

**Shanghai And The West: First Contact**  
**THE WARRANE LECTURE**  
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For several hours, virtually every day, over a period of six months in late 1606 and early 1607, father Matteo Ricci, the pioneer Jesuit missionary to China, sought to convey the precise meaning of Euclid's *Elements* to Xu Guangqi, a convert to Christianity, known as Paul Xu. Laboriously, he read and explained the contents of one of the seminal books of Western civilisation so that Xu could translate it. The axiomatic style of *The Elements* was difficult to convey in Chinese, which had no copulative verb, linking complement to subject, in the affirmative. Furthermore, China had no mathematical tradition of definition.

After many years of study and struggle with the Chinese examination system, Xu had passed the *jinshi* examination two years before. He was appointed to the elite Hanlin Academy, from whose ranks the most important positions in Chinese administration were filled.

Xu was a member of a wealthy gentry family from Shanghai, a background without any tradition of scholarly attainment, but which had an estate just outside Shanghai at Xujiahui, which would become a Jesuit sanctuary. Eventually Xu would hold the rank of Grand Secretary in Beijing – in effect Prime Minister to the Chinese Emperor – probably the highest post that any native of Shanghai has held in China. It is definitely the highest post ever held by a Christian.

Shanghai was a natural harbour safely tucked away 12 miles south of the mouth of the Huangpu River, the last tributary before the 50 mile wide Yangzi pours into the East China Sea. The Yangzi basin is a vast deltaic plain, created over the millennia by the eternal pulse of the muddy Yangzi, sweeping down over 3,000 miles of China and depositing hundreds of millions of tonnes of rich alluvial soil each year. "Earth", an ancient proverb said "destroys water" just as, in the symbiotic circular antagonism of the Five Elements of Nature, "water destroys fire"; "fire destroys metal"; "metal destroys wood"; and "wood destroys earth". Shanghai sat on several hundred feet of thick alluvial loam – earth that had displaced water – on the edge of a dense network of waterways created by hydraulic engineering.

It was, probably, his personal background in a family concerned with practical affairs in a region preoccupied with and dependent on the control of water that had attracted Xu to what the West had to offer. Early in his career he had produced a detailed proposal about the control of water which displayed a knowledge of

Chinese mathematics and its practical application in the surveying of land and the drawing of maps.

Ricci had received a rigorous training in mathematics and astronomy at the *Collegio Romano*, the Jesuit University in Rome where he was taught by Christopherus Clavius, one of the great Renaissance mathematicians. He brought a detailed knowledge of Euclid's text on his mission to China.

Xu would later explain his fascination for Euclid: "Western mathematics is more valuable as it supplies explanations which show why the methods are correct". This was in contrast with the Chinese mathematical tradition, which had always concentrated on how to solve a problem, rather than upon the proof to explain why the solution worked. Rigorous proof had never been a goal of Chinese mathematics. However, such proof was of pivotal significance to the practical application of mathematical knowledge. Scorned by the scholarly class, which emphasised learning the humanities, Chinese mathematics had, to a significant degree, become the reserve of magicians who propounded geomancy and chose lucky days.

Ricci wrote in his Introduction to the Chinese edition of Euclid:

- "My remote western country, though small in size, is unique among all other nations in the analytical rigour with which it schools examine natural phenomena. For this reason we have many books that investigate such phenomena in the fullest detail. Our scholars take the basic premise of their discussions to be the search for truth according to reason and they don't accept other people's unsubstantiated opinions. They say that investigation using reason can lead to scientific knowledge, while someone else's opinions lead only to my own new opinions. A scientific knowledge is absence of doubt, opinion is always accompanied by doubt."

When Xu and Ricci published Euclid, the level of Chinese technological development was still considerably higher than that of the West. Ricci in his Introduction to Euclid correctly prophesied the change to come. He summarised the practical utility of geometry, including in the design of mechanical devices for lifting weights or moving goods, the application to irrigation and drainage mechanisms, for the design of locks in waterways, the development of optical devices, the accurate geographic representation in maps and, with particular emphasis, the effectiveness of weapons such as the cannon, together with the calculation of military logistics and manoeuvres and the construction of fortifications.

In the years to come, the influence of the translation of Euclid waned as Chinese mathematics reverted to a myth of a golden past when Chinese mathematics had once been highly developed but destroyed by an ignorant Emperor. Indeed, in his Preface to the translation Xu had felt obliged to refer to this Chinese loss. There developed a belief that Euclid had in fact had access to these now lost Chinese

sources and, therefore, had nothing to say which could not be discovered within China itself.

In the centuries ahead new scrolls would be discovered. They indicated that Chinese mathematical knowledge had had just such a regression. Chinese mathematics became about *finding* rather than *creating* and the view developed that Western mathematics, like everything else from the West, had nothing to offer.

One of the reasons why Euclid's *Elements* was treated with suspicion was the question raised by later mathematicians as to why it was that only the first six books of Euclid had been translated into Chinese. Xu had wanted to translate the whole but Ricci, in accordance with the actual curriculum of the *Collegio Romano* that he had studied, knew that it was the first six books that mattered.

The later Chinese mathematicians wanted to know what it was that Western scholars were trying to hide from them, perhaps it was the original Chinese sources. Books 7 to 15 of Euclid would not be translated until the mid 19th century when, in the Shanghai compound of the London Missionary Society, a technically trained evangelist called Alexander Wiley would each morning, together with the corpulent Chinese mathematician Li Shan-Lan, go through the same painstaking process that Xu Guangqi and Matteo Ricci had undertaken two and a half centuries before.

By then, however, the advances of Western technology, determined in large measure by Euclidian methodology, had returned and enforced a new technological superiority, notably at Shanghai itself.

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On 20 June 1832, with symbolism bordering on the vulgar, two English sailors from *The Lord Amherst* shouldered open the locked entrance gates of the major public building in Shanghai so that their commander could present a petition demanding that the city be opened to British trade. As the commander, Hugh Hamilton Lindsay, reported to his superiors in the British East India Company: "They shook them off their hinges and brought them down with a great clatter". However, conscious of British standards of proper behaviour, he took pains to report that, of course, he *had* knocked first.

Inside the compound, the Chinese officials, who had spent the morning sending polite messages of prohibition to Lindsay, finally accepted that the visitors were incapable of civilised behaviour and invited them for tea. None of these mandarins, as members of the official class were already called by Europeans, had ever had direct contact with the fortress community of Western traders at Guangzhou, then called Canton, so they assumed that a soothing example of proper decorum would lead to the cessation of this brash disruption.

"You cannot trade here", the second ranking official in Shanghai told Lindsay. "You must go to Guangzhou".

However, Lindsay's covert mission for the East India Company – whose monopoly on the China trade was under threat and would be removed two years later – was precisely to test how strictly the rule that Western trade had to go through Guangzhou would be enforced. He demanded an audience with the senior official in the City, the Daotai. The message from the Daotai was the same: "It is an unheard of thing for any ship to come to Shanghai", he told Lindsay, and what was without precedent was plainly impermissible. "Conform to the established laws of the Celestial Empire", he continued, "and don't trouble us with your presence".

From the first cup of tea, the Chinese engaged Lindsay in detailed negotiations about his departure. Would he stand or be permitted to sit in the presence of the Chinese officials? Eventually he sat. Would he take back his original petition once it had been read and copied? He wouldn't. Would he accept a reply to his petition which used terminology of rejection not just refusal? No, he wouldn't. Most of all, so far as the later folklore on the China coast was concerned, he was the first to reject the use of the word translated as "barbarian", which Chinese officials had hitherto used to describe Europeans.

Two days before Lindsay's arrival, the Daotai, warned of the approach of *The Lord Amherst*, had issued a public proclamation stating: "All commercial intercourse with the barbarian ship is strictly forbidden".

Reacting to the use of the word "barbarian", Lindsay protested: "The affront is intolerable, for by such conduct the respectability of my own country would suffer. The great English nation has never been a barbarian nation, but a foreign nation".

A document was produced which referred to him as an "English trader". Even though the Shanghai public never saw it, Lindsay was placated. However, his conduct was not calculated to convince any Chinese that the term was inappropriate.

Lindsay could neither buy nor sell without official connivance – approval being out of the question. The Daotai offered Lindsay the supplies he needed as gifts. Lindsay, perhaps perversely for a trader, refused to accept. He was determined to buy them, if only to establish some slight precedent for trade. The Chinese officials eventually relented the prohibition, when it became clear that Lindsay's refusal would delay his departure.

Lindsay stayed for 18 days. The official report to Beijing explained that the length of the stay was only due to the inability of the barbarian ship to travel in the inclement weather. The barbarians, it said "came only to plead for trade, but since they had now been enlightened by proclamations (about the Imperial law) they perceived and repented and did not dare ask for trade again". Once the wind had changed, of course, the barbarians "dared not loiter". Most significantly, it was formally reported, there were no "clandestine dealings" in Shanghai.

The Governor of Jiangsu Province at this time was Lin Ze-Xu, a strong-willed vigorous and unusually incorruptible Confucian official with the appropriate nickname of “Blue Sky”, representing his stainless character. He suggested that *The Lord Amherst* be searched for opium, and if any was found, that it should be burned. He was reprimanded for this suggestion from Beijing. He had failed to appreciate the barbarian’s misfortune in not knowing how to behave properly. He had forgotten that indirect action and economy of effort were basic principles of good government, the objective of which was to re-establish harmony, not to ensure that some abstract principle were satisfied. The task of a good official was frequently stated as: “To reduce big matters into small matters and small matters into nothing”.

At this stage opium could still be regarded as a small matter capable of control. Eventually Lin was promoted to the Governor-Generalship of two inland provinces and vigorously enforced the law against opium smoking. However, as the problem grew, he was appointed as the Imperial Commissioner at Guangzhou and there took steps to eradicate the poison from Chinese society that would lead to the first Opium War and the creation of Shanghai as a Western treaty port.

The visit of *The Lord Amherst* was described, in the formal report from the Shanghai officials, in terms of the restoration of harmony by the skilful management of the local officials. However, by the time those reports reached Beijing it was known that *The Lord Amherst* had continued its voyage by travelling, impermissibly, to the north. The Shanghai officials were then chastised for their failure in “soothing and controlling the outlandish foreigners”.

Lindsay and Gutzlaff also made their reports which were published in England and became very influential. Lindsay was particularly critical of the deceptive conduct of the local officials referring to their “petty and degrading duplicity”. He said this without a trace of embarrassment about the fact that, in order to hide his association with the East India Company, Lindsay had given a false name and claimed to be a private trader blown off course on a voyage from Bengal to Japan. Gutzlaff, who had also given a false name and translated everything that Lindsay said, had spent some of his time distributing Chinese language excerpts from the Bible and certain religious tracts with such titles as “A Tract against Lying”; “A Tract against Gambling” and “A Tract in Praise of Honesty”.

Lindsay was adamant as to the model of effective European conduct. “Compliance” he reported, “begets insolence; opposition and defiance produces servility and friendly professions”. It apparently never crossed his mind that he was simply being humoured in order to speed his departure.

In his report, Lindsay’s strongest contempt was reserved for his assessment of Chinese military prowess. He dismissed the war junks he saw as “wretched and inefficient”. He thought the army, with its antiquated and decrepit armaments, would be despatched by one-tenth the number of European troops.

Gutzlaff, the missionary, plainly shared the low value placed on military virtues by the Chinese scholar gentry and its difficulty in accepting the proposition that great skill in the art of killing others was a mark of a superior civilisation. He seemed to understand the Chinese position when he said: "From the long peace which China has enjoyed, all their military works have fallen into decay. They even seem anxious that all should crumble into dust and that wars should be blotted from remembering ... They detest bloodshed and have generally made the greatest sacrifices to prevent it. We attach no blame to their cowardice", a word he clearly used bearing his European audience in mind, "but hope that while they continue to be pacific they will cease to be overbearing towards other nations who have power to humble their arrogance".

The Shanghai that Lindsay visited was a great trading port. On his first approach, just beyond a protective bend in the river where the Huangpu veered north and the Suzhou Creek came in from the west, Lindsay had seen a forest of masts. During his stay his sailors had counted the junk traffic reporting, in one week, the arrival of about 400 trading and fishing junks, ranging from 100 to 400 tonnes in size.

The city, Lindsay would report, "possesses extraordinary advantages for foreign trade. One of the main causes of its importance is found in its fine harbour and navigable river by which, in point of fact, Shanghai is the seaport of the Yangzi and the principal emporium of Eastern Asia".

Shanghai was also surrounded by an extensive productive region, particularly of cotton. As Gutzlaff reported: "As far as the eye could reach over this extensive plain, there was no spot bare of cultivation or of exuberant vegetation".

All of this was the product of massive construction projects which had built protective seawalls, drained marshes, created canals, established flood control systems, redirected and dredged rivers, which infrastructure had largely been created at a time when Lindsay's and Gutzlaff's ancestors were being called "barbarians" in Latin.

Indeed, it was engineering that created the safe haven of Shanghai harbour by diverting the original flow of the river towards the north, so that it became a tributary of the Yangzi and no longer flowed directly to the sea and the perennial need to dredge silt was removed.

The advantages of Shanghai's natural location were, however, not sufficient to ensure its mercantile role. By Imperial edict, as far as I am aware, of unknown purpose but typical of the detailed political interference with commerce, junks from the south were not permitted to go beyond the Yangzi and junks engaged in trade from the north were not permitted to go further south. Reorienting the river to become a tributary of the Yangzi established Shanghai as an entrepot where junks from both north and south could call. Shanghai merchants acting as commission agents, jobbers or brokers, accumulated supplies from small producers or broke down bulk shipments from both the south and the north, dispatching the

repackaged goods on their way. They also traded in the considerable agricultural and manufactured produce of the region.

Shanghai junks of brown oiled wood with four masts, engaged in trade with the northern coastal provinces, exchanging the products of the south and of the Yangzi basin, notably silk and cotton, for northern products such as the Shandong peninsula's soya beans, a versatile source of numerous food forms which, even after being fed to animals, returned 80 percent of their fertilising value to the land on which cotton was grown in the region. Through the port flowed an endless stream of food stuffs – rice, sugar, fungi, fish, tea, fruit and gourmet delicacies like birds nests – as well as timber, bamboo, shoes, paper, leather goods and cotton or silk products in every form.

The goods carried north had been brought to Shanghai on the flat bottom sand junks of Jiangsu Province or on the round bottom junks from the southern province of Fujien with their high elaborately painted sterns or on the black hulled Ningbo junks from the adjoining province of Zhejiang or on a flotilla of varied designs from the places permitted to trade in Shanghai including Thailand, Malaya, Taiwan, Vietnam and Japan, but not Westerners.

Every week hundreds of junks with their high sterns, outthrust bows, watertight compartments, massive rudders capable of performing as keels, square lug sails with separately manoeuvrable panels each stiffened by bamboo battens, would discharge and collect goods directly from the wharves along the deep river frontage. Other junks made up the large fishing fleet based in Shanghai. All of these junks were extremely efficient vessels, of great structural rigidity, able to sail very close to the wind. The centuries old Chinese technological superiority with respect to sailing ships had only recently been surpassed in the west. The Huangpu River and its surrounding network of creeks and canals teemed with countless sampans transporting material within the river port.

The owners of the junks and sampans, like the crew of the East India Company on its ships, found it expedient to permit their crews to engage in trade on their own account. An entrepreneurial spirit was alive in Shanghai, within the confines of an inhospitable political system.

Perhaps the most notable aspect of the Shanghai trade was the fact that the largest single item of China's internal trade was diverted elsewhere. This was the grain tribute, a national system of taxation by which the Qing Emperors, descendants of the conquerors from the northern province of Manchuria who expelled the Han Ming Dynasty, fed their northern provinces by means of the Grand Canal, an internal man-made transportation route, safely distant from the pirates who had, in the past, attacked the coastal provinces.

In 1824, when the canal had completely silted up just north of the Yangzi river, urgent alternative arrangements had to be made. Over 1500 privately owned junks were chartered to carry the grain from Shanghai to Tianjin in the north. The success

of this alternative route and its superior economic efficiency should have been apparent. However, Chinese commerce was not capable of adapting in this way. The dominant Confucian ideology, based on centuries of experience and contemplation, emphasised the preservation of social harmony. Economic productivity was not highly regarded.

Accordingly, the grain tax from the Yangzi Basin did not come through Shanghai but went inland into the interstices of a debilitating bureaucratic machine, the Beijing controlled Grain Tribute Administration, for transport by the specialist Grain Transport Service through the Grand Canal, which was the particular preserve of these corrupt conglomerates.

Tens of thousands of hereditary boatmen, who sometimes assigned their rights to vagrant labourers, poled and hauled grain barges along the 1,000 mile, flood prone, frequently silting Grand Canal, past hundreds of overland inspection points, protected by a specialist constabulary, directed by ever increasing layers of official sinecures, on all of which numerous communities were reliant. The euphemistically styled "inspection fees", payable at each of the superfluous inspection points, almost trebled between 1800 and 1821 as the venality of the officials was given free reign. Every effort to divert even part of the transport to the swifter, cheaper coastal route had been stymied by the strength of the vested interests dependent on the trade.

Officials who advocated the permanent adoption of the alternative coastal route were rebuffed. Indeed, they in fact received no support from the Shanghai junk owners who apparently had most to gain. However, the Shanghai maritime merchants had prospered on the periphery of official China. They had no desire to engage in a trade which necessarily involved bureaucratic supervision that would inevitably attach itself, like barnacles, to their fleet. For much the same reasons they were not excited, at first, by the prospect of trade with the Europeans.

The Shanghai of 1832, when *The Lord Amherst* arrived, was a city of some quarter of a million with an equivalent number in the immediately surrounding region. It bore no resemblance to the Chinese urban ideal, based on cosmological principles, of a square, walled city containing a precise grid of north south and east west intersecting avenues. This was never an official city. It was always a mercantile city. It had never been a capital of anything – not of a province, or of a prefecture. Eventually, it had become a city of the lowest possible official status, well below its economic significance.

Shanghai was oval shaped, with an attempt to create some order by 12 to 15 foot wide streets, located in a dense cobweb of six-foot wide alleys. It was surrounded by a 27 feet high, three-mile long wall, beyond which the city spilled in a compressed clutter of wooden houses, which congested the area between the wall and the riverside warehouses and piers where the junks, anchored in tiers, housed a floating population of unknown size. Such sense of urban design in the old city as

had survived from the time of the Ming was entirely absent in the suburban sprawl to the east and south of the city wall.

The wall had been built during the Ming dynasty about 300 years before, ostensibly as a protection against marauding Japanese pirates. Old maps suggest that the Ming city had a gracious urban design with many gardens and temples. Under the Qing dynasty, real estate developers had obliterated most elements of grace.

By 1832 the city spread back gracelessly from the embankment rampart against the wall – an expanse of black tiles over tightly packed one storey buildings with weathered, grey-dull brick walls interspersed with temples, which provided a contrasting curved roofline of glazed tiles and the traditional upturned corner eaves, described in a Chinese poem as “bird’s wings spread out ready for flight”.

The serpentine street layouts slithered around a network of internal canals, theoretically cleansed twice a day by the tidal Huangpu through the city wall gates, but more frequently clogged by refuse and silt, stagnant and unsuitable for personal use without the liberal application of alum, a hydrated salt which served as a flocculent, aggregating the contents into removable sediment.

There was no street lighting, no sewerage, no water reticulation and no system of garbage disposal. The streets were cleaned by the rain, the mud was dried by the sun and the dust was swept by the wind. The collection of night soil was a private business enterprise with daily pickups from dwellings for sale as fertiliser to surrounding farms. Everything else went into the streets or the cloacal canals.

The inexplicable hierarchy of streets and alleys – some impressively paved with flagstones, others merely with bricks or tiles – which was only tangentially related to destination or function, were all slippery with water, carried from wells and canals in buckets swinging on bamboo poles to homes for drinking and to the numerous bathing establishments where a steam room and hot water baths, 30 feet by 20 feet, were available at a price, in November 1843, of 6 copper cash or 1 British farthing – or 18 cash for first class treatment with private room, a cup of tea and a puff of tobacco.

The water carriers were an omnipresent feature of the bustling treadmill of daily life, a kaleidoscopic congestion of intense activity: bamboo pole coolies, jugglers, storytellers, fast food vendors, barbers, beggars with every conceivable human injury – often self-inflicted, storekeepers behind scarlet and gilt signboards, hotfooted sedan chairs and cumbersome wheelbarrows. Invariably there was a clamorous procession for either a funeral, a wedding or some religious observance, jangling and clinking towards one of the hundreds of temples and shrines individually dedicated to Gods with separate responsibility for wind, thunder, lightning, rain, agriculture, plague, pestilence, drought, literature, war, fire – the God of fire had two shrines, one of which was conveniently juxtaposed with a shrine for the God of water.

In the cacophony of deities that constituted Daoist religious practice, each separate trade had its own God from whom practitioners sought protection, harmony, salvation and prosperity for themselves and their community. Tea merchants had Luiu, beancurd traders had Liuan, rice dealers had Jiangxiangong, with other Gods for cooks and carpenters, barbers and butchers, cake makers and calligraphers, fishermen and financiers, printers and potters, dyers and diviners. Even the mandarin scholars, after many years of invoking the assistance of Kuixing, the God of Examinations, eventually graduated to Wenchang, a brilliant scholar of the Tang Dynasty immortalised as the God of Literature who, understandably, also served double duties as the patron God of stationers.

However, in Shanghai the greatest number of temples and shrines were dedicated to Tian Hou, the Queen of Heaven, the patron God of sailors. Her image was carried on every junk. She was a fisherman's daughter from Fujien province and became Shanghai's most popular selection from the Chinese pantheon of specialist gods. This, after all, was a major port.

Within the walled city, the temple of the city god, Chenghuan Miaou, was the place where the city magistrate, with his full entourage of chair bearers, militia, runners and secretaries, came to perform essential rituals on the 1st and 15th of each month. It was, like all the public buildings of Shanghai, an undistinguished structure.

Behind the temple, however, lay a significant element of civic virtue: a garden and a magnificent one at that. The Yu Yuan garden – the only remaining large garden of the Ming city – would not have been out of place in one of the great cities of the Empire, even in the provincial capital of Suzhou, 150 miles away, traditionally known for its magnificent gardens and as a centre of style, learning, art, grace, elegance and beautiful women – everything that a tawdry port and mercantile city could only envy.

The Shanghai garden was a labyrinth of snaking paths, of curving walls capped with undulating dragons, of grotesque rockeries – including a 25 foot high artificial mountain and a nine foot high single piece of perforated grey/green limestone, gnarled, porous and craggy, known as the Exquisite Jade Rock, originally selected for the Imperial collection by the rock convoys of the eccentric, art loving 12th century Emperor Hui Zong, but its transport had sunk near Shanghai. There were pavilions, courtyards, stairs, zigzag corridors, winding balustrades, terraces, wood carvings, stone statuary, moulded tiles, lattice windows, moon doorways, semi-circular bridges, pebble patterned pavements, benches, sculptured reliefs, poetry inscribed panels, flowers, shrubs, bamboo groves, contorted trees, waterfalls, streams and ponds, all intricately sequestered and creatively intertwined to adduce surprise, to intrigue, to charm, to pacify, to salve or to relax the viewer through nature's cycle of birth, growth and decay in the changing seasons.

There was no expanse of green grass and symmetrical flowerbeds of the Western garden tradition, which manifests a determination to conquer nature, rather than to rejoice in its lack of discipline. "Grass" as one Chinese gardener languidly and

dismissively observed “while no doubt pleasing to a cow, could hardly engage the intellect of human beings”.

A Chinese garden such as this is a work of art, transforming and transcending its constituent elements into a total enveloping work requiring the skills of a painter, a sculptor, an architect, a naturalist, a landscaper and a poet, the combination of diverse talent creating an enfolding, changing art form of a kind not hitherto attempted in Europe, with the partial exception of the medieval cathedrals.

It had been the wealthy merchants of Shanghai who had originally bought the privately owned Yu Yuan garden and donated it to the City Temple as a public space. Major merchant guilds, including those for banking, the bean trade, hats, shoes, flowers, jewellery, firewood, butchery, copper utensils, and the beggars had their meeting places in the 30 pavilions of the Yu Yuan garden. Each guild accepted responsibility for the maintenance and development of its portion of this public facility. Far from the Daoist ideal of a scholar recluse seeking serenity by communing with nature, which the original garden designer – Zhang Nanyang, who built some of the great gardens of Suzhou – sought to invoke, the new owners superimposed intense commercial activity, organising and directing the flow of goods and services to and from the surrounding region and for the entrepot trade of the port.

Near the Exquisite Jade Rock, and its special viewing pavilions, was a small rectangular lake with a nine turn zigzag bridge. The irregular form would prevent the entry of evil spirits which were, according to universally accepted superstition, conveniently low flying and travel only in straight lines. Here stood the Mid Lake Pavilion, headquarters of the blue cloth trade, the major local cottage industry, with carding, spinning and weaving performed not in separate factories, but in the peasant homes of dozens of hamlets surrounding Shanghai. Cotton goods were the leading local export.

Later the Mid Lake Pavilion would become a teahouse, perhaps the most famous amongst western residents of Shanghai who, desperately seeking confirmation of their sense of significance, adopted a story that this was the very same teahouse that featured on the willow pattern plate – the most famous western image of China during the 18th century *chinoiserie* fad, which passed into Western operatic folklore. In fact the pavilion was not even built until 1784 and its original regulations expressly forbade its use as a teahouse or for medicine and fortune telling. Its function changed only at the end of the 19th century, when the blue cloth guild collapsed under a flood of cheap textile imports.

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On 5 September 1832, after a six-month voyage *The Lord Amherst* returned to Macau, a Portuguese settlement at the mouth of the Pearl River estuary below Guangzhou. All of the Western merchants were required to stay there, except during the trading season of November through March.

No one treated the news from the expedition with greater interest than a 40-year-old doctor turned trader called William Jardine. Single-mindedly pursuing the creation of a fortune, which would eventually enable him to return to Great Britain in baronial style, Jardine was a shrewd and determined merchant. To ensure that visitors kept to the point, his office only contained one chair, for himself. His Chinese nickname seemed appropriate. They called him the “Iron Headed Old Rat”.

Jardine saw considerable value in the commercial intelligence brought back by Lindsay and his party. To exploit the opportunities, however, he needed the assistance of Gutzlaff, both as guide and as interpreter. Obtaining the services of a missionary may be difficult, however. Jardine sold opium.

With his partner, James Matheson a fellow Scot 12 years his junior – and like himself a second son, who had to make his own way in the world – Jardine had become one of the major suppliers of opium to China. The narcotic was a key link in the triangular British-controlled trade by which tea was shipped from China to England, paid for by opium shipped from India to China, which in turn paid for exports from England to India.

Opium formed a significant part of the revenues of the East India Company, known in Asia as “The Honourable Company”, at the time without irony. The company controlled the production of opium in Bengal and organised annual auctions at Calcutta.

Because the consumption of opium was illegal in China, the Honourable Company did not handle it directly. Doing so could jeopardise its enormously profitable monopoly on the tea trade between Guangzhou and England. Accordingly, it felt obliged to maintain that surface propriety so beloved by both Chinese mandarins and the English upper classes. Even in his covert mission pretending to be a trader, but in fact representing the East India Company, Lindsay had not carried any opium on board, to the surprise of many Chinese he met.

The company’s abstention from the distribution end of the market created an opening for merchant adventurers like Jardine and Matheson. They could act as commission agents for the Indian traders, who bought the drug at the Calcutta auctions, exporting it to China with the encouragement of the Honourable Company, which intended to buy their silver proceeds from opium sales with negotiable bills of exchange payable in London.

Jardine had come to Asia 20 years before as a surgeon in the employ of the Company. At that time only 2,000 chests of opium were exported to China, most of it Patna and Benares opium from Bengal. The distinctive packaging and trademark used by the East India Company had become a hallmark of quality for Chinese consumers. Each clearly recognisable mango wood chest comprised 40 compartments arranged in two layers, every compartment containing a trademarked three pound spherical cake of opium, protected by an inch thick layer of poppy leaves.

The Honourable Company had displayed a fitting concern for the promotion of its illegal product. "We had opium sent to us in small quantities", Jardine would later reveal, "packed in different ways, with a request that we would sell it and ascertain the kind of package that suited the Chinese market best".

At first the trade grew slowly, reaching 4,000 cases in 1820. Then it erupted, tripling within the decade and tripling again in the next. The new supplies included a considerable quantity of Malwa opium from the western Indian states, not yet controlled by the East India Company. Although regarded as inferior in quality, Malwa opium did compete in price. Independent traders sought access to production beyond the strict quotas monopolistically imposed by the East India Company in Bengal. When Jardine returned to Guangzhou to stay in 1822, he came as the agent of Parsi traders from Bombay who dealt in Malwa opium.

The Parsis of Bombay, abiding by the faith of the monotheistic Persian prophet Zoroaster, were refugees from Muslim persecution in Iraq and Iran. They had prospered in the comparative religious freedom of Company controlled Bombay. By successfully avoiding the efforts of the Honourable Company to restrict exports from Bombay, and therefore limit independent production in the western states, the Parsis caused an explosion in the availability of opium in China. They were the owners of the opium which was distributed on a commission basis by partnerships like Jardine Matheson and Co. The risk of piracy and price collapse was borne by the owners. As Jardine put it, "the opium commission business was by far the safest trade in China".

The marketing of opium turned on a range of commercial considerations about which up-to-date intelligence was essential. Information was required about the full range of factors that could affect supply and demand: crop conditions in India, the latest auction results, the level of stocks held by rival traders, the timing and intensity of the periodic attempts by Chinese officials to suppress the trade. Agents like Jardine and Matheson controlled the final wholesale distribution point. That required the maintenance of fully armed ships and the systematic bribery of Chinese officials, designed not just to permit Jardine Matheson to trade but also to interfere with the activities of their rivals.

In 1830 Jardine, when encouraging a friend to invest in opium, asserted: "Opium is the safest most gentleman like speculation I am aware of". Jardine later exclaimed at a dinner of Guangzhou traders, "We are not smugglers gentlemen! It is the Chinese government, it is the Chinese officers who smuggle and who connive at and encourage smuggling, not we".

English law at that time prescribed that a national boundary did not extend beyond the high watermark. The three-mile limit rule came later. Jardine was satisfied that it was impossible to "smuggle" in international waters. If the Chinese had a different rule, or even a rule similar to the principle of accessory before the fact of the English criminal law, that would not justify calling someone a "smuggler" in English.

Jardine was much concerned with his status as a gentleman, and with reason. A growing body of opinion in England regarded the narcotics trade with distaste. He did not wish to return to Great Britain with a fortune, only to be shunned by British society. Nevertheless, he and other Britons, notably Scottish, together with a few Americans and significant number of Indians, more often than not of middle eastern extraction, particularly Parsis and, later, Jews, were the Colombian drug barons of their day. They founded a number of family fortunes and major corporations which are still of great significance.

Opium would remain legal in England until the first *Pharmacy Act* in 1868. Notwithstanding its literary glorification, by Thomas De Quincey and Samuel Taylor Coleridge, the main use of opium in England was as an infant quietener for the phalanx of harassed English nannies. Druggists sold large quantities of opium-based elixirs under such brands as “Mrs Winslow’s Soothing Syrup” and “Godfrey’s Cordial”, especially to the baby-minders employed by working mothers.

The British and American traders were wholesalers, rather than retailers. They sold to Chinese merchants who visited the heavily armed opium store ships situated, with the connivance of the bribed local Chinese mandarins, off Lingding Island near Macau. There were fortunes to be made, which could be laundered through East India Company bills of exchange.

Matheson had attempted to create a direct coastal trade some years before. The reports brought back by Lindsay and Gutzlaff indicated that the time had arrived to try again. Indeed, it was on 1 July 1832, while *The Lord Amherst* was actually in Shanghai, that the trading house of Jardine Matheson & Co, destined to be the most enduring firm on the China coast, was formally established under the name which continues to this day. Its first major enterprise as such, in the wake of the return of *The Lord Amherst*, was to dispatch a ship full of opium to trade along the coast, including at Shanghai.

On such a journey, the traders could not rely on the gibberish pigeon English in which staccato negotiations were haltingly conducted in Guangzhou and on Lingding. Few westerners had had the determination or the motivation to flaunt the Imperial ban on the teaching of Chinese to foreigners. Only one – Karl Gutzlaff – had managed to master the dialects of a number of different provinces, whose languages were as closely related, but also as mutually incomprehensible, as French, Italian and Spanish.

A pioneer of the contemporary Protestant religious revival, which emphasised the value of evangelical preaching of the Gospel with the Scripture as the only basis for a personal faith, Gutzlaff had a motive for understanding the Chinese people which no merchant could share. Unlike the merchants, he and his fellow missionaries had come to help the Chinese, rather than themselves.

“My love for China is inexpressible”, he wrote to a friend, “I am burning for their salvation. I intercede for hundreds of millions which do not know the Gospel, before the throne of grace”. Gutzlaff was never short on hyperbole.

“I would give a thousand dollars”, one English trader wistfully stated “for three days of Gutzlaff”. Jardine and Matheson were willing to pay what it took.

In the previous year, the monopolistic East India Company, acting in retaliation for the new competition from West Coast opium which it did not control, had doubled production in its Bengal region. An oversupply threatened and, accordingly, new markets had to be found.

Jardine, no doubt, stifling his irritation with Gutzlaff’s aura of Teutonic omniscience and his evangelical fervour, which he probably regarded as humbug, approached Gutzlaff with care.

“It is our earnest wish that you should not in any way injure the grand object you have in view by appearing interested in what many consider an immoral traffic”, he wrote engagingly. “Yet such traffic” he continued, “is so absolutely necessary to give any vessel a reasonable chance of defraying her expenses that we trust you will have no objection to interpret on every occasion when your services may be requested”.

Of course Jardine also offered to support the propagation of the faith by underwriting Gutzlaff’s Chinese language magazine for six months. He added a further incentive:

- “The more profitable the expedition, the better we should be able to place at your disposal a sum that may hereafter be employed in furthering your mission and for your success, in which we feel deeply interested.”

Gutzlaff had lost his original sponsorship from the Netherlands Missionary Society, when he decided to work in China, too far afield from the Dutch colonial sphere of interest in the East Indies. He had supported his mission on the inheritance from the first of his three English wives, but that would not last indefinitely. He needed the money.

Gutzlaff had experienced the ravages of opium at first hand. Dressed in Chinese garb, he had once travelled along the coast in a Chinese junk. At times on the voyage he was the only person aboard who was not stupefied by the drug. He had no illusions about the effect of opium on addicts as it ruined their digestion, sallowed their complexion, separated their gums, blackened their teeth, rotted their minds and induced constant trembling. These were the souls he had come to save. God, however, works in mysterious ways.

A zealot like Gutzlaff, who had studied medicine in order to better equip himself for his mission, can convince himself of just about anything. In his published memoir,

recording how he accepted the Jardine offer, he said: "After much consultation with others and a conflict in my own mind, I embarked on *The Sylph*".

*The Sylph* was one of the first opium clippers, specifically designed for, and dramatically increasing the productivity of, the opium trade. A barque rigged, square-sterned vessel of 300 tonnes, *The Sylph* had been designed in London by Sir Robert Sebbings, then surveyor of the Royal Navy, to the order of a consortium of Calcutta merchants. Sleek, elegant, functional and devoid of ornament, *The Sylph* did not have the rakish lines of the later clippers, yet it proved to be particular swift.

The so-called "country trade" in opium between India and China had hitherto been conducted in the slow, corpulent, "country wallahs", constructed of Malabar teak in the shipyards of Bombay and on the Hooghly River near Calcutta. The wallahs were generally mere replicas of caravels, carracks and even galleons, with a projecting bow, a high narrow roundhouse at the stern, heavily leaded windows in gilded, sumptuously carved quarter galleries, with intricately carved cannons poking out from ports surrounded by gilt carvings.

The lack of commercial urgency associated with the East India Company's monopolistic routines had established this wasteful model. The country wallahs, like the equally cumbersome old East India frigates that carried tea, could only make one round trip to China per year. These ships could not sail into the monsoon, which dominates the China Sea between October and March. They generally took two or three months between India and Lingding Island, proceeding gently before the southwest summer monsoon, returning with the assistance of the stronger northeast monsoon of winter.

For the whole of maritime history size and speed had been inversely related. Large vessels designed to carry bulky cargoes were slow. The clippers were the first major attempt to reproduce the lines of speed in a large vessel. They were modelled on American privateers, built to avoid the trade restrictions imposed by Britain on the American colonies. This was smuggling in the grand manner, with private enterprise driving technological improvement and increased productivity.

Speed was the essence of commercial success in this trade. It reduced the transport costs per case of opium. The clippers would take less than three weeks, instead of three months, and could, by sailing into the monsoon, do three round trips a year. Speed also gave the trader a head start: he received the latest commercial intelligence and supplies from the annual crop could arrive in advance of rivals, with additional flexibility to direct them in the most lucrative way.

*The Sylph* had just arrived on its maiden voyage from India on 1 September 1832 in a record 18 days, just a few days before the return of *The Lord Amherst*. On 20 October with a 70 man fully armed crew, it set sail from Macau into what Gutzlaff later described as "furious gales and a tremendous sea". Its main cargo was opium.

After sailing as far north as Manchuria, *The Sylph* returned to the mouth of the Yangzi in mid December. In high seas it saved the crew of a demasted junk. "The first thing which they handed to us", Gutzlaff recalled with disgust, "was an image of the Queen of Heaven". Piously rejecting what he called a "heathenish delusion", Gutzlaff bellowed "Let the idol perish", which it did by being thrown overboard. Nevertheless, saving the crew stood *The Sylph's* party in good stead during their two-week stopover near Shanghai.

Gutzlaff's memoir recalls with pride the urgent demand for the religious tracts he had brought in such large number on his return to the city. Gutzlaff boasted "Most joyfully did they receive the tiding of salvation". He failed to mention to his British readers the fact that the extraordinary Chinese respect for learning led the population to treasure all writing, irrespective of its content. This was not a reaction that his contemporary British audience would naturally understand.

Gutzlaff's memoir is silent on the opium sales for which he acted as an interpreter. The work must have been quite intensive at times. A Jardine Matheson captain recorded in his journal for another voyage: "Dr Gutzlaff distributing religious tracts from one side of the vessel, at the very time that opium was being delivered over the other side". Another captain wistfully recorded: "Employed delivering briskly, no time to read my Bible".

The opium trade was conducted at Wusong, where the Huangpu entered the Yangzi, a convenient distance from Shanghai and just out of sight of official recognition. As a Western treaty port, the opium barges would be hypocritically parked there for the best part of a century.

The captain of *The Sylph*, unlike Lindsay, accepted the offer of free provisions from the Shanghai mandarins. This was after all a purely commercial venture. And a staggeringly successful one. Six months after its departure *The Sylph* returned to Lingding Island and disgorged \$250,000 of silver into the Jardine Matheson and Co receiving ship.

The future was also assured. The number of new addicts probably numbered in the thousands. Opium was the perfect consumer commodity. The very act of consumption created demand for more.

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During the visit of *The Lord Amherst*, John Rees, captain of the ship, prepared detailed charts of the navigable approaches to Shanghai by following the Chinese junks and by taking detailed soundings. He carefully recorded his route and named certain features – Amherst Passage, Gutzlaff Island – as if for the first time, without inquiry about any existing name. These were the first accurate European maps of the area. They would be of crucial significance for future smugglers and traders, as they were for *The Sylph*. Within a decade they would also direct a British military expedition to the walls of Shanghai, which fell without resistance on 19 June 1842,

ten years less one day after Lindsay had ordered his sailors to force entry to the Daotai's yamen.

When the ships arrived, their cannon first destroyed the forts of Wusong. Amongst the hundreds of ineffective brass cannon they captured, one was pretentiously engraved "Tamer and Subduer of Barbarians".

About 250 years before, Xu Guangqi had successfully introduced cannon cast in the Western manner to Ming military equipment. He and other converts had also applied Euclidean geometry, adopting the idea of ballistics as a science. In astronomy, the Jesuit influence had continued in China, but in military science it had long been forgotten. The idea that a trajectory of a cannon ball could be plotted had been lost.

Without an understanding of Euclid, China could not understand the West or the threat it posed. When the Western cannon subjugated the fortifications at Wusong in 1842, Euclid had returned to Shanghai.