy in Hong Kong or if mainland China itself can become more democratic, then we can shorten the psychological distance between people from the two sides of the Taiwan Strait. This would be a great step toward creating closer cross-strait ties over the long term.

Q. Xi Jinping seemed to be voicing more support for the “one country, two systems” approach even for Taiwan earlier this week as opposed to the 1992 consensus. Have events in Hong Kong, in your view, made China potentially more eager for a more controlling role in long-term bilateral relations with Taiwan?

A: In fact, the mainland's introduction of the “one country, two systems” policy was back in about 1982, before the 1992 consensus. Beijing introduced the “one country, two systems” model, and when they did so, we told them that Taiwan could not possibly accept it. Public opinion polls have consistently shown that most people oppose it. But many people in Taiwan support the “one China, respective interpretations” formulation, when “China” means “the Republic of China.” For a long period, especially during the eight years preceding my taking office, cross-strait relations were very unstable. Why was this? Because the administration at the time did not accept the 1992 consensus. When I took office, in my inaugural address, I clearly stated our support for the 1992 consensus of “one China, respective interpretations,” as a result of which the two sides quickly resumed negotiations that led to the signing of 21 agreements. So the 1992 consensus remains a key foundation undergirding cross-strait relations. The mainland has not abandoned it. The mainland came out with its “one country, two systems” formula earlier.

Q. Changing subjects to trade. There are two competing visions now for trade in the Pacific. There's Beijing's Ftaap — the Free Trade Agreement of the Asia Pacific — and then there's also the Trans-Pacific Partnership that Washington is suggesting. Which do you think fits Taiwan's economy better? Which has more appeal for you?

A: Both, we want both (T.P.P. and R.C.E.P.). Both are important to us. The T.P.P. (Trans-Pacific Partnership) includes 12 countries, with whom we enjoy annual

two-way trade of \$200 billion, or about 35 percent of our total foreign trade. The R.C.E.P. (Regional Comprehensive Economic Partnership), meanwhile, consists of 16 countries, with whom our foreign trade amounts to \$325 billion, or 57 percent of our foreign trade. These two groups share seven members. Together, these groups account for 70 percent of our foreign trade, so their importance to us is self-evident.

It must be understood that Taiwan is quite behind the rest of Asia in terms of signing free trade agreements (F.T.A.s) and joining in regional economic integration.

Ascertaining whether a country is making sufficient efforts on these fronts involves looking at what percent of its exports is covered by F.T.A.s. For Singapore, it exceeds 70 percent, meaning that over 70 percent of Singapore's exports are covered by F.T.A.s, so they are subject to lower-tariff, or even zero-tariff treatment. Sometimes these exports are also free from other, nontariff barriers. But for Taiwan, the figure is 10 percent, or just under 10 percent. As a result, we do not enjoy equal treatment vis-à-vis our competitors, meaning that our products' market share in other countries will gradually shrink. This is a matter of life and death for us, because 70 percent of our G.D.P. growth is dependent on foreign trade.

Q. Do you have any regrets that Taiwan did not make a bigger effort, then, to be included in the first round of T.P.P.?

A: We did our best, but we will not be participating in the first round. Yet the first round has not yet finished, because of the U.S. midterm elections. Multilateral talks will resume next year.

When nations sign free trade agreements, it is primarily for economic reasons. There are, of course, political implications. For the Republic of China, political interference is greater [than that affecting other countries]. We do not enjoy diplomatic ties with our main trading partners. When we want to trade with them, it's fine, but when we seek an F.T.A., they hesitate for fear that mainland China will oppose it. This is one reason few countries were, in the past, willing to sign F.T.A.s with us.

After I took office, we signed the Cross-Straits Economic Cooperation Framework Agreement (E.C.F.A.) with our largest trading partner, mainland China. Since then, we have signed an investment agreement with Japan, an economic cooperation agreement with New Zealand and an economic partnership agreement with Singapore. We hope to sign similar agreements with our main trading partners

in Asia and Europe by simultaneously contacting many countries and negotiating accords with them one by one.

We realize that this will not be easy, because there will always be politically motivated interference.

Q. I'd like to ask about the fishing agreement with Japan surrounding Diaoyu Islands and the waters there. Has that eased tensions, and was that agreement something you discussed with Beijing beforehand?

A: Last April 10, we signed the Taiwan-Japan fisheries agreement following about five months of negotiations. But prior to this, we had been in talks for 17 years. So it was in the 17th round of talks that we signed this agreement. Five rounds were held under President Lee Teng-hui, and 10 under President Chen Shui-bian. After I took office, we held the 16th round, but discovered that this manner of negotiating got us nowhere — it was meaningless and a waste of time. So we changed our approaches.

Coincidentally, the situation concerning the Diaoyutai Islands changed about this time. The result of Japan's nationalization of the islands aroused opposition among the people of both Taiwan and mainland China. At this time, I proposed the East China Sea Peace Initiative, concerned that should increased tensions lead to regional conflict, this would be extremely detrimental to the engine of global economic growth. It would not only affect Asian nations. I proposed the initiative on August 5, 2012. Japan responded in November, stating that they were willing to talk with us about this issue, and within five months, we had an agreement. In the year before we signed, we had 17 clashes over fishing rights, sometimes leading to standoffs between our nations' respective coast guards. Since the agreement's signing, there has been but one, for which there was no standoff and which was resolved quickly. So that's the political implication.

Economically, both sides have enjoyed larger catches, especially of high-quality fish like bluefin tuna. This has been beneficial to the fishermen of both sides. So we have achieved both peace and prosperity. We have set sovereignty questions aside, not allowing these to hinder resource development and relevant negotiations.

Q. Do you see any possibility in reaching a similar arrangement with mainland China?

A: Fishery issues with mainland China have been raised since I took office, since fishermen from mainland China often come to fish in Taiwan's waters. Sometimes we escort them back for punishment, and sometimes we fine them. Fines in one year can reach \$30 million in New Taiwan currency (approximately \$1 million in U.S. currency), so the amount is great. However, the mainland has been reluctant to discuss a fisheries agreement with us because they are worried that if they hold such talks with us, it would involve setting boundary lines and that might lead to misunderstandings by outsiders, such as that the two parties were two countries. So there has not been much progress on this issue so far. But in terms of carrying out protection of fishermen or cracking down on illegal fishing, Taiwan has consistently been very active and we are continuing to do so right up to the present. Thus, we have not yet conducted negotiations on a fisheries agreement with mainland China.

However, the thinking in the East China Sea Peace Initiative, which I proposed, is that the three parties — mainland China, Japan, and Taiwan — could split up to conduct three sets of parallel bilateral dialogues: Japan-mainland China, mainland China-Taiwan and Taiwan-Japan, to carry out negotiations on various issues involving marine issues. These could include fisheries development, oil and natural gas exploration and sea rescue cooperation. We have worked with mainland China on sea rescue for years. In addition, there could be other nonconventional security issues, such as marine science research and marine environmental protection. So there is great potential for cooperation.

At present, Japan and mainland China, as well as Taiwan and Japan, have concluded separate fisheries agreements. In addition, we have carried out sea rescue exercises with mainland China for many years. All these developments are positive. Perhaps we can step by step build three bilateral mechanisms; then, if conditions are appropriate, it could perhaps become one trilateral mechanism.

Q. Do you expect in the near future to deal with the Philippines on judicial cooperation in the Bashi Strait? And can that be the beginning of a broader cooperation with the Philippines on maritime issues?

A: We began discussing that issue with the Philippines last year. In fact, talks are nearing completion. In other words, the two sides shall sign an agreement. However, ahead of the signing, we have reached three points of consensus and are implementing them. The first is that neither party may use force. The second is that before any law enforcement action, the two sides must notify each other. Third, if

any personnel are arrested or vessels detained, they shall be released as soon as possible. These three points of consensus are already being carried out by both the Philippines and Taiwan. So, what remains is to sign an agreement pertaining to law enforcement. Signing a fisheries agreement would be very difficult, as it involves constitutional considerations on the Philippine side, so this is still under study.

Both parties reached consensus on these points last year, although we have yet to sign an agreement; nevertheless, only one point of contention remains. The closest distance between the Philippines and Taiwan is less than 200 nautical miles. If both sides were to demarcate their respective E.E.Z.s (exclusive economic zone), there would be an overlap of over 100 nautical miles. Under such conditions, this sort of a law enforcement agreement will help reduce causes of dispute. However, looking at the long term, attaining a fisheries agreement will require much more time and effort.

In 1898, the United States fought a war with Spain over the Philippines. After the U.S. won, the Treaty of Peace Between the United States and Spain ceded sovereignty over the Philippines to the U.S. However, since there are more than 7,000 Philippine islands, it was difficult to clearly demarcate the area. So they just used latitude and longitude to roughly demarcate this area. However, after the Philippines gained independence in 1946, it regarded all of the area within the latitude and longitude coordinates as its offshore waters. Some of the islands within this area are more than 100 nautical miles from the boundary lines. Under such conditions, it is easy for our fishing vessels to inadvertently enter what the Philippines sees as its territorial waters. Since this is stipulated by the constitution of the Philippines, it is difficult for them to deal with this issue. Before these issues are resolved, it will be difficult to sign a fisheries agreement.

The Philippines often complains that our fishermen transgress their borders to fish, entering their territorial waters or E.E.Z. So, after we reached consensus, we have repeatedly told our fishermen that if they operate legally, we will protect them. However, if they enter the territorial waters of the Philippines, we cannot do so. Thus, our policy for the protection of fishermen is to “protect fishing, not wrongdoing.”

Q. Given that the consensus with the Philippines and the agreement with Japan seem to be reducing tensions in those directions, do you want Taiwan to play a greater role in the South China Sea, particularly

with regard to the Philippines' claims, but also even Malaysia and Vietnam, and particularly given that the Republic of China and the People's Republic of China have the same historical antecedents for their respective claims?

A: Our efforts to take part in regional peace initiatives have all encountered the same difficulty. On the one hand, Taiwan does not have formal diplomatic relations with these countries, so contact between the two sides elicits concerns from mainland China. Second, Beijing hopes we will not be involved in international situations such as South China Sea controversies. This has led us to encounter difficulties in playing an active role. However, in fact, the Republic of China is a peace-loving nation, and up to the present, we have troops stationed on the largest island in the South China Sea. In 1947, the Republic of China published a map of its territories in the South China Sea, so our claim is very clear. Therefore, we continue to seek participation in discussions involving the South China Sea, in hope of acting as a facilitator of peace, since, at the least, all countries should be able to support freedom of navigation, freedom of overflight and the use of peaceful means to resolve disputes. We feel that although the East China Peace Initiative applies to the East China Sea area, many of its basic principles also can be applied to the South China Sea. The most important of these concepts in the East China Sea Peace Initiative that I've mentioned is that sovereignty and resource development issues can be decoupled.

There is a basic principle in the Law of the Sea, that land dominates the sea. Thus marine claims begin with land; however, even if it is logically this way, when resolving disputes, it is not impossible to first resolve resource development issues. If we think back to the past, sovereignty is indivisible, but resources can be shared. In fact, in many areas of the world there is already a similar kind of development, including Europe's North Sea, which in the 1960s and 1970s was an area of dispute, but once they realized that continuing to dispute would never produce results, they changed to cooperation. Joint development of resources resulted in the emergence of an important brand on the international oil market, Brent Crude.

In the East China Sea, we are in fact following this kind of logic. When we signed the fisheries agreement with Japan, we did not abandon our sovereignty claim. We regard the Diaoyutais as territory of the Republic of China, and offshore islands appertaining to Taiwan. This stance has never changed. However, in the

fourth article of the Taiwan-Japan fisheries agreement, it says that the actions or measures adopted by both parties under this agreement do not affect our rights and interests under the Law of the Sea. By using this approach to shelve our disputes temporarily, the problem became smaller, not larger. Following this sort of resolution, in the future, if there is the opportunity, we can still explore issues pertaining to sovereignty; otherwise, we can explore other issues of resource development, such as oil and gas, or other newly discovered resources that I just mentioned. If the South China Sea issues can be approached from this angle, perhaps solutions can be found to some of them.

Q. Taiwan has expressed interest in developing its own submarines. How important is that to Taiwan? And if you go ahead with developing your own submarines, would you rely on technology from the U.S. and do you expect to get that?

A: As a matter of fact, before 2001, we presented a procurement list for diesel-powered submarines to the U.S. In the same year, the U.S. approved our proposal, but because it had stopped developing diesel-powered submarines in the 1950s and now manufactures only nuclear-powered ones, it was unable to supply us with the items we wanted. It has also been difficult to purchase them from other countries. This has led to a long delay. The four submarines we have are old and outdated; for example, the Guppy-class submarines we purchased in the 1970s have been in service for almost 70 years. These need to be replaced. We will continue with our indigenous submarine program; of course, we will need to rely on technologies from other countries.

Q. Where does that stand? I understand that you have formal requests to the United States. Have you received any reply on obtaining submarine technology that would allow you to build subs in your own shipyards?

A: We are still discussing this issue with the United States. With our current shipbuilding technology, we can build gunships, frigates and even 4,000- to 5,000-ton vessels. But the technology needed for building submarines is different. We will continue to discuss how we could engage the U.S. in technological cooperation.

Q. Is there a formal recent request you made? I have heard different versions on this, a formal recent request for submarine technology that you would build into vessels that would actually be assembled in

Taiwanese shipyards. Or was it not an actual recent formal request for a specific technology that would allow you to do this at all?

A: Making a formal request should be the last step. It should be made only after we have confirmed that the technology can be transferred. That would mainly be a formality. The most important thing is whether we can obtain the key submarine technology. We will continue to work on this, and once we succeed, we will make a request. However, the U.S. already gave its approval in 2001.

Q. Taiwanese companies have conspicuously not been punished in recent months as China has confronted multinationals from the United States, Europe and Japan, accusing them of offenses like breaking antimonopoly laws. Is this because Taiwan has an understanding with China that they are not going after your companies, that you are somehow exempt from the economic nationalism because they see you as part of China? Why is it that Taiwanese companies seem to have this exemption from the current crackdown on foreign companies, more broadly, in China?

A: Taiwan and mainland China are both members of the World Trade Organization. We enjoy the same rights and obligations. We do not receive special privileges because we are closer geographically or speak the same language. We don't as far as I know.

You just mentioned antimonopoly laws. Could it be because Taiwan's businesses are not so large and therefore are less likely to violate these laws? I am not sure about that.

Q. Do you foresee a way to address the pork issue with the United States such that you can get a bilateral investment agreement done with the United States before you leave office?

A: We have resumed negotiations with the United States under the Trade and Investment Framework Agreement signed in 1994. Regarding the pork issue, when we were discussing opening up the market to U.S. beef two years ago, the American Institute in Taiwan told us clearly that beef and pork imports could be discussed separately. When we first communicated this to our people, the first principle we observed was that the importation of beef and pork would be considered separate issues. Taiwan consumes a far lower amount of beef than pork. Our pork consumption is very high, especially of offal. The use of ractopamine results in

higher residual levels in internal organs. We are more concerned about this. This is why we have not agreed to allow pork imports containing ractopamine.

With regards to beef, after many rounds of negotiations with the U.S., we now permit the import of beef with a maximum residue limit of 10 pbb. This problem has now been resolved. The U.S. said two years ago that beef and pork imports could be discussed separately, and we have proceeded accordingly. Therefore, the two sides will need to conduct further discussions on this issue.

Second, pork accounts for a very small proportion of U.S. exports to the R.O.C. We have opened our market to U.S. pork. The only restriction is that pork containing ractopamine is not allowed. U.S. pork exports, whether to Russia, the European Union, or mainland China, do not contain ractopamine. Taiwan imports a very small volume of U.S. pork, far less than Russia, the E.U., or mainland China. We see no reason why pork exported to Taiwan cannot be ractopamine-free. We do not think that this is a big issue. It should not impede our negotiations with the U.S. on a number of other issues, especially a bilateral investment agreement. Otherwise it would be a shame because U.S. exports very little pork to Taiwan. I do not think that the slogan we now hear — no pork, no talks — is very wise.

Q. Do you have any concern that Taiwan's ever-growing economic ties to the mainland, and now that mainland China has passed the United States as the biggest trading partner of Taiwan, mean that Taiwan is losing its political and security flexibility, that it is becoming too dependent on China economically?

A: Some people have indeed been discussing recently whether Taiwan is too dependent on the mainland Chinese economy. We must first examine what dependence and over-dependence mean. For example, in 2000, mainland China (including Hong Kong) accounted for 24 percent of Taiwan's total exports. Before I took office in 2008, our exports to the mainland had risen to a 40-percent share. People thought that this figure would continue to increase. But the reverse has happened. From last year to September of this year, 39 percent of Taiwan's exports were shipped to mainland China. The figure did not increase but instead decreased. An important reason is that we have diversified our export markets. For example, our exports to the Association of Southeast Asian Nations grew from a 12-percent to 15-percent share, and have now reached 19 percent. This shows a consistently upward trend.

Mainland China is the largest trading partner of 17 of its 23 neighboring countries. Their bilateral trade values are extremely high because mainland China is the world's second largest economy and largest exporter. We can take a look at U.S. relations with Canada and Mexico. The three countries have formed a North American free trade area. About 75 percent of Mexican and Canadian exports are destined for the U.S., while the U.S. supplies about 50 percent of their respective total imports. Therefore, their bilateral trade dependence is 65 percent, which is far higher than that in cross-strait trade. Some people might say that U.S. relations with Canada and Mexico are different from cross-strait ties. Their political relations are certainly different. Economically, however, the countries are located in close proximity, share similar cultures and ethnic backgrounds, as well as close relations. That they would have a large trade volume is inevitable. If mainland China were to account for only 10 percent of our total trade and the U.S., 50 percent, it would be [almost] impossible economically. However, this happened before. I remember when I had just returned from the U.S., around 1981 to 1988, half or more than half of Taiwan's exports were destined for the U.S. Our trade with mainland China and other countries gradually became more balanced. Things change. Judging from the present situation, we have not yet become over-dependent on mainland China. Our trade with the mainland has indeed continued to increase, but its share of total trade has decreased. The present situation warrants our attention but does not call for excessive anxiety.

Q. Going back to your support for democracy in Hong Kong, Taiwan had protests earlier this year. Many people pointed out similarities between the two. While the details are different, the fundamental issue concerns the influence of China. But you were also critical of the protests here. Do you see any contradiction in your standpoint, or do you see any similarities or differences between the two protest movements?

A: You asked whether there is any contradiction in my standpoint on the Hong Kong and Taiwan protests — there is absolutely no contradiction, as I support democracy, but oppose violence. With regard to the student movements in Hong Kong and Taiwan, there are two similarities and two differences. As for similarities, the two movements were both dominated by students, who demonstrated great enthusiasm. However, the goals of the two movements are different. In Hong Kong, the aim is universal suffrage, in other words, demanding democracy. In Taiwan, the

movement opposed our mainland China policy, objecting to a public policy. Democracy, which people in Hong Kong are pursuing, already exists in Taiwan. The second difference is the reaction of the authorities. We are a democratic nation, and concerns raised by the public will be examined and responded to. For example, on the first day of the protests here, students demanded that the Cross-Strait Trade in Services Agreement be reviewed and voted on article by article. In fact, the agreement at that time was still before the Legislative Yuan and had not yet been passed. Two days later, the Kuomintang (KMT) party caucus said that it would accept this demand, as this was already the consensus of the two major parties.

After seeing that their first demand had been accepted, they made a second. They called for the establishment of an oversight act for agreements between Taiwan and mainland China. A month prior to this, the KMT party caucus in the Legislative Yuan had reached consensus with the Executive Yuan on creating a four-stage oversight mechanism. On April 3, before the protest movement ended, the Executive Yuan approved a draft of such an act and sent it to the Legislative Yuan. Today, more than six months later, the draft still has not gotten through the legislature.

Meanwhile, the students called for dialogue with the government. On March 22, Premier Jiang walked from the Executive Yuan to the Legislative Yuan, and went among the crowd gathered there for a discussion. But the students said that the trade in services agreement should first be withdrawn before they would engage in dialogue. As far as I know, this was the first time that the highest-ranking official of the executive branch of the R.O.C. government went into a group of protesters to discuss their demands — it was really quite something. However, he was rejected, and walked back to the Executive Yuan. Even though the students requested dialogue with government officials, when a government official came to talk with them, he was turned away.

The next day, I held a press conference explaining the government's position. On March 25, I came out and said that I was willing to exchange views with students at the office of the president. Such a meeting would be public and could have been broadcast on television. In total, I issued an invitation for dialogue seven times, but each time, the students put forward reasons for not wanting to meet with me. For example, if we were to meet, they said, I could not request that the KMT party caucus in the Legislative Yuan exercise party discipline. They also said that a meeting should not be held in the office of the president, but on Kaitakelan Boulevard. I

wonder how things are in other countries, but I, as president, extended seven invitations to speak with students, and though these were all rejected, I believe we did our part as a responsive government.

In fact, we met most of their demands, except for withdrawing the trade in services agreement and renegotiating it. We could not have agreed to that demand. Doing so would be unacceptable in the international arena. If we had done so, the international community would regard us as an unreliable trade partner, which would then affect our ability to sign similar agreements with other countries. So I have mentioned two differences, which are the goals of the protests as well as the responses of the respective governments. The students fundamentally disagree with our mainland China policy. In fact, our mainland China policy has had the support of a large majority of our people. They [the protesters] believe that the trade in services agreement is a black box accord, but in fact, before being sent to the Legislative Yuan for deliberation, it was handled with the highest degree of transparency since constitutional rule was instituted in the R.O.C.

Before the agreement was signed by the two sides on June 21 of last year, the Ministry of Economic Affairs (M.O.E.A.) held 110 rounds of consultations with 264 representatives from 46 service-economy sectors. For each of these there is a record. In addition, before the agreement was sent to the Legislative Yuan, three formal reports were made to relevant committees of the Legislative Yuan. After it was sent to the Legislative Yuan, the M.O.E.A. held more than 140 large-scale seminars, which were attended by more than 7,900 people. In March of this year, before the legislative review had started, 20 public hearings were held. Since the R.O.C. Legislative Yuan was established, no bill has been afforded this much time or deliberation. Nevertheless, it still is regarded as a black box process. With the agreement having already entered the Legislative Yuan, and with so many public hearings having been organized, how can it still be regarded as not transparent? The key point is that they [the opposition] do not want this bill to be reviewed [by the Legislative Yuan]. They want to block it from moving forward.

In Western democracies, if the opposition wants to block a bill from moving forward, a filibuster is often the tactic used. A lawmaker proposing such a filibuster must speak uninterrupted for more than 10 hours to achieve his goal. I think the longest I have heard of was more than 23 hours. In our legislature, the opposition can simply use violence to occupy the speaker's podium and stop proceedings. In the

current session of the legislature, we have already witnessed more than 90 such instances. They do not want us to sign the trade in services agreement with mainland China. However, this will greatly harm Taiwan's development. The number of countries that have signed free trade agreements with us is limited, hurting our competitiveness. In addition, the service sector in mainland China is not as developed as ours, and entering the mainland China market would present great opportunities for Taiwan's service industry.

Economists in Taiwan believe that as a result of the trade in services agreement, our service exports to mainland China will grow by 37 percent, while mainland Chinese service exports to Taiwan will only increase by nine percent. The agreement will thus be more beneficial to Taiwan. This is why we believe that the agreement should still be passed. This year we are holding elections, so the current session of the Legislative Yuan is relatively short. However, we hope that both the governing and opposition parties are aware of the international challenges that Taiwan faces. Regardless of which party is in power, these challenges will have to be met. Blocking the agreement will only result in lowering Taiwan's competitive standing. That is why *The Wall Street Journal* published an editorial entitled "Taiwan leaves itself behind."

I want to emphasize again that regarding the protest movements in Hong Kong and Taiwan, we welcome democracy, but oppose violence. No democratic country can allow its legislature or executive government agencies to be occupied by anyone, including students. That's violence, not democracy.

Annex 567

U.S. Library of Congress, *Bibliographic Record: Junheng Zuo, Map of Tian di tu (1601)*, available at <http://www.loc.gov/item/2002626725/> (accessed 4 Feb. 2015)

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Contributors [Zuo, Junheng](#)

Dates 1601

Location [China](#)

Language [Chinese](#)

Subjects [China](#)
[Early Works to 1800](#)
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Title

[Tian di tu]

Other Title

245-02/\$1 天地图。

Guang yu tu.

Annex 567

Atlas of heaven and earth
guang yu tu.
atlas of heaven and earth

Contributor Names

Zuo, Junheng, active 17th century.

Created / Published

[Wanli 29 nian, 1601]

Subject Headings

- China--Maps--Early works to 1800
- China

Notes

- Shows celestial sphere, China as a whole, and 15 provinces for the Ming Dynasty, Chinese Turkestan, and the "South Seas", including Japan, Philippines, Java, Sumatra, Calicut, Bagdad, etc.
- Covers Beijing, Henan, Zhejiang, Jiangxi, Fujian, Guangdong, Guangxi, Nanjing, Shandong, Sichuan, Shaanxi, Shanxi, Huguang, Yunan, Guizhou, Dongbei Nüzhe, Dong nan zhu yi, and Xi bei zhu yi.
- Wood block print with place names labeled by hand.
- Available also through the Library of Congress Web site as a raster image.
- Gift; Arthur William Hummel; 1930, no. 2.
- Previous call number: G2305 .Z8 1639 Vault Shelf
- Previous call number: G2305 .T82 Cage
- "俯仰无遗, 严泓墨"--T.p.
- "四勿居藏".

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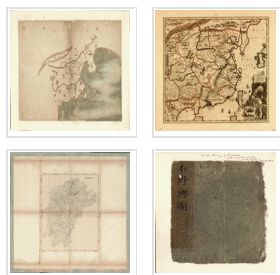
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




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Annex 568

U.S. Library of Congress, *Bibliographic Record: Map of Hua yi tu Map (Stone) (circa 1933)*, available at <http://www.loc.gov/item/gm71005081/> (accessed 4 Feb. 2015)

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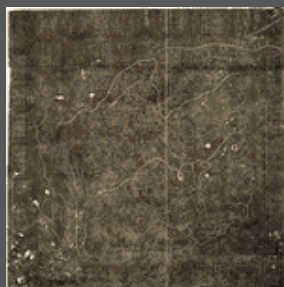
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Title

Hua yi tu.

Created / Published

[1933?]

Subject Headings

- China--Maps, Manuscript

Annex 568

- China--Administrative and political divisions--Maps
- Names, Geographical--China--Maps
- Rubbing--China--Maps
- China

Notes

- Scale not given.
- Stone rubbing dated 1933?
- Original stone was engraved in Fuchang 7 nian, i.e. 1136 A.D. The stone is now in the Forest of Stone Steles Musuem in Xi'an, China.
- Covers China in Nan Song Dynasty, from east to the sea, including Korea to the west of Pamier area, from north to the Great Wall, northeast to Heilongjiang region, to the south of Hainan Island.
- Shows mountains, rivers, lakes, and more than 400 administrative place names of China.
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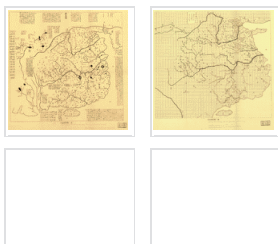
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U.S. Library of Congress, *Bibliographic Record: Map of Da Ming yu di tu (Plate) (circa 1547)*, available at <http://www.loc.gov/item/2002626776> (accessed 4 Feb. 2015)

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[Da Ming yu di tu].

Other Title

大明與地圖.

Atlas of the Ming Empire

atlas of the ming empire

Created / Published

[Between 1547 and 1559]

Annex 569

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- China--Maps, Manuscript--Early works to 1800
- China

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- Shows 18 maps, includes 13 provinces, 2 zhili, and general maps during (嘉靖年間) Jianjing period. Taiwan is not shown, and Macau is not marked in this atlas.
- Covers Bei Zhili, Nan Zhili, Shandong, Liaodong, Shanxi, Henan, Shanxi, Gansu, Zhejiang, Jiangxi, Huguang, Sichuan, Fujian, Guangdong, Guangxi, Yunnan, and Guizhou. Taiwan is not shown, and Macau is not marked.
- "與地总图" uses Chinese grid system, each square represents 500 miles.
- "康熙按七年 1668 五月初上納 南陽县監" -- on back.

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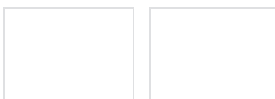
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Annex 570

U.S. Library of Congress, *Bibliographic Record: Map of Xia lan zhi zhang (Plate) (circa 1647)*, available at <http://www.loc.gov/item/2002626721/> (accessed 5 Feb. 2015)

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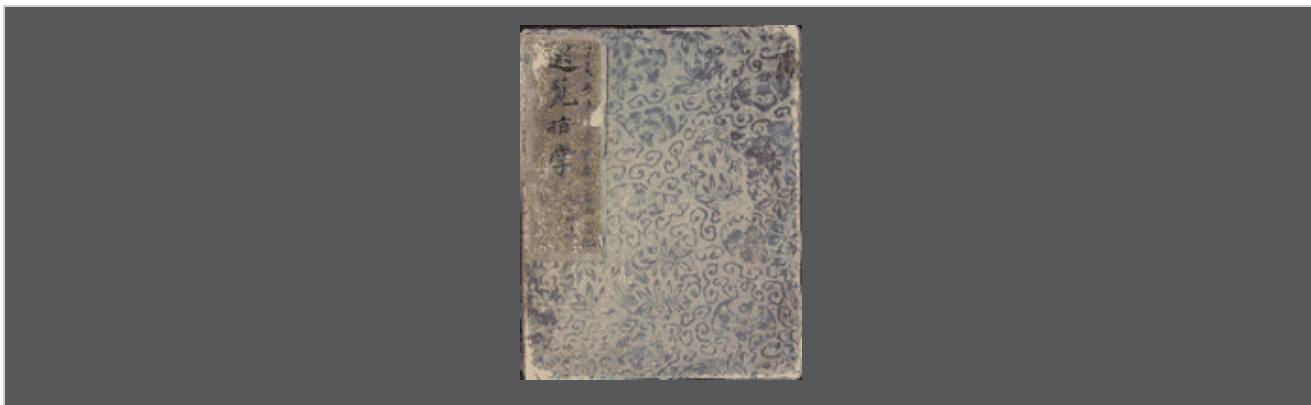
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Title

Xia lan zhi zhang.

Other Title

遐覽指掌。

Viewing distant places in the palm of your hand

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Created / Published

Annex 570

[1647?]

Subject Headings

- China--Maps--Early works to 1800
- China

Notes

- Covers Beijing, Nanjing, Shandong, Shanxi, Shanxi, Henan, Huguang, Sichuan, Zhejiang, Jiangxi, Fujian, Guangdong, Guangxi, Yunan, Guizhou, Nü zhen du si wei suo, Dong nan zhu yi, Xi bei zhu yi of Ming Dynasty.
- Cover title.
- Pen-and-ink.
- "Hai wai you jie"--T.p.
- Available also through the Library of Congress Web site as a raster image.
- Includes astronomy chart.
- Gift; Arthur William Hummel; 1930, no. 1.
- Previous call no.: G2305.H82

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Annex 571

U.S. Library of Congress, *Bibliographic Record: Map of Huang yu quan lan fen sheng tu (Plate) (1721)*,
available at <http://www.loc.gov/item/2002626779/> (accessed 6 Feb. 2015)

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Subjects [Administrative and Political Divisions](#)
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[Early Works to 1800](#)
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Title

[Huang yu quan lan fen sheng tu].

Other Title

[皇與全覽分省圖].

Zhongguo ge sheng di tu

The Kangxi provincial atlas of China

zhongguo ge sheng di tu

the kangxi provincial atlas of china

Annex 571

Created / Published

[Between 1721 and 1722]

Subject Headings

- China--Administrative and political divisions--Maps--Early works to 1800
- China

Notes

- Covers Zhili, Shengjing, Shandong, Shanxi, Jiangnan, Jiangxi, Zhejiang, Henan, Huguang, Fujian, Guangdong, Guangxi, Sichuan, Yunan, Guizhou.
- Pen-and-ink and watercolor.
- Prime meridian: Beijing.
- Available also through the Library of Congress Web site as a raster image.
- Gift; W.W. Rockhill; 1884.
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Call Number

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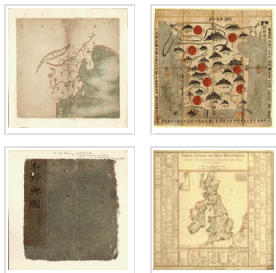
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Annex 572

“Shelf,” *Oxford English Dictionary* (accessed 5 Feb. 2015)

Oxford English Dictionary | The definitive record of the English language

shelf, n.2

Pronunciation: /ʃɛlf/

Etymology: Of obscure origin.

The identity of sense with **SHELF n.1** (recorded a century earlier) suggests that the two words may be in some way etymologically connected. The unexplained variation between *p* and *f* seems to have a parallel in the Old English *scylf* and *scylp*, both used to gloss *scopulus* and *murex* sharp rock, and in **SCALP n.1** bed of oysters (compare **2** below), which has the variants *scalfe*, *scalph*. It is not impossible that the word may descend from the Old English *scylf*, *scylp*, in some unrecorded sense. Some of the later uses show influence < **SHELF n.1**

1.

a. A sandbank in the sea or river rendering the water shallow and dangerous. Also loosely applied to a submerged ledge of rock.

Very common till c1750. See also **SHELVE n.1**

- 1545 T. ELYOT *Bibliotheca* (new ed.) *Syrtes*, quycke sandes or shelfes [1538 shelpes] in the water made by the dryfte of sande or grauell.
- 1571 *Act 13 Eliz.* c. 18 §5 The Shyriffes..shall..after that the said newe Cut shalbe made..cause the same..to be..clensed of all the Shelfes and Shallowes.
- 1577–87 R. HOLINSHED *Chron.* III. 1129/1 A place by the sea side, all of hard stone and pibble, called in those parts [*sc.* Suffolk] a shelve.
- 1617 F. MORYSON *Itinerary* III. 138 Before the Rode of Margat lie the dangerous shelfes or flats of sand, whereof the greatest is called Goodwin sand.
- 1651 W. DAVENANT *Gondibert* Pref. 19 Coasting Mapps, where the Shelves and Rocks are describ'd as well as the safe Channell.
- 1691 T. HALE *Acct. New Inventions* p. liv, Deepening the River of Thames, and removing Shelves therein.
- 1762 W. FALCONER *Shipwreck* III. 50 A shore where shelves and hidden rocks abound.
- 1791 *Selby Bridge Act* 3 To remove any shelves, or other obstructions, in the said river.
- 1802 *Brooke's Gazetteer* (ed. 12) at *Ladoga*, Quicksands, which..cause several shelves which often prove fatal to the flat-bottomed vessels of the Russians.
- 1878 R. BROWNING *La Saisiaz* 34 The every way external stream that now through shoal and shelf Floats it onward.

b. *fig.* and in *fig.* context.

- 1560 J. DAUS tr. J. Sleidane *Commentaries* Pref. sig. Aiiii^v, Whan I sometime doubted and sticked fast on the rockes and shelues.
- 1574 E. HELLOWES tr. A. de Guevara *Familiar Epist.* 299 Ther is in loue after it is begon, infinit

2/5/2015

shelf, n.2 : Oxford English Dictionary

shelues, immesurable sloughes, daungerous rockes.

- 1604 W. ALEXANDER *Cræsus* II. ii, This self-conceit is a most dangerous shelve.
- 1612 W. ALEXANDER *Elegie Death Prince Henrie* 9 Though generall be the losse, one shelve confounding quyte, The King's chiefe joy, the kingdomes hope, and all the worlds delight.
- c1616 R. C. *Times' Whistle* (1871) iv. 1288 Till i' th' end his pelfe Shipwracks his soule vpon hels rocky shelve.
- 1652 E. BENLOWES *Theophila* sig. A4, To divert thee therefore from such Shelves of indiscreet Vice.
- 1785 W. COWPER *Tirocinium* in *Task* 269 Yes—ye are conscious; and on all the shelves Your pupils strike upon, have struck yourselves.

†2. *shelves of margarites, shelves of oysters.* (Cf. SCALP n.²)

- a1592 R. GREENE *Frier Bacon* (1594) sig. A4, Her teeth are shelues of pretious Margarites, Richly enclosed with ruddie curtoll cleues.
- 1594 T. LODGE & R. GREENE *Looking Glasse* 1. i. 100 I'll fetch from Albia shelves of margarites.
- 1594 T. NASHE *Terrors of Night* G 2 b, Great glaring eyes that had whole shelues of Kentish oysters in them.

COMPOUNDS

† **shelf-spoiled** *adj.* *Obs.* rendered dangerous by shoals.

- 1627 T. MAY tr. Lucan *Pharsalia* (new ed.) IX. Q 8, A shelve-spoil'd sea.

This entry has not yet been fully updated (first published 1914).

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Annex 573

Curriculum Vitae of Dr. Robert W. Smith (Mar. 2015)

Dr. Robert W. Smith
Independent Geographic Consultant
[U.S. Dept of State, retired]

1498 Paradise Point Rd.
 Oakland, MD 21550

Phone: 703-434-0829 (cell)
 E-mail: dr.rwsmith@gmail.com

March 2015

PROFESSIONAL EXPERIENCE

CURRENT: INDEPENDENT GEOGRAPHIC CONSULTANT AND EDUCATOR

Advise on all aspects of ocean policies and planning including developing strategies for exploring and exploiting offshore resources in an environmentally sound and sustainable manner. Provide geographical and technical expertise for maritime boundary delimitation and arbitration, offshore jurisdictional claims, sovereignty disputes, and the development of offshore energy resources. Write position papers to support policy decisions on the rational development and management of marine resources. Provide technical and geographical expert testimony in domestic and international courts. Teach the geographical aspects of the law of the sea and world regional geography. Clients include the Governments of Bangladesh, Colombia, Guyana, Philippines, Thailand, Turkey; and British Gas-Asia, ExxonMobil, International Mapping Associates, the Rhodes Academy, U.S. Department of Justice, Univ. of Virginia's Semester at Sea program, and several international law firms.

1975-2006 GEOGRAPHER, U.S. DEPARTMENT OF STATE

As the U.S. government expert on maritime boundary and jurisdictional issues, I assisted in the development and implementation of U.S. ocean policy. I was responsible for the technical and geographical aspects of negotiating U.S. bilateral maritime boundaries and establishing U.S. claims to marine jurisdiction. In this role, I coordinated the U.S. effort to develop technically accurate and precise boundaries and outer limits for the territorial sea, contiguous zone, exclusive economic zone, and the continental shelf. For the establishment of U.S. maritime limits, I assured that all U.S. claims were in accordance to the international law of the sea principles using modern charting techniques. I represented the U.S. Government at international meetings and conferences, including United Nations meetings, on subjects of my expertise.

My State Department career was spent in two offices: in the Office of The Geographer (1975-87) I served as the Chief of the International Boundary and Resource Division where I supervised several geographic analysts before becoming the Special Assistant of Ocean Affairs and Policy Planning. From 1987 to March 2006 I was the geographer for the Office of Oceans Affairs in the Bureau of Oceans and International Environmental and Scientific Affairs. Throughout my State Department career I oversaw and was the principal author of the State Department's *Limits in the Seas* studies, in which analyses is given on the state practice of maritime claims and boundaries. Other related experiences during my State Department career included:

United States Representative to:

United Nations 13th States Parties Meeting for the Law of the Sea Convention, 2003
 Caribbean Maritime Boundary Conference (Mexico City), 2003
 United Nations Conference on Maritime Boundary Delimitation, 1999
 United Nations Conference on the Continental Shelf, 1993 and 1995

United Nations Conference on the Maritime Baseline, 1987
International Hydrographic Organization Law of the Sea Group of
Technical Experts, 1985

United States Department of State Representative to Department of the Interior's Outer
Continental Shelf Advisory Committee, 2002-2006

Member, National Security Council Interagency Committee on the U.S.
Baseline, 1975-2006

United States Delegations

Head of Delegation: Major Maritime Powers Meeting: 1998-Tokyo,
1997-London

Delegation Member: numerous bilateral and multilateral
negotiations, including maritime boundaries, International Court
of Justice boundary case (U.S. vs. Canada Gulf of Maine case,
1984), fisheries, and law of the sea meetings.

United States Expert Witness in Supreme Court cases:

U.S. vs. Alaska (1985, 1980)
U.S. vs. Louisiana (Mississippi, 1986)
U.S. vs. Maine (Mass., 1982)
U.S. vs. Maine (R.I., 1981)

United States Department of State Deputy Member: United States
Board on Geographic Names (1979-83)

HONORS

U.S. Department of State Superior Honor Award; 2000, 1984
U.S. Department of State Meritorious Honor Award; 1988, 1977
U.S. Department of Justice Commendation; 1989

MARITIME BOUNDARY ARBITRATIONS
(As an Independent Geographic Consultant)

- **Consultant** to Government of the Philippines in its arbitration vs. China (2013-)
- **Consultant** to Government of Bangladesh in its boundary arbitration vs. India,
Annex VII of the United Nations Convention on the Law of the Sea, before the
Permanent Court of Arbitration (PCA) 2009-2014
- **Consultant** to Government of Bangladesh in its boundary arbitration vs. Myanmar,
International Tribunal for the Law of the Sea (ITLOS), 2009-2012
- **Independent Technical Expert**, on behalf of the Government of Colombia in its ICJ
maritime boundary case vs. Nicaragua (2009-12)

-- **Expert Witness**; on behalf of the Government of Guyana, Republic of Guyana vs. Republic of Suriname Maritime Boundary Arbitration, under Annex VII of the United Nations Convention on the Law of the Sea (March-December 2006)

TEACHING

- 2014 **University of Virginia** (International Shipboard Education),
Summer Semester at Sea voyage
Courses taught: Political Geography of the Oceans, World Regional
Geography: Europe and Beyond
- 2013 **University of Virginia** (International Shipboard Education),
LECTURER, Enrichment voyage (all 3 segments: 52 days)
- 2012 **University of Virginia** (International Shipboard Education),
Semester at Sea voyages, May semester and Fall semester
Courses taught: Geography of the Oceans, World Regional Geography
- 2010 **University of Virginia** (International Shipboard Education),
Semester at Sea voyage, Fall semester
Courses taught: Geography of the Oceans, World Regional Geography
- 2004 – 2005: **Georgetown University**, Adjunct Professor
Course taught: Political Geography of the Oceans
- 2012-13, 2005-10, **Rhodes Academy**, Lecturer
2002 (Law of the Sea course, Rhodes, Greece)
- 1991- 2005 **International Boundary Research Unit**, Instructor: maritime boundary
workshops (Durham, England and London, England – 7 times)
- 1994 **World Affairs Program**, Royal Viking Cruise Line, Lecturer
- 1976- 1980 **George Mason University**, Adjunct Professor
Courses taught: Marine resource management, world
geography
- 1974-75 **University of North Carolina, Chapel Hill**, Instructor
Course taught: cultural geography
- 1972 **University of Rhode Island**, Instructor
Course taught: political geography

OTHER PROFESSIONAL ACTIVITIES

Expert Witness, on behalf of the U.S. Government, *U.S. vs. Marshalls 201*, (2007-09)

Scientific participant, the USCGC *Healy* month-long seafloor mapping of the U.S. Arctic (Aug-Sept 2007)

Board of Advisors: International Boundary Research Unit (IBRU), University of Durham, England (1990-2001)

Advisory Board, *Geopolitics* (1989-1995)

Secretary, International Geographical Union Marine Geography Study Group (1986-87)

Editorial Board, *The Virginia Geographer* (1982-86)

Member, Advisory Council at the Conference of International Straits of the World, Bellagio, Italy (1976)

EDUCATION

University of North Carolina, Chapel Hill

PhD, Geography, 1980

Dissertation: "A Geographical Analysis of the North Sea Continental Shelf Cases"

University of Rhode Island

MA, Geography, 1973

Thesis: An Analysis of the Concept "Strategic Quality of International Straits": A Geographical Perspective with Focus on Petroleum Tanker Transit and on the Malacca Strait

Bucknell University

BA, Political Science, 1971

LECTURES AND SPEECHES

"The Law of the Sea and Fisheries," Coastal Carolina University, November 2014.

"Piracy: Modern day Maritime Threat," University of Southern California, Department of International Relations, October 2013.

"Race to the North Pole: Arctic geography and maritime issues" Dallas Committee on Foreign Relations, October 2013.

"Baselines and the Law of the Sea," Yale Law School, October 2011.

"Island Sovereignty Disputes- A Review of State Practice on Managing and Resolving Conflicting Claims," The U.S. BGN and Dokdo Discussion, Northeast Asian History Foundation, Seoul, Korea, March 2010.

"United States Maritime Boundaries: Negotiated and Arbitrated Solutions," West Virginia University Geographic Symposium, September 2009.

"Maritime Delimitation in the South China Sea: Potentiality and Challenges," International Conference on the Issues of the South China Sea, Taiwan, August 2009.

Commentator, "Dokdo, Takeshima, Liancourt Rocks: History, Territory, and Sovereignty in Northeast Asia," Johns Hopkins University SAIS, June 2009.

"United States Maritime Boundary Delimitation Experience: Negotiated and Arbitrated Solutions," International Conference on Maritime Delimitation, Taipei Taiwan, June 2008.

- "Islands: Disputes and Delimitation," 21st Annual U.S. Pacific Command International Law Conference, Singapore, April 2008.
- "The United States- Mexico 'Western Gap' Treaty", Law of the Sea Institute conference, Harte Institute, Texas A&M, Corpus Christi, March 2007.
- "Issues in International Oceans Policy", University of Virginia School of Law (March-2002-07).
- "The Need for Offshore Certainty: The State of Affairs of Maritime Boundaries in the Caribbean," International Conference on Achieving Fiscal Stability in Upstream Oil and Gas, Houston, November 2006.
- "Maritime Boundary Negotiations: National Considerations and the U.S.- Mexico Experience," International Conference on Advanced International Boundary Disputes in Oil and Gas, London, June 2006.
- "Maritime Claims and Boundaries in the Arctic", Columbia University (January 2006)
- "Hot Spots of Maritime Boundary Disputes –Global Impact on Oil and Gas Interests," Conference on International Border Dispute Resolution, Houston, (September 2004)
- "Maritime Boundary Negotiations: National Considerations", Advisory Board on the Law of the Sea Conference, International Hydrographic Organization, Monaco (October, 2003)
- "Political Geography of the Oceans", Woodrow Wilson School of Public and International Affairs, Princeton University, (November 2002)
- "Future of Islands: Delimitation and Development," SEAPOL conference on Ocean Governance and Sustainable Development, Bangkok (March 2001)
- "International Maritime Boundaries: Impact on Oil and Gas Interests," Resolving International Border Disputes, Global Business Network Ltd, London, 2000.
- "Geography and U.S. ocean policy", Bucknell University (March 2002, April 1989)
- "Baselines: Normal, Straight, and Archipelagic", Institute of Petroleum, International conference on "Oil Under Troubled Waters: An Introduction to Maritime Jurisdiction and Boundary Disputes", London (November 2000)
- "International Maritime Boundaries: Impact on Oil and Gas Interests," Global Business Network Limited, "Resolving International Border Disputes", (London, July 2000)
- "United States - Canada Maritime Boundaries: A Study of Negotiations, Arbitration, and Management", Korea Maritime Institute Conference on Marine Policy and the Korea Economy: Issues and Opportunities, (Seoul, Korea, October 1998)
- "Navigation Considerations in East Asian Waters," Geopolitics and International Boundaries Research Centre's Conference on Island and Maritime Disputes of South East Asia (London, May 1993)

- “United States – Russia Maritime Boundary”, International Boundary Conference, Durham University (Durham, England, July 1991)
- “The State Practice of National Maritime Claims and the Law of the Sea,” University of Virginia School of Law conference on “State Practice and the 1982 Law of the Sea Convention, (Cascais, Portugal, April 1990)
- “Navigation and Overflight Rights in the Law of the Sea,” Cannon Air Force Base (April 1986)
- “Law of the Sea and the United States,” Bucknell University (April 1986)
- “The Geopolitics of the Arctic,” 52nd annual meeting of the Assoc. of American Geographers (Detroit, April 1985)
- “National Claims and the Geography of the Arctic,” Law of the Sea Institute Conference (San Francisco, September 1984)
- “U.S.-Canadian Maritime Relations” and “Geographical Aspects of Foreign Affairs,” Bucknell University (October 1984)
- “Political Geography and the law of the sea,” East Stroudsburg State College (Sept. 1980)
- “Geographic influences on the political and economic development in the Pacific,” Bucknell University (October 1979)
- “National Maritime Claims,” International Studies Association 20th annual conference (Toronto, March 1979)
- “Geography of Maritime boundary delimitation,” Assoc. of American Geographers’ annual meeting (New Orleans, April 1978)

PUBLICATIONS

Books

- J. Ashley Roach and Robert W. Smith, *Excessive Maritime Claims*, 3rd edition, Martinus Nijhoff Publishers, (2012).
- David A. Colson and Robert W. Smith (eds). *International Maritime Boundaries*, Vol. VI, The American Society of International Law, Martinus Nijhoff Publishers, February 2011
- David A. Colson and Robert W. Smith (eds). *International Maritime Boundaries*, Vol. V, The American Society of International Law, Martinus Nijhoff Publishers, March 2005
- Jonathan I. Charney and Robert W. Smith (eds). *International Maritime Boundaries*, Vol. IV, The American Society of International Law, Martinus Nijhoff Publishers, 2002.
- J. Ashley Roach and Robert W. Smith, *United States Responses to Excessive Maritime Claims*, 2nd edition, Martinus Nijhoff Publishers, 1996.
- J. Ashley Roach and Robert W. Smith, *Excessive Maritime Claims*. International Law Studies Vol. 66, U.S. Naval War College, 1994.

Robert W. Smith. *Exclusive Economic Zone Claims, An Analysis and Primary Documents*. Martinus Nijhoff Publishers, 1986.

Monographs

Robert W. Smith and Bradford L. Thomas, *Island Disputes and the Law of the Sea: An Examination of Sovereignty and Delimitation Disputes*. Maritime Briefing Volume 2 Number 4, International Boundaries Research Unit, 1998.

Robert W. Smith, "National Maritime Claims: 1958-85," *Geographic Research Study No. 20*, 1985, Office of The Geographer, U.S. Department of State

Book Chapters

With J. Ashley Roach, "Caspian Sea Boundaries," in *International Maritime Boundaries*, Vol. V, Colson and Smith (eds), Martinus Nijhoff Publishers, 2005

With J. Ashley Roach, "Kazakhstan – Russia", "Azerbaijan – Russia", "Azerbaijan - Kazakhstan", "Azerbaijan - Kazakhstan – Russia" in *International Maritime Boundaries*, Vol. V, Colson and Smith (eds), Martinus Nijhoff Publishers, 2005

With George Taft, "Legal Aspects of the Continental Shelf" (chapter 3) in, Peter J. Cook and Chris M. Carleton (eds), *Continental Shelf Limits: The Scientific and Legal Interface*. Oxford University Press, 2000.

With J. Ashley Roach, "Navigational Rights and Responsibilities in International Straits," (Chapter 14) in *The Straits of Malacca*, Hamzah Ahmad (ed), Pelanduk Publications, 1997.

"Joint Development Zones: A Review of Past Practice and Thoughts on the Future," in *Sustainable Development and Preservation of the Oceans: The Challenges of UNCLOS and Agenda 21*. Mochtar Kusuma-Atmadja, Thomas A. Mensah, and Bernard Oxman (eds). The Law of the Sea Institute, 1995.

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