Appendix 1.1a: Problems and Limitations of the Data

Because none of the detailed information about foreign ships at Whampoa in the eighteenth and nineteenth centuries have survived in Chinese sources, we have no choice but to extract that data from foreign sources. Anyone who has assembled data about ships from contemporary sources will know that this work is far from a perfect science. The primary materials often differ as to when a ship arrived, or whether it arrived at all. Contemporary writers sometimes recorded incorrect names of vessels and captains and connected ships to the wrong nationality (based on the flag that they thought they saw displayed).

The systematic collecting of ship data by Europeans at Canton did not begin in earnest until the 1760s and 1770s, when the Dutch and British officers began compiling that information. There are many ship lists from earlier years as well, but they are inconsistent, with many years missing. As the trade progressed, directors of the Dutch and British companies began insisting on more complete and accurate information about the ships in China so they could make more informed decisions and predictions for the future.

It should be noted, however, that some of these ship and cargo lists actually state that the ships were at `Canton'. This is a misnomer. We know from numerous sources, including Chinese and European, that all foreign ships were required to anchor at Whampoa. Absolutely no foreign ships were allowed to go further upriver to Canton, so despite their title, I show them here as being `Whampoa' lists.

As Table A shows, there are a number of ship lists in the Dutch East India Company's (VOC) archive from the early eighteenth century, but it was not until the 1760s, that the collecting of this information became standardized. From 1763 onwards, the Dutch officers assembled the names of all ships at Whampoa, including captains and arrival and departure dates. They continued to collect this information up to and including 1814. For some years, the Dutch also recorded information about ports of origin and destinations.

In 1763, the Dutch also began collecting information on total imports brought by all foreign ships at Whampoa. These documents are separate from the ship lists. From 1797 to 1814, the Dutch collected data on both imports and exports. Even though the VOC ceased sending ships to China after 1794, Dutch officers remained in Canton and Macao under the employ of the Dutch government. These men freighted goods on other foreign ships, on Chinese junks, and on private Dutch vessels. These resident Dutch officers continued to collect ship data up to 1814 as they had done previously for the VOC.

As Table A shows, there are a few incomplete ship and cargo lists for a few years after 1814, including some substantial information for 1822, but then the collection of data ceased.

Table A: Dutch Ship and Cargo Lists for Whampoa 1733-1822

Years	Description
1733, 1758, 1760-	ship lists, including ship and captain's names, nationality, arrival and/or
1814, 1822	departure dates, ports of origin, destinations, and tonnages, some years are
	incomplete
1745-1746	total exports, grouped by company, ship names not included
1756-1777	List of VOC ships in China with arrival and departure dates
1757	total exports, grouped by ship, ship and captain's name included
1763-1796	total imports, some years are grouped by company, in other years the
	imports are shown for each ship, ship names are not usually given
1797-1814	total imports and exports for every ship each year, including ship names, a
	few documents are damaged and have parts missing
1818-1821	total American exports for each year, names of the ships not included

Sources: JFB: fNe DR 1758; NAH: Canton 127, 130-131, 159, 196-197, 223-227, 229-242, 244-254, 256, 258, 260-264, 266, 268-269, 277-278, 280-291, 294, 320, 389, HRB: 76-80, 82, 85, 87-88, 90, 92-93, 95-96, 102-104, 106, 109, 111, 113, 115, 117-121, 123-124, 126, 128, 130-131, 133, VOC 3089, 3152, 3182, 3211, 3244, 3273, 3303, 3333, 3359, 4378, 4381-4382, 4384, 4388, 4390, 4393-4394, 4396-4397, 4399, 4401-4402, 4404, 4406, 4409, 4411, 4413-4415, 4418-4419, 4421, 4423, 4425-4426, 4428-4429, 4433, 4445-4447, 4555, 8719, OIC: 193, 196-198, RAB: 140-142.

As Table B shows, there are quite a few ship lists in the English East India Company's (EIC) archive from the early eighteenth century, but the systematic assembling of this data did not actually begin until the 1760s and it did not become standardized until the 1770s. In 1764 and 1768 the imports of each company were recorded, and in 1769 total exports at Whampoa were assembled. Beginning in 1771, EIC officers began assembled data of both imports and exports, which continued every year up to 1833 (but there are some years where the data are incomplete). Some of these lists are grouped according to the imports and exports of each company, whereas other lists show the cargoes of every ship (but the names of the ships are not always mentioned). From 1780 to 1833, British officers assembled ship lists as well, which are apart from cargo lists. They include the same information as the Dutch ship lists mentioned above.

Table B: British Ship and Cargo Lists for Whampoa 1720-1833

Years	Description
1720, 1732-1733,	ship lists, including ship and captain's names, nationality, arrival and/or
1737-1741, 1744,	departure dates, tonnages, port or origin, destinations, some years are
1751, 1753-1754,	incomplete
1780-1833	
1732, 1734, 1736-	total exports, grouped by company, ship names not included
1737	
1738	total exports for each ship, tonnage, ship and captain's names included
1750, 1764, 1768	total imports, grouped by company, names of ships not included
1769	total exports, grouped by company, names of ships not included
1771	total imports and exports for every ship, names of ships not included
1789	ship list, including ship and captain's names and nationalities (Meares)
1772-1833	total imports and exports for every ship each year, ship names included,
	usually grouped by company, separate lists for private ships, some years are
	incomplete

Sources: BL: IOR G/12/19, 33, 35-37, 42-50, 53-58, 61-62, 64, 67, 71, 74-75, 77-78, 80, 83, 85, 87, 95-97, 99, 102, 104, 107, 109, 115, 117-118, 120, 123, 126, 130-131, 135, 140-141, 143, 146, 149, 151, 158, 161, 165, 169, 173, 182, 187-188, 192, 195, 199, 209-210, 215, 218, 222, 225,228, 230, 232, 235, 237, 239, 241, 243, 245, 247, 251, 254, L/MAR/B/230B, 267G(A), 293E, 297B, 589B, R/10/5, 9; Meares pp. xxxvii-xxxviii.

The French, Danish, Swedish, and Spanish companies and the Americans assembled ship and cargo lists as well, but only for a few years. Tables C to G show the ship and cargo lists that can be found in those archives and Table H shows a couple ship lists that I found in Australia, which have now been published. With the French, Swedish, and Spanish companies, we could perhaps argue that the documents simply did not survive, which may account for why those repositories contain so few ship data. As far as the French are concern, however, most of those records have survived from 1786 to 1789 and yet there are no ship or cargo lists from Whampoa among them.¹ For these smaller European companies it was perhaps not worth their while to spend the time and expense needed to assemble the data. Most of the Danish Asiatic Company's (DAC) records have survived, and yet they also only contain ship data for a few years, mostly from the 1780s.

Table C: French Ship and Cargo Lists for Whampoa 1759-1807

Years	Description
1759, 1782	ship list, including ship and captain's name, grouped by company
1783	ship list, including ship and captain's name, nationality, and destination
1807	ship list, including ship and captain's name, security merchant, tonnage, date of
	arrival, and port of origin for some ships

Sources: ANP: 4JJ 135.70; AEAD: 8MD Asie 17; ANOM: C.1.14 f. 130-1; Sainte-Croix 3: 178-181.

Table D: Danish Ship and Cargo Lists for Whampoa 1740-1805

Years	Description
1740	Export cargo list, grouped by company
1744, 1748, 1750, 1753	ship list, including ship and captain's name, grouped by company
1780	total imports, grouped by company, private exports grouped together, ship names not included
1782	total exports, grouped by company, private exports grouped together, ship names not included
1781, 1783-1785	ship list, including ship and captain's name, grouped by company
1786-1789, 1802,	ship list, including ship and captain's name, and arrival and departure dates,
1805	nationality, ports of origin and destinations included for some ships

Sources: RAC: Lintrup 5893, Ask 235-237a-b, 891, 894, 899, 1005, 1217, 1221.

Table E: Swedish Ship and Cargo Lists for Whampoa 1749-1769

Years	Description
1749	ship list, including ship and captain's name
1751	ship list, including ship names
1766	ship list, including ship and captain's name
1768	ship list, including ship and captain's name
1769	ship list, including ship and captain's name

Sources: Moreén Journal; Osbeck 1: 184; UUB: L184; NM: F17 T1_05798-800; KSB: Ms 81 Dagbok Adolph Fredrich.

Table F: American Ship and Cargo Lists for Whampoa 1784-1839

Years	Description
1784	ship list, including ship and captain's name
1787	American ships only, including ship and captain's names and ports of origin
1788	ship list, including all ship and captain's name, ports of origin, destinations, and arrival and departure dates
1798	American ships only, including ship and captain's names and ports of origin
1798	American ships only, including ship and captain's names, tonnages, ports of origin, destinations, and a brief account of the imports and exports for each ship
1802	American ships only, including ship and captain's name, ports of origin, tonnages, arrival and departure dates, and a brief account of the cargoes

American ships only, including ship and captain's name, ports of origin, and tonnages American ships only, including ship and captain's name, ports of origin American ships only, including ship and captain's name, ports of origin	
1803 American ships only, including ship and captain's name, ports of origin	
4005 4006 4 1 1 1 1 1 1 1 1 1	
1805-1806 American ships only and their imports and exports, including ship, captain and	ire
owner's name, tonnages, ports of origin, destinations, and arrival and departu	
dates	
1809 American imports and exports only, ship names not included	
1813 American ships only and their imports and exports, including ship, captain and	l
owner's name, tonnages, ports of origin and ports visited, arrival and departu	re
dates, and the ships that laid over at Whampoa during the War of 1812	
1814 American ships only and their imports and exports, including ship, captain and	l
owner's name, tonnages, ports of origin and ports visited, and arrival and dep	arture
dates	
1817-1825 American ships only and their exports, including ship names, tonnages, year o	f
arrival, amounts of exports on each ship and prices paid for them	
1819 American ships only, including ship names, and ports of origin	
1818-1819 American ships only and their imports and exports, ship names not included	
1823-1824 American ships only and their imports and exports, including ship names and	
departure dates	
1825 American ships only and their imports and exports, including ship names	
1836-1838 American ships only, including ship and owner's names, and consular fees paid	d
1839 American ships only and their imports and exports, including ship, captain and	1
owner's names, consular fees paid, ports of origin, arrival and departure dates	s, and
a very brief account of their imports and exports	

Sources: Shaw pp. 182, 228; JCB: Brown Papers B.494 F.7, B.497 F.2, B.715 F.2, B.737 F.1, F.3, Dexter Journal; HSP: Waln Papers vols. 2 & 6; Porter 1984, pp. 31-2; USCC vols. 1-3.

Table G: Spanish Ship and Cargo Lists for Whampoa 1791-1795

Years	Description
1791-1795	ship lists, including ship names, and tonnages, some years include captain's names, ports of origin, destinations, and arrival and departure dates, total imports and exports for each ship, grouped by company

Sources: UMMN: Agote's Diary.

Table H: Australian Ship and Cargo Lists for Whampoa 1788 & 1802

Years	Description
1788	ship list, including the names of some ships and captains, ports of origin
1802	ship list, including ship and captain's name, security merchants, tonnages, ports of
	origin, and arrival and departure dates

Sources: Smyth pp. 125-127; Milius pp. 318-323.

In Tables A through H, I have only shown the lists that include all or most of the ships at Whampoa. There are many other selective lists that only show a few ships. All of the Europeans, for example, often listed their own ships' cargoes separately. There are many of these lists in the respective archives, which I omitted because that information is available in other sources. The Americans generally only collected information about their own ships. I have included these in Appendix F, because much of that data cannot be gleaned from other sources. There are a few years when Americans included all ships at Whampoa (see 1788 in Table F, for example).

From 1791 to 1795, the Spanish officers in Canton assembled lists of ships, as well as imports and exports. We could perhaps argue that the reason the British and Dutch assembled these lists is because they had better access to data. This assumption, however, is incorrect. All foreign traders were allowed to collect information about imports and exports from the Hoppo's books, anytime they wanted it, and free of charge. All they needed to do was to ask their Chinese linguist to get the data for them, and then he returned a few days later with the information. Maintaining transparency in the trade data was one of the ways the Hoppos ensured that none of the foreigners gained monopolistic control over parts of the trade. Everyone knew—or at least could know if they had a desire to do so—what others were doing in the trade. This openness helped prevent any entity or group from monopolizing certain products.²

Data about the ships, captains, ports of origin, destinations, tonnages, and arrival and departure dates, was information that foreigners had to collect themselves. While we know that the Hoppos collected the names of the captains and their nationality, they were recorded by the Macao pilots in their Cantonese transliterations which made it difficult for foreigners to decipher.³ None of the Hoppo's account books are known to have survived so all of our knowledge about their contents comes from whatever the foreigners collected from them.⁴

While it took considerable time and effort to assemble these shipping details, it would not have been too difficult to obtain. The various officers, who spent most of their time in Canton conducting trade were in constant communication with their ships at Whampoa. The persons who remained at Whampoa would have seen all of the ships coming and going and they could have easily passed this information to their supercargoes in Canton via the many boats that went back and forth each week. The supercargoes could then enter that information into their books so that by the end of the trading season, they had a complete list.

For the Americans, collecting this ship data was more problematic, because they were not united in one company. Their crews were often very small, with no common bookkeeping practices maintained between them. Many captains doubled as supercargo, which meant they did not have time to collect and record data about other ships at Whampoa. It was enough just to keep track of their own trade. Consequently, many American captains simply threw their receipts into a box, and did not keep a ledger or any descriptive account of what they did while they were in China. Almost all of them kept navigational logs of their voyages, but most of them stopped recording entries in those books once they arrived in China. Thus, the majority of the American logbooks contain no harbour log. The entries begin again when the ships set out to sea.

While all of these ship lists were enormously helpful in putting the data together in Appendixes 1.2a-b, none of them by themselves are necessarily accurate or complete. When assembling this data and sharing it with others, I was asked which contemporary ship lists I was using. The persons wanting this information were correct to assume that one ship list may vary significantly from another, and so it was important to check the sources for discrepancies. Thus, I had to explain that I did not rely on any single list of ships, for any year, but rather I consulted as many documents as possible, from all available sources. I did this because after assembling all of the data from the ship and cargo lists, I discovered that there were still huge gaps in the figures for some years. Even in years where the lists appeared to be complete, there were sometimes contradictions and discrepancies with other sources as to when ships actually arrived.

Contradictions and Discrepancies in the Sources

Most of the contemporary ship lists show the dates that the vessels supposedly arrived at, and departed from, Whampoa. They specifically state 'Whampoa'. However, I later discovered that many of these entries are incorrect. As is explained in Chapter 1, large ships usually removed downriver when their drafts reached about eighteen feet of water, so that they could clear the First and Second Bars without problem. Those sandbars were located between Whampoa and Bocca Tigris. After moving downriver, the ships could then finish their loading at the anchorage below the Second Bar.

It might take several days or weeks at that location before the ships had completed the loading and were ready to sail.

The ship lists, however, only show one departure date from Whampoa. They make no mention of the ship leaving Whampoa a couple weeks earlier, and removing downriver to finish the loading. Many of the Whampoa arrival dates were also not the day that the ship actually reached that port, but rather the day the ship arrived at Macao. The vessels might sit in the lower delta for several days or weeks before actually going upriver. Upon discovering these discrepancies, I came to realize that I could not depend solely on the ship lists contained in the foreign archives.

One example is the ship list in the British Library (BL), India Office Records (IOR), G/12/135 p. 43, which shows six ships arriving in January 1800 and departing the following June or July. After comparing those dates with the Dutch ship lists, and several logbooks, I discovered that the entries in G/12/135 were altogether incorrect. Those six ships arrived in May, June and July 1800, and departed several weeks or months later. Another example is the EIC ship list for 1806 which shows the ships Althea, Anna, Jessey, and General Wellesley arriving at Whampoa in July 1806 (BL: IOR G/12/158). The Dutch ship list and the Dutch dagregister (diary) for this year show these ships arriving two months earlier, in May (NAH: Canton 99 and Canton 268). In 1794, we find other errors in the EIC consultation and the EIC ship list which only show seven American ships at Whampoa (BL: IOR G/12/108, p. 146, G/12/109, pp. 47-9). The Spanish and Dutch records show clearly that there were nine American ships that year (NAH: Canton 256, HRB 93 & 94 Ship List for 1794; Agote Diary. See Appendix 1.2a for full references). Thus, after examining much of the data it became clear that everything needed to be cross-referenced and checked for accuracy with other supportive information.

The Dutch *dagregisters* contain a lot of information about the coming and going of ships at Whampoa. All of the *dagregisters* have survived from 1760 to January 1816, and have been a great aid in cross-referencing the data in the ship lists. When those records end, however, there are no other sources available to adequately cross-reference the EIC data. The American, Danish, Swedish and other China trade records that have survived are far too incomplete to fill in this gap left from the Dutch records. Additional examples include the ship list for 1815 in BL: IOR G/12/199 pp. 133-4, which is missing three Dutch and two Swedish ships. We know this to be true because those vessels show up in the Dutch records. The EIC ship list for 1816 in BL: IOR G/12/209 pp. 48-9 does not show any American ships, but we know there were many of those vessels in port that year. Other years thereafter have similar problems. There are some scattered Dutch records available from Canton and Macao up to 1830 (see bibliography), but they no longer contain data about ship arrivals and departures as they had before January 1816. This is why Appendixes 1.2a-b end on that month (as is discussed in the Preface).

Another reason for ending Appendixes 1.2a-b in January 1816 rather than December 1815 is because the Chinese reporting period for this year goes up to 23 January 1816. By extending into January, I was able to compare my new ship numbers with Liang Tingnan's *Yue haiguan zhi* 粤海關 志 (Gazetteer of Guangdong Maritime Customs) (1839, hereafter YHGZ) figures up to that closing date. Although it is a bit clumsy ending in January, I have found no better alternative owing to the different calendar systems that were used inside and outside of China.

There are around 1,400 EIC ship journals that have survived from voyages to China from 1700 to 1833. Anthony Farrington had already recorded all the arrival and departure dates from those journals in his seminal work on the EIC voyages. Many of the eighteenth century EIC ship journals also contain information about other ships that arrived at Whampoa. For many of the private vessels, no logbooks have survived, or if they have survived, they often do not contain a harbour log. It was thus essential for this study that I examine as many of the EIC journals as possible, in order to correct the errors in the ship lists and to fill in the many gaps they left.

Of the approximately 1,400 EIC journals from China voyages (c. 1700 to 1833), I went through all of the ones from the eighteenth century, which make up about 750 volumes. I also went through another 160 or so journals from the early nineteenth century, making up a total of 910

journals. I extracted all the information I could find about ship arrivals and departures. I also recorded the EIC ships' dates of arrival at Whampoa, the day they left, the day they arrived at the Second Bar, and the day they left the Second Bar and passed through Bocca Tigris. Farrington had some of this information, but I filled in the rest of the dates for each ship. Most of my dates correspond with Farrington's dates, but there are some that differ. If there are any questions about which date is correct, then I ask the reader to consult the original ship journal. I recorded whatever I found in the records and I own responsibility for any mistakes that might have been made.

I did not consult all of the EIC journals from the early nineteenth century, because by that time most of them contain very little relevant information. In those years, there were more than fifty ships arriving at Whampoa each year making it difficult for the writers to keep track of the movements of all vessels. From the 1770s to the 1790s, British officers gradually began omitting much of this information. By 1800, most of those details are missing from the records so there was no point in going through the rest of the journals.

Besides the EIC journals, the French and Flemings' logbooks were essential for information about ships in the early decades of the eighteenth century. Several hundred French journals have survived from eighteenth century voyages to China, but some of them are incomplete, and many of them have no harbour log. Moreover, many of the surviving French records are extracts from the original journals, which simply summarize the voyages without specific details about activities at Whampoa. Nonetheless, I did find close to seventy-five French journals that had at least part of a harbour log covering the time they were anchored in China, all of which were consulted.

There are thirty-one Belgian journals that have survived from 1724 to 1733 which I consulted as well. I examined sixty of the Swedish East India Company's (SOIC) ship journals that have survived covering the years from 1732 to 1798. There are several others that have survived, most of which are located in the southern port of Karlskrona which I was unaware of when doing my research in Sweden.⁶

I consulted several hundred American logbooks, but as noted above, very few of them have a harbour log for Whampoa. Many of the American logbooks have been published, and are listed in the bibliography. Some of these were helpful, but, on the whole, Americans were often not interested in other ships at Whampoa so their usefulness for this study was limited.

The Danish Asiatic Company (DAC) sent ships to China from 1734 to 1806, and again from 1820 to 1833. A non-company Danish ship also arrived at Whampoa in 1731. Most of these ship journals have survived. The Danes operated a bit differently from other European companies in that they kept a number of books for each voyage. The most important ones for this study are the negotie-protocoler, skibs-journaler and skibs-protocolor. The first one is the journal that the supercargoes kept in Canton, which is equivalent to the EIC consultations and the Dutch dagregisters. The second one is the navigational journal, which is more or less the same as all other logbooks, recording data about weather, wind, currents, location at sea, and other incidental information important to the voyage. Like the EIC ship journals, the DAC journals—almost without exception—contain an extensive harbour log during their stay at Whampoa. I found many entries in those records to other ships coming and going.

The DAC skibs-protocoler are a type of document that I have not found in any of the other East India companies' archives. These bound books record all of the expenses that the ship incurred during the voyage and all interactions with the ship, including everyone who came aboard and left, all cargo offloaded and onloaded, problems and injuries that occurred with the crew, wage disbursements, information about ships coming and going, and basically anything else that the writer thought important during their stay at Whampoa. While much of this information is available for many of the VOC ships as well, in hundreds of loose papers scattered throughout that collection, the DAC recorded the data in one bound volume for each ship, and most of them have survived. Many of the Whampoa harbour logs in the skibs-protocoler are massive, having more than 50 handwritten pages and some reaching upwards of 600 pages per ship. Many of the harbour logs covering the time at Whampoa consist of hundreds of pages. Needless to say, they proved to be enormously

helpful for this study. In addition to these records, I also went through all of the DAC *negotie-protocoler*, the EIC consultations, and the Dutch *dagregisters* and extracted whatever data I could find about ships at Whampoa.

Unfortunately, I have been unable to find any Dutch logbooks for the China voyages. Many of those VOC journals have survived, but not from the voyages to China. There are a few loose logs describing the month-long voyage from Batavia to China but those entries end as soon as the ships reached Macao. Out of 231 VOC voyages to China from 1729 to 1794, I have found only two Whampoa harbour logs, one for 1758 and another for 1777. There may be others, but so far, they remain hidden to me, despite my many visits to that archive, and searches through the published and online catalogues.

The Dutch records that are held in the Arsip Nasional in Jakarta are now available online. I went through all of those indexes and extracted whatever information I could find about ships bound to, or returning from, China. I also extracted whatever information I could find about Chinabound ships in the EIC's Fort St George records from Madras. Both of these sources proved to be especially helpful in identifying ships from the early eighteenth century. I have also collected some information from the Dutch records from Malacca, which have helped fill in some gaps.

The ship data in Appendixes 1.2a-b are inclusive but not necessarily exclusive. Those appendixes are inclusive in that we can now prove that every one of the vessels listed did indeed trade at Whampoa. For most years from 1720 to about 1790, the data is also exclusive because we can prove that there were no other ships in China in those years. After 1790, however, there were a number of private ships that arrived in the delta in the off-season months from March to June when most of the foreign supercargoes were in Macao. While the British and Dutch officers collected information about ships when they were in that port as well, sometimes they missed ships or did not specify whether or not the vessels went upriver to Whampoa. One example is the private English ship *Mentor*, which took the eastward passage to China sailing through the Moluccas and east of the Philippines. The ship arrived at Macao on 4 March 1794 and left Macao on 26 April. There are numerous references showing the arrival and departure of this ship, but there are no entries that explain what the ship was doing in China. One source mentioned that the vessel was anchored at Lintin Island on 16 March.

We can assume that the *Mentor* probably brought an import cargo, but whether the goods were smuggled illegally at Lintin or somewhere else in the lower delta, or whether the ship went upriver to Whampoa and traded legally is unclear. The *Mentor* was a private British ship so we can assume that it would not have been allowed to trade at Macao. There was enough time for the *Mentor* to have gone upriver to Whampoa after 16 March, unload its cargo, load with exports, and return to Macao by 26 April, but I have found no entries confirming this. Consequently, I have not included the *Mentor* in Appendixes 1.2a-b. There were a number of American ships that arrived in the delta in the off-season as well, with no mention of whether or not they went upriver. Some of these vessels were undoubtedly involved in smuggling and probably did not go to Whampoa. Other vessels such as the *Mentor*, could have traded legally, but then did not get recorded in any of the surviving documents. Thus, for the years after 1790, it is possible that I may have missed a ship or two, but we can be relatively certain that there were no fewer ships trading at Whampoa than what is shown in Appendixes 1.2a-b.

In the late eighteenth and early nineteenth centuries there were a few ships that went upriver to Whampoa, but did not trade. In the 1770s, for example, the British warship *Seahorse* went upriver several times to deliver chests of silver and mail to the EIC supercargoes. Despite the many protests from Chinese officials, the *Seahorse* did not pay the port fees or conduct trade. From the 1770s onwards, British warships often anchored at Taipa near Macao, while they waited for the tea fleet to finish loading so they could escort it home. When these warships were in the area, they did not always stay anchored in the same location but moved about the delta, especially if they heard rumours that an enemy warship might be in the area. As mentioned in Chapter 1, there were also twenty-four rice ships at Whampoa that unloaded their grain but then left China with hulls empty.

Those ships are included in Appendixes 1.2a-b, but they are not counted in any of the other appendixes because they did not pay duties or port fees and they did not load with an export cargo.

During inclement weather, British warships often moved to the anchorage at Bocca Tigris, known as Anson's Bay or Chuenpee. Despite it being contrary to Chinese policy to allow non-trading vessels this far upriver, officials tolerated this practice in some years. In other years, they would insist that the warships go upriver no further than Lintin Island, or remain in the lower delta at Taipa. For those warships that were allowed to stay at Anson's Bay, it was actually possible for them to proceed further upriver to Whampoa, if they had a mind to do so, despite it being contrary to Chinese desires. Ships from the Bombay Marine, for example, regularly conducted surveys of the South China Sea during the early years of the nineteenth century, and they also sometimes went to Whampoa to deliver money or mail. All of these non-trading vessels that were sent upriver were usually rather small, with shallow drafts, so they did not have to worry about running aground at the First and Second Bars. In all of these cases, where ships went to Whampoa without permission Chinese officials launched endless complaints which created a lot of entries in the foreign records. This documentation makes it relatively easy to determine whether or not those vessels conducted any trade. Fortunately, there are not many of these cases. If ships did not conduct any trade, then I have excluded them from Appendixes 1.2a-b. Ships carrying the Macartney embassy, Lion and Jackal, also went upriver to Whampoa in 1793, but did not trade so they are also excluded. 11

We can prove from the available sources that all ships included in Appendixes 1.2a-b paid the port fees and traded at Whampoa. The one exception to this rule is the ship *Siam*, which carried the Dutch ambassador Titsingh to Whampoa in 1794. The *Siam* did not come to trade, but the Chinese security merchants had to nonetheless pay the port fees for that vessel, and the duties that it would have incurred had it come to trade. Because it was treated just like any other trading vessel, and paid all the fees and duties, I have included it in Appendixes 1.2a-b and in all other appendixes. However, it should be noted that unlike a regular trading vessel, the Dutch did not pay these costs but rather the Chinese merchants who traded with the VOC. There is some evidence suggesting that the Chinese merchants may have paid the port fees and import and export duties for the British ship *Lion* as well, in 1793, but I have not been able to confirm this so it was eliminated. 13

We know that Chinese officials would not issue an exit permit (Grand Chop) unless the ships were fully laden, which means we can assume that most of them went away with a Chinese cargo that was close to their maximum carrying capacity. There were a few exemptions to this rule, but on the whole, the policy was universally applied throughout the Canton era (c. 1700-1842). This means that we can indeed use the tonnages to estimate the total volume of the trade each year, but with the understanding (as is pointed out in the Preface) that many of the tonnage figures are themselves estimates. The ship list is now about as complete as one can make it from the available sources.

I have been asked by persons using data from my appendixes, that if I did not depend solely on ship lists in the foreign archives, then where did the information come from and how did I tabulate the numbers for each year? As can be seen from the 'source' column in Appendixes 1.2a-b, most of the years have multiple sources from which the data were extracted. I then inserted formulas into the original Excel table to assemble the total number of ships and tonnages for each year. For example, the Excel formula for the total ships at Whampoa in 1780 is: =COUNTIFS(\$M\$2:\$M\$3372,">=1780-00-00",\$M\$2:\$M\$3372,"<1781-00-00",\$L\$2:\$L\$3372,"Whampoa"). This formula is from my original Excel file, which has many more columns and entries than appears in Appendixes 1.2a-b. The `M' column is the date of arrival, and the `L' column is the name of the port. I was only interested in the ships that went to Whampoa so I included that name in the formula.

In order to compare the data with the ship numbers in the YHGZ, I changed the dates in the formulas to match the beginning and ending dates of the Chinese reporting periods. This comparison was not possible before, because we did not have the arrival dates of every ship. The formula for the number of ships at Whampoa from 1 March 1780 to 17 February 1781, for example, is: =COUNTIFS(\$M\$2:\$M\$3372,">=1780-03-01",\$M\$2:\$M\$3372,"<1781-02-

18",\$L\$2:\$L\$3372,"Whampoa"). Thus, the data presented in the appendixes are not from any single source, but are rather a compilation of figures from hundreds of primary and secondary sources, and then the formulas assembled the composite ship and tonnage figures for each solar and lunar year. Obviously, if a formula is written incorrectly the results will vary so I checked all of them multiple times to ensure they are correct for each year.

¹ Those records are in Aix en Provence, Archives Nationales d'Outre-mer (ANOM): AQ8.

² Paul A. Van Dyke, *The Canton Trade: Life and Enterprise on the China Coast, 1700–1845.* (Hong Kong: Hong Kong University Press, 2005. Reprint, 2007), 79. See references to the 'Hoppo's Book' in the indexes of Paul A. Van Dyke, *Merchants of Canton and Macao: Politics and Strategies in Eighteenth-Century Chinese Trade.* Vol. 1 (Hong Kong: Hong Kong University Press, 2011); and Paul A. Van Dyke, *Merchants of Canton and Macao: Success and Failure in Eighteenth-Century Chinese Trade.* Vol. 2 (Hong Kong: Hong Kong University Press, 2016) (hereafter, these two volumes will be referred to as MCM 1 and MCM 2).

³ Van Dyke, *The Canton Trade*, 21; Huang Chao and Paul A. Van Dyke, 'Hoppo Tang Ying 唐英 1750-1751 and the Development of the Guangdong Maritime Customs'. *Journal of Asian History* 51 no. 2 (2017), 223-256. For an example of how the captain's names were transliterated into Cantonese by the Macao pilots, see the latter source, pp. 248-249.

⁴ I refer only to the Hoppo's account books, and not to his tariff books some of which have survived. These latter books are explained in Huang Chao and Paul A. Van Dyke, 'The Hoppo's Books and the Guangdong Maritime Customs 1685-1842', forthcoming. For other references to the Hoppo's book, see Ch'en Kuo-tung Anthony 陳國棟, *Qingdai qianqi de yuehaiguan yu shisan hang* 清代前期的粵海關與十三行 (Maritime customs of early Qing dynasty and the Thirteen Hongs) (Guangzhou: Guangdong renmin chuban she, 2014), 74-6; MCM 1: 25; MCM 2: 127, 183, 209, 326n18.

⁵ The figure of 1,400 journals is just a rough estimated as I have not counted the exact number of journals that have survived from China voyages from 1700 to 1833. Farrington mentions that there are '3822 journals/logs' that have survived from the EIC voyages, but those include ships that went to India and other places and include logbooks from the seventeenth century. Anthony Farrington, *Catalogue of East India Company Ships' Journals and Logs 1600–1834* (London: British Library, 1999), Introduction.

⁶ For a list of the SOIC journals and their locations, see Bertil S. Olsson, *Swenska Ost-Indiska Compagniets fältskarer*. (Gothenburg: Riksarkivet Landsarkivet I Göteborg, 2012), Tabell 1, pp. 82-9.

⁷ These two harbour logs are in National Archives, The Hague (NAH): VOC 4382 and 4416, respectively.

⁸ https://sejarah-nusantara.anri.go.id/marginalia/ [accessed 25 March 2018].

⁹ British Library (BL): India Office Records (IOR) MS.21106 *Lion* 1793, L/MAR/B/138E, G/12/106, G/12/108; NAH: OIC 195 *dagregister*.

¹⁰ BL: IOR L/MAR/B/138E.

¹¹ Hosea Ballou Morse, *The Chronicles of the East India Company Trading to China, 1635–1834.* 5 vols. (Cambridge: Harvard University Press, 1926. Reprint, Taipei: Ch'eng-wen Publishing Co., 1966), 2: 211, 216. ¹² MCM 2: 54-57 and Plate 02.04.

¹³ In May 1793, for example, the Hong merchant Monqua went to Macao to discuss Macartney's upcoming visit to China with the English supercargoes. Although Monqua's visit does not appear in the EIC consultations, the Dutch were in Macao at the time and talked with him after he had met with the English. At the behest of the emperor, the Hoppo ordered several of the merchants to pay for the cost of Macartney's voyage to the north of China. Although the Dutch did not mention names, they recorded that one Chinese merchant was to pay 6,000 piasters, another 4,000 piasters, and a third, an unspecified amount. However, the Dutch did not mention whether these sums included the port fees and duties for the ship *Lion*. At this time, the Hoppo might not have been aware that the *Lion* was going to proceed to Whampoa when it arrived in December, which means port fees and duties might not have been part of the discussion. In the meantime, the Hoppo was recalled to Beijing and a new Hoppo arrived in October, before the *Lion* arrived, which makes it confusing and unclear as to how the costs of the trip were eventually handled, and whether or not port fees and duties were included. NAH: 4577 *dagregister*, 1793.05.12, pp. 11-12, VOC 4445 *dagregister*, 1793.08.06, p. 18; and BL: IOR G/12/101, 1792.01.08, p. 133. I also found no mention of the duties or port fees for these ships in the Macartney papers in BL: IOR G/12/92, G/12/264, but they do contain some information about duties on private items.