Beyond a cup of tea:

Trade relationships between colonial Australia and China, 1860-1880

Nicholas Dennis Guoth

A thesis submitted for the degree of Doctor of Philosophy of the Australian National University

December 2017

© Nicholas Dennis Guoth, 2017

DECLARATION

I confirm that the material contained in this these is my own original work, and that, to the best of my knowledge, it contains no material previously published or written by another person, except where due reference is made in the text.

Nicholas Guoth

ABSTRACT

This thesis examines the trade relationships between China and colonial Australia between 1860 and 1880. At the time, the Australian continent was emerging from the boom created by the 1850s gold rushes in the colonies of Victoria and New South Wales. China had submitted to the debts incurred from the two Opium Wars and, through that, the creation of the Treaty Ports. New companies and export industries were being developed. Trade between Australia and China increased. The key products included coal from New South Wales, sandalwood from Western Australia and tea from China. Together, they created a flourishing trade environment.

Attention in the China-Australia trade discourse has been overly restricted to the tea trade and the search for staples to pay for the tea. This thesis moves beyond this past bilateral consideration. Instead, it argues that a fuller understanding of the China–Australia trade relationship needs to be multifaceted and multi-national. Much bilateral trade was conducted via intermediary ports and traders, rather than directly between ports and traders in Australia and China. Further, complex payment and remittance systems involved firms based in an array of countries, including Great Britain, India and the United States. This thesis, thus, states the importance of analysing trade relationships within a multilateral focus.

This thesis uses analysis at the transaction level to explain the prevalent multilateral relationships of this period. Archival records from England, the United States and Hong Kong supplement those in Australia to provide insights into the methods employed to complete transactions. This thesis provides history with an interpretation of the records relating to the China-Australia trade. It engages the correspondence and financial records of of key companies like Jardine Matheson & Co. of England, Augustine Heard

& Co. and Russell & Co. of the United States and Robert Towns and Co. from Australia, among others, to interpret the transactions.

Analysing trade at a transactional level requires an interdisciplinary approach that draws on insights from a mixture of historical sub-disciplines, including economic history, business history, maritime history, Australian history, China Treaty Port history, Chinese mercantile history and the histories of various commodities. All of these feature in this thesis under the umbrella of trade history to create a broader comprehension of port-to-port relationships. Interpreting at the transaction level moves this interdisciplinary study into an alternate realm, one that opens a better understanding of how each of its elements placed Australia within the global trade environment of the 1860s and 1870s.

ACKNOWLEDGEMENTS

This thesis has been quite a journey and there are many who require recognition for their efforts in assisting me in its completion. To my initial panel, I cannot but say wholehearted thanks. My first supervisor Li Tana who, through the first book passed on to me, convinced me to take the route of mercantile history. Tana's continuous hounding of me to keep within the path and her encouraging words have helped no end towards the completion. Paul D'Arcy, my secondary supervisor, was very helpful in encouraging me and providing guidance. Our discussion on football will also not be forgotten. Pierre van der Eng, initially my adviser and then my fourth supervisor and third primary supervisor, has been tremendous. Without Pierre, I rather doubt this thesis would have been completed. While my two supervisors were suffering through a School review, Pierre took over the mantle and not only read through the early drafts, providing extensive comments, but also kept me going in the trying times and all this while on leave from the University.

My thanks to Benjamin Penny for taking over as primary supervisor during the last six months and providing his expertise and thoughts that have guided me through the writing stage. His comments on each of the chapters have been invaluable and without those, this work could not have been completed. To Jo Bushby, the HDR coordinator, who was always available for a chat, my many thanks. Also, to all the other academics and staff who have provided kind words to me, my sincere thanks.

Throughout the lengthy process of this doctorate, I have received assistance through a number of grants. The Australian Postgraduate Award of 2012 has been of great assistance. Thanks to Harvard Business School or Harvard University for awarding me

the Alfred D. Chandler Junior Travel Fellowship of 2013. The assistance I received at the Baker Library, Harvard University was extremely vital for this study. To the Australian National University, thanks for awarding me a Vice-Chancellor's HDR Travel Grant in 2014 to assist with attending and presenting at an international conference in Dunedin, New Zealand.

The information gathered in this thesis has been obtained from numerous sources throughout the world. I wish to take note of those who have given their time at the following institutions. A special thanks to the archivists at the two primary archives where I spent much of my fieldwork, those being the Baker Library, Harvard University in Boston and the University Archives, Cambridge University Library in Cambridge UK. In Australia, my thanks to those at the State Library of New South Wales, Special Collections, the Victorian Public Records Office, the State Library of Western Australia, the National Maritime Museum of Australia, the National Library of Australia and the Noel Butlin Archives at the Australian National University. In England, thanks to those at the National Archives, the Caird Library of the National Maritime Museum, Guildhall Library, Archive Collection of the Postal Museum, the archives of the Royal Geographical Society and the London Metropolitan Archives. In Asia, thanks to those at the Hong Kong University Library, the Hong Kong Public Records Office and the National Archives of Singapore. Finally, a special thanks to those who are part of the CartoGIS Services at the Australian National University. They created and supplied a number of maps that have been included in this thesis.

A number of individuals have provided me with guidance outside of their normal work and it would be hard for me to give them all the recognition that they deserve and thus I apologise to those whom I omit. To Elizabeth Sinn, who's work on the Hong Kong trade and later the work on shipping records Elizabeth passed on to me that was obtained through a Hong Kong Research Grants Council, my many thanks. Our meetings at various points throughout this work have been most enjoyable and valuable. To Simon Ville, who helped push me along in the early years with his thoughts and who led me to apply for the travel grant at Harvard, I cannot have enough thanks. To Geoffrey Wade, who got me interested in working on a PhD and then met with me on numerous occasions both in Singapore and then in Canberra, my unending thanks. And to all the other academics, whom I met and talked with along the way of this thesis, whether at their offices in the various countries I have visited, whether at conferences or seminars I have attended or whether through e-mail contact, your comments and guidance have been invaluable.

The fellow students at the Australian National University have been great and the camaraderie amongst them while in the midst of a review whereby a number were to lose their supervisors was of unending help to all. Having been a student for over five years on this project, many students came and went and all have become great friends whom I look forward to meet again in the future. Also, to those students and staff whom I worked with at the Mathematical Sciences Institute of the Australian National University prior to losing my job through a review in the midst of this thesis, I will not forget you and look forward to seeing you again in the future.

Finally, to my family. To my partner Chen Wei (Jenny), whom I met while on my fieldwork, I cannot say enough thanks to her. Jenny has pushed me all the way and been by my side through all of the good and bad times. To Jenny, my love and thanks. To my immediate family, their support has been unending. My mother, Eva, has helped push me along and my father, Nicholas, until he passed away midway through the thesis, was

a guiding light for me. My sister Sue and her family have been tremendous, especially taking care of matters in Sydney after the passing of our father and also in the matter of looking after of our mother. It has been a hard time for both of us and Sue has been a beacon in her dedicated work when it came to family members. To everyone, and especially those whom I may have missed, my many thanks.

CONTENTS

DECLARATION	i
ABSTRACT	ii
ACKNOWLEDGEMENTS	iv
FIGURES	xiii
TABLES	xvi
ABBREVIATIONS	xvii
SYMBOLS	xix
INTRODUCTION	1
An ambiguous relationship	8
Presentation of study	15
Methodological review	19
Sources	23
Notes on terms	28
CHAPTER 1: A RELATIONSHIP NOT TOO FAR	34
Early trade relationships with China	36
The Treaty Port System	41
European merchant houses in China	48
Merchant houses in Australia	54
Mercantile connections with England	64
Institutions	69

Pre-1880 maritime transport: Square-rigged vessels and the flow of	77
trade	
Australia's early steam adventures	84
Technology and the transition to steam	86
Search for an optimum route	90
Early steam attempts	93
Queensland and the Torres Strait route	95
A permanent route to China	101
Effects of the trade	115
Concluding comments	118

75

CHAPTER 3: THE LITTLE BLACK ROCK OF NEW SOUTH WALES 124

China's demand for coal	128
Organisation of the coal trade	134
Coal mines of New South Wales	137
Coal export from New South Wales	144
Quality of New South Wales coal	158
Competing with Japan	163
Britain and New South Wales coal prices	168
Australian demands	171
Demise of interest in late 1870s	174
Transactions and remittances	178
Concluding comments	184

CHAPTER 4: THE WOOD OF THE WEST

The sandalwood tree	189
Early trade of sandalwood	192
WA and sandalwood pre-1860	195
Preference in China	199
Taking sandalwood to China – the China route	201
Chinese transshipment	206
Role of Singapore	208
Transporting sandalwood	211
Sandalwood merchants	215
Market forces in the trade of sandalwood	219
Remittances and other payments	229
Concluding comments	233

187

236

CHAPTER 5: GOLD FOR ALL THE TEA IN CHINA

Tea for Australia	238
Calculating the tea trade	240
Origins of tea	244
Buying tea	247
Bartering	248
Pre-payments	252
Joint-account tea transactions	260
The process	262
Gold to Calcutta	266
Factors relating to joint-account transactions	276

	Sugar f	for the tea	280
	Conclu	ding comments	284
СНАР	TER 6:	TIES AND TRUST	287
	Ties an	d Triads	290
	Multip	le firms	294
	Poor co	ommunication and uncertainty	297
	Techno	ological advancement in communications	301
	Transa	ctions	306
	Single	transactions	309
	Joint-a	ccount transactions	311
	Inter-re	elationship transactions	315
	Probler	n solving	320
	The str	ength of strong ties	326
	Conclu	ding comments	332
CONC	LUSIO	N	334
BIBLI	OGRAP	РНҮ	347
APPE	NDICES	3	
	1	Chinese port names using Chinese Postal Map Romanization.	389
	2	Australian merchant houses with correspondence with Jardine	390

3 Australian merchant houses with correspondence with 395 Augustine Heard & Co., 1860-1880.

Matheson & Co., 1860-1880.

4	Coal exports from New South Wales, 1863-1880.	397
5	Coal mining firms involved in the overseas trade to China, 1860-1880, with the year they commenced exports.	400
6	Shipping from New South Wales to China, 1860-1880.	401
7	Shipping between Hong Kong and the ports of Australia and New Zealand, 1860-1880.	406
8	New South Wales exports to China, 1863-1880.	408
9	Trials of Australian Coal – 1 May 1862.	409
10	Imports of foreign coals to Shanghai.	410
11	Freight rates from New South Wales to China, 1865-1874.	411
12	Shipping from Western Australia to China, 1845-1880.	418
13	Distribution of Sandalwood Exports to China by Month, 1860- 1880	422
14	List of vessels involved in regular trade between Western Australia and Singapore or Batavia, 1860-1880.	423
15	Shipping from China to Western Australia, 1860-1880.	424
16	Sandalwood imports to Shanghai, 1870-1874.	425
17	London banks and firms connected to Australian firms	427
18	Seasonal exports of tea from Chinese ports to Australia for the tea export seasons of 1861/62-1875/76.	428
19	Australian imports from China and exports to China, including tea imports separately, 1860-1880.	430
20	Example of Invoice for tea from China.	435
21	India gold imports from Australia, 1860-1880.	440
22	Sugar imports from China and Hong Kong to Australia, 1860- 1880	443

FIGURES

2.1	Early sail routes taken between China and Australia.	80
2.2	Tonnage of vessels arriving with cargo in Victoria and NSW from all ports in China, 1860-1880 (tons).	82
2.3	Tonnage of vessels departing with cargo from Victoria and NSW to China, 1860-1880 (tons).	83
2.4	<i>R.M.S.S. Brisbane</i> (1874-1881).	88
2.5	The Torres Strait.	93
2.6	Steam routes from China to Australia for three shipping companies (1873-80).	112
2.7	Shares of shipping and trade between China and Queensland, 1873 and 1880 (percentages).	115
2.8	Value of trade between China and Queensland 1860-1880 (£ sterling).	116
3.1	Views from Newcastle, ca. 1860.	134
3.2	Map of NSW showing the location of coal fields, 1860-1880.	138
3.3	The Bulli Coal Mining Company's Mine at Bulli.	141
3.4	The Bulli Coal Mining Company's Jetty, Bulli.	142
3.5	Export destinations of NSW coal, 1863-1880 (annual averages, tons)	144
3.6	Map of Newcastle harbour.	146
3.7	Newcastle and harbour, 1865.	147
3.8	Average annual coal production for the three regions of NSW, 1860-1880 ('000 tons).	148
3.9	Sales of NSW coal by destinations, 1860-1880.	148
3.10	Average prices of NSW coal by region of origin, 1860-1880 (shillings per ton).	149
3.11	Exports from NSW to China by commodities, 1863-1880 (£'1000).	151
3.12	Unit prices of exported coal from NSW by export destination, $1863-1880 (\pounds / ton)$.	152

3.13	Export of coal from NSW to China, 1863-1880 (tons).	153
3.14	Coal exports from NSW, total and to China, 1863-1880 (tons).	154
3.15	Vessels departing from NSW for China, 1860-1880.	155
3.16	Average amount of coal per vessel from NSW to China, 1860- 1880.	155
3.17	Coal exported from Sydney and Newcastle to China, 1860-1880 (tons).	156
3.18	Coal exported from Newcastle to Hong Kong and Shanghai, 1860-1880 (tons).	157
3.19	Tonnage of coal exported from Sydney to Hong Kong and Shanghai for the period 1860 to 1880.	158
3.20	3.20. Sale price of imported coal in Shanghai, 1869-1876 (\Im per ton).	164
3.21	Vessels arriving in Hong Kong from coal exporting nations, 1862-1880.	166
3.22	Average minimum and maximum price of NSW coal in Hong Kong, 1860-1874 (\$).	166
3.23	Export prices of NSW coal, 1860-1880 (shillings per ton).	171
3.24	The Australian Agricultural Company's Mine.	181
4.1	Santalum Spicatum (Australian Sandalwood tree).	189
4.2	Sandalwood producing areas in WA, 2016.	191
4.3	The China Route.	201
4.4	Destinations of sandalwood exported from Western Australia, 1860-1880 (cumulative percentages).	203
4.5	Share of sandalwood in total exports to Singapore and China from WA (percentages).	203
4.6	Jardine Matheson & Co. (left) and Siemssen & Co. (right) in Shanghai, 1880.	218
5.1	Tea imported into NSW and Victoria in pounds (lbs.), 1864- 1880.	241
5.2	Yearly tea trade cycles of exports of tea from China to Australia in pounds (lbs.), 1861/62-1875/76.	243

5.3	The share of tea in total imports into the Australian colonies from China, 1860-1880.	243
5.4	Export of gold to China from NSW, Victoria and Queensland, 1860-1880.	250
5.5	G. Shenton sandalwood and tea transaction.	251
5.6	Financial process chart relating to Henty Learnmonth order.	257
5.7	Tea process chart relating to Henty Learnmonth order.	258
5.8	Correspondence flow relating to Henty Learnmonth order.	259
5.9	Process of a tea order between Parbury Brothers and Augustine Heard & Co., on joint account.	263
5.10	Financial process for a typical James Henty & Co. order of tea from Jardine Matheson & Co., on joint account.	264
5.11	Value of gold imported into India from Australia (in £), 1860- 1880.	268
5.12	Triangle of Trade: Jardine Matheson & Co. using the sale of tea in Australia to assist with the purchasing of goods from India.	271
5.13	China Sugar Refinery, located at East Point, Causeway Bay, Hong Kong Island.	282
5.14	Sugar imports from China and Hong Kong to Australia, 1860- 1880.	284
6.1	Triadic Closure	291
6.2	Extended Triadic Closure, including a link to D.	292
6.3	Packet transfer prior to the introduction of the steam route in 1873.	298
6.4	Telegraphic connection to Asia and Australia by the late 1870s.	302
6.5	Packet transfer between China and Australia after 1873.	306
6.6	The connection between Neill & Co. of Dunedin to JM&Co. through James Henty & Co.	317
6.7	Redfern Alexander & Co. shipment of tea from JM&Co. to Cargill & Co. of Dunedin.	318

TABLES

2.1	Ships arriving in Victoria and NSW from ports in China including Hong Kong, 1876-1885.	79
2.2	Shares of shipping and trade between China and Queensland, 1873 and 1880 (percentages).	116
4.1	Total quantities of Sandalwood, in tons, imported and re- exported in foreign boats for Shanghai, 1868-1872.	204
4.2	Total quantities of Sandalwood, in tons, imported in foreign boats for Tianjin (Tientsin) and Fuzhou, 1868-1872.	207
4.3	Imports of Sandalwood to Singapore, 1873-1880 (cwts).	210
4.4	Exports of Sandalwood from Singapore, 1873-1880 (cwts).	210
4.5	Sandalwood Imports to Shanghai 1870-Oct, 1874. (piculs).	224
6.1	Correspondence from firms based in the various colonies of Australia to Jardine Matheson & Co., 1860-1880.	295

ABBREVIATIONS:

- AAC Australian Agricultural Company
- AAC/AR Australian Agricultural Company, Annual Report
- AAC/MR Australian Agricultural Company, Monthly Report
- AHA Heard Family Business Records, Baker Library
- AH&Co. Augustine Heard & Co.
- ASN Australasian Steam Navigation Company
- BEIC British East India Company
- CMSN China Merchants Steam Navigation Company
- E&A Eastern and Australian Mail Steam Company (pre-August 1880) and Eastern and Australian Steamship Company Limited (post-August 1880)
- FPC F. Parbury & Co. Archives, Baker Library, Harvard University
- HKPRO Hong Kong Public Records Office, Hong Kong
- HoC House of Commons Parliamentary Papers
- JH&Co. James Henty & Co.
- JMA Jardine Matheson & Co. Archives, Cambridge Library
- JM&Co. Jardine Matheson & Co.
- JS&Co. Jardine Skinner & Co.
- MMHRGA The Maitland Mercury and Hunter River General Advertiser
- NCHRDN The Newcastle Chronicle and Hunter River District News
- *NMH&MA* The Newcastle Morning Herald and Miners' Advocate
- NSW New South Wales
- *NSWVP LA* New South Wales Votes and Proceedings (Legislative Assembly)
- P&O Peninsular and Orient Company
- PGWAT The Perth Gazette and West Australian Times

PMSS	Pacific Mail Steam Ship Company
OBC	Oriental Banking Corporation
QPD LA	Queensland Parliamentary Debates (Legislative Assembly)
QPD LC	Queensland Parliamentary Debates (Legislative Council)
QPP	Queensland Parliamentary Papers
QVP	Queensland Votes and Proceedings
RA&Co.	Redfern Alexander & Co.
RT	Robert Towns & Co. Papers, Mitchell Library
RA	Russell & Co. collection, Baker Library
SFP&MA	Singapore Free Press and Mercantile Advertiser
SFP&MA SR NSW	Singapore Free Press and Mercantile Advertiser Statistical Register of New South Wales
SR NSW	Statistical Register of New South Wales
SR NSW SR QLD	Statistical Register of New South Wales Statistical Register of Queensland (Blue Book)
SR NSW SR QLD SR SA	Statistical Register of New South Wales Statistical Register of Queensland (Blue Book) Statistical Register of South Australia
SR NSW SR QLD SR SA SR TAS	Statistical Register of New South Wales Statistical Register of Queensland (Blue Book) Statistical Register of South Australia Statistical Register of Tasmania
SR NSW SR QLD SR SA SR TAS SR VIC	Statistical Register of New South Wales Statistical Register of Queensland (Blue Book) Statistical Register of South Australia Statistical Register of Tasmania Statistical Register of Victoria

SYMBOLS:

- £ Pound Sterling
- SChinese Taels

INTRODUCTION

In a letter to the Superintendent of the Australian Agricultural Company (AAC) of Newcastle, New South Wales, dated 20 June 1863, Jardine, Matheson & Co. (JM&Co.) of Hong Kong stated that the barque *Ettrick*, upon delivering tea to Melbourne, would "proceed to Newcastle to your consignment to fill up with Coal, in order that we may have an opportunity of testing a fair trial of the quality you supply."¹ The letter was initiated following correspondence between Mr Edward Hamilton, the Governor of AAC in London and JM&Co.'s representative in London, Matheson & Co. Hamilton offered Matheson & Co., an incentive to take on the order. AAC would rebate 50 per cent of the selling price.² The *Ettrick* departed Newcastle on 6 October 1863 with 380 tons of AAC coal. The venture was favourable to JM&Co., and through them Matheson & Co. For AAC, they noted that such an opportunity "will afford the Company much gratification to know that the Company may be found suitable for your China trade." The transactions allowed AAC an entry in to the coal market of China.³ However, there was more to this transaction and the movements of the *Ettrick* than just a trip to Melbourne, Newcastle and back to China.

The *Ettrick* was a new vessel, built in England and launched in June 1862 for Matheson & Co. It was built for the China trade.⁴ The vessel sailed for China following its launch and was thus ready for service in the Chinese trade for JM&Co. In April 1863, freight

¹ Letter from JM&Co. to The Superintendent of the Australian Agricultural Company, Newcastle, 20 June 1863 *Letters to India* JMA C10/55.

² "Extract of letter dated 5th Feb 1863 from Edward Hamilton to Matheson & Co." Letter from JM&Co. to The Superintendent of the Australian Agricultural Company, Newcastle, 20 June 1863 *Letters to India* JMA C10/55.

³ Letter from Australian Agricultural Company, Newcastle to JM&Co., 3 October 1863 *Correspondence: Business Letters: Australasia* JMA B6/3.

⁴ Lloyd's Register of British and Foreign Shipping. From 1st July, 1863, to the 30th June, 1864. London: Cox and Wyman, 1863. No. 781. The *Ettrick* was built at the Vaux shipyards in Harwick, UK.

costs for shipments from China to Australian ports were high. JM&Co. assigned the *Ettrick* with a cargo of tea from Foochow to Melbourne at a discounted freight rate.⁵ It was the first tea shipment for the vessel.⁶

The shipment had two parcels. The first contained 1000 packages of tea. Messrs Wilson & Buchanan of Geelong, south of Melbourne, requested of their London representatives, Messrs Redfern Alexander & Co. (RA&Co.), to order the tea on their behalf. RA&Co. placed the order with JM&Co.⁷ The second parcel was a joint shipment of 7619 packages of tea between James Henty & Co. of Melbourne and JM&Co.⁸ In communications between JM&Co. and James Henty & Co., the former requested that the unloading be made at haste so that the *Ettrick* could sail to Newcastle to load with the AAC coal.⁹

AAC fulfilled its promise when the *Ettrick* arrived in Newcastle, providing 380 tons of the coal from its mines to be loaded on the vessel. AAC and JM&Co. used a third firm, Bingle, White & Co., as the shipping agent in Newcastle to assist with the processing of the shipment.¹⁰ The *Ettrick* then travelled to Woosung, the port on the Yangtze River nearest Shanghai.¹¹ There, JM&Co took ownership of the coal to sell it to buyers in

⁵ Letter from JM&Co. to James Henty & Co. 28 April 1863 Letters to India JMA C10/55.

⁶ Letter from JM&Co. to James Henty & Co. 17 June 1863 *Letters to India* JMA C10/55. The *Ettrick* was required to stop in Hong Kong to obtain a new crew for the journey.

⁷ Invoice to Messrs Wilson Buchanan & Co. 9 June 1863 *Invoices of Hong Kong Office* JMA A6/13.

⁸ Invoice to Messr J. Henty & Co. 9 June 1863 Invoices of Hong Kong Office JMA A6/13.

⁹ Letter from JM&Co. to James Henty & Co. 17 June 1863 *Letters to India* JMA C10/55; "Shipping." *Age* 2 September 1863: 4; "Shipping." *Age* 19 September 1863: 4; "Melbourne." *Empire* 22 September 1863: 4. The *Ettrick* arrived in Melbourne 1 September 1863 and departed for Newcastle 20 September 1863 with two boxes of tea for that port. James Henty & Co. were the shipping agent.

¹⁰ "Newcastle." SMH 26 September 1863: 6; "Shipping." NCHRDN 7 October 1863: 2.

¹¹ "Shipping Intelligence." *North China Herald* 12 December 1863: 5. Woosung was the main port for Shanghai, located approximately 23kms from the centre of Shanghai. The waterways from Woosung to Shanghai were not deep enough for foreign vessels to travel.

Shanghai. The *Ettrick* then departed for Hong Kong.¹² The full journey had taken just under six months including lay days in Hong Kong, Newcastle and Shanghai.

The success of this first journey of the *Ettrick* immediately led to another. Taking advantage of discounting the freight rate for chartering the *Ettrick*, JM&Co. sent the vessel to Foochow to load with tea.¹³ The tea shipment was to be delivered, during this journey, to Sydney prior to the master of the vessel taking up the same arrangement with AAC in Newcastle.¹⁴ Similar to the first journey, two parcels made up the cargo from Foochow to Sydney. The first was a joint shipment of tea between JM&Co. and their agents in Sydney, Thacker Daniell & Co.¹⁵ The second parcel was of 1000 packages of tea destined for Messr Cargill & Co. of Dunedin, New Zealand. The parcel had been ordered by RA&Co. on Cargill & Co.'s behalf. It was also consigned to Messrs Gilchrist Watt & Co. in Sydney who were to tranship the parcel to Dunedin.¹⁶

At the time of the second cargo travelling to Sydney, Thacker Daniell & Co. were asked to assist JM&Co. A matter arose following an unsuccessful transaction of coal to China by the Newcastle Wallsend Coal Company. Their Secretary, Mr P. W. Binney was asked to pay Thacker Daniell an amount of £165.15.5 to cover the remaining costs of the transaction. JM&Co. requested Thacker Daniell to "please place to the credit of our

¹² "Shipping Intelligence." North China Herald 19 December 1863: 5.

¹³ Letter from JM&Co. to Thacker Daniell & Co. 27 January 1874 *Letters to India* JMA C10/56. JM&Co. charged £5 per ton for the Foochow to Sydney freight rate when the standard rate was £5/10/- per ton.

¹⁴ Letter from JM&Co. to Thacker Daniell & Co. 11 February 1874 *Letters to India* JMA C10/56; Letter from JM&Co. to Australian Agricultural Company, Newcastle 11 February 1874 *Letters to India* JMA C10/56.

¹⁵ Invoice to Messr Thacker Daniell & Co. 11 February 1864 *Invoices of Hong Kong Office* JMA A6/14; Letter from JM&Co. to Thacker Daniell & Co. 27 January 1874 *Letters to India* JMA C10/56; Letter from JM&Co. to Thacker Daniell & Co. 11 February 1874 *Letters to India* JMA C10/56.

¹⁶ Letter from JM&Co. to Cargill & Co. 11 February 1874 *Letters to India* JMA C10/56; Invoice to Messr Cargill & Co. 11 February 1864 *Invoices of Hong Kong Office* JMA A6/14. Also, 6 boxes of tea were shipped to Henry Moore valued at \$111 under his account and risk. Invoice to Messr Henry Moore 12 February 1864 *Invoices of Hong Kong Office* JMA A6/14; Letter from JM&Co. to Gilchrist Watt & Co. 11 February 1874 *Letters to India* JMA C10/56.

account upon receipt, and include in your next remittance to Calcutta.¹⁷ That account was paid by Binney on 5 February 1864. Thacker Daniell & Co. forwarded the amount as part of three boxes of gold sent to Jardine Skinner & Co. of Calcutta on 21 June 1864.¹⁸ The *Ettrick* completed the second journey as it did the first. At Newcastle, 580 tons of AAC coal were loaded. The vessel departed Newcastle under the agency of Bingle & Co.¹⁹ The *Ettrick* sailed for Woosung where JM&Co. unloaded the coal for local sale. The *Ettrick* then returned to Hong Kong for the next charter.²⁰

The account of these two journeys of the *Ettrick* in 1863 and 1864 reveal a set of complex relationships. The relationships were tied together by the several merchant firms that were active in the China-Australia trade of 1860 to 1880. They resided throughout the world and not just in China or Australia. In China, the Treaty Ports were enclaves of trade, housing numerous Western merchant firms that provided a link, through compradors, between the Chinese producers and domestic traders in China and the international trading community.²¹ Such firms included JM&Co., as was present in the *Ettrick* story, Augustine Heard & Co. (AH&Co.), Russell & Co., Siemssen & Co. and others. The firms had offices in each of the Treaty Ports. They were linked to either partner houses or parent firms located in the UK, Europe or the United States. Western firms also competed against local Chinese traders who had their own relationships and

¹⁷ Letter from JM&Co. to Thacker Daniell & Co. 27 January 1874 Letters to India JMA C10/56.

¹⁸ Messrs Jardine Matheson & Co. in a/c with Thacker Daniell & Co. 30 June 1864 Accounts & memo: Sydney JMA A8/38/4.

¹⁵ "Shipping." *NCHRDN* 22 June 1864: 2. The company was the same as for the first voyage of the *Ettrick*, but had altered its name.

²⁰ "Shipping Intelligence." North China Herald 13 August 1864: 7.

²¹ Yen-Ping Hao, *The Comprador in Nineteenth Century China: Bridge between East and West.* Cambridge: MA: Harvard University Press, 1970: 2; Yen-Ping Hao, "A "New Class" in China's Treaty Ports: The Rise of the Comprador-Merchants." *The Business History Review* 44, no. 4 (1970): 459; Kuang Yung Pao, "The Compradore: His Position in the Foreign Trade of China." *The Economic Journal* 21, no. 84 (1911): 638, 640; C. G. F. Simkin, *The Traditional Trade of Asia.* London: Oxford University Press, 1968: 279.

strategies in trade.²² The links which both Western and Chinese traders maintained, extended throughout Southeast Asia and to Australia. The colonies of Australia each had their merchant communities, many undertaking trade with the their counterparts in China. The majority of the merchants had Western origins, although the Chinese also had a representation in the trade. The trade with China was patronised extensively by the Australian merchant houses. For example, JM&Co. dealt with correspondence from more than 150 different Australian firms over the two decade period.

Beyond China and Australia were the merchants who assisted in facilitating the trade. In the *Ettrick* story they were the two London-based firms RA&Co. and Matheson & Co. A number of other London merchant houses represented Australian merchants in their dealings with China. Further, in the *Ettrick* story is the Calcutta firm, Jardine Skinner & Co. They provided assistance to JM&Co. in accepting remittances from Australia. Merchants in Singapore, both Western and Chinese, also played an important role in the China-Australia trade. At the beginning of the 1860s, the interaction between merchants in Australia and China together with those in London, Calcutta and Singapore, created a thriving trade relationship. Answering the question how these links were created, maintained and exploited is to the main objective of this study.

The study of the *Ettrick* showed that an apparent bilateral trade relationship existed between Australia and China. Tea was sent from China to Australia and coal was taken from Australia to China. This is the general basic understanding of how commodity trade takes place. The story, though, provides clues that the transactions were more complex. The intervention of the various firms in London, acting on behalf of

²² Alister Bowen, "The Merchants: Chinese Social Organisation in Colonial Australia." *Australian Historical Studies* 42, no. 1 (2011): 35-36; Adam McKeown, "Conceptualizing Chinese Diasporas, 1842 to 1949." *The Journal of Asian Studies* 58, no. 2 (1999): 317; Simkin, *The Traditional Trade of Asia*: 274; Elizabeth Sinn, *Power and Charity: A Chinese Merchant Elite in Colonial Hong Kong*. Hong Kong: Hong Kong University Press, 2003: 84.

Australian and New Zealand merchants, alters the discourse from commodity-driven to that which includes an analysis of finances. The same applies to the Jardine Skinner & Co. connection. Yet, only very rarely does economic history analysis reveal the concomitant financial transactions that were also of importance, as per the *Ettrick* examples. Delving into the two trips and interpreting how the shipments were paid for and how the remittances were completed yields a more intricate and complex account of how these trade relations unfolded. The addition of passing gold to Jardine Skinner & Co. at Calcutta is just one example of the various methods of remittance. This study examines the story of the *Ettrick* and many others, at the transaction level, to create an understanding of how the trade relationship functioned beyond what appears a mere trade of one good for another.

Within the *Ettrick* story are elements of imperial exchange. Those firms outside Australia and China that were involved in the transactions had connections with strong links to the British Empire. The *Ettrick* example demonstrates the importance of the world's centre of finance at the time, London, and the firms at that city to the distant China – Australia trade. Extending remittances to India created another connection to the empire. There, the gold from Australia entered an existing global, multilateral movement of finances involving India, China and the UK with a later connection to the United States.²³ Further, those remittances that were completed in London were then used to purchase goods for export from the UK or elsewhere for the Australian markets.

The introduction of commodities from Australia for the China markets brought about a balance in the trade with tea for some of the Australian colonies. Throughout the first half of the nineteenth century, Australian merchants searched for an export good to send

²³ Takeshi Hamashita, Linda Grove, and Mark Selden, eds. *China, East Asia and the Global Economy: Regional and Historical Perspectives*. New York: Routledge, 2008: 126.

to China. Shipments of tea from China to Australia had created a significant bilateral trade advantage for China.²⁴ By the early 1860s, two goods emerged to counter this imbalance. In New South Wales (NSW), coal was a primary export commodity to ports throughout the world. In Western Australia (WA), sandalwood was an important export commodity to China. Coal and sandalwood exports provided a balance to the tea shipments for the respective colonies in Australia.²⁵ Understanding the trade of these two commodities and of tea provides the basis of this study.

The trade of commodities between Australia and China was more than a simple set of transactions. Numerous institutions were included as part of the transactions. These institutions extended the direct China-Australia trade into a global environment. The connection through London financial banks and firms created an avenue to deliver remittances from trade. Redfern Alexander & Co. in the *Ettrick* story was one firm heavily involved in the trade between China and Australasia as was Jardine Skinner & Co., in Calcutta. Whether in Australia, in London or in Calcutta, financial institutions were vital to the processing of transactions and remittances.

The two *Ettrick* journeys also highlight the use of networks and, through that, the trust that was required for transactions in the China-Australian trade between firms that were physically located at a great distance to be successful. Two of the four transactions were performed as joint shipments between JM&Co. and an Australian merchant firm. JM&Co. trusted the Australian firm to sell the tea at a value that would attain the largest mutual profit, or the smallest loss. Numerous other examples of trust existed in the China-Australian trade. Trust was vital in maintaining relationships as well as solving

²⁴ Sandra Tweedie, *Trading Partners: Australia and Asia 1790-1993*. Sydney: University of NSW Press, 1994: 15.

²⁵ Coal and sandalwood could be termed "staples" in relation to the trade with China. For a discussion on Australia and staples, see: J. W. McCarty, "The Staple Approach in Australian Economic History." *Australian Economic History Review* 4 (1964): 1-22.

problems. The Newcastle Wallsend Coal Company incident was an example of the latter. JM&Co. trusted their agents in Sydney to act on their behalf in recouping money owed to them through a failed transaction.

Numerous actors must have been present in the overall trade relationship between China and Australia, beyond the *Ettrick* story. This realisation raises the questions of who was involved, how did this trade relationship function and how did it relate to China and Australia? The *Ettrick* story shows that people, commodities, institutions and networks each form part of the overall trade relationship. Their analysis throughout this study contributes an answer to the overall question of how the trade relationship between China and Australia took shape and functioned. The analysis creates an understanding of the importance of China to Australia and Australia to China. The *Ettrick* example opens up alternate thinking. Analysing the questions this thesis poses uncovers a different relationship. It was a relationship that was complex with numerous actors present.

An ambiguous relationship

Eric Andrews, in his 1985 book *Australia and China: The ambiguous relationship* discusses the Chinese in Australia from early European settlement to 1985. Andrews sets out his discussion primarily to present the Chinese after 1901. His analysis of the nineteenth century is centred on restrictive immigration, gold mining and racism.²⁶ He leaves the intricacies of the bilateral trade relationship between China and Australia undiscussed. To Australian historians like Andrews, the ambiguous relationship was an understanding of how Australians viewed and reacted to Chinese immigration. "The

²⁶ Eric M. Andrews, *Australia and China: The Ambiguous Relationship*. Carlton, Vic: Melbourne University Press, 1985: 1-34.

Chinese flood," as Andrews termed it, commenced in the early 1850s and continued throughout the remainder of the century.²⁷ It was driven by numerous gold finds – from Victoria to Queensland and from Northern Territory to WA.

Andrews' analysis of the relationship between China and Australia exemplifies the views of many past Australian historians. Like Andrews, these Australian historians have put forward that the China – Australia relationship formed the basis of a discourse related to a white Australia. That discourse created a certain view of the Chinese in the nineteenth century, one that was centred on racism and concerns of untempered immigration. Australian historians have, thus, tended to use the discourse in their development of the the history of Chinese – Australian relationships.²⁸ Thus, the discourse became part of a general paradigm that had the belief that the relationship between China and Australia is, and has been, labelled by historians of Chinese-Australian historians of Chinese "presence" in Australia.²⁹

²⁷ Andrews, *Australia and China*: 5.

²⁸ For a discussion on Chinese migration, exclusion and racial inferiority, see: Persia Crawford Campbell, Chinese Coolie Emigration to Countries within the British Empire. London: Frank Cass & Co., 1971: 56-79; Andrew Markus, "Government Control of Chinese Migration to Australia, 1855-1975." In The Overseas Chinese in Australasia: History, Settlement and Interactions, edited by Henry Chan, Ann Curthoys and Nora Chiang. 69-81. Taipei, Taiwan: Interdisciplinary Group for Australian Studies, National Taiwan University ; Canberra, ACT: Centre for the Study of the Chinese Southern Diaspora, Australian National University, 2001; Andrew Markus, Fear and Hatred : Purifying Australia and California 1850-1901. Sydney: Hale & Iremonger, 1979; Ching-yan Choi, Chinese Migration and Settlement in Australia. Sydney: Sydney University Press, 1975; Kathryn Cronin, Colonial Casualties : Chinese in Early Victoria. Carlton, Vic: Melbourne University Press, 1982; Myra Willard, History of the White Australia Policy to 1920. 2nd ed. Melbourne: Melbourne University Press, 1967; Anthony C. Palfreeman, The Administration of the White Australia Policy. Melbourne: Melbourne University Press, 1967; Alexander T. Yarwood, Asian Migration to Australia: The Background to Exclusion, 1896-1923. Melbourne: Melbourne University Press, 1964; Ann Curthoys, "Conflict and Consensus." In White Are Our Enemies? Racism and the Working Class in Australia., edited by Ann Curthoys and Andrew Markus. 48-65. Sydney: Hale and Monger, 1978; Charles A. Price, The Great White Walls Are Built : Restrictive Immigration to North America and Australasia, 1836-1888. Canberra: The Australian Institute of International Affairs in association with Australian National University Press, 1974.

²⁹ Robert Macklin, *Dragon & Kangaroo: Australia and China's Shared History from the Goldfields to the Present Day*. Sydney: Hachette, 2017: back cover. See the review by Richard Rigby.

A new discourse was initiated by a plea from historian Jennifer Cushman in 1984.³⁰ Cushman argued that the study of Chinese in Australia should be viewed through a mirror. The Chinese Australians were individuals who should be regarded as individuals and should be viewed as we would view ourselves and not as a race. Cushman's work established a new flurry of historical and archaeological studies.³¹ One historian, Adam McKeown, gave the new discourse a label. He defined it as an emerging discipline of "Chinese Australian Studies." ³² The discipline, however, remained within the parameters of the existing paradigm of Chinese-Australian history as nearly all historians continued the story of the Chinese in Australia.

³⁰ Jennifer Cushman, "A 'Colonial Casualty': The Chinese Community in Australian Historiography." *Asian Studies Review* 7, no. 3 (1984): 101; For an appraisal of Cushman, see Henry Chan, "Becoming Chinese but Remaining Australian: The Future of the Down Under Chinese Past." In *The Overseas Chinese in Australasia: History, Settlement and Interactions*, edited by Henry Chan, Ann Curthoys and Nora Chiang. 1-15. Taipei, Taiwan: Interdisciplinary Group for Australian Studies (IGAS), National Taiwan University; Canberra, ACT : Centre for the Study of the Chinese Southern Diaspora, Australian National University, 2001: 3.

³¹ For discussions highlighting the Chinese from the Chinese perspective and as Chinese in Australia, including pre-1984 works, see: John Fitzgerald, Big White Lie: Chinese Australians in White Australia. Sydney: University of New South Wales Press, 2007; Yuanfang Shen, Dragon Seed in the Antipodes : Chinese-Australian Autobiographies. Melbourne: Melbourne University Press, 2001; Ye Sang, The Year the Dragon Came. St. Lucia, Qld: University of Queensland Press, 1996; Shirley Fitzgerald, Red Tape, Gold Scissors : The Story of Sydney's Chinese. Sydney: State Library of New South Wales Press, 1997; Christine Inglis, "Chinese in Australia." The International Migration Review 6, no. 3 (1972): 266-81; Shaoqing Cao, "From Mutual Aid to Public Interest: Chinese Secret Societies in Australia." Translated by Duncan Campbell. In After the Rush : Regulation, Participation and Chinese Communities in Australia, 1860-1940, edited by John Fitzgerald, Sophie Couchman and Paul Macgregor. 133-51. Kingsbury, Vic: Otherland Literary Journal, 2004; Barry McGowan, Tracking the Dragon : A History of the Chinese in the Riverina. Wagga Wagga, NSW: Museum of the Riverina, Wagga Wagga, 2010; Janis Wilton, Golden Threads: The Chinese in Regional New South Wales, 1850-1950. Armidale, N.S.W.: New England Regional Art Museum in association with Powerhouse Pub., 2004. For Chinese Australians from an archaeological perspective, see: R. Ian Jack, "The Contribution of Archaeology to the History of the Overseas Chinese." In Chinese in Australia and New Zealand : A Multidisciplinary Approach, edited by Jan Ryan. New Delhi: New Age International Publishers, 1995; Jane Lydon, 'Many Inventions' the Chinese in the Rocks, Sydney, 1890-1930. Clayton, Vic: Monash Publications in History, 1999; Virginia Esposito, Rice Bowls and Dinner Plates : Ceramic Artifacts from Chinese Gold Mining Sites in Southeast New South Wales, Mid 19th to Early 20th Century. Oxford: Archaeopress, 2014; Barry McGowan, Bungonia to Braidwood : An Historical and Archaeological Account of the Shoalhaven and Mongarlowe Goldfields. Canberra: Barry McGowan, 1996; Barry McGowan, Lost Mines Revisited : Historic Mining Communities of the Monaro, Southern Tablelands and South West Slopes Districts of New South Wales. Canberra: Barry McGowan, 1996. ³² Adam McKeown, "Introduction: The Continuing Reformulation of Chinese Australians." In *After the*

³² Adam McKeown, "Introduction: The Continuing Reformulation of Chinese Australians." In *After the Rush : Regulation, Participation and Chinese Communities in Australia, 1860-1940*, edited by John Fitzgerald, Sophie Couchman and Paul Macgregor. 1-9. Kingsbury, Vic: Otherland Literary Journal, 2004: 7.

A few historians have chosen to open avenues to investigate trade relationships by Australians with China. Recently, Ben Mountford, in his 2016 book *Britain, China and Colonial Australia*, investigates how Australia engaged with China since 1788 and how that related to British Far Eastern interests.³³ Mountford uses a political lens to open up a narrative of this relationship. In the opening chapter, Mountford views the position of the new European settlements of Australia as a route towards China from England. His emphasis was that of trade with Western merchants in Canton in the early 1800s and later in the Treaty Ports.³⁴ Mountford's analysis of trade from the mid-nineteenth century onwards is halted as he then returns to the discourse of analysing Chinese immigration to Australia. The political dependence of his work meant that trade was no longer the focus. This thesis will take up the thread that Mountford commenced.

Chinese merchants were part of the general discussion of the Chinese in Australia. They imported goods for the Chinese miners, assisted with their migration to Australia and their return home to China, and worked with Western merchants. For instance, Chinese merchants were ever-present in the port of Cooktown, North Queensland in the mid-to-late 1870s.³⁵ Kevin Rains' 2005 doctoral thesis on the Chinese in Cooktown elaborates on this topic. The Chinese were the consignees of goods imported and exported. They were not, however, the importing or exporting agents. That task was completed by the few Western merchants. Rains proposes that the Western merchants were heavily involved in the trade with China acting as "intermediaries" within joint

³³ Benjamin Mountford, Britain, China and Colonial Australia. Oxford: Oxford University Press, 2016.

³⁴ Mountford, *Britain, China and Colonial Australia*: 7-45. Mountford uses extensive correspondence from JM&Co. to describe the connections from 1819 onwards. The chapter only explains the trade until the commencement of the gold rushes in Victoria in the early 1850s.

³⁵ For a discussion on Cooktown and the Palmer River goldfields, see Robert Ormston. "The Rise and Fall of a Frontier Mining Town: Cooktown 1873-85." PhD. University of Queensland, 1996; Kevin Rains. "Intersections: The Overseas Chinese Social Landscape of Cooktown, 1873-1935." PhD. University of Queensland, 2005. Noreen Kirkman, "From Minority to Majority: Chinese on the Palmer River Gold-Field, 1873-1876." In *Race Relations in North Queensland*, edited by Henry Reynolds. Townsville: James Cook University, 1993.

Chinese/Western ventures.³⁶ The Chinese merchants took advantage of these ventures. Rains adds that they made use of Western methods of transport, communications and banking. They also used the postal system to send gold to China.³⁷

Research similar to Rains' in-depth analysis of Chinese mercantile activity of the late nineteenth century is rare. A few biographical publications on specific Chinese merchants in Australia offer some further details. Two Chinese merchants, Lowe Kong Meng of Melbourne and Quong Tart of Sydney, have been analysed, although Tart's primary mercantile work was after 1880.³⁸ Meng, though, was heavily engaged in the interaction between Hong Kong and Melbourne even before 1860. He owned a number of vessels and acted as an agent for shipments to and from China.³⁹ Meng also cooperated with the Western merchants in Victoria.⁴⁰

Sandra Tweedie summarised the analysis of Western mercantile activity between Australia and China in her 1994 book on trade between Australia and Asia from first European settlement to 1993. As with Andrews, she accorded the nineteenth century minor attention, indicating that bilateral trade was minimal. Tweedie further dismissed both sandalwood and coal as key export commodities from colonial Australia to China throughout the second half of the nineteenth century. She summarised that sandalwood

³⁹ Macgregor, "Lowe Kong Meng and Chinese Engagement"

³⁶ Rains, "Intersections.": 268.

³⁷ Rains, "Intersections.": 198-99.

³⁸ Robert Travers, Australian Mandarin: The Life and Times of Quong Tart. Sydney: Kangaroo Press, 1981; Margaret Tart, The Life of Quong Tart: Or, How a Foreigner Succeeded in a British Community. Sydney: W. M. Maclardy, 1911; Macklin, Dragon & Kangaroo. Macklin devotes much of his research to Quong Tart. Paul Macgregor, "Chinese Political Values in Colonial Victoria: Lowe Kong Meng and the Legacy of the July 1880 Election." Journal of Chinese Overseas 9 (2013): 135-75; Macgregor, Paul. "Lowe Kong Meng and Chinese Engagement in the International Trade of Colonial Victoria." Provenance, no. 11 (2012). https://www.prov.vic.gov.au/explore-collection/provenance-journal/provenance-2012/lowe-kong-meng-and-chinese-engagement. (cited 4 April 2014).

⁴⁰ Lowe Kong Meng and Louis Ah Mouy were founders of the Commercial Bank of Australia. Macgregor, "Chinese Political Values.": 143.

was not "the much needed staple"⁴¹ for early colonial hopes and that the coal trade to China was negligible.⁴² Tweedie substantiated her conclusions with colonial trade statistics over a longer period than this current work. Interpretation at the transaction level allows this study to question Tweedie's conclusions.

Viewing Tweedie's conclusions raises the question why historians have neglected the trade relationship between China and Australia? One answer lies in how Australians, both at the time and historians who have written about the nineteenth century, define China. For many, it has been the Chinese in China only. Yet, Australia's direct relationship with China in the nineteenth century was almost never with the Chinese. They were hidden behind the gateway that was the Treaty Port system.⁴³ Australians, whether Chinese or Westerners, had to deal with and through this system. To Australians it was a system where Western merchants in the Treaty Ports were at the forefront.⁴⁴ Thus, trade between Australia and China was trade with the Treaty Ports. The "Chinese in Australia" discourse that flows through the historiography of Chinese-Australians has, at best, bypassed any connection with the Treaty Port system. This reasoning provides one explanation of why the trade relationship has been discounted and neglected.

The Treaty Port system was integral in creating an understanding of trade between Australia and China. It consisted of numerous Western and Chinese merchants. For Australia, the Western merchants were the contact at the ports. Firms such as JM&Co., AH&Co., Russell & Co. and others traded with Australian firms on a regular basis.

⁴¹ Tweedie. *Trading Partners*: 15.

⁴² Tweedie. *Trading Partners*: 21.

⁴³ McKeown, "Conceptualizing Chinese Diasporas.": 313.

⁴⁴ Jürgen Osterhammel, "British Business in China, 1860s-1950s." In *British Business in Asia since 1860*, edited by Geoffrey Jones and Richard P. T. Davenport-Hines. 189-216. Cambridge: Cambridge University Press, 1989: 191-92. Osterhammel states that the entire foreign trade of China was handled by foreign firms.

Australia's first connection with JM&Co. was late in 1819 through a shipment of tea on the *Marquis of Hastings*.⁴⁵ The vessel arrived in Sydney on 5 April 1820.⁴⁶ Its cargo consisted of sugars and teas of various kinds.⁴⁷ Thereafter Australian merchants strived to attain a close relationship with the merchant houses of JM&Co. and others.⁴⁸ By the early 1830s, JM&Co. had their own agents in Sydney. Towards the end of that decade, JM&Co. also began collaborating with another prominent Sydney merchant, Henry Moore & Co. It was a partnership that would last through the 1860s and 1870s.⁴⁹

Historians of the Treaty Port merchants in the second half of the nineteenth century have rarely given attention to any connections with Australia. Throughout the individual histories of the merchant houses, the Australian colonies receive no mention or, at best, a fleeting glimpse. The published histories of JM&Co., AH&Co. or Russell & Co. reveal no interest in the connection with Australia.⁵⁰ A brief, though out-dated, analysis of the connection between JM&Co. and the Asia-Pacific region from the perspective of those in the Asia-Pacific region was produced by Jane Roth in 1967. That discussion only provides bare details of what is available in the JM&Co. archives.⁵¹ The rare counter example is that of John Samuel Swire. Swire was very interested in the gold

⁴⁵ Mountford, Britain, China and Colonial Australia: 31.

⁴⁶ Ship News." SGNSWA 5 April 1820:4.

⁴⁷ SGNSWA 8 April 1820: 2. See advertisement in column 3. Based on advertising in later editions of the same newspaper, Robert Campbell Jn. appears to be the consignee of most of the cargo. SGNSWA 22 April 1820: 2.

⁴⁸ "Messrs. Charles Magniac & Co. in account current with Robert Campbell Co." 29 December 1824 *Current accounts: Australia JM A8/48/1*. Magniac & Co. were the precursor of JM&Co.

⁴⁹ Mountford, *Britain, China and Colonial Australia*: 33.

⁵⁰ See: Robert Blake, Jardine Matheson: Traders of the Far East. London: Weidenfeld & Nicholson, 1999; Carol Matheson Connell, A Business at Risk: Jardine Matheson and the Hong Kong Trading Industry. Westport, CT: Praeger Publishers, 2004; Carol Matheson Connell, "Jardine Matheson & Company: The Role of External Organization in a Nineteenth-Century Trading Firm." Enterprise & Society 4, no. 1 (2003): 99-138; Carol Matheson Connell, "Entrepreneurial Enterprise and 'Image' in the Nineteenth-Century Trading Firm: Shaping the Legal Environment for Business." Business History 48, no. 2 (2006): 193-219; Alan Reid, "The Steel Frame." In The Thistle and the Jade: A Celebration of 150 Years of Jardine Matheson & Co., edited by Maggie Keswick. 11-49: Hong Kong, 1982. Maggie Keswick, ed. The Thistle and the Jade: A Celebration of Jardine, Matheson & Co. London: Octopus, 1982; Stephen Cameron Lockwood, Augustine Heard and Company, 1858-1862; American Merchants in China. Harvard East Asian Monographs. Cambridge, MA: East Asian Research Center, Harvard University, 1971; Robert W. Lovett, "The Heard Collection and Its Story." The Business History Review 35, no. 4 (1961): 567-73.

⁵¹ Jane Roth, "The Jardine Matheson Archive." Journal of Pacific History 2 (1967): 172-74.

discoveries in Victoria in the 1850s.⁵² He set up a branch of his company in Melbourne titled Swire Brothers & Co. That company and its later iterations, became the primary agent for Swire in Australia.⁵³ This neglect has created a gap in the history of these Treaty Port firms that the current study intends to fill.

Presentation of study

The current study is developed to answer the questions presented above and to fill the gaps in historical research identified above. There are six chapters. Three primary chapters on commodities sit in the middle. They are preceded by a discussion of the transport methodology and succeeded by a discussion of the development and role of trust and networks in trade relations. Leading into these five chapters is a preliminary discussion creating a context for the remainder of the study. Each chapter addresses a distinct set of questions. The commodities chapters overlap to some degree. This, however, is not significant as the trade of each commodity was structured quite differently. Only the method of remittance has similarities. The structure of the three core chapters follow a similar, set format. Each will include a statistical background for a descriptive history of the trade. Each will then analyse how the trade was performed. Finally, each will discuss how the remittances necessary to conclude trade deals were concluded.

The trade connection between colonial Australia and China was unique. The colonies of Australia were developing and their supply of exports and demand for imports altered significantly during each decade in the nineteenth century. This was very much the case following the gold rushes of the 1850s. Chapter one opens up the elements of the trade

⁵² Sheila Marriner, and Francis E. Hyde, *The Senior John Samuel Swire 1825-98: Management in Far Eastern Shipping Trades.* Liverpool: Liverpool University Press, 1967: 13-15.

⁵³ Marriner and Hyde, *Senior John Samuel Swire*: 50.

for discussion to create a context for the remainder of the study. In China, the Treaty Port system was the mainstay of trade. The chapter asks how the Treaty Port system was devised and how it related to Australia. Specifically, how did the Treaty Port system act as a door to the Chinese for the products that Australia exported to China or imported from China? At the other end of the trade, the chapter examines the trade system that existed in Australia. For both China and Australia, the chapter asks who was involved and why they became interested in trading with China? To tie up the trade relationships, the chapter investigates the connections that existed for merchants in the 1860s and 1870s. Specifically, the analysis relates to the institutions that governed the behaviour of producers and traders in the industry.

Merchants throughout the world have had the desire to minimise transaction time and costs. Shortness of turnover of transactions led to more trade. For merchants of the 1860s and early 1870s, the connection between China and Australia was impeded by the necessity to use sail for transport. Advancements in marine technology together with a mail contract in 1873 created, for merchants in China and Australia, a breakthrough in transport. That breakthrough involved steamers traversing the Torres Strait to get from the primary markets of colonial Australia's east coast to China. It was a shorter distance than the traditional eastward, through the Pacific, or westward, via Cape Leeuwin, journeys. Use of this route led to improvements in transaction time. Chapter two investigates the development of the new route. The chapter answers questions relating to the importance of choosing such a route. The chapter ventures to establish how the advancement of maritime transport technology led to a transition from sail to steam on the journeys between China and eastern Australia. It also asks how the route was eventually opened as a permanent trade route, what previous efforts were employed and

who was involved. The answers provide a foundation for the analysis of how commodities were actually moved between Australia and China.

An important prerequisite for the transition from sail to steam was the availability of coal. NSW was the primary coal producing colony of nineteenth century Australia. Most of the coal mined was exported. China was one of the two biggest international importers during the 1860s and 1870s period, only behind New Zealand. Chapter three therefore analyses the coal trade with China. The chapter commences by asking why merchants in China were interested in NSW coal and how merchants in NSW worked to satisfy this demand. Statistical data is then provided to divulge what differences occurred between the exports from the two coal exporting ports of Sydney and Newcastle. That creates a descriptive picture of the trade of coal to the Chinese ports. These results, when combined with the available qualitative material, made up mainly of company correspondence and government documents, substantiate explanations of why or how the trade of coal varied throughout the 1860s and 1870s. Completing each transaction were the remittances. How were these fulfilled within the trade relationship? Chapter 3 concludes by interpreting how firms in different parts of the world interacted and became part of the Australia to China coal trade.

The trade of WA sandalwood to China was quite different to that of coal. The specific end consumers were the Chinese. They were serviced by the merchants in Shanghai more than any other Chinese port. That is, the trade of sandalwood was from WA to Shanghai. However, the route also included ports in between where the wood was purchased and transhipped towards Shanghai. The main intermediary ports were Singapore and Hong Kong. The first question posed in Chapter four relates to the route that sandalwood took from WA to China. The route reveals that both Chinese and Western merchants were active in the sandalwood trade at each of the ports along the route. The chapter searches for answers relating to who was involved and what their aims were. Through this is developed an understanding of the market forces present and the strategies underpinning these forces. Owing to this complexity and the markets in WA, the methods of remittances varied. Some had connections to London firms, but unlike the coal trade, these were particularly pertinent to future transactions between London and WA.

Coal and sandalwood were the two primary commodities imported by China from Australia. Tea was the primary export from China to Australia. In Chapter five the trade of tea to Australia is investigated. The emphasis of the chapter is not on how the trade related to China. Instead, it looks at an element of the trade that existed with at least two of the Western merchants in China. That was the use of joint-account transactions with Australian merchants. This chapter investigates who was involved, how they were involved and how the joint-account transaction process was completed. The system by which payments for tea shipments were effected was complex itself. The adventures into joint-account shipments added another step. For JM&Co., that step involved the transfer of gold to India as a method of payment. Why India? The chapter answers this question together with an assessment of who was involved in the movement of gold. The chapter is extended to explore the trade of sugar from China to Australia and how these imports added to the discussion of the usage of gold shipments to India.

Chapter six ties up the previous three core chapters through an analysis of the networks of producers and merchants that maintained trading relations and the relevant mutual trust that sustained these networks to mutual advantage. The chapter uses Granovetter's theoretical conceptualisation of 'Triadic Closures' to analyse this issue.⁵⁴ Granovetter analysed strong and weak ties, bringing them together as triangles of trust networks. Amongst the problems of developing strong networks is poor communication. The question of how did communication alter throughout the period is explored first in this chapter. The chapter then focuses on analysing what are the different types of transactions and how these relate to networks and trust. Examined are single, joint and inter-relationship transactions. The chapter uses this analysis and asks how these networks and trust levels were used to solve problems that eventuated through other transactions. Finally, the chapter extends network ties within a hierarchical framework. It investigates how the strength of trade relationships could proceed up a hierarchical ladder through further improvements of networks and trust.

Methodological review

The history of trade relationships between China and Australia during the 1860s and 1870s is essentially unknown. To understand these relationship requires a reconstructive history.⁵⁵ This study develops a narrative through a detailed research of primary sources. These primary sources deliver reliable facts that allow a reconstruction of numerous discourses and the development of respective conclusions. They feed the general narrative that is based around the thesis questions. For example, in the *Ettrick* story the fact that RA&Co. were involved in transactions during both the 1863 and 1864 journeys is the basis for an existing dialogue of the connection between London firms and the China-Australia trade relationship. The general narrative of the trade relationship, therefore, is enhanced through the reconstruction of the transaction, from its initiation to

⁵⁴ Mark Granovetter. "The Strength of Weak Ties." *American Journal of Sociology* 78, no. 6 (1973): 1360-80.

⁵⁵ For a detailed discussion on reconstructive, constructive and deconstructive history, see Douglas Booth, *The Field: Truth and Fiction in Sport History*. London: Routledge, 2005.

its conclusion. This study, thus, relies on facts to explain what happened and draws conclusions as to why it happened.⁵⁶

An interdisciplinary approach is also required to promote the narrative. The study draws on insights from a mixture of historical sub-disciplines. Included within this study are elements of economic and business history, maritime history, Australian history, China Treaty Port history, Chinese mercantile history and the histories of various commodities. The study integrates these insights into a basis for a more comprehensive understanding of the answers to the thesis questions. These insights are also integrated and coherent, thus separating the study from one that is multi-disciplinary.⁵⁷ Analysing the China-Australia trade relationship at the transaction level treads beyond the dispersal of bilateral statistics. It pushes the study towards other concerns, sub-disciplines that enhance the above results. The *Ettrick* story encompasses elements of maritime history through the vessel journeys, business history in the transactions, commodity history and, above each, economic sociology through the networks and trust relationships. What the Ettrick story delivers, within interdisciplinarity, is a "complex system" where the pattern of behaviour, in this case the method of completing the transaction, is shown to be consistent.⁵⁸ This study not only understands that a pattern exists but investigates why the behaviour of protagonists exhibits that pattern.

⁵⁶ Booth, *The Field*: 9, 26-27.

⁵⁷ William H. Newell, "A Theory of Interdisciplinary Studies." *Issues in Integrative Studies* 19 (2001): 2. The issue of this journal contains a number of other papers discussing Newell's theories and a response from Newell. Newell further explains that "the boundaries between disciplines are in (small) part the result of historical accident or evolution of the disciplines as socio-political organisations, but they also reflect differences in reality." Newell believes that each discipline "has developed concepts, theories, and methods uniquely adapted to the portion of reality it has chosen to study. The delimited focus of each discipline has yielded not only narrowness of vision but also power of explanation." William H. Newell, "Reply to the Respondents to "a Theory of Interdisciplinary Studies"." *Issues in Integrative Studies* 19 (2001): 145-46.

 ⁵⁸ Newell, "A Theory of Interdisciplinary Studies.": 8-9, 20; Newell, "Reply to the Respondents.": 144; S. Bailis, "Contending with Complexity: Responding to William H. Newell's "a Theory of Interdisciplinary Studies"." *Issues in Integrative Studies* 19 (2001): 36; J. L. Mackey, "Another Approach to Interdisciplinary Studies." *Issues in Integrative Studies* 19 (2001): 59-70.

The current study is one that takes a historical perspective of economic and trade history. In using both quantitative and qualitative data to recreate the past, the study interprets the information gathered and analyses the data to reach conclusions. That is, the study interprets the facts and doesn't attempt to create theories to fit with the data. Alfred D. Chandler Jnr. wrote over half a century ago that there are distinct differences between economists and historians in the way that they view data and create solutions to economic history.

The economist concentrates on the manipulation of numbers so as to provide useful theories about changes or trends in prices, income, wages, capital formation, and such-theories which help to make understandable the economic process of production, distribution or investment, and the relationships between them. .. The historian, on the other hand, attempts to re-create from the written records a human situation that existed in the past. .. He is particularly fascinated .. by the interrelationship between personalities, social systems, and cultural attitudes.³⁵⁹

That is, to Chandler, the historian "merely hopes to re-create, or partially, re-create, some small part of man's activities in the past" and that the historian "should leave the matter of predicting what might have happened in the past to the economist."⁶⁰ In this study, these "men" are the merchants and firms who were involved in the trade relationships.

That is not to say that the role of economic and business histories are to be discounted. They provide relevant definitions of terms relating to transactions.⁶¹ The business cycle, exchange rates, freight rates and others each play their part within this study. Similarly,

⁵⁹ Alfred D. Chandler, "Comment." *Explorations in Entrepreneurial History* 6, no. 1 (1968): 67-68.

⁶⁰ Chandler, "Comment": 68, 72.

⁶¹ For a discussion on economic and business history, see, for example: Gordon Boyce, and Simon Ville. *The Development of Modern Business*. New York: Palgrave, 2002; Joseph Alois Schumpeter, *Business Cycles : A Theoretical, Historical and Statistical Analysis of the Capitalist Process*. New York: McGraw-Hill, 1939; Fritz J. Redlich, J. D. Glover, Arthur M. Johnson, George Rogers Taylor, and Richard C. Overton. "Approaches in Business History." *The Business History Review* 36, no. 1 (1962): 61-86; Christopher Lloyd, "Analytical Frameworks of Australia's Economic History." In *The Cambridge Economic History of Australia*, edited by Simon Ville and Glenn Withers. 52-69. Melbourne: Cambridge University Press, 2015; Randall Morck, and Bernard Yeung. "Economics, History, and Causation." *The Business History Review* 85 (2011): 39-63.

the methods used by businesses, the networks that are created and maintained and the respective relationships and requirements of trust each play an important role throughout this study. As an interdisciplinary study, economic and business history provide assistance to the study's analysis. That said, they do not dominate the study, nor govern it. Instead, the narrative employs relevant selections of economic and business history to develop an overall picture of the trade relationships between China and Australia from 1860 to 1880.

The connection between China and Australia through trade is presented here using descriptive and analytical methods of history. Descriptive history provides an understanding of the facts based on quantitative and empirical data. It allows for the construction of tabular or graphical representations by means of mathematical models, especially statistics, to support arguments.⁶² The method answers the questions of where, when, who and what by gathering, interrogating and verifying factual evidence. On the other side is analytical history. It searches for causes of history and the choice to use concepts, comparisons and contexts to build arguments around. It is here where the how and why questions are proposed.⁶³ Historians, however, are not delimited by one category. The historian may, as Louis Gottschalk affirms, "be in both groups at the same or different times even though he may emphasize his adherence to one rather than the other."⁶⁴ This study employs a descriptive history to determine the extent of the

⁶² Kaya Yilmaz, "Comparison of Quantitative and Qualitative Research Traditions: Epistemological, Theoretical and Methodological Differences." *European Journal of Education* 48, no. 2 (2013): 311.

⁶³ Booth, *The Field*: 6. Booth's book discusses the theory behind sport history, although his work is also trying to implant that sub-discipline within the overall history field of study and thus there are numerous overlapping theories. In the case here, Booth is using the work of another sport historian, Nancy Struna to explain where sport historians place themselves. See: Nancy Struna, "Historical Research in Physical Activity." In *Research Methods in Physical Activity*, edited by Jerry Thomas and Jack Nelson. 251-75. Champaign, IL: Human Kinetics, 1996. Louis Gottschalk in the early 1960s, as the Chairman of the Committee on Historiography of the Social Science Research Council, used the term "theoretical historian" instead of "analytical historian" stating that "they try to find in their subject matter a basis for comparison, classification, interpretation or generalization." Louis Gottschalk, ed. *Generalizations in the Writing of History*. Chicago: University of Chicago Press, 1963: v.

⁶⁴ Gottschalk, Generalizations in the Writing of History: v.

trade of a commodity. The study also engages analytical history in understanding the transaction methods and how they defined the trade.

Sources

The gathering of large data sets of information is important to analysing the history of trade. This study is no less an example of a collection of such evidence. It uses a combination of quantitative and qualitative data. The quantitative data are presented as graphs and tables. These data were obtained from a variety of sources. Three used in the study are government records, shipping data from newspapers and commercial summaries. The qualitative data was primarily found in the business archives of firms involved in the China-Australia trade. Those records accessed for this study were related to correspondence and finance. Government reports and Parliamentary debates supplemented the other qualitative sources.

Government statistical records create a source for annual summaries of shipping, imports, exports and other related trade data including duties and tariffs. Individual colonial governments provided statistical information to the Colonial Office in London.⁶⁵ That information was in the form of *Blue Books* or *Statistical Records*.⁶⁶ This study extracts information from various government records and summarises that in the form of graphs and tables. The primary problem with using the statistical data was a lack of standardisation in their presentation. The standardisation of information specific

⁶⁵ They were published in sets of *Statistical Tables*. Summaries were also published in *Statistical Abstracts*. These two variants of the tabular information were initially published on an annual basis. By 1875, the publication was standardised to be for every three years.

⁶⁶ Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part XVI. (1876-7-8.) House of Commons, no. C.2867 (1881) London: G.E. Eyre and W. Spottiswoode, 1881: iii. "The original returns from the Colonies are, broadly speaking, of two kinds, namely, the Blue Books, which are furnished by most of the Crown Colonies according to forms supplied by the Colonial Office after consultation with this Department, and the Statistical Registers and other documents which are usually published in the larger Colonies where there is responsible Government."

to the Australian Colonies only commenced following an 1875 conference held in Tasmania.⁶⁷ Thus, the complete compilation of statistics for the individual colonies required, in some cases, estimations.⁶⁸

Newspapers located in China and Australia included both transport and trade data. Shipping lists of the time commonly contained the destination or origin of vessels as well as the import and export data for each individual vessel. Shipping agents were commonly included. The above information has been analysed to create trade data for individual ports. It thus provides a supplement to government statistics.⁶⁹ The newspapers were commonly missing data. That led, in some cases, to incomplete data sets. Newspapers also refined the information over time. Limited information was published towards the end of the 1860-1880 period.⁷⁰ Where more than one newspaper provided the same data, the problem of incomplete information could be overcome.⁷¹

Commercial summaries were of the form of *Prices Current* circulars, *Commercial Reports* located in newspapers and commercial information included at the end of communications between merchants. *Prices Current* circulars have existed since the eighteenth century containing enumeration of various merchandise with details of their

⁶⁷ Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part XV. (1871-2-3-4-5.) House of Commons, no. C.20329 (1878) London: G.E. Eyre and W. Spottiswoode, 1878: iii. Although an agreement was made for uniformity in compiling statistics, the final decision for conformity with the agreement did not take place for a few more years.

⁶⁸ In the case of Western Australia, the value of exports per destination was not provided. That value was calculated based upon the quantity of the commodity, the total quantity and the total value.

⁶⁹ For example, a breakdown of the exports of coal from both Newcastle and Sydney in New South Wales to both Hong Kong and to Shanghai, creates four different sets of data and allows for a more comprehensive understanding of the movement of coal from New South Wales to the Chinese ports.

⁷⁰ There was a noticeable declination in the amount and type of information available towards the latter part of the period and with certain newspapers either merging with others or going out of business with, what appears, altered editorial focus, the gathering of complete information from newspapers published in the late 1870s became difficult.

 $^{^{71}}$ For example, where there were missing issues or no information provided in the Newcastle, NSW papers relating to exports of coal, certain Sydney newspapers could assist in possessing the missing information. Similarly, in Sydney, all three newspapers – *Sydney Mail, Empire* and *SMH* were required access to obtain complete information.

price, duties, where applicable, and supply.⁷² They became quite sophisticated. By the mid-nineteenth century, the *Prices Current* circulars were used as detailed market tools.⁷³ The circulars from Augustine Heard & Co. collection provide various information for this study.⁷⁴ Included in the circulars were: detailed analysis of the various commodities being exported from China; the latest pricing details for goods sent to and received from Australia; the value of charters of vessels en-route to Australia; and the shipping lists to and from Hong Kong. The detailed shipping details for vessels carrying tea from the various Chinese ports to Australia included, for each vessel, information on the size of the tea cargo in pounds. The pricing details for specific commodities imported to Hong Kong and the size of the tea cargo were summarised for this study. Similarly, the *Commercial Reports* and other commercial information provided by merchants assisted in creating other data sets.

The qualitative data for this study was primarily sourced from a number of business archives. Only a small group of merchant firms have retained their records. Preservation of records was not a specific requirement for all firms. Those firms that were created through political devices were, by the enabling act or by charter, required to keep certain records.⁷⁵ For example, AAC have archives located in England and Australia.

⁷² Mary G. Mason, "Aspects of the Trade between China and America, 1840-1870." *Bulletin of the Business Historical Society* 10, no. 2 (1936): 27.

⁷³ Michael Aldous, "Rehabilitating the Intermediary: Brokers and Auctioneers in the Nineteenth-Century Anglo-Indian Trade." *Business History* 59, no. 4 (2017): 537. Aldous stated that by "1850 the reports examined long-run trends, underpinned by statistical data and used increasingly nuanced methods of analysis."

⁷⁴ Prices Current P945 Cartons 31-33 AHA. These cartons are not part of the general AH collection, *AH MS766* which are all on microfilm. The Prices Current circulars had not been digitized at the time they were accessed and were located in a set of boxes that required a special request for access. The circulars are from late in the 1859-60 season until the end of the 1875-76. At the conclusion of each season a summary was provided for that season and the previous few. Lockwood describes AH&Co.'s Prices Current. "Heard's circular, "Prices Current," contained factual information about the state of commerce in China: current stocks if imports on had, sales to date, prices of all products at the several ports, exports to date, and important political news. Heard's circular was made up on cooperation with several other houses, the Customs, and the newspapers. It was sent to constituents in the West on the fortnightly mailboat." Lockwood, *Augustine Heard and Company*: 11.

⁷⁵ John Armstrong, and Stephanie Jones. *Business Documents: Their Origins, Sources and Uses in Historical Research*. London: Mansell Publishing Limited, 1987: 3.

Their records, however, are limited to reports and similar documents. Preserving a copy of all correspondence with foreign firms was not specifically required by law. Financial statements relating to transactions were another item rarely found in firms similar to AAC.⁷⁶ For most private firms in Australia, any requirement has been non-existent.⁷⁷ British and American companies, with offices in the Chinese Treaty Ports, have extensive records in their archives. The primary company archives sourced for this study include JM&Co., AH&Co. and Russell & Co. in UK and American archives and AAC and Robert Towns & Co. in Australia.

The most important record that has been used in this study is the correspondence between merchants in China and those in Australia. The lack of Australian merchant records has led to an alternate method for research. This study interprets outward correspondence from Australian merchants by viewing the inward correspondence of the Treaty Port firms. The letters from Australian firms creates a semblance of how the colonial Australian merchant houses proceeded with their work in the trade.⁷⁸ Both British and American firms retained significant records of their trade with Australian merchant firms. The records, however, are incomplete with large gaps in the archives of the American firms. The JM&Co. archive is also missing inward correspondence for specific years relating to certain geographical regions of Australia.⁷⁹ Viewing related outgoing correspondence from China delivers one method to overcome this problem.

⁷⁶ The Australian Agricultural Company archives are split between various sites, including the Mitchell Library in Sydney and the Noel Butlin (ANU) Archives located in Canberra.

⁷⁷ The primary example, and perhaps only example in Australia, is the Robert Towns collection at the Mitchell Library in Sydney.

⁷⁸ The amount of correspondence and other items could be developed in to individual archives for each company, or at least these could be catalogued as such for future researchers, such is its abundance for certain firms.

⁷⁹ There were no inward letters from Victoria for 1862.

Correspondence exists in the "out" and "in" *Letter Books*. The purpose of the "out" letter books were to act as a file copy of the letters sent, a reminder of what had transpired in the transaction, and, on occasions, as evidence for legal proceedings. The "in" letter book generally contained the original letters, some with notes scribbled upon, and only when those letters had been attended to.⁸⁰ Thus, a transaction between merchants in China and Australia could be traced from its instigation, as an indent or an initial notice of transport of a commodity, to its culmination following the fulfilment of the requirements of the remittance.

Various documents became complementary to the correspondence assisting with the analysis of transactions. One such were the Treaty Port firms' financial records. These included invoices and transaction statements that created a monetary path for the transaction.⁸¹ JM&Co.'s invoices also divulged the names of the Chinese tea traders involved in the initial transactions.⁸² In these documents, companies were designated symbols or marks to differentiate their cargoes from others.⁸³ Another document was the six-monthly account for each of the primary merchant houses in Australia. Through these documents can be found the payments, or acceptances of payments, by the Australian merchants to various other firms on behalf of JM&Co.⁸⁴ They included the list of individual gold shipments from Australia to Calcutta on behalf of JM&Co.

⁸⁰ Armstrong and Jones, *Business Documents*: 60.

⁸¹ For the period 1860-1880, see: *Invoices of Hong Kong Office* JMA A6/12 to A6/26; *Memo and accounts: Australia and NZ; Russell & Co. invoices, 1877-1881.* RA Series I: volume 5; *Business and financial papers: Accounts Current* AHA II A 9 v.83 to v.91.

⁸² The invoices provided by JM&Co. included the list of all Chinese vendors who sold the tea to the representative of JM&Co. *Invoices of Hong Kong Office* JMA A6/12 to A6/26; *Memo and accounts: Australia and NZ*.

⁸³ Each firm was provided with a symbol, similar to a brand (a mark was branded on sandalwood by the Western Australian merchants when there were multiple merchant lots in the cargo holds of vessels heading to China), to designate it. This symbol was also placed on the packages that were to be delivered to the receiving firm to designate them differently to the other parcels in the cargo holds.

⁸⁴ For 1860-1880, see: Accounts: Sydney JMA A8/32/7; Miscellaneous accounts JMA A8/36/6; Accounts & memos: Sydney JMA A8/38/4; Current accounts: Australia JMA A8/48/1; Invoices for SE Asia and Australia JMA A8/66/1; Memo and accounts: Australia and NZ JMA A8/123/3. The latter has one account which may be in the wrong file. For an AH&Co. example, see Business and financial papers: Journals AHA II A 1 v.17 to v.23.

Shipping documents, nominally Bills of Lading, also contributed to the analysis by providing extra items of information about the transaction.⁸⁵ Insurance documents were a further source of information.⁸⁶

Other archival material used in this study include Government reports and Parliamentary debates. These discuss various aspects of the trade. For example, the quality of coal from the NSW mines were discussed as part of "tests" by Admiralty in London.⁸⁷ The results were presented as reports to the UK House of Commons. Similarly, a discussion of the coal and sandalwood trade existed in various China maritime and trade documents that were presented to the various institutions.⁸⁸ Each of these documents created either alternatives to or supplementary views of the information gathered through the correspondence or the statistics of the trade.

Notes on terms

The study contains various abbreviations and terms to assist with describing the data. The list of abbreviations have been presented at the beginning of the study. The method of describing places, located in China, that proliferated in Western publications of the time follows the guidelines of the Chinese Postal Map Romanization.⁸⁹ There were, however, the occasional variants to the spelling and, in some cases, the word "foo" was appended to the name. For example, Foochow and Foochow-foo are the same place.

⁸⁵ For 1860-1880, see: *Memo and accounts: Australia and NZ* JMA A8/123/3; *Bills of lading: Australia and NZ* JMA A8/135/1; *Shipping papers: Bound papers* AHA II B 1 v.173 to v.177; *Shipping papers: Loose papers* AHA II B 2 C-17-A f.10 to f.11, AHA II B 2 C-17-B f.12 to f.16 and AHA II B C-S-1 to C-S-16.

⁸⁶ For 1860-1880, see: A. Heard & Co. Insurance Agents, Canton Office AHA II D v.304 to v.305.

⁸⁷ See, for example: Australian coal. Return, showing the result of the recent experiments under the direction of the Admiralty, as to the value for naval purposes, of Australian coal. HoC, no. 337 (1862).

⁸⁸ See, for example: Robert Hart, "China. Trade Statistics of the Treaty Ports, for the Period 1863-1872." Shanghai: Imperial Maritime Customs Press, 1873. (Compiled for the Austro-Hungarian Universal Exhibition, Vienna, 1873)

⁸⁹ A table of all Chinese cities that appear in this study is given in Appendix 1.

Similarly, certain vowels were altered, as in the case of Chinkiang and Chenkiang. Thus, there will be times, throughout this study, where variants of the same name will be included, based on the source of a quote or document. In regard to other geographical terminology, the names United Kingdom (UK) and Great Britain, or British, are interchangeable, for simplicity, in this study. Further, while as a nation Australia did not exist, it is used throughout the study within the understanding that it relates to the islands of mainland Australia, Tasmania and its other islands. Frank Broeze, explains that "prior to 1901 Australia was a geographical rather than a political term, used to indicate the island continent that had been known earlier as New Holland."⁹⁰

The values, weights and measures also varied in China and other ports relating to the China – Australia trade. The British standard currency was the Pound Sterling (£) which, in China, was converted in Hong Kong to Spanish Dollars (\$), in Foochow to Taels (\Im) and similarly in Shanghai and other Chinese ports. The Taels were divided into smaller amounts such that $\Im 1 = 10$ mace or 100 candareens. In Singapore, the Dollar (\$) was also used, while in India it was the silver Rupee (Rp). In the colonial Australian ports the Pound Sterling (£) was the currency. For weights, items were either calculated in piculs (133 1/3 lbs.) or in standard Western measurements of pounds (lbs.), hundredweights (cwts., or 112 lbs.) or tons (2,240 lbs.).⁹¹ Piculs were commonly used when weighing sandalwood, arriving in China. The value of these on the market were defined as an amount of Taels per picul and an example of this is $\Im 3.8.5$ ppc, which reads as "3 Taels, 8 mace, 5 candareens per picul."

⁹⁰ Frank Broeze, "The View from Inside: Robert Brooks and the British Connection." *The Push* 2 (1978):

⁹¹ Taels and mace can also be found as measurements of weight.

Throughout the current study are found the use of numerous terms relating to merchants, the exchange of goods and other elements of trade. Previously mentioned, for example, have been indent and Bill of Lading. The remainder of this section is devoted to providing definitions of those terms used at the time of the 1860s and 1870s in trade.

The primary exponent of trade between China and Australia were the merchants, those who bought and sold goods.⁹² That simple definition, as shall be explained in Chapter 1, evolved over time. For the current study, merchants are those engaged in foreign trade and the institutions included in that trade. In the nineteenth century, these merchants became involved in trade as commission merchants.⁹³ That is, they were agents "employed to sell goods or merchandize, consigned or delivered to him by or for his principal for a compensation commonly called factorage or commission."⁹⁴ The commission agent can be either a "factor" or a "broker." The factor "differs from the broker in this, that he may buy or sell in his own name, and is entrusted with the possession and disposal of the goods."95 The broker was an agent who negotiated on behalf of two parties and received, as compensation, a brokerage fee.⁹⁶ Merchants involved in the China - Australia trade were either factors or brokers. When goods arrived in China or in Australia, the consignee took ownership of those goods prior to their sale. In the *Ettrick* example at the commencement of this chapter, JM&Co. took ownership of the coal imported to Shanghai and, based on market knowledge, sold the

⁹² Stanley D. Chapman, Merchant Enterprise in Britain: From the Industrial Revolution to World War I. Cambridge, UK: Cambridge University Press, 1992: 3.

⁹³ Chapman, *Merchant Enterprise in Britain*: 4.

⁹⁴ J. M. Lely, Wharton's Law-Lexicon: Forming an Epitome of the Law of England; and Containing Full Explanations of the Technical Terms and Phrases Thereof, Both Ancient and Modern. Including the Various Legal Terms Used in Commerce Business; Together with a Translation of Latin Law Marims; and Selected Titles from the Civil, Scotch, and Indian Law. 7th ed. Boston: Soule and Bugbee, 1883: 35-36, 169, 170, 185.

⁹⁵ Lely, Wharton's Law-Lexicon, 7th ed.: 332. See also Thomas Edlyne Tomlins, The Law Dictionary, Explaining the Rise, Progress, and Present State of the British Law: Defining and Interpreting the Terms or Words of Art, and Comprising Also Copious Information on the Subjects of Trade and Government. 4th ed. 2 vols. Vol. 1, London: n.p., 1835, for the discussion on Factors. ⁹⁶ Lely, *Wharton's Law-Lexicon*, 7th ed.: 113.

coal for AAC, receiving a commission for its services. Several other examples will appear throughout the remainder of the study.

A variant of the merchant in the *Ettrick* example relates to the "joint-account" transactions. The joint-account transactions in the China – Australia trade are enterprises or ventures undertaken by a firm in China and one in Australia such that the risks and commercial speculation are shared. Through this, expenses are shared as are the returns from sales whether they attain a profit or a loss.⁹⁷ Although most joint ventures tend to be for a specific purpose and thus only remain for a limited period, joint-account transactions were found to exist between parties in China and Australia throughout the period of the 1860s and 1870s. The *Ettrick* example shows two joint-account transactions. The ventures between JM&Co. and James Henty & Co. existed throughout the two decades.

The process of initiating an order included an "indent." These were normally attached to a draft, also termed a bill of exchange when related to foreign transactions.⁹⁸ The indent was an order by one merchant house to another, located overseas from each other, requesting the purchase or sale of goods.⁹⁹ The drafts were signed, written orders whereby one firm instructed another to pay a specified amount to a third party.¹⁰⁰ In the case of tea purchases, for example, an Australian merchant may send an indent for a parcel of tea together with a draft on an international bank to a merchant house in China.

⁹⁷ Guy Hammett, *Dictionary of International Trade Terms*. Canterbury: Financial World Publishing, 2001: 174.

⁹⁸ Hammett, *Dictionary of International Trade Terms*: 119-20.

⁹⁹ Hammett, *Dictionary of International Trade Terms*: 165. For purchases, almost all indents were "open indents." The export house was allowed to choose the supplier they wished. The case of coal purchases were, in some cases, closed indents. The China firm requested coal only from a specific colliery. The *Ettrick* example was not an indent for coal from AAC as JM&Co. were acting as commission agents on behalf of AAC who were attempting to enter the China market.

¹⁰⁰ Hammett, Dictionary of International Trade Terms: 119-20; Lely, Wharton's Law-Lexicon, 7th ed.: 97.

The draft was signed by the Australian merchant instructing the bank to pay the China merchant the value of the draft.

The transmission of goods from one port to another for sale includes various documents. The Bill of Lading was signed by the ship's master verifying receipt of goods. A copy was provided to the consignor, one to the consignee and one was kept by the master. The document provided evidence of the ownership of the goods being shipped.¹⁰¹ The consignee, as the purchaser of the goods, was provided with an Invoice for the goods, with purchase values and the list of charges applied by the commission merchant.¹⁰² Primarily, the Invoice was only instructive. The payment had been made prior to delivery through the draft that accompanied the indent. A third document commonly found included was the Charter Party. The document was an agreement by a ship's master to rent all or part of his vessel for the purpose of transporting goods on a specified voyage.¹⁰³ In the period of the 1860s and 1870s vessels were commonly either chartered for single or return voyages. In other cases, a vessel was chartered for a specific period of time as opposed to a single journey.¹⁰⁴ One such example occurred with the charter of the Peninsular and Orient vessel Adria by the Hong Kong company Hop Kee & Co. for four months to travel from Hong Kong to Cooktown and then to Newcastle and return to Hong Kong.¹⁰⁵

¹⁰¹ Lely, Wharton's Law-Lexicon, 7th ed.: 98.

¹⁰² Lely, *Wharton's Law-Lexicon*, 7th ed.: 430.

¹⁰³ Lely, Wharton's Law-Lexicon, 7th ed.: 144.

¹⁰⁴ Hammett, Dictionary of International Trade Terms: 74.

¹⁰⁵ Memorandum for the Board, 8th March 1875. P&O/3/11, Reports from Managing Directors to Board 1874-77, Peninsular and Oriental Steam Navigation Records, National Maritime Museum, Greenwich, England; *Cooktown Courier* 27 March 1875: 2-3; *The Hong Kong Times, Daily Advertiser, and Shipping Gazette* 22 February 1875: 1. Noreen Kirkman "From Minority to Majority": 249n37 states that the *s.s. Victoria* was the first vessel to arrive from overseas. The *Cooktown Courier* 6 February 1875: 2 clearly states in its description that the vessel left from Sydney as do numerous newspapers from New South Wales. The *Victoria* did carry Chinese, and they may have arrived into Sydney from overseas, but the *Adria* was the first vessel to specifically arrive from overseas to the port of Cooktown.

Goods exported to China from Australia required an alternate payment method as the China merchant house acted only as a commission merchant selling the goods on behalf of the Australian merchant. The payment method to the Australian merchant was in the form of a remittance. The remittance equated to money, or equivalent, sent by the China merchant to the Australian merchant.¹⁰⁶ Commonly, that remittance was sent to a representative of the Australian merchant based in a different port to assist with the payment of goods to the Australian merchant. London merchant houses were used by many Australian merchants and China merchants sent drafts to London as remittances. Others included merchants in Singapore and Manilla. Most London firms acted as clearing houses. The firms in London exchanged drafts of each other's house and settled any differences.¹⁰⁷ Not all drafts were cleared at face value. Many were discounted. Discounting was common when a Bill of Exchange was purchased by an institution (nominally a bank) before a stipulated time. In this case, the bank extracted a percentage, a discount rate, from the value of the Bill.¹⁰⁸ Finally, the remittance was also used by merchants in Australia as collateral for the purchase of goods to be sent from China. Although no money or drafts were exchanged, the value of the transactions were accounted for through bilateral trade between the two merchants.

¹⁰⁶ Lely, Wharton's Law-Lexicon, 7th ed.: 710.
¹⁰⁷ Lely, Wharton's Law-Lexicon, 7th ed.: 157.
¹⁰⁸ Lely, Wharton's Law-Lexicon, 7th ed.: 259; Hammett, Dictionary of International Trade Terms: 114.

CHAPTER 1

A RELATIONSHIP NOT TOO FAR

Trade connections between merchants in Australia and the outside world were continuously evolving throughout the nineteenth century. Australia had been, during the nineteenth century, intrinsically linked to Great Britain and Europe through trade and immigration. Yet, emerging, or possibly lingering, was a developing connection with the nearer geographical neighbour, Asia. Certainly, the colonies of Australia maintained strong trade links with India from the time of the earliest settlements in Port Jackson and Hobart Town. These connections became stronger in 1813 after the British East India Company's (BEIC) restrictions on trade for India were lifted. The connections with Canton and China were less strong. Even with the end of the BEIC's control over British trade to China in 1834, there was a delay before extensive trade existed between colonial Australia and the ports of China. By the 1860s everything changed, in both China and Australia.

China had, commercially, altered significantly by 1860. That alteration was created through two conflicts between China and Great Britain. Prior to these, the Ch'ing government enforced a closed door policy with regard to foreigners and their trade. Canton was the only port open to Westerners for trade. Defeat in the two "Opium Wars" (1840-42, 1856-60) by China led to a concession by the Ch'ing government to open a number of ports to trade for Westerners. Five, including Canton, were contained within the 1842 Treaty of Nanking and another eleven through the 1858 Treaty of Tientsin,

ratified by the Convention of Peking in 1860.¹ These ports were labelled as the "Treaty Ports." The combination of the treaties and the opening of the ports to trade directly contributed to the shifting of the centre of commerce, for many foreign merchants, from Canton to Shanghai.² That alteration was eventually found to be to the advantage of colonial Australian merchants. More so, from 1860, these facilitated improvements in the trade of tea, coal, sandalwood and other commodities between China and Australia.

Colonial Australia, or specifically the colonies of New South Wales and Victoria, changed significantly in the 1850s. The discoveries of gold fields in the two colonies created not only an increase in population through the speculators who ventured to the fields, but also, by 1860, improvements in the financial positions of the two colonies.³ In a "rush that never ended," gold, amongst numerous other metals, was important to the development of each and every colony in Australia.⁴ By the end of the nineteenth century, new considerable gold fields had been found throughout Queensland, in the Northern Territory of South Australia and in Western Australia. Gold created for Australians, by the 1860s, a new level of wealth to pay for its goods. Over the next three decades, as economist Noel Butlin stated, "Australian economic growth as a whole was sustained, stable and rapid."⁵ It was an economic boom.⁶ Thus, gold created for

¹ For a lengthy discussion on the Treaty Ports of China and Japan, see: Wm. Fred Mayers, *Treaties between the Empire of China and Foreign Powers, Together with Regulations for the Conduct of Foreign Trade.* Shanghai: J. Broadhurst Tootal, 1877.

² Yü-t'ang Sun, "The Historical Development and Aggressive Nature of American Imperialist Investment in China (1784-1914)." *Chinese Studies in History* 8, no. 3 (1975): 6. American merchants and others were afforded special rights including "fixed tariffs, extraterritorial rights and most-favored nation treatment."

³ Allen C. Kelley, "Demographic Change and Economic Growth: Australia 1861-1911." *Explorations in Entrepreneurial History* 5, no. 3 (1968): 208-09. Kelley termed this a demographic shock. However, there were residual effects on the next generations with mild depressions and unemployment in the late 1860s and late 1870s. Jenny Lee, and Charles Fahey, "A Boom for Whom? Some Developments in the Australian Labour Market, 1870-1891." *Labour History* 50 (1986): 22.

⁴ Geoffrey Blainey, *The Rush That Never Ended: A History of Australian Mining*. Melbourne: Melbourne University Press, 1969: 2.

⁵ Noel Butlin, "The Shape of the Australian Economy, 1861-1900." *The Economic Record* 34, no. 67 (1958): 11.

Australia the ability to become a player within the multi-lateral trade arrangements that existed between England, India and China. Gold presented England with a new method of paying for its own imports. The new fortunes also allowed, at that time, Australian merchants to invest in new ventures, ventures that included trade with China.

The trade relationship between the Australian colonies and the Treaty Ports of China was centred around a number of mercantile firms. These firms, as with the trade relationship, were evolving in the methods they employed to perform trade. The current chapter sets out to understand who were the primary merchants involved in the China – Australia trade relationship of the 1860s and 1870s. The *Ettrick* example in the Introduction of this study delivers a brief understanding of some of the merchants and their trade. The relationship between various firms, in the *Ettrick* example, is intimated. This chapter extends the knowledge to a broader understanding of the mercantile relationships that existed between those in the Treaty Ports and those in colonial Australia. The analysis is augmented with the links that were also in place with firms in the UK and other countries. Thus, the broader question of this chapter is to ask who or what was involved in trade relationships between China and Australia in the 1860s and 1870s and how did those people and institutions work to enhance the relationships?

Early trade relationships with China

Australia's first connection with China took place prior to European settlement. Hunters from Makassar travelled to northern Australia in search of trepang, also known as

⁶ For a discussion on the "Long Boom" see: Roger McGhee, "The Long Boom, 1860-1890." Chap. 5 In *Essays in Economic History of Australia*, edited by James Griffin. 135-85. Hong Kong: Jacaranda Press, 1976.

bêche-de-mer.⁷ On occasion, Chinese joined the natives on their journey to Australia.⁸ From Makassar, Chinese merchants collected the trepang and exported it to China, thus creating the first comprehensive trade of Australian products to China.⁹ The Chinese also largely financed the trepang trade.¹⁰ These were Hokkien traders who had developed organised networks from south Fukien to the East Indies and ports including Makassar prior to the eighteenth century and before.¹¹ Chinese junks were also said to have arrived in the Torres Strait in search of trepang.¹² However, beyond that, extensive trade for Australia with the outside world was non-existent.

Australia became a European colony in 1788 with the arrival of the British settler colonists to its east coast at Port Jackson.¹³ The new colony, called New South Wales, relied on arriving vessels, generally from England and occasionally from India, for supplies.¹⁴ In Sydney, the capital of the new colony, the soldiers and a few wealthy

⁷ Regina Ganter, "China and the Beginning of Australian History." *The Great Circle* 25, no. 1 (2003): 10. See, also Knapp, G. J., and Heather Sutherland. *Monsoon Traders : Ships, Skippers and Commodities in Eighteenth-Century Makassar.* Leiden: KITLV Press, 2004.

⁸ Heather Sutherland, "Trepang and Wangkang: The China Trade of Eighteenth-Century Makassar C. 1720s-1840s." *Bijdragen tot de Taal-, Land- en Volkenkunde, Authority and enterprise among the peoples of South Sulawesi* 156, no. 3 (2000): 454.

⁹ Charles C. Macknight, *The Voyage to Marege' : Macassan Trepangers in Northern Australia*. Carlton: Melbourne University Press, 1976: 12; Sandy Blair and Nicholas Hall, "Macassan Sea Roads: The Heritage of Intecultural Maritime Routes Connecting Australia to Southeast Asia." *Historic Environment* 25, no. 3 (2013): 46. Initially, the ships originated from Amoy, but after 1781, those from Canton took prominence in the trade. Leonard Blussé, "Chinese Shipping to the Nanyang in the Second Half of the Eighteenth Century." In *Chinese Circulations: Capital, Commodities, and Networks in Southeast Asia*, edited by Eric Tagliacosso and Wen-Chin Chang. 221-58. Durham, NC: Duke University Press, 2011: 230.

¹⁰ Blussé, "Chinese Shipping to the Nanyang.": 236n31.

¹¹ James K. Chin, "Junk Trade, Business Networks, and Sojourning Communities: Hokkien Merchants in Early Maritime Asia." *Journal of Chinese Overseas* 6 (2010): 193.

¹² Guy Ramsey, "The Chinese Diaspora in Torres Strait: Cross-Cultural Connections and Contentions on Thursday Island." In *Navigating Boundaries: The Asian Diaspora in Torres Strait*, edited by Anna Shnukal, Guy Ramsay and Yuriko Nagata. 53-79. Canberra: Pandanus Books, 2004: 54.

¹³ Three of the vessels that, in 1788, arrived with the new settlers and convicts (*Lady Penrhyn*, *Charlotte* and *Scarborough*) were directed to Canton to collect tea for the homebound journey. A. K. Cavanagh,

[&]quot;The Return of the First Fleet Ships." *The Great Circle* 11, no. 2 (1989): 1. The connection to Canton for tea was done under the instruction of the BEIC. Alan Frost, "The East India Company and the Choice of Botany Bay." *Australian Historical Studies* 16, no. 65 (1975): 607-08.

¹⁴ Margaret Steven, *Merchant Campbell, 1769-1846: A Study of Colonial Trade*. Melbourne: Oxford University Press, 1965: 18, 26.

partisans were the merchants.¹⁵ At the commencement of the nineteenth century, entrepreneurs became prevalent in Sydney. Robert Campbell¹⁶ and Simeon Lord¹⁷ were the two most prominent. Through these two and other merchants, trade was established with a variety of Asian ports, including those in India, Penang¹⁸ and Canton.¹⁹ Although there was a trade embargo on British trade with China employed through the regulations of the BEIC,²⁰ these merchants engaged in various methods to overcome the BEIC regulations. One was to create a triangle of trade involving both Canton and Calcutta.²¹ Another method, very common during the first decade of the nineteenth century, was to trade with vessels of American ownership. American vessels commonly landed in Sydney to trade, some of which continued their journey to Canton.²² The BEIC restrictions were lifted in 1834.²³ Between 1834 and 1860, trade from Australia to China was minimal. Shipments of tea, though, continued to arrive in the various ports of the Australian colonies. Regular traffic was thus maintained between China and Australia. By the 1860s, that traffic was to increase considerably.

¹⁵ Charles E. T. Newman, *The Spirit of Wharf House: Campbell Enterprise from Calcutta to Canberra*. Sydney: Angus and Robertson, 1961: 13.

¹⁶ David R. Hainsworth, "Trade within the Colony." In *Economic Growth of Australia, 1788-1821*, edited by G. J. Abbott and N. B. Nairn. 267-84. Melbourne: Melbourne University Press, 1969: 274; Steven, *Merchant Campbell*: 1; Newman, *The Spirit of Wharf House*: 6, 19.

¹⁷ David R. Hainsworth, *Builders and Adventurers; the Traders and the Emergence of the Colony 1788-1821.* Melbourne: Cassell Australia, 1968: 3; E. C. Rowland, "Simeon Lord, a Merchant Prince of Botany Bay." *Journal of the Royal Australian Historical Society* 30 (1944): 159-63, 166-67; Hainsworth, "Trade within the Colony.": 274. Lord tried unsuccessfully in 1806 to convince the Governor to allow him to bypass the regulations of the BEIC. That success was finally attained in 1818.

¹⁸ The *General Wellesley* arrived from Penang in Sydney on 13 February 1807 with a large cargo including tea. The *Dundee* arrived from Penang in Sydney on 18 July 1808. "Ship News." *SGNSWA* 15 February 1807: 2; "Ship News." *SGNSWA* 24 July 1808: 2.

¹⁹ The *Perseverance* sailed from Sydney on 9 February 1807 for Canton. She returned from Canton on 5 May 1808. "Ship News." *SGNSWA* 15 February 1807: 2; "Ship News." *SGNSWA* 22 May 1808: 1.

²⁰ Brian Pinkstone, and David Meredith. *Global Connections: A History of Exports and the Australian Economy.* Canberra: Australian Government Publishing Service, 1992: 17; Noel Butlin, *Forming a Colonial Economy, Australia 1810-1850.* Cambridge: Cambridge University Press, 1994: 164.

²¹ Hainsworth, "Trade within the Colony.": 176. Merchant John Macarthur, proposed to deliver sandalwood to Canton. From the earnings in Canton, Macarthur's partner in India would then procure goods for the Sydney market. The venture failed owing to a lack of start up funds.
²² Based on the shipping records attained from the "Ship News" in the SGNSWA up to five vessels per

²² Based on the shipping records attained from the "Ship News" in the *SGNSWA* up to five vessels per year arrived from American ports, normally those in New England, including Nantucket. Many were in Sydney to resupply for their seal and whale hunting efforts. Others travelled to Canton, some returning. These marine industries were important to the early NSW economy. Max Colwell. *Whaling around Australia*. Adelaide: Rigby Limited, 1969: 3, 18-19.

²³ Pinkstone and Meredith, *Global Connections*: 17.

One impetus to the growth of trade in the 1860s was the major discontinuity, or shock, in colonial Australia's economic development that was created by the gold discoveries of the early 1850s in Victoria and New South Wales.²⁴ From an agrarian economy reliant on the wheat and wool industries, the focus of colonial Australia and its exports immediately turned to the mining sector, gold joining an existing South Australian copper industry.²⁵ The extraction of gold created prosperity for the country and hence initiated a new stage of economic expansion in Australia.²⁶ Yet, more so than the corresponding finds in California, Australian gold helped underpin a stable international multilateral monetary system.²⁷

The major effect of the creation of the gold industry was the ability of colonial Australia to create a new staple. The highest percentage of gold exported was to Great Britain, not only improving the bilateral relationship between Great Britain and the Australian colonies but also assisting with the rapidly expanding international trade after 1850.²⁸ The excessive imports of gold by Great Britain helped solidify the strength of their financial sector as well as providing Great Britain with the funds for further foreign investments. For Australia, gold became and remained the dominant export commodity for a period of two decades following its discovery. In 1861, for example, gold amounted to half the value of all exports.²⁹

The post-mid-century period attracted merchants to be part of a complex global economy. Australia's input was through its new found gold reserves. The movement of

 ²⁴ W. A. Sinclair, *The Process of Economic Development in Australia*. Melbourne: Cheshire, 1976: 79.
 ²⁵ Sinclair, *Economic Development in Australia*: 76.

²⁶ Ian W. McLean, *Why Australia Prospered: The Shifting Sources of Economic Growth*. Princeton, NJ: Princeton University Press, 2013: 65; Pinkstone and Meredith, *Global Connections*: 33.

²⁷ Pinkstone and Meredith, *Global Connections*: 33.

²⁸ McLean, Why Australia Prospered: 76.

²⁹ McLean, *Why Australia Prospered*: 71; Pinkstone and Meredith, *Global Connections*: 36; Geoffrey Blainey, "Technology in Australian History." *Australian Economic History Review* 4 (1964): 119.

bullion and drafts throughout Asia in the nineteenth century was quite common. This movement generated a number of complex multilateral trade relationships that involved China, India and England together with other relevant countries. Takeshi Hamashita, in his translated collection of works *China, East Asia and the Global Economy: Regional and Historical Perspectives,* emphasizes the importance of multi-lateral trade relationships. Hamashita relates that, for example, in the late 1840s, the trade of opium, cotton and tea created imbalances and trade deficits that required bullion as a medium to cover.³⁰ Together with bullion, many drafts co-existed within a multilateral trade regime. Hamashita's work precedes the period of the gold finds in NSW and Victoria and thus he dismisses Australia as trifling as "it can be hardly said that there is any course of exchange in these places."³¹ The fact that by the late 1850s and the following decades Australia was a global lead exporter of gold, cleared a path for the ports of Sydney and Melbourne to establish recognition within the overall multilateral trade discourse involving Great Britain, India and China.

The discovery of gold had a secondary effect. It created the heavy migration of Chinese to Australia. The Chinese had alternate cultural habits and culinary needs to the Westerners. They required different imports to those who were serviced by Western merchants in the ports of Melbourne and Sydney. Out of this requirement emerged the Chinese mercantile community. In the Introduction, I have noted the vast number of Chinese merchants that were in Cooktown in the late 1870s. Similarly, there would have been significant networks of Chinese merchants in both Melbourne and Sydney from the 1850s. In one document from 1859, the size of the Chinese mercantile

³⁰ Takeshi Hamashita, Linda Grove, and Mark Selden, eds. *China, East Asia and the Global Economy: Regional and Historical Perspectives*. New York: Routledge, 2008: 118.

³¹ Hamashita et al, *China, East Asia*: 121.

community was said to be over 200 in Melbourne alone.³² The fact that there was a Chinese mercantile community in those ports and that they were involved in importing produce from China means that there are two paths, whether distinct or intersecting, that require understanding. The trade relationship between China and Australia involved the Westerners and the Chinese.

At the commencement of the 1860s, Australia was considered attractive for investment and trade. Mercantile firms in the Treaty Ports of China viewed, with interest, the expanding and prosperous economies of the various Australian colonies. The expansion of the population of the colonies, the removal of certain institutional restrictions together with the development and trade of local resources created opportunities for merchant firms in Australia, China and elsewhere. By the 1860s, trade between China and Australia was more extensive than it had been in the past which, in turn, galvanized numerous trade relationships between the firms taking part.

The Treaty Port System

The Treaty Port system was created following the first Opium War. Through the Treaty of Nanking (1842), the four ports of Amoy, Foochow, Ningpo and Shanghai were opened to foreigners. The rights to Canton were extended and the island of Hong Kong was annexed by the British. The Treaty stated that, within the Treaty Ports, British subjects "shall be allowed to reside, for the purpose of carrying on their mercantile pursuits."³³ That is, China was ostensibly forced to participate in international free

³² "Chinese Residence Tax." *Argus* 31 May 1859: 7. In his deposition, Mr. King, merchant in Melbourne, stated that there were "some 200 merchants and persons in their employment" when describing the Chinese mercantile community.

³³ Mayers, Treaties between the Empire of China and Foreign Powers: 1. See Article II.

trade.³⁴ Additional ports were opened following the second Opium War. The Treaty of Tientsin (1858), ratified by the Peking Convention (1860), required the opening of the ports of Newchwang, Chefoo, Formosa, Swatow and Hainan.³⁵ Also, the port of Chinkiang and up to three ports, as far as Hankow, inland on the Yangtze River, were included.³⁶ By the 1860s, British merchants, followed by merchants from other Western nations, commenced cohabitation, and thus competition, with the existing Chinese mercantile community at the various Treaty Ports located along the Chinese coast and the Yangtze River. Australian merchants were trading with the Western merchant firms in these ports.

The creation of the Treaty Ports were viewed by many Chinese as an imposition on China.³⁷ Yet, the Treaty Ports also controlled the Westerners from further incursion into China. Historian Rhoads Murphey considered the ports as beachheads of imperial incursion.³⁸ As beachheads, the ports were only semi-colonies of the foreign powers.³⁹ Western powers were unable to attain dominance over the whole country, but were limited in access to those ports opened following the implementation of the various treaties. Murphey also advanced that the Chinese Treaty Ports were "enclave economies and enclave worlds ideologically and institutionally."⁴⁰ There was a border, both notionally and in some way physical, between the Treaty Ports and the remainder of

³⁴ Robert Nield, *The China Coast: Trade and the First Treaty Ports*. Hong Kong: Joint Publishing, 2010: 10-11.

³⁵ Mayers, *Treaties between the Empire of China and Foreign Powers*: 13. Article XI.

³⁶ Mayers, *Treaties between the Empire of China and Foreign Powers*: 13. Article X. Initially Chinkiang was opened with the remaining ports to be included following the cessation of conflict with the Taipings. ³⁷ Sun, "The Historical Development.": 3-4. Sun terms this period as the "period of mature capitalism," a period when countries including Britain and the United States were involved in industrialization on a

large scale with the intention to impose their imperialist needs on other countries, including China. ³⁸ Rhoads Murphey, *The Treaty Ports and China's Modernization: What Went Wrong*? Michigan Papers

in Chinese Studies. Ann Arbor, MI: The University of Michigan Center for Chinese Studies, 1970: 1.

³⁹ Nield, *The China Coast*: 15. Nield carries on the work of Murphey. Paul Cohen extends the argument to consider the Treaty Ports as "multiple colonialism." Cohen further advanced that as there were multiple nations encroaching into China, no one nation could impose control over the whole of China. Paul A. Cohen, *Discovering History in China: American Historical Writing on the Recent Chinese Past.* New York: Columbia University Press, 2010: 144.

⁴⁰ Rhoads Murphey, *The Outsiders: The Western Experience in India and China*. Ann Arbor: University of Michigan Press, 1977: 8.

China. The Western inhabitants, the mercantile firms, existed behind a screen put up both by the treaties and the Chinese themselves.

The bridge that crossed over this boundary in the nineteenth century was the comprador. Historian Yen P'ing Hao described the comprador as "the Chinese manager of a foreign firm in China, serving as middleman in the company's dealings with the Chinese."⁴¹ The comprador has been given various titles, including cross-cultural brokers and bicultural middlemen.⁴² Hao explains that the expansion of the West in modern times brought about a degree of international contact and fusion of cultures, and the Treaty Ports in late Ch'ing China, where different cultures met, constituted a typical hybrid society.⁴³ Thus the compradors were vital for the Western firms to complete business in the Chinese Treaty Ports.⁴⁴ Not only was the company's comprador the link to other Chinese merchants, they performed numerous other duties. These included the recruitment and supervision of Chinese staff, managing monetary affairs, obtaining and supplying market intelligence and other general duties relating to transactions with Chinese merchants.⁴⁵

The compradors of the 1860s and 1870s had Cantonese roots. Many came from the early merchant class that worked in Canton prior to 1842. They had already been in contact with the Westerners, particularly the British, and thus were able to communicate reasonably well in English. Their ability to translate was important, though those with

⁴¹ Yen-P'ing Hao, *The Comprador in Nineteenth Century China: Bridge between East and West.* Cambridge: MA: Harvard University Press, 1970: 1.

 ⁴² Stephen R. Halsey, *Quest for Power: European Imperialism and the Making of Chinese Statecraft.* Cambridge, MA: Harvard University Press, 2015: 65; Yen-P'ing Hao, "A "New Class" in China's Treaty Ports: The Rise of the Comprador-Merchants." *The Business History Review* 44, no. 4 (1970): 447.
 ⁴³ Hao, *The Comprador in Nineteenth Century China*: 459.

⁴⁴ Pui Tak Lee, "Business Networks and Patterns of Cantonese Compradors and Merchants in Nineteenth Century Hong Kong." *Journal of the Hong Kong Branch of the Royal Asiatic Society* 31 (1991): 7.

⁴⁵ Hao, The Comprador in Nineteenth Century China: 2.

business acumen and connections were preferred.⁴⁶ Most of the primary Western merchant houses employed Cantonese compradors.⁴⁷ Thus, the extent of reach of and the links generated by the Cantonese compradors was developed throughout the various Treaty Ports. Western firms in Shanghai, particularly, employed Cantonese compradors as they had been connected with the firms' southern offices prior to the second Opium War and had added skills including ship building and ship repairing.⁴⁸

The spread of Cantonese compradors created extensive familial connections between the various Treaty Ports. The connections extended beyond the primary family to the clan and village.⁴⁹ Chinese historian Pui Tak Lee stated that "Cantonese compradors filled the new ports by personal ties, extending their influence from one place to another." The Canton supremacy that existed within the Shanghai Chinese merchant environment provided for them the lead in foreign trade.⁵⁰ That supremacy extended to South East Asia, also known as the "Nanyang."⁵¹ Thus, through the Cantonese merchants, a highway of mercantile familial links existed from South East Asia to the Treaty Ports of central and northern China.⁵²

The most important participants of the trade in the Chinese Treaty Ports were the Chinese merchants. The Treaty Port system provided advantages for the Chinese merchants. Foremost, it presented the merchants with the ability to interact with

⁵⁰ Lee, "Business Networks." 3. Lee states that the Ningbo-Shaoxing Chinese were the most powerful force in native banking and the lower Yangzi River trade, but that the Cantonese led the foreign trade. ⁵¹ Lee, "Business Networks." 8.

⁴⁶ Lee, "Business Networks.": 6.

⁴⁷ Lee, "Business Networks.": 7-8. Lee notes that AH&Co. only used Cantonese, 75% of Russell & Co.'s compradors were Cantonese and a large portion working for JM&Co., were also.

⁴⁸ Lee, "Business Networks." 18.

⁴⁹ Hao, The Comprador in Nineteenth Century China: 173-74.

⁵² Edward LeFevour, *Western Enterprise in Late Ch'ing China: A Selective Survey of Jardine, Matheson & Company's Operations, 1842-1895.* Cambridge, MA: Harvard University Press, 1968: 54; Yong, C. F. *Chinese Leadership and Power in Colonial Singapore* Singapore: Times Academic Press, 1992: 14-15. Yong mentions that "Tan Beng-swee was perhaps the first Chinese merchant in Singapore to open a branch office of "Kim Seng & Co" in the 1860s in Shanghai dealing in import and export trade."

international markets. The treaties of 1842 and 1858 had unshackled the constraints imposed by the Ch'ing government, pre-1842, that funnelled all connection with Westerners through Canton. To the Chinese merchant class, the Treaty Ports provided a link with economic opportunism outside of the port.⁵³ The impact of international trade was significant on domestic trade as well.⁵⁴ By the late 1860s, Chinese merchants had taken control of port-to-port commerce in the minor Treaty Ports, relegating the foreigners in China's external trade to such ports as Shanghai and Hong Kong.⁵⁵ The Treaty Ports thus presented these Chinese with the ability to venture outside of the realm of trading domestically with other Chinese. That is, to the Chinese merchants, the Treaty Ports were portals to foreign trade.

The Chinese merchants were also portals. They provided the link between the country Chinese and the Westerners. Goods that were obtained from the country areas were passed from the farmer through a chain of Chinese merchants and eventually to the Western firm for sale to foreign markets. Similarly, goods received by the Western merchant were then passed through various Chinese hands prior to arriving at their destination.⁵⁶ The position of the Western merchant firm within this chain was as a commission agent, not only for Westerners from overseas but also for the Chinese merchants who dealt with them.⁵⁷

⁵³ Adam McKeown, "Conceptualizing Chinese Diasporas, 1842 to 1949." *The Journal of Asian Studies* 58, no. 2 (1999): 313.

⁵⁴ Wolfgang Keller, Ben Li and Carol H. Shiue. "The Evolution of Domestic Trade Flows When Foreign Trade Is Liberalized: Evidence from the Chinese Maritime Customs Service." In *Institutions and Comparative Economic Development*, edited by Masahiko Aoki, Timur Kuran and Gérard Roland. 152-72. Basingstoke: Palgrave Macmillan, 2012: 152.

⁵⁵ LeFevour, Western Enterprise in Late Ch'ing China: 55-56.

⁵⁶ Jürgen Osterhammel, "British Business in China, 1860s-1950s." In *British Business in Asia since 1860*, edited by Geoffrey Jones and Richard P. T. Davenport-Hines. 189-216. Cambridge: Cambridge University Press, 1989: 192.

⁵⁷ LeFevour, Western Enterprise in Late Ch'ing China: 53.

The connection between the Chinese merchants and the Western merchants was also bypassed on occasions. Many Chinese merchants preferred, from the mid-1860s, to work with local dealers instead of foreign merchants. Certainly, following the termination of the Taiping conflict in 1864, Chinese merchants became more involved as intermediaries for overseas trade.⁵⁸ They used guilds, brokers or hongs.⁵⁹ Chinese goods were thus transported along the pre-existing trade routes developed by other Chinese merchant houses in the Nanyang and farther abroad.

Nevertheless, it was common for these Chinese merchant houses to be connected to Western merchants. The Houqua clan were one prominent hong that invested heavily in trade and Western enterprises.⁶⁰ The clan was created through the work of Cantonese merchant Wu Bingjian.⁶¹ The Houqua dominated Sino-western trade of Canton in the early nineteenth century.⁶² Following the conclusion of the Sino-British conflicts, the Houqua extended their reach to Shanghai and continued their strong alliance with American companies such as Russell & Co.⁶³

The Chinese merchants were the intermediate brokers who controlled the internal marketing structures of the movement of the goods throughout China.⁶⁴ At the ports, the Chinese merchants exchanged goods with either Chinese importers or the compradors, representatives of the Western importers. There were any number of wholesalers

⁵⁸ LeFevour, *Western Enterprise in Late Ch'ing China*: 50. The Taiping Rebellion had caused numerous problems for Chinese trade, especially the junk trade along the Yangtze. A discussion of the impediments and how that effected the Chinese trade is discussed in later chapters of this study.

⁵⁹ LeFevour, *Western Enterprise in Late Ch'ing China*: 51.

⁶⁰ Stephen Cameron Lockwood, Augustine Heard and Company, 1858-1862; American Merchants in China. Harvard East Asian Monographs. Cambridge, MA: East Asian Research Center, Harvard University, 1971: 37.

⁶¹ John D. Wong, *Global Trade in the Nineteenth Century: The House of Houqua and the Canton System*. Cambridge: Cambridge University Press, 2016: 1.

⁶² Wong, Global Trade in the Nineteenth Century: 4.

⁶³ A. D. Blue, "European Navigation on the Yangtse." Journal of the Hong Kong Branch of the Royal Asiatic Society 3 (1963): 113-14.

⁶⁴ Halsey, *Quest for Power*: 66.

involved in the transfer of goods.⁶⁵ For those goods imported to China by Westerners, the comprador would sell to the foreign goods wholesaler who would sell to one or more wholesalers from city to city and then to a retailer in a village. Bypassing the marketing channel also occurred. A few inland merchants ventured to the Treaty Ports, such as Shanghai, to deal directly with the compradors.⁶⁶ However, these merchants encountered resistance from the guilds that protected the existing supply chains. Those guilds controlled the distribution networks in the inland districts. They regulated the infrastructure of the trade, including the production, sale and transport of commodities.⁶⁷ Whether direct from the port to the inland or through a chain of merchants, the method of delivery of goods within China was complex yet structured. Australian merchants were both hidden from this chain and were not involved in the chain's processes, the Western merchant in the Treaty Ports being both the barrier and link between the two.

Goods that came from Australia or those travelling to Australia were provided, within the view of Australian merchants, by Western merchant houses in the Treaty Ports. These Australian merchants did not deal directly with the Chinese merchants or networks at the Treaty Ports. The importance of the Western merchant houses in the Treaty Ports is thus of significance in understanding the trade relationship. Numerous merchant houses existed within the Treaty Ports of China. A few were heavily involved with trade to and from Australia.

⁶⁵ Halsey, *Quest for Power*: 55. Halsey believed that goods changed hands five or more times before reaching a Western dealer.

⁶⁶ Halsey, *Quest for Power*: 66n70.

⁶⁷ Halsey, *Quest for Power*: 65.

European merchant houses in China

The Treaty Ports of China consisted of numerous merchant houses providing services to both the foreigners who exported goods to China and who required goods exported from China to themselves. They were "agency houses," primarily a trading firm that delivered numerous other services than just the exchange of goods, including banking, brokerage of bills and insurance.⁶⁸ The agency houses emerged at the time of the termination of the BEIC's hold of trade in China.⁶⁹ They provided their counterparts in overseas ports numerous skills. Specifically, the foreign firms preferred to have the risk of dealing in China managed by a firm with market knowledge, reputation, influence, and strong financial management skills of the Chinese market.⁷⁰ At the same time, the removal of BEIC's hold allowed for the rising merchant class of Sydney and Hobart Town to become more interested in the China trade.⁷¹ By the 1860s, Australian merchants predominantly worked with Western merchants in China that were connected to the United Kingdom or to the United States.⁷² Throughout the 1860s and 1870s, Australian merchants engaged three major companies - Jardine Matheson & Co. (JM&Co.), Russell & Co. and Augustine Heard & Co. (AH&Co.).

The British merchant house, located in China, with the strongest reputation was JM&Co. The firm dates back to the earliest partnership of Cox and Reid who created a company

⁶⁸ Carol Matheson Connell, "Jardine Matheson & Company: The Role of External Organization in a Nineteenth-Century Trading Firm." *Enterprise & Society* 4, no. 1 (2003): 112.

⁶⁹ Connell, "Jardine Matheson & Company.": 111.

⁷⁰ Carol Matheson Connell, *A Business in Risk: Jardine Matheson and the Hong Kong Trading Industry*. Westport, CT: Praeger Publishers, 2004: 7.

⁷¹ Dorothy Shineberg, *They Came for Sandalwood: A Study of the Sandalwood Trade in the South-West Pacific 1830-1865.* Melbourne: Melbourne University Press, 1967: 6.

⁷² Some German firms, located in China, were also involved in trade with Australian merchants. A brief introduction to Siemssen & Co. is provided in Chapter 4. Siemssen & Co. were a major importer of sandalwood from Western Australia to Shanghai during the 1870s.

in Canton in 1782. In 1832, the firm had evolved into JM&Co.⁷³ Initially, JM&Co. participated in direct sales and purchases. By 1860, they chose to take up the duty of commission agent, which was common amongst other firms at the time.⁷⁴ Commissions contained less risk for JM&Co.⁷⁵ Instead of taking the risks of sales and purchases for themselves, they performed risk-broking for foreign firms and extracted a commission for ancillary services.⁷⁶ The management of the ancillary services was important to JM&Co. as it was to other Western merchants in China who wanted to survive the increasing influence of Chinese merchants in similar business areas.⁷⁷

JM&Co. was also involved in various investments. By the 1870s, JM&Co. were part of two fixed capital investments, a silk filature in Shanghai and a sugar refining plant in Hong Kong. In the same decade JM&Co. were involved in the attempted introduction of railways in China, Malaya and Korea.⁷⁸ Another venture, together with Dent and Company, was the formation and running of the Canton Insurance Company.⁷⁹ Founded in 1805, the company provided set insurance rates for shippers and was popular with many Western merchants in China.⁸⁰ In 1835, Dent relinquished their ownership, leaving JM&Co. full ownership of the Canton Insurance Company. Throughout the

⁷³ Connell, "Jardine Matheson & Company.": 100-101. Connell lists nine iterations prior to the company being named JM&Co.

⁷⁴ Robert Blake, *Jardine Matheson: Traders of the Far East.* London: Weidenfeld & Nicholson, 1999: 139.

⁷⁵ Blake, *Jardine Matheson*: 140.

⁷⁶ Connell, *A Business in Risk*: 6. Connell lists the services as: "that included sales, returns, cost and freight, guarantee of bills, ship's disbursements, insurance, arranging insurance, chartering ships, receiving inbound freight, obtaining outbound freight, settling insurance losses, negotiating bills of exchange, arbitration of debt, debt settlement, managing estates, executors of estates, and transhipped goods."

⁷⁷ LeFevour, Western Enterprise in Late Ch'ing China: 49.

⁷⁸ Stanley D. Chapman, "British-Based Investment Groups before 1914." *The Economic History Review* 38, no. 2 (1985): 233-34. The part played by JM&Co. in the China Sugar Refinery of Hong Kong is discussed in more detail in Chapter 5.

⁷⁹ Carol Matheson Connell, "Entrepreneurial Enterprise and 'Image' in the Nineteenth-Century Trading Firm: Shaping the Legal Environment for Business." *Business History* 48, no. 2 (2006): 203.

⁸⁰ Connell, *A Business in Risk*: 6. Connell, "Entrepreneurial Enterprise.": 203. The Canton Insurance Agency also had a number of agencies located in ports that transacted with Canton, including Melbourne. A. B. Leonard, "Underwriting British Trade to India and China, 1780-1835." *The Historical Journal* 55, no. 4 (2012): 995.

1860s and 1870s, in JM&Co.'s dealings with Australian merchants, JM&Co. primarily used the Canton Insurance Company for their part of any joint account transactions. In the earliest days of these transactions, many Australian merchants also had their portion insured through the Canton Insurance Company.⁸¹

JM&Co. recognised the importance of spreading the risk in transactions. From the 1850s, JM&Co. became involved in numerous joint-account transactions with various merchant firms, whether Chinese or Western and whether in China or in foreign ports. In 1851, JM&Co. commenced joint-account export shipments of tea with the Shanghai firm Mau Foong Hong. As a Cantonese hong, Mau Foong Hong was already well-known to JM&Co. and thus was found comfortable to work with.⁸² This was extended in the mid-1860s and for the following decade, into joint investments with other Chinese merchant houses.⁸³ External to China, JM&Co. conducted joint-account transactions in opium with their agents in Calcutta, Jardine Skinner & Co.⁸⁴ Thus, by the 1860s, entering into joint-account transactions with Australian firms was a simple extension for JM&Co. The joint account transactions occurred with the principal agents in each of the primary trading ports of the Australian colonies.⁸⁵

American firms were part of the China trade from the late eighteenth century. The *Empress of China* arrived in Macao in 1784, commencing American expansionism in Asia. The leading commercial house from America was Russell & Company. The company was formed in Providence, Rhode Island in 1824 as Russell & Company and

⁸¹ See for example: Invoice to Messr J. Henty & Co. 29 March 1861 *Invoices of Hong Kong Office* JMA A6/12. In this transaction, the total purchase price for the tea was \$3,946. The goods were insured for \$4,400 through the Canton Insurance Office, policy: 94.52.615.

⁸² LeFevour, Western Enterprise in Late Ch'ing China: 148.

⁸³ LeFevour, Western Enterprise in Late Ch'ing China: 57.

⁸⁴ LeFevour, Western Enterprise in Late Ch'ing China: 20.

⁸⁵ A further discussion of joint-account transactions is provided throughout Chapters 3 to 5 with an analysis of the way these transactions worked with trust and networks discussed in Chapter 6.

in 1830 took over from Perkins and Company in Canton.⁸⁶ Following the termination of the BEIC monopoly, Russell & Co., together with British enterprises JM&Co. and Dent, Whiteman & Co. formed a coalition to assume control of the financial and commercial responsibilities of the BEIC in China. Russell & Co. also worked closely with JM&Co. in the early opium trade from India.⁸⁷

Russell & Co. were an important power in shipping, specifically after the Yangtze River was opened for Western trade in 1858. In 1862, Russell & Co. formed the Shanghai Steam Navigation Company with the aid of funding from American, British and Chinese capital.⁸⁸ The new company became prominent on the Yangtze River from 1864 and in the years 1866-67 had almost a complete monopoly of the foreign shipping trade along the river.⁸⁹ Thereafter, the company lost its stranglehold on the trade along the river with the formation of first the China Navigation Company by John Swire of London in 1867⁹⁰ and in 1872, the China-owned Chinese Merchant Steam Navigation Company.⁹¹ Thus, by 1877, Russell & Co. had relinquished their shipping interests along the Yangtze River. They sold their entire fleet of the Shanghai Steam Navigation Company to the Chinese Merchant Steam Navigation Company.⁹²

The connection with the Shanghai Steam Navigation Company for Russell & Co. meant that they were importers and consumers of steaming coal. Australian merchants in NSW delivered the service as coal exporters for Russell & Co.. The trade details provided in

⁸⁶ Sibing He, "Russell and Company and the Imperialism of Anglo-American Free Trade." In *Narratives* of Free Trade: The Commercial Cultures of Early Us-China Relations, edited by Kendall Johnson. 83-98. Hong Kong: Hong Kong University Press, 2012 84.

⁸⁷ He, "Russell and Company.": 87.

⁸⁸ Blue, "European Navigation on the Yangtse.": 112; Hao, *The Comprador*: 22; Howard W. Dick, and S. A. Kentwell. Beancaker to Boxboat: Steamship Companies in Chinese Waters. Canberra: The Nautical Association of Australia Inc., 1988: 4.

⁸⁹ Lockwood, Augustine Heard and Company: 36; Blue, "European Navigation on the Yangtse.": 113.

⁹⁰ Blue, "European Navigation on the Yangtse.": 115; Robert W. Lovett, "The Heard Collection and Its Story." *The Business History Review* 35, no. 4 (1961): 570. ⁹¹ Dick and Kentwell, *Beancaker to Boxboat*: ix.

⁹² Hao, The Comprador in Nineteenth Century China: 99.

the *North China Herald*, of Shanghai, show that many vessels arrived from Newcastle or Sydney with coal for Russell & Co. One merchant house in Sydney was strongly involved with Russell & Co. Robert Towns & Co., who exported to China coal, sandalwood, beef amongst other items and imported tea, sugar, rice and condiments from China was a primary agent for Russell & Co. in Australia.⁹³

Augustine Heard was a partner of Russell & Co. until 1840. In that year, a dispute led Heard and Joseph Coolidge to break away from Russell & Co. and create AH&Co.⁹⁴ AH&Co. grew to become the primary American competitor for Russell & Co., setting up branches in Hong Kong, Shanghai and Foochow in the 1850s.⁹⁵ AH&Co. became involved in the tea trade as an agency engaging Chinese tea dealers in various ports. As with other Western merchant houses, AH&Co's. operation involved intermediaries, including compradors.⁹⁶ Also, like JM&Co., AH&Co. provided a number of ancillary services. AH&Co.'s banking services offered a good interest rate on investments. That drew numerous Chinese and Western merchants in China to deposit their funds with AH&Co.⁹⁷ Chinese merchants, specifically, were Heard's primary customers in the local trade.⁹⁸

The company, AH&Co., only existed in China until 1875. Robert Lovett, in his discussions on the Heard archives at the Baker Library of the Harvard Business School in Boston, explains that a number of causes led to the eventual demise of the firm in

⁹³ For example, Towns dispatched the *Antagonist* from Sydney with 150 to 200 tons of sandalwood and beche de mer and requested a load of tea from Foochow in return. Letter from R. Towns & Co. to Russell & Co., 19 October 1861 *Foreign Letter Book No. 5* RT 307/12; Letter from R. Towns & Co. to Russell & Co., 22 November 1861 *Foreign Letter Book No. 5* RT 307/12. See also, regards a shipment of 422 tons coal per the *Felix Bernardo*. Letter from R. Towns & Co., 20 May 1868 *Foreign Letter Book No. 12* RT 307/18.

⁹⁴ Lovett, "The Heard Collection.": 568. Heard was in England at the time and authorised Coolidge to commence the new company.

⁹⁵ Lockwood, Augustine Heard and Company: 5.

⁹⁶ Lockwood, Augustine Heard and Company: 7.

⁹⁷ Lockwood, Augustine Heard and Company: 37.

⁹⁸ Lockwood, Augustine Heard and Company: 36.

China. Expensive legal cases together with a significant misappropriation of funds in Boston created the basis.⁹⁹ Lovett states that when the company finally concluded its business on 19 April 1875, a number of other factors contributed to the end. The extravagant living of the company in China, the inability to terminate the employment of staff to reduce costs, the rise of competition in the banking industry and similarly the competition put forward by the Chinese in the Treaty Ports and, possibly, a side effect of the panic in the United States in 1873 each brought the company to its knees. For a few years following 1875 some of Heard's partners attempted to keep the company afloat by establishing a new company, in Shanghai, called Heard & Co., but the enterprise only lasted a few years.¹⁰⁰ The affect on Australian merchants was significant. AH&Co., and later Heard & Co., were important importers of Newcastle coal. AH&Co.

A number of other Western merchants in the Chinese Treaty Ports were involved in the trade with Australian merchants. Swire, as mentioned in the Introduction, developed a keen interest in the Australian markets, much being related to the gold discoveries. Others, less well known were common traders with Australian merchants. The English company, Gibb, Livingston & Co. of Hong Kong and Shanghai, existed both as commission agents as well as agencies for numerous insurance and shipping companies. The company was founded in Canton in 1836.¹⁰² One of the maritime companies that Gibb, Livingston & Co. held agency for was the Eastern and Australian Mail Steam Company (E&A). E&A opened up trade between China and the eastern Australian

⁹⁹ Lovett suggests that \$245,000 was misappropriated through the firm's bills of exchange in Boston. Lovett, "The Heard Collection.": 570-71.

¹⁰⁰ Lovett, "The Heard Collection.": 571. Heard & Co. were importing coal until 1877 as can be shown through the Imports section of the *North China Herald* for the few years after 1875. Almost all coal imports by Heard & Co. were from Newcastle, NSW.

 ¹⁰¹ A discussion of AH&Co.'s connection with Australian merchants is provided in Chapters 3 to 6. As will be shown in Chapter 3, there was a dip in imports of coal from Australia to China in 1876 and one potential reason was the demise of AH&Co.
 ¹⁰² Arnold Wright, ed. *Twentieth Century Impressions of Hong Kong*. Singapore: Graham Brash, 1908:

¹⁰² Arnold Wright, ed. *Twentieth Century Impressions of Hong Kong*. Singapore: Graham Brash, 1908: 216.

colonies through the Torres Strait in 1873.¹⁰³ Hong Kong's oldest German merchant house was the firm Siemssen & Co. Founded in 1846, Siemssen & Co. extended their operations to Hong Kong in 1855 and later to Shanghai, Hankow, Tientsin and Tsingtau.¹⁰⁴ Siemssen & Co. were interested in trading with Australians and became the primary competitor to JM&Co. in the Shanghai sandalwood trade.¹⁰⁵ Shipping records from Hong Kong and Shanghai provide a list of other merchant houses in those ports that dealt with Australian merchants.¹⁰⁶ For example, in Shanghai, Frazar & Co. were significant importers of coal from either Sydney or Newcastle.¹⁰⁷

Merchant houses in Australia

Australian merchants played an important role in the China – Australia trade. Many merchant houses that existed in the 1860s, extended their trade to include China. Other firms, that were founded shortly afterwards, chose to enter into trade with merchants of the Chinese Treaty Ports. Between 1860 and 1880, more than 200 Australian firms were involved in trade with China, whether as exporters, importers or as commission agents for Western firms located in the Chinese Treaty Ports.¹⁰⁸ The number of Chinese merchant firms in Australian ports and the hinterland was also significant. Together, the large number of European and Chinese merchant houses in Australia created an expansive trade relationship with China.

¹⁰³ The Eastern and Australian Mail Steam Company is discussed in detail in Chapter 2.

¹⁰⁴ Wright, Twentieth Century Impressions of Hong Kong: 216-18.

¹⁰⁵ The competition between Siemssen & Co. and JM&Co. is discussed in detail in Chapter 4.

¹⁰⁶ For example, in Shanghai for 1873, the *North China Herald*, under "Shanghai Shipping Intelligence: Arrivals," shows that the following companies were shipping agents for vessels arriving from either Sydney or Newcastle: Gilman & Co., Frazar & Co., AH&Co., Bourjau & Co., Eduard Schellhaus & Co., JM&Co., Gibb, Livingston & Co., Siemssen & Co., Adamson Bell & Co., Russell & Co., Olyphant & Co. and Findlay, Wade & Co.

¹⁰⁷ The various archives relating to Frazar & Co., located in New York and Duxbury, MA, do not hold any information on trade with Australia. For many of the years in the 1860s and 1870s, Frazar & Co. were the leading importers of coal from Australia.

¹⁰⁸ The figures have been obtained from the correspondence between Chinese Treaty Port firms, including JM&Co., AH&Co. and Russell & Co.

There was an element of Britishness about the Western merchant class of colonial Australia in the 1860s and 1870s. Most came from England with an English schooling and had settled in Australia. Some were sent to Australia to set up agencies for English firms while others arrived in Australia, having moved through other British colonies. The Australian merchants also fell into two groupings. The first were the agents, who were the preferred connections in Australia for the primary Western merchants in China. The second were those merchants who, independently, dealt with various merchant houses in China. From China, the primary two merchant houses that, from as early as the 1820s, traded with merchants in Sydney, Melbourne and Hobart were Dent & Co. and JM&Co. Their representatives in Australia were continuously feuding with each other over the period.¹⁰⁹

Dent & Co. employed Richard Jones as their initial agent in Sydney. The relationship allowed Jones to attain prominence in the Sydney – China trade throughout the 1820s. Jones had arrived in Sydney in 1809 and by 1815 had become the agent for the Bombay firm Forbes & Co. prior to connecting with Dent.¹¹⁰ Jones remained as Dent & Co.'s representative until the early 1840s when he suffered financially owing to the economic depression of the early 1840s.¹¹¹ Dent dispatched William Fanning to replace Jones as their agent in Sydney in 1842.¹¹² In 1845, Fanning joined with George Griffiths to form Griffiths Fanning & Co. Griffiths was also an agent for John Gore & Co. of London,

 ¹⁰⁹ Benjamin Mountford, *Britain, China and Colonial Australia*. Oxford: Oxford University Press, 2016:
 30, 38. By 1830 there were three prominent agents in Sydney who represented major firms in Canton. They participated in various ploys to gain advantage over their rivals, most involving unfound rumours or even illegal activities.
 ¹¹⁰ Dorothy Shineberg, 'Jones, Richard (1786–1852)', Australian Dictionary of Biography, National

Centre of Biography, Australian Dictionary of Biography, National University, http://adb.anu.edu.au.virtual.anu.edu.au/biography/jones-richard-2280/text2931, published first in hardcopy 1967, accessed online 26 August 2017.

¹¹¹ Mountford, Britain, China and Colonial Australia: 38. Jones owed approximately £7,500.

¹¹² Mountford, *Britain, China and Colonial Australia*: 38; Barrie Dyster, "The Rise of William Fanning and the Ruin of Richard Jones." *Journal of the Royal Australian Historical Society* 67, no. 4 (1982): 367-68.

one of the leading traders with the Australian colonies at the time.¹¹³ Combining the two made the firm powerful within the ranks of Sydney merchant houses. Griffiths, Fanning & Co. had, by the early 1860s, become involved with another prominent China-based firm, AH&Co.¹¹⁴

The history of JM&Co.'s agents in Australian ports is more extensive than that of Dent & Co. The continuous turnover of companies in Sydney, particularly, meant that even with a regular agent in Sydney, JM&Co. investigated a number of other, permanent, options. The first contact with Australia was in 1819-20 through a shipment of tea from Magniac & Co. of Canton.¹¹⁵ Later Robert Campbell became involved with JM&Co. providing themselves as agents.¹¹⁶ In 1829, Thomas Edwards opened an agency in Sydney under the name T. E. Edwards and at the commencement of 1833 formed the company Edwards and Hunter with Matthew Hunter.¹¹⁷ From that point on the primary agency for JM&Co. changed hands and name on a number of occasions over the next four decades.¹¹⁸ During the 1860s and 1870s, three companies represented JM&Co. in

¹¹³ Dyster, "The Rise of William Fanning.": 371.

¹¹⁴ Dent & Co. had collapsed as a firm by 1867. Robert Blake surmises that they had not diversified their investments sufficiently and when the Overend Gurney crash took place in 1866, Dent suffered too much. Blake, *Jardine Matheson: Traders of the Far East*: 144.

¹¹⁵ Mountford, *Britain, China and Colonial Australia*: 31. The tea was sent to Sydney under JM&Co.'s account.

¹¹⁶ Mountford, Britain, China and Colonial Australia: 31.

¹¹⁷ "Death of an old Colonist." *SMH* 5 March 1885: 4; "Shipping Intelligence." *SGNSWA* 16 April 1824:
2. T. D. Edwards arrived per *Cumberland* 15 April 1829, having departed Canton on 8 February 1829. On
1 January 1833, Edwards and Hunter was formed. *SGNSWA* 5 January 1833: 1.

¹¹⁸ On 30 June 1840, Edwards and Hunter was dissolved. On 1 July 1840, M. D. Hunter & Co. was formed with Matthew Hunter and Mashfield Mason. On 30 June 1842, M. D. Hunter & Co. was dissolved. On 1 July 1842, Thacker, Mason & Co. was formed with Mashfield Mason, John Thacker and William De Salis. On 1 July 1845, Mashfield Mason departed the firm and Thacker, Mason & Co. was renamed Thacker & Co. with Thacker and De Salis the partners. On 1 July 1847, Arthur Daniell replaced De Salis as a partner in the firm Thacker & Co. On 30 June 1857, Thacker departs the firm and Thacker & Co. was dissolved. On 1 July 1857, Thacker, Daniell & Co. was formed with Daniell and George King as partners. *Sydney Herald* 1 July 1840: 3; *Sydney Herald* 1 July 1842: 3; *SMH* 1 July 1845: 1; *SMH* 1 July 1847: 3; *SMH* 1 July 1857: 6.

Sydney. They were Thacker, Daniell & Co., Daniell, King & Co. and in 1871, George King & Co.¹¹⁹

The agent for JM&Co. in Melbourne was solely James Henty & Co. That stability led, eventually, to a stronger relationship between the two companies. Henty did not arrive in Melbourne directly from London. He had already attempted to establish himself in the new Swan River (WA) colony in 1830 but found that not to his liking.¹²⁰ In 1832, Henty sailed for Launceston, van Diemen's Land (Tasmania).¹²¹ In Launceston, Henty established the firm James Henty & Co. However, the firm suffered and, in 1846, eventually failed.¹²² Henty departed for London, returning with his family to Victoria in 1851 at the time of the commencement of the gold rushes in Victoria and NSW.¹²³ In Melbourne, Henty re-established his business James Henty & Co. ¹²⁴ By the commencement of the 1860s, James Henty & Co. were procurers of gold, shipping that to England along with cargoes of tallow and wool.¹²⁵ Henty became involved in mercantile trade with JM&Co. from as early as 1853 and continued until after 1880.¹²⁶

The firm Henry Moore & Co. were one of JM&Co.'s established traders in Sydney. That brought Moore into direct competition with JM&Co.'s primary agents in that port.

¹¹⁹ On 30 June 1864, Thacker, Daniell & Co. was dissolved. On 1 July 1864, Daniell, King & Co. was formed with same partners as Thacker, Daniell & Co. On 30 June 1871, Daniell departed Daniell, King and & Co. and that firm was dissolved. On 1 July 1871, the firm George King & Co. was formed with George and Robert King partners and that firm remained in place until at least 1885. *SMH* 1 July 1864: 1; Letter from George King & Co., 30 June 1871 *Correspondence: Business Letters: Australasia* JMA B6/3. ¹²⁰ T. W. Mazzarol, "Tradition, Environment and the Indentured Labourer in Early Western Australia."

Studies in Western Australian History 3 (1978): 32.

¹²¹ Jean Blancou, and Ian Parsonson. "Historical Perspectives on Long Distance Transport of Animals." *Veterinaria Italiana* 44, no. 1 (2008): 26.

¹²² Marnie Bassett, *The Hentys: An Australian Colonial Tapestry*. London: Cambridge University Press, 1962: 514.

¹²³ Bassett, *The Hentys*: 539.

¹²⁴ Peter Griggs, "Empire of Leaves: Tea Traders in Late Nineteenth-Century and Edwardian Melbourne." *Victorian Historical Journal* 87, no. 1 (2016): 33.

¹²⁵ Bassett, The Hentys: 539-40.

¹²⁶ Jane Roth, "The Jardine Matheson Archive." Journal of Pacific History 2 (1967): 173.

Henry Moore & Co. were established in 1837.¹²⁷ The firm began by procuring whale-oil and exporting it on vessels returning to London.¹²⁸ Henry Moore & Co. imported sugar from Mauritius and through the income generated from the sugar sales chose to enter the tea trade.¹²⁹ The firm contacted JM&Co. and, by the end of the 1830s, became JM&Co.'s second primary trader in Australia. During the first Opium War, Henry Moore & Co. used shipments of whalebone and oil sent to Magniac, Jardine & Co. in London to pay for imported tea from JM&Co.¹³⁰ Similar to James Henty & Co., Henry Moore & Co. went into receivership in the mid-1840s.¹³¹ Following the seizure of all the firm's assets by creditors, Henry Moore re-established the firm to work as a commission agent.¹³² During the 1860s and 1870s, Moore was involved in the coal and sandalwood export trade of Sydney to JM&Co.

Robert Towns was a pre-eminent merchant of Sydney in the nineteenth century.¹³³ Towns arrived in Sydney in 1827.¹³⁴ He established the company R. Towns in 1842 and began trading with Hong Kong by the mid-1840s.¹³⁵ In 1854 the company was renamed R. Towns & Co.¹³⁶ and continued as a mercantile firm after Towns' death in 1873.¹³⁷ Towns had represented English merchant Robert Brooks from the mid-1840s¹³⁸ and also became involved in the Coalcliff collieries, south of Sydney, as well as being the

¹²⁷ Janette Holcomb, *Early Merchant Families of Sydney: Speculation and Risk Management on the Fringes of Empire*. London: Anthem Press, 2014: 232.

¹²⁸ Holcomb, Early Merchant Families of Sydney: 233.

¹²⁹ Holcomb, Early Merchant Families of Sydney: 235.

¹³⁰ Holcomb, Early Merchant Families of Sydney: 235-36.

¹³¹ Holcomb, Early Merchant Families of Sydney: 238.

¹³² Holcomb, Early Merchant Families of Sydney: 241.

¹³³ The Robert Towns collection is one of the few extensive collections of an Australian merchant that exists in Australia.

¹³⁴ A. G. King, *Looking Backward over 100 History-Making Years, to 1842: A Tribute to a Pioneer.* Sydney: Smith and Darling, 1942: 5.

¹³⁵ King, *Looking Backward*: 6, 9.

¹³⁶ King, Looking Backward: 12.

¹³⁷ King, *Looking Backward*: 15.

¹³⁸ Dorothy Shineberg, "Towns, Robert (1794-1873)." In *Australian Dictionary of Biography Vol.* 6, edited by Geoffrey Serle and Russel Ward. 294-96. Melbourne: Melbourne University Press, 1976: 294.

agent for the Pacific Mail Steamship Company by the 1870s.¹³⁹ More importantly, Towns was the agent for the China-based company Russell & Co. in Sydney importing cargoes of tea and sugar.¹⁴⁰ The sugar originated from Manilla, transhipped in Hong Kong. By the 1850s, Towns had brought together a large fleet of vessels that were involved in the sandalwood and whale export trades.¹⁴¹ Towns was still exporting sandalwood to China in the early 1860s and coal to numerous ports in the Pacific throughout the 1860s and 1870s.

Sydney and Melbourne were the base for numerous other merchant firms that dealt with firms in China. Two prominent Sydney firms dealt with AH&Co. during the period, both considered important to the American Hong Kong-based firm. Lamb Parbury & Co. was formed in 1837 through the joining of forces of William Lamb and Frederick Parbury.¹⁴² Both men had arrived in Sydney on the same vessel in 1829.¹⁴³ The firm was initially involved in the whaling industry but chose to sell their vessels as their primary competition were the cheaper American vessels with crew that both cost less and were able to stay out working in the ocean without the need to consume alcohol.¹⁴⁴ Parbury chose to depart Sydney for London in 1847. Parbury Lamb & Co. were represented by F. Parbury & Co. in London and dealt with AH&Co. and JM&Co. during the 1860s and 1870s.

¹³⁹ King, *Looking Backward*: 18, 19.

¹⁴⁰ Frank Broeze, "Australia, Asia and the Pacific: The Maritime World of Robert Towns." *Australian Historical Studies* 24, no. 95 (1990): 227-28; Marion Diamond, "Tea and Sympathy: Foundations of the Australia/China Trading Networks". *Queensland Review* 6, no. 2 (1999): 27.

¹⁴¹ Broeze, "Australia, Asia and the Pacific.": 225, 226.

 ¹⁴² SGNSWA 7 January 1837: 1. G. P. Walsh, "Lamb, John (1790-1862)." Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au/biography/lamb-john-2321/text3017, published first in hardcopy 1967, accessed online 23 September 2017. "A century-old firm registered in W.A." *West Australian* 6 March 1954: 17; "Historic firm: Parbury, Henty & Co." *Courier Mail* 18 November 1933: 7. The latter two references give spurious dates of 1834 and 1835.
 ¹⁴³ "Shipping Intelligence." SGNSWA 9 May 1829: 2. Parbury arrived per *Resource* on 6 May 1829. He

 ¹⁴³ "Shipping Intelligence." SGNSWA 9 May 1829: 2. Parbury arrived per Resource on 6 May 1829. He returned to England in early 1833 to wed in April and then was back in Sydney with his wife per Sir John Jae Reid on 24 September 1833. "English Extracts." Sydney Herald 29 August 1833: 1; "Shipping." Sydney Monitor 25 September 1833: 3.
 ¹⁴⁴ Joseph Allen, The Navigation Laws of Great Britain, Historically and Practically Considered, with

¹⁴⁴ Joseph Allen, *The Navigation Laws of Great Britain, Historically and Practically Considered, with Reference to Commerce and National Defence*. London: Baily Brothers, 1849: 209, 210.

Wilkinson Brothers & Co. were a firm that by 1860 held offices in Sydney and Melbourne. The company was initiated by Simon Wilkinson from the early 1840s as S. Wilkinson, junior & Co.¹⁴⁵ The firm was engaged with American firms, primarily in Boston, importing goods from America or acting on the behalf of American vessels that arrived in Sydney with whale oil and similar products.¹⁴⁶ During the firm's early days, the first American consul to New South Wales, James Hartwell Williams, joined the firm.¹⁴⁷ In 1853, S. Wilkinson, junior & Co. established a branch in Melbourne and the firm was renamed Wilkinson Brothers & Co.¹⁴⁸ Wilkinson Brothers & Co. continued to be involved in the Boston trade, extending to San Francisco and Valparaiso.¹⁴⁹ By the mid-1850s, Wilkinson Brothers & Co. were importing tea from China through Augustine Heard & Co.¹⁵⁰ In late 1866, problems occurred with finances and by 1868, Wilkinson Brothers & Co. were made insolvent.¹⁵¹

Throughout the Australian colonies, many other Western merchants took the opportunities to avail themselves of trade with China in the 1860s and 1870s. From Western Australia, following the re-opening of the sandalwood trade to China in the late 1850s to northern Queensland and the Northern Territory of South Australia, where, by the late 1870s, trade was brisk with China, merchants organised both imports from and exports to China. Viewing the correspondence records for JM&Co. and AH&Co. shows that a large number of Australian firms were involved in trade with China. Between the

¹⁴⁵ E. Daniel Potts, and Annette Potts. "James Hartwell Williams: First American Consul in Australia." *New England Quarterly* 48, no. 2 (1975): 271. It is possible, based on newspaper items that the firm The Austrlaian commenced business in 1844 as that is when the first mentions of the firm are found. See, for example: "Ships in Harbour." *Shipping Gazette and Sydney General Trade List* 23 March 1844: 6.

¹⁴⁶ "Shipping List, and Price Current." *Colonial Observer* 11 April 1844: 16. S. Wilkinson, junior & Co. were the shipping agents for the American barque, La Grange.

¹⁴⁷ Potts and Potts, "James Hartwell Williams": 271.

¹⁴⁸ *SMH* 27 June 1853:3.

¹⁴⁹ "Australasia." New York Herald 23 December 1866: 6.

¹⁵⁰ Canton from Wilkinson Bros. & Co., Sydney AHA II C 2 LV-5 f83

¹⁵¹ W. H. Wilkinson, and J. S. Paterson. *Reports of Cases Argued and Determined in the Supreme Court of New South Wales*. Vol. 7, Sydney: J. J. Moore, 1869: 68-70.

two China firms, no less than 200 individual Australian merchant firms corresponded about trade.¹⁵²

The Australian merchant class of the nineteenth century included more than just the European mercantile firms. The Chinese were well represented. However, there were only a few that stood out as formative merchants, involved in overseas ventures, during the second half of the century. In Melbourne, were Lowe Kong Meng and Louis Ah Mouy and in Sydney was Mei Quong Tart.¹⁵³ These merchants not only represented their community but also became prominent members of Western-based institutions. More importantly, they helped to bridge the cross-cultural boundaries that existed between Westerners and the Chinese in the major ports of colonial Australia.¹⁵⁴

Lowe Kong Meng was one of the first Chinese merchants in Victoria. Meng arrived as a miner of gold and without success, travelled to India. He returned in 1853¹⁵⁵ and a year later created the company Kong Meng & Co.¹⁵⁶ as an importer of Chinese products.¹⁵⁷ Meng was well educated. Prior to arriving in Victoria Meng had learnt to speak English

 $^{^{152}\,{\}rm For}$ a listing of those firms involved in the trade, see Appendix 2 for JM&Co. and Appendix 3 for AH&Co.

¹⁵³ There were other large Chinese firms throughout the colonial ports, but of all, these three are the most prominent. For example, the two firms Sun Kwong Yee and On Kee were involved in trade with overseas compatriots. They commonly sent gold our of Australia through the vessels towards Galle. Similarly, if an analysis of the export lists from the *Empire* of Sydney was performed, specific Chinese companies would be identified as prominent exporters of gold direct to Hong Kong. Ah Mouy was involved with tin mining in Malaya while Kong Meng had many interests both in China and in Queensland, including the Hop Wah Sugar Company. G. Oddie, "The Lower Class Chinese and Merchant Elite in Victoria, 1870-1890." *Australian Historical Studies* 10, no. 37 (1961): 68.

¹⁵⁴ In 1879, the prominent Chinese merchants of Melbourne joined with a number of Western merchants and other members of the public to argue against the treatment of the Chinese at the time. Lowe, Kong Meng, Louis Ah Mouy, and Cheok Hong Cheong. *The Chinese Question in Australia, 1878-79.* Melbourne: F. F. Bailliere, 1879.

¹⁵⁵ Paul Macgregor, "Chinese Political Values in Colonial Victoria: Lowe Kong Meng and the Legacy of the July 1880 Election." *Journal of Chinese Overseas* 9 (2013): 137. See also: Chin Fatt Yong, "Lowe Kong Meng (1831-1888)." Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au.virtual.anu.edu.au/biography/lowe-kong-meng-4043/text6431, published first in hardcopy 1974, accessed online 2 October 2017. ¹⁵⁶ Paul Macgregor, "Lowe Kong Meng and Chinese Engagement in the International Trade of Colonial

 ¹⁵⁶ Paul Macgregor, "Lowe Kong Meng and Chinese Engagement in the International Trade of Colonial Victoria." *Provenance*, no. 11 (2012). <u>https://www.prov.vic.gov.au/explore-collection/provenance-journal/provenance-2012/lowe-kong-meng-and-chinese-engagement</u>. (cited 4 April 2014)
 ¹⁵⁷ Macgregor, "Chinese Political Values in Colonial Victoria.": 137; "The Late Mr. Kong." *Argus* 20

¹³⁷ Macgregor, "Chinese Political Values in Colonial Victoria.": 137; "The Late Mr. Kong." Argus 20 October 1888: 16.

and French fluently.¹⁵⁸ This allowed Meng to open his trade circles to include numerous merchant houses in ports throughout Asia and the Indian Ocean.¹⁵⁹ Meng also had a fleet of vessels including the Joshua Bates, a vessel that made numerous journeys between Hong Kong and Melbourne in the 1860s and 1870s.¹⁶⁰ Meng's dealings until the late 1860s were primarily with the local Chinese, such were the items he imported. By the late 1860s, Meng became involved in tea importation from China, predominantly owing to the declining Chinese market.¹⁶¹

Meng was well known for his connection to the Europeans in Victoria and other parts of Australia. From the early 1860s, Meng's business included working with both Chinese and Westerners.¹⁶² He was connected to local businesses and political elite in Victoria.¹⁶³ Along with fellow Chinese merchant Louis Ah Mouy, Meng was one of the founding shareholders of the Commercial Bank of Australia.¹⁶⁴ Further, Meng became a member of the Royal Society of Victoria.¹⁶⁵ The position Meng held within the European circles of Victoria allowed him to become a well-respected member of that colony.

Louis Ah Mouy was also a prominent merchant in Melbourne. Ah Mouy was not specifically an importer as was Meng, though he did become involved in the

¹⁵⁸ Meng was educated in both Penang and in Mauritius.

¹⁵⁹ Macgregor, "Lowe Kong Meng and Chinese Engagement."; "Our Oriental Traders." Argus 14 April 1863: 5.

¹⁶⁰ Macgregor, "Lowe Kong Meng and Chinese Engagement."; Helen Lagrange, and Jacques Lagrange. Clipper Ships of America and Great Britain, 1833-1869. New York: G. P. Putman's sons, 1936; 80.

¹⁶¹ Macgregor, "Lowe Kong Meng and Chinese Engagement." A declining Chinese population through the restrictive laws of the colonial governments created the drop in the need for Chinese goods Meng had previously imported. ¹⁶² Macgregor, "Lowe Kong Meng and Chinese Engagement."; "Mr. Lowe Kong Meng." Australian

News for Home Readers 20 September 1866: 4.

¹⁶³ Macgregor, "Chinese Political Values in Colonial Victoria.": 137, 143.

¹⁶⁴ Marilyn Lake, and Henry Reynolds. Drawing the Global Colour Line: White Men's Countries and the *Question of Racial Equality*. Melbourne: Melbourne University Publishing, 2008: 22-23. ¹⁶⁵ Macgregor, "Lowe Kong Meng and Chinese Engagement."

distribution of tea, rice, opium and Chinese oil.¹⁶⁶ Ah Mouy arrived in Melbourne in 1851 and was the first Chinese to engage in the tea business a year later.¹⁶⁷ The firm Ah Mouy and Company was created for this purpose.¹⁶⁸ From 1865, Ah Mouy commenced monthly shipments of gold to Galle, which continued for the remainder of the 1860s and throughout the 1870s. Lowe Kong Meng was also involved in the same practice. Gold sent by Chinese merchants to China was primarily for the payment of goods to be delivered to Australian ports.¹⁶⁹ Shipments to Galle were transhipped on P&O steamers and, eventually, transferred to Hong Kong.¹⁷⁰

Mei Quong Tart was a Sydney Chinese merchant engaged in the tea and silk trade.¹⁷¹

His commencement as a merchant was from 1881 and thus lies outside this study. However, there are similarities with Meng and Ah Mouy and their relationship with the Western elite that require some exposure. Tart arrived in NSW, aged nine, in 1859 and became well known in the small town of Braidwood, NSW, where he grew up under the tutelage of of a prominent Western family.¹⁷² Through his gold finds in the area, Tart

¹⁶⁶ Chin Fatt Yong, "Ah Mouy, Louis (1826-1918)." Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au.virtual.anu.edu.au/biography/ah-mouy-louis-2872/text4099, published first in hardcopy 1969, accessed online 2 October 2017; "The Empire." *Empire* 10 March 1871: 2. There were also regular advertisements for the sale of Chinese oil in the *Argus* newspaper.

¹⁶⁷ Yong, "Ah Mouy, Louis."

¹⁶⁸ The first mention of Ah Mouy and Co. was in 1857. I have made an assumption that Yong's note of the tea business would have been carried out by this firm.

¹⁶⁹ "Chinese Residence Tax." Argus 31 May 1859: 7.

¹⁷⁰ I say "eventually" as it is near impossible to trace the movement of specie along the route from Melbourne to Hong Kong via Galle. Strangely, there were almost no direct shipments of gold, none up to 1861, of gold from India to Hong Kong. Also, almost no gold was sent from Galle to Hong Kong during the same period as well. In 1862 there was only £68 worth of gold shipped from Galle to Hong Kong. However, some gold was sent to ports including what were later called the Straits Settlements (Penang, Melaka and Singapore) and perhaps these were intermediary ports where the gold was then transhipped to Hong Kong. Much more analysis of the movement of specie and bullion in the Indian Ocean is required before any true acceptable conclusions can be made. As such, in this case the note from 1859 is suffice to show that at least Meng was involved in using his gold shipments from Melbourne to Galle to pay for the shipment of Chinese goods from Hong Kong to Melbourne.

¹⁷¹ Margaret Tart, *The Life of Quong Tart: Or, How a Foreigner Succeeded in a British Community.* Sydney: W. M. Maclardy, 1911: 7-8. ¹⁷² E. J. Lea-Scarlett, "Mei Quong Tart (1850-1903)." Australian Dictionary of Biography, National

¹⁷² E. J. Lea-Scarlett, "Mei Quong Tart (1850-1903)." Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au.virtual.anu.edu.au/biography/mei-quong-tart-4181/text6719, published first in hardcopy 1974, accessed online 2 October 2017.

attained sufficient wealth to consider travelling to Sydney in 1874 with the view of establishing a mercantile business there. It took Tart nearly a decade of travelling to and from ports in China and elsewhere before he became involved as a merchant.¹⁷³

These three Chinese merchants were a bridge between the Chinese Australians and Westerners in Australia. Like Meng, Tart spoke English very well and was educated and as with Ah Mouy, Tart had been successful at the gold fields. All three also had Western brides and were accepted into the circles of the Western elite.¹⁷⁴ While being educated and wealthy was of an advantage, Tart, Meng and Ah Mouy also knew how to use their social skills to place themselves as equals to the Western elites. Thus, when required, they were valuable spokespersons for the Chinese Australian community.

Mercantile connection with England

Firms in Australia and those in the UK had strong mercantile connections. The connections were developed in various ways. A firm in England organised for individuals to emigrate to Australia and set up agencies or businesses aligned with the UK firm. Secondly, a member of a firm in Australia chose to travel to England to set up an agency of the Australian firm. Finally, a firm in Australia aligned itself with one in England that it believed would perform business for them. Through each connection, the ability to provide financial assistance and other services in England as well as to organise freight of goods from England to Australia was viewed as vital for the

¹⁷³ Tart, *The Life of Quong Tart*: 19.

¹⁷⁴ Lowe Kong Meng married Mary Ann (Annie) Prussia on 4 February 1860, Mei Quong Tart married Margaret Scarlett on 30 August 1886 and Louis Ah Mouy married Mary Rogers on 13 November 1855. Louis Ah Mouy later later remarried Ung Chuck presumably after his first wife passed away. Chin Fatt Yong, "Lowe Kong Meng (1831-1888)." Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au.virtual.anu.edu.au/biography/lowe-kong-meng-4043/text6431, published first in hardcopy 1974, accessed online 2 October 2017. Lea-Scarlett, "Mei Quong Tart." "Family Notices." Argus 15 November 1855: 4. Chinese Museum, "Ah Mouy Family." http://www.chia.chinesemuseum.com.au/biogs/CH00670b.htm (cited 2 October 2017).

Australian companies. The London companies acted as both a trader for the import and export of goods between the UK and Australia as well as a conduit for the trade between China and Australia.

London merchant company Robert Brooks & Co. was an example of a firm organising an agency in Australia. In Brooks' case, as has been stated above, the connection was through requesting Robert Towns to travel Sydney. Brooks was a leading London merchant in most aspects of England – Australia trade. This was specifically the case for the wool trade from Australia.¹⁷⁵ Brooks had worked with Towns in the 1830s and by 1842, sent Towns to Sydney to take over as his agent from Ranulf Dacre. At that time, Dacre had generated severe debts under Brooks' name.¹⁷⁶ Towns continued to rely on Brooks for financial support throughout the remainder of his tenure as head of Robert Towns & Co.¹⁷⁷ Throughout the period of the 1860s and 1870s, Brooks continued to be involved in the England – Australian trade while also providing firms such as Robert Towns & Co. with assistance for finances and banking.¹⁷⁸

The line between which company were the agents and which were the primary, or lead, firm became blurred by the mid-1850s. This was certainly the case for the relationship between Robert Brooks & Co. or Robert Towns & Co. As Frank Broeze noted in his biography of Towns, "Brooks remained the London agent and financier of the Sydney firm."¹⁷⁹ That Brooks was labelled the agent for an Australian firm shows that an

¹⁷⁵ Frank Broeze, "British Intercontinental Shipping and Australia, 1813-1850." *Journal of Transport History* n.s.:4, no. 4 (1978): 203; Simon Ville, "Business Development in Colonial Australia." *Australian Economic History Review* 38, no. 1 (1998): 20; Frank Broeze, "The View from Inside: Robert Brooks and the British Connection." *The Push* 2 (1978): 8. Broeze states that Brooks was one of the largest traders with Australia in the mid-1840s.

¹⁷⁶ Broeze, "Australia, Asia and the Pacific." 223; Broeze, "The View from Inside.": 8, 23. Dacre had been Brooks' agent in Sydney since 1831. Dacre's first name has also been given as Ranulph. Towns would later continue to work with Dacre, when the latter moved to Hokianga in New Zealand.

¹⁷⁷ Broeze, "Australia, Asia and the Pacific." 224.

¹⁷⁸ Ville, "Business Development in Colonial Australia.": 20.

¹⁷⁹ Broeze, "Australia, Asia and the Pacific." 224.

alteration in the status of relationships between London and Australian firms occurred, one where a tendency towards equality existed. London firms as agencies for firms elsewhere in the world was not unusual and, throughout the history of mid-nineteenth century British – Australia trade relationships, it was quite common for the London firm to not only be an agency but have its origins with an existing Australian firm. Two such firms were the leading importers of wool into England and were also representatives of a number of firms engaged in the China – Australia trade.

James Alexander and W. L. M. Redfern formed a partnership that had existed since at least the 1840s. At that time, they had purchased a set of leases for rural properties in the northern country region of colonial Victoria and were extremely interested in the wool trade.¹⁸⁰ They noted the importance of England as a financial hub with their wool dealings. Thus, by 1850, the firm Redfern Alexander & Co. (RA&Co.) had opened an office in London.¹⁸¹ Only a year later, RA&Co. were already one of the two biggest importers of wool from Australia and New Zealand.¹⁸² Their strength as one of the lead wool importers was to continue well into the 1870s.¹⁸³ Along with the importation of wool, RA&Co. became involved on the committees, as Directors, for a number of financial and mercantile institutions, based in London.¹⁸⁴ In doing so, RA&Co. had developed a strong and sound base to provide representation for various firms based in either Australia or New Zealand whether for trade between Australia and the UK or Australia and China. These included their own, related firms, RA&Co. in Melbourne

¹⁸⁰ "Port Phillip: Claims to Leases of Crown Land." *Port Phillip Gazette and Settler's Journal* 9 August 1848: 1.

¹⁸¹ Glasgow Herald 9 December 1850: 3.

¹⁸² "Australian Wool." *Empire* 24 May 1852: 2.

¹⁸³ "Pastoral Items." *Wagga Wagga Advertiser and Riverina Reporter* 22 May 1872: 3; "Wool Shipments to Great Britain." *South Australian Register* 17 March 1875: 6.

¹⁸⁴ Standard 9 November 1852: 1; Daily News 18 June 1862: 6-7; "National Bank." Daily News 27 May 1863: 3; Examiner 30 January 1864: 78; "Money Market." Daily News 19 June 1865: 9; "Money Market." Daily News 18 May 1866: 6. Members of RA&Co. were: a director of the National Bank in London, a board member of the City Assurance Company, a member of the London Merchants Company (Limited), a board member of the Bank of Hindustan, China and Japan (Limited), a director of The Financial Corporation (Limited) and a director of the English, Scottish and Australian Chartered Bank.

and Gilchrist and Alexander in Sydney as well as numerous other agencies in various ports, most of whom were supplying wool to England.¹⁸⁵ Further, the Australasian Steam Navigation Company (ASN) chose RA&Co. to be their representative in England. As early as 1852, ASN had requested of RA&Co. to obtain new steamers for the Australian maritime firm and RA&Co. continued to contribute in such a way until the mid-1860s.¹⁸⁶

By the mid-nineteenth century, another firm entered the wool trade and, within a short period, became the leading importer of that product to the UK.¹⁸⁷ From the mid-1850s, the company Dalgety Du Croz, of London, were merchants with agencies in Melbourne, Geelong and Launceston.¹⁸⁸ On 1 January 1866, the firm Dalgety Du Croz and Co. was formally included as part of a "Partnership" group of firms. These included the London firm, the Melbourne firm Dalgety, Blackwood & Co., Dalgety, Ibbotson and Co. in Geelong and Du Croz, Nichols and Co. in Launceston.¹⁸⁹ The company's founders were Frederick G. Dalgety and Frederick A. Du Croz, the latter from Tasmania.¹⁹⁰ By the 1870s, the company had extended its reach to include agencies in Western Australia for the export of wool.¹⁹¹ Unlike RA&Co., Dalgety Du Croz & Co. were not connected to numerous financial institutions. They were, though, well recognised merchants in

¹⁸⁵ "Original Correspondence: Australian Cotton." *SMH* 6 February 1852: 3; *Portland Guardian and Normanby General Advertiser* 2 December 1861: 4; *Argus* 6 December 1861: 1; "Law Report: Supreme Court." *Argus* 28 May 1862: 7; "Local Intelligence." *Courier* 22 October 1862: 2; *Launceston Examiner* 13 November 1862: 1; *Border Watch* 6 October 1866: 1; *Mercury* 7 December 1870: 1.

¹⁸⁶ Newcastle Courant 22 October 1852: 8; "New Zealand." *SMH* 25 February 1853: 2; "Australasian Steam Navigation Company." *SMH* 30 July 1864: 5; "Australasian Steam Navigation Company." *SMH* 1 February 1865: 2-3.

¹⁸⁷ "Pastoral Items." *Wagga Wagga Advertiser and Riverina Reporter* 22 May 1872: 3; "Wool Shipments to Great Britain." *South Australian Register* 17 March 1875: 6. Dalgety Du Croz & Co. were the lead importers of Australian and New Zealand wool to the UK in 1871 and 1874.

¹⁸⁸ *Times* 24 April 1857: 6. A. R. Cruickshank departed from the company that included, as partners, F. G. Dalgety, F. A. Du Croz and C. Ibbotson and existed in Gresham Street, London.

¹⁸⁹ Argus 30 December 1865: 7. The Notice was put forward by Dalgety and Company.

¹⁹⁰ "The Australian Colonies and Transportation." *Daily News* 2 February 1863: 5. When stating that Frederick A. Du Croz was part of the committee of the General Association of the Australian Colonies, it labelled Du Croz as "of Tasmania."

¹⁹¹ For example, see "Shipping Report." Victorian Express 4 December 1878: 2.

London with Dalgety a member of various important mercantile committees relating to Australia.¹⁹²

Frederick Parbury's situation as an agent to a firm in Australia has similar traits to those of RA&Co. and Dalgety Du Croz & Co. Parbury was attracted to Australia, arriving in Sydney in 1829. Parbury immediately set up a successful firm.¹⁹³ In 1837, Parbury became part of the firm Lamb, Parbury & Co.¹⁹⁴ While in Sydney, Parbury was placed on the board of various institutions, attaining for both himself and his company a strong reputation among commercial circles.¹⁹⁵ Parbury made a number of trips back to the UK and in 1847, Parbury and his family departed Australia for good.¹⁹⁶ Following his return to London, Parbury set up an agency of Lamb, Parbury & Co. in London, named F. Parbury & Co., to manage the monetary duties of the company in relation to transactions with firms from other countries. As with James Alexander, Parbury gained acceptance to the boards of a number of financial and commercial institutions in London branch of the Commercial Banking Company of Sydney in 1859.¹⁹⁷ His

¹⁹² "North Rhine Copper South Australia Mining Company" *Daily News* 22 September 1859: 7; "Money Market." *Daily News* 22 September 1859: 7; *Age* 15 August 1867: 1; "Latest English Markets." *South Australian Register* 10 May 1870: 7; "New South Wales and Van Diemen's Land Commercial Association." *SMH* 23 May 1870: 3; "The Victoria Meat-Preserving Company (Limited)." *Argus* 8 October 1870: 7; *Glasgow Herald* 12 April 1880: 1. Members of the Partnership were: a director of the Geelong and Melbourne Railway Company, on the committee of the North Rhine Copper South Australia Mining Company, the agent in London for the Australian Alliance Assurance Company, a member of the London Merchants Committee, the Chair of the New South Wales and Van Diemen's Land Commercial Association, the agent in London for the Victoria Meat-Preserving Company (Limited) and a director of the Australian Meat Importation (Whitehead's) Company (Limited).

¹⁹³ Within a year of arrival, Parbury was involved in importing goods. "Sydney General Trade List." SGNSWA 27 July 1830: 2. Parbury was appointed auditor in 1835 for the Australian Marine Assurance Company, made a number of trips to Hobart to extend his mercantile work and applied for leases of property near Mudgee, west of Sydney. *Sydney Herald* 16 August 1832: 2; "Domestic Intelligence." *Sydney Herald* 8 December 1834: 2; "Shipping Intelligence." *Sydney Herald* 28 September 1835: 2; "Government Gazette: Yearly Leases of Land." *Sydney Monitor* 7 July 1836: 1. Parbury applied for three leases.

¹⁹⁴ SGNSWA 7 January 1837: 1. G. P. Walsh, "Lamb, John (1790-1862)."

¹⁹⁵ SMH 15 August 1843: 3; "Law Intelligence." SMH 14 March 1844: 2. Parbury was also one of the trustees of the estate of the failed company of Henry and Joseph Moore.

¹⁹⁶ "A Fashionable "Exit"." *Sydney Chronicle* 3 March 1847: 2. Parbury and family departed Sydney for London per *Sir George Seymour* on 1 March 1847.

¹⁹⁷ "Money Market." *Daily News* 9 August 1859: 8.

position in London thus allowed Parbury to deal with such firms as AH&Co. and JM&Co. on behalf of Lamb Parbury & Co. as well as other agencies of that firm throughout the Australian colonies.¹⁹⁸

London companies under the control of foreign firms was not solely the domain of Australian firms. Matheson & Co. of London was wholly owned by JM&Co. The firm was constituted in 1848 when James Matheson returned to London to take over from the partnership that was the firm Magniac and Jardine.¹⁹⁹ In the early years of this incarnation of the firm, the company was involved as the London agent for JM&Co. and Jardine Skinner & Co. of Calcutta as well as ship chartering. However, by the 1860s the firm altered its direction towards becoming interested in international venture capitalist investments and merchant banking.²⁰⁰ For Australian merchants, Matheson & Co. became the primary point of monetary transfer when performing transactions with JM&Co. in Hong Kong.

Institutions

Merchants located in the Treaty Ports of China, the ports of the colonies of Australia and those in India, England, Singapore and other ports were all linked. Transport and communications provided the connection. Improvements in technology eventually brought the individual global entities, the merchant houses, closer. The nineteenth century was one of significant global innovation: technological and organisational improvements in international transport and communications; integration of markets

¹⁹⁸ For items of correspondence, see: F. Parbury & Co. *Baker Old: RAOU P224* Baker Library, Harvard University, Cambridge, MA, USA.

¹⁹⁹ Connell, "Jardine Matheson & Company.": 100, 101.

 ²⁰⁰ Connell, "Jardine Matheson & Company.": 100; Geoffrey Jones, *Merchants to Multinationals: British Trading Companies in the Nineteenth and Twentieth Centuries*. Oxford: Oxford University Press, 2002: 57.

across countries; advances in international finance; increasing international demand for products; specialisation of production across national boundaries; and a global monetary exchange market; all within a period of inconsistently timed economic ruptures and discontinuities. Following the mid-nineteenth century gold rushes of Victoria and New South Wales, Australian colonial merchants and entrepreneurs were both keen to partake and to take advantage of these innovations. The trade with China during the 1860s and 1870s allowed for a group of merchants throughout the various Australian colonies to invest in and capitalise on the developing global economy, one of great promise.

The financial institutions that worked within the global multilateral trade systems were founded in London. By the 1860s foreign merchant houses, mostly based in London, converted into intricate and complex financial institutions. While acting for overseas merchants, they performed a number of tasks that included bills of exchange, foreign exchange and the provision of credit. The credit was guaranteed by the London houses with payment on maturity although facilitated by discounting.²⁰¹ Many were joint stock banks, and institutions that had existed in Great Britain since the early seventeenth century.²⁰² These banks evolved, merged and created branches. Thus, by the midnineteenth century, the British banking sector had consolidated to an extent that they could work with the complexities of multilateral trade.

British institutions were intrinsically aligned with Australia during the first half of the nineteenth century. Australian colonies were under the control of British decisions.²⁰³

²⁰¹ Jones. *Multinationals and Global Capitalism*: 23.

²⁰² Herbert Heaton. *Economic History of Europe*. New York: Harper & Brothers, 1948: 323: 332-3. The BEIC used joint stock funds to pay their servants from 1600 while a few of the new colonies along the east coast of the United States were funded by joint stock companies in the early seventeenth century. ²⁰³ McLean, *Why Australia Prospered*: 50.

Australians had similar banking systems,²⁰⁴ came under the gold standard²⁰⁵ and used British currency, the pound sterling.²⁰⁶ By mid-century, semi-autonomous independence was attained through self-government.²⁰⁷ Colonial financial institutions had also evolved and consolidated from overseas control to local ownership.²⁰⁸ These institutional alterations, together with the ties to Britain, gave Australian merchants the impetus to expand their trade horizons. Those ventures included Asia and, specifically, China.

From 1861 to 1889, colonial Australia's aggregate economy grew by 4.8% per annum, comparing favourably with other developed economies at that time.²⁰⁹ To maintain this continual growth, technological advancement was essential. Over the decades following the 1850s Australia became part of the global technology machine with advancements in transport, communications and agrarian, mining and manufacturing equipment. These led to increased capital accumulation, profits and then further investment.²¹⁰ The gold industry assisted with the advancement. The alterations to methods of gold mining were later transferred to the other mining sectors.²¹¹ However, more importantly, the gold industry of the 1850s and 1860s gave impetus to Australia's colonial economic growth through the investments in institutions derived from the exports of gold.

²⁰⁴ S. J. Butlin, Foundations of the Australian Monetary System 1788-1851. Sydney: Sydney University Press, 1953: 118, 195, 496; Geoffrey Jones, Multinationals and Global Capitalism: From the Nineteenth to the Twenty-First Century. Oxford: Oxford University Press, 2005: 23; Simon Ville, "Colonial Enterprise." In The Cambridge Economic History of Australia, edited by Simon Ville and Glenn Withers. 202-21. Melbourne: Cambridge University Press, 2015: 206.

²⁰⁵ McLean, Why Australia Prospered: 46; Pinkstone and Meredith, Global Connections: 33; Kenwood, A. G., and A. L. Lougheed. The Growth of the International Economy 1820-1960. London: George Allen & Unwin, 1971: 117.

²⁰⁶ McLean, Why Australia Prospered: 46; Butlin, Australian Monetary System: 143; William Ashworth, A Short History of the International Economy 1850-1950. London: Longmans, 1961: 168; Kenwood and Lougheed, International Economy: 123-24.

²⁰⁷ Jakob B. Madsen, "Australian Economic Growth and Its Drivers since European Settlement." In The Cambridge Economic History of Australia, edited by Simon Ville and Glenn Withers. 29-51. Melbourne: Cambridge University Press, 2015: 37. ²⁰⁸ Sinclair, *The Process of Economic Development in Australia*: 98-99.

²⁰⁹ McLean, Why Australia Prospered: 67.

²¹⁰ Madsen, "Australian Economic Growth.": 44.

²¹¹ Madsen, "Australian Economic Growth.": 40,43.

The mineral boom created many alterations to the mechanisms of colonial Australia's growth. Key to this growth were the modifications to institutional frameworks, including a more sophisticated financial system, free-market systems or similar and the enhancement, in some colonies, or establishment, in others, of self-governmental rule.²¹² Complementary to these were the improvements in the infrastructure required, including transport and communications.²¹³

Self government derived for the colonies the ability to determine their commercial policies. These differed throughout Australia. Victoria chose protectionism while New South Wales encouraged free trade and the other colonies installed the levying of duties for revenue purposes.²¹⁴ Self government also meant the evolution of new legislation, both in response to the gold industry and its effects as well as altering some of the British legislation that was by then out of date and not relevant for the new prosperous economies.²¹⁵ These included taxes, duties and other money-raising mechanisms as well as the distribution of those funds to develop infrastructure.

The continuing enhancement of infrastructure through government funding was vital for the development of the various colonial economies. While some elements of infrastructure were privately owned, many were converted to be under governmental control.²¹⁶ Road and rail continued to be improved and although trains were government owned, firms like Cobb and Co. were increasingly important in road transport.²¹⁷ Shipping remained the realm of private companies, yet port construction and

²¹² Madsen, "Australian Economic Growth.": 37; Sinclair, Economic Development in Australia: 104.

²¹³ Pinkstone and Meredith, *Global Connections*: 6.

²¹⁴ Kenwood and Lougheed, *International Economy*: 79.

²¹⁵ Ville, "Colonial Enterprise.": 210.

²¹⁶ Henry Ergas, and Jonathan Pincus. "Infrastructure and Colonial Socialism." In *The Cambridge Economic History of Australia*, edited by Simon Ville and Glenn Withers. 222-44. Melbourne: Cambridge University Press, 2015: 225. The NSW government took over all wharves by the mid-1870s.
²¹⁷ Ville, "Business Development.": 29.

maintenance were aspects of government spending that increased after 1850. Dredging, modernising facilities for loading and unloading and specialisation to cater for specific cargoes were each part of this development.²¹⁸ Finally, government spending on the laying of telegraphic cables from the late 1850s and through to the late 1870s assisted in creating for entrepreneurs immediate and accurate information which led to better opportunities for profit and investment.²¹⁹

The rapid growth, following the gold discoveries had enduring effects on the private sector as well as providing governments with funds. The expansion of trade, both exports and imports, led to the creation of numerous new firms, each involved in one or more of the aspects of the various institutional duties.²²⁰ This was further encouraged through few restraints of trade coupled with the available exploitation of natural resources.²²¹ These mercantile houses performed various services although they were predominantly involved in commodity brokering and as commission agents. However, diversification over numerous services, including as agents for insurance, financial services or shipping companies was also common. Other houses even delved in to shipowing.²²² For some entrepreneurs, ship-owning generated profitable returns that were better than the average domestic enterprise and thus, by the 1870s, specialised shipping firms emerged throughout colonial Australia to compete with the established Australian and foreign firms already invested in the transport of goods, mail and people.²²³ Thus, for the post gold-boom period of the 1850s, there was much promise and profit for entrepreneurs who took advantage of colonial Australia's trade relationships. It was in

 ²¹⁸ Ashworth, *International Economy*: 69, 71.
 ²¹⁹ Ergas and Pincus, "Infrastructure and Colonial Socialism.": 229; Boyce and Ville, *Modern Business*: 60-61.

²²⁰ Ville, "Colonial Enterprise.": 205.

²²¹ Sinclair, Economic Development in Australia: 100.

²²² Ville, "Colonial Enterprise.": 206-7.

²²³ Gordon Boyce, and Simon Ville. *The Development of Modern Business*. New York: Palgrave, 2002: 3; Ville, "Business Development.": 29.

this environment that the China – Australia trade relationship and all those involved, whether in Australia, China or other foreign ports, of the 1860s and 1870s was built on.

CHAPTER 2

GREAT HIGHWAY TO THE NORTH

Australian historian Geoffrey Blainey stated that Australia was remotely located from its main markets and thus suffered, as his well-known book is titled, from "the tyranny of distance".¹ Blainey was concerned about the isolation of Australia to the foreign markets of England and Europe, particularly in the nineteenth century. This distance was exacerbated by the fact that almost all international travel to Australia was by sail. Further, Blainey put forward that in the nineteenth century Australia's dependence on Britain made her an imitation of the home country in many ways, and the fact that the continent was geographically located at the "end of Asia's tail" seemed irrelevant to Blainey.² That is, Blainey advanced a belief of isolation from the rest of the world, including Asia.

The resulting effect of the isolation was that maritime technology played barely a small part in colonial Australia's international trade relations prior to the mid-1870s. While early versions of steamers were already plying the trans-Atlantic routes as well as making trips to China, Australia's external contacts remained primarily the domain of sail.³ For the connection between East Asia and Australia during this period, all bar the rare exception were completed by sail. Yet, by the commencement of the 1880s, all trade from China to Australia was concluded using steam vessels.

¹ Geoffrey Blainey, *The Tyranny of Distance: How Distance Shaped the World*. Melbourne: Sun Books, 1966.

² Blainey, *The Tyranny of Distance*: 316.

³ Except for the inclusion of P&O mail steamers from 1852. Ngaire Douglas, and Norman Douglas, "P and O's Pacific." *Journal of Tourism Studies* 7, no. 2 (1996): 3.

The sudden transition was a result created from the choice of a route through the Torres Strait. Technological advancement in maritime transport played an important role. However, it was overshadowed, in the respect of trade between China and Australia, by the development of the Torres Strait route. From 1873, that route became the norm for journeys between China and the eastern colonies of Australia, replacing the long treks that took vessels around Western Australia (WA) or out into the Pacific Ocean. The shorter distance and the use of steamers created for merchants significant improvements in their dealings as part of the China-Australia trade network. This chapter focuses on the search for a connection to Asia through the Torres Strait and how that led to a stronger trade relationship between the eastern colonies of Australia with China.

The current chapter investigates questions relating to the Torres Strait route. What was the importance of choosing this route in comparison to the sailing routes prior to 1873? What part did the advancement of maritime transport technology play in creating a base for the transition from sail to steam on the journeys between China and eastern Australia? What efforts were employed to open up this route prior to 1873 and who, in 1873, were successful in positioning the Torres Strait as the primary option for travel and trade between China and eastern Australia? The above questions provide a clear understanding of the importance of the Torres Strait route to the overall Australia-China trade relationship after 1873.

Pre-1860 maritime transport: Square-rigged vessels and the flow of trade

Noel Butlin stated that 1860 to 1891 was a period of great boom for colonial Australian economies.⁴ Butlin's findings, however, bely the fact that during the period trade to and from colonial Australia was hampered by the slow take up of marine technological advancement. This was particularly the case for the routes between China and Australia. Throughout the 1860s and from much earlier, the flow of most shipping between China and Australia, as it was to most of the rest of the world, was as much defined by the trade winds and the ocean currents as it was by freight costs.⁵ The time taken for travel between origin and destination also suffered from these same factors.

The choice of sail over steam in the earlier years of the 1860s had less to do with technology than with cost and the goods being transported. Douglass North argues that sail dominated the long trans-oceanic routes where minimal freight rates were prominent.⁶ This was also the case for the China – Australia route. Prior to 1870, the costs for the use of a steamer were always higher than sail as they carried the overheads of coal usage. Included were the requirement to pause at coaling stations to reload the bunkers and, owing to the size of the boilers, a loss of significant cargo space.⁷ Early

⁴ Noel Butlin, *Investment in Australian Economic Development 1861-1900*. Cambridge, UK: Cambridge University Press, 1964: 8-15.

⁵ More recent investigation of the ocean currents and trade winds appear to suggest that alternate routes from China to Sydney and Melbourne via Australia's eastern coast may have been quicker yet there is an assumption that traditional notions of using routes similar to those taken by shipping from Great Britain, Europe and India may have defined the choice of travel via the westerly option. For information on the geography of the Australian oceans, see: William Morphet, and Jürgen Symanzik, "The Circular Dataimage, a Graph of High-Resolution Circular-Spatial Data." *International Journal of Digital Earth* 3, no. 1 (2010): 47-71; Wasyl Drosdowsky, and Mark Williams, "The Southern Oscillation in the Australian Region. Part I: Anomalies at the Extremes of the Oscillation." *Journal of Climate* 4 (1991): 619-38; G. H. Halligan, "The Ocean Currents around Australia." *Journal of the Proceedings of the Royal Society of New South Wales* 55 (1921): 188-95.

⁶ Douglass North, "Ocean Freight Rates and Economic Development 1750-1913." *The Journal of Economic History* 18, no. 4 (1958): 537-55.

⁷ Frank W. Geels, "Technological Transitions as Evolutionary Reconfiguration Processes: A Multi-Level Perspective and a Case-Study." *Research Policy* 31, no. 8-9 (2002): 1265-66; Charles K. Harley, "British

large steamers were also more expensive to build and required larger crews.⁸ Building larger ships created larger cargo holds but at the expense of having to carry more coal to power the vessels. The problem was eventually overcome with the design of new maritime steam engines, those that took a higher pressure and thus also used more refined boilers, condensers and screw propellers.⁹ The delay in the development of the design until the end of the 1860s, when coupled with the type of freight, meant that freight on steam ships was faster, but more expensive than sail, especially for long distance journeys.¹⁰

Travel between China and the Australian colonies prior to 1880 was thus also generally by sail. The square-rigged sailing vessels that plied the China – Australia route rarely altered in description, except through the inclusion of iron in their construction.¹¹ Yet for the China-Australia route, the monotony of lengthy journeys was well accepted by colonial merchants as a *fait accompli* at that time. In a way, there was an expectation of delay in their travels and only rarely were merchants at the destinations concerned about a ship's late arrival. A three to four month trip time was quite acceptable from Hong Kong to Melbourne.¹² This delay was further exacerbated by Australia's isolation from and reliance on the building docks of England and Scotland.¹³ Thus, sail, together with older steamers, were commonly seen around Australia throughout the period and only

Shipbuilding and Merchant Shipping: 1850–1890." *The Journal of Economic History* 30, no. 1 (1970): 263-64.

⁸ Harley, "British Shipbuilding.": 264. Harley states that a steamship of the same size as a sailing ship cost 50 percent more to build and required 50 percent more crew.

⁹Geels, "Technological Transitions.": 1267.

¹⁰ Gerald S. Graham, "The Ascendancy of the Sailing Ship 1850-85." *The Economic History Review* New Series, 9, no. 1 (1956): 75.

¹¹Geels, "Technological Transitions.": 1263-70. Geels discusses the transition from sail to steam as a case study.

¹² The *Mosquito*, a brig, took four months and eight days to sail from Hong Kong to Melbourne as late as 1878. "Shipping Intelligence." *The Argus* 11 November 1878: 4.

¹³ Harley, "British Shipbuilding.": 262; Max E. Fletcher, "From Coal to Oil in British Shipping." *Journal of Transport History* n.s. 3, no. 1 (1975): 1.

through foreign companies were the more advanced engine steamers attending Australian ports.¹⁴

To:	Victoria				NSW			
From:	China		Hong Kong		China		Hong Kong	
Year	Sail	Steam	Sail	Steam	Sail	Steam	Sail	Steam
1876	16	7	9	1	11	0	11	23
1877	12	1	6	5	12	1	8	15
1878	16	0	9	3	7	2	7	26
1879	9	1	2	5	17	2	8	18
1880	3	5	2	3	3	5	0	27
1881	3	10	0	16	6	6	0	31
1882	4	10	1	18	6	5	0	31
1883	0	6	0	24	7	6	0	31
1884	0	9	9	32	0	3	0	53
1885	0	6	1	28	0	4	0	37

Table 2.1. Ships arriving in Victoria and NSW from ports in China including Hong Kong, 1876-1885.¹⁵

Sail maintained a stronghold on the transport of goods between China and Melbourne until the late 1870s. For example, in 1873 twenty vessels arrived from Hong Kong into Melbourne. Of those only one was a steamer, the *Otago*, although she made her journey completely under sail.¹⁶ Each and every vessel took the route that past Western Australia with all but one traversing the Sunda Strait. Similar results occur in 1878, where 12 vessels arrived in Melbourne from Hong Kong. Of those, only three were steamers; each from Eastern and Australian Mail Steam Company's (E&A) fleet. The other nine were all square-rigged vessels that took the western route while the steamers all travelled through the Torres Strait.¹⁷ To the Melbourne merchants during the 1860s and 1870s, thus, was an acceptance that sail remained the primary method of transport between China and that port. However, shipping records post 1880 show that the sail

¹⁴ The Australian maritime environment consisted of sail and old steam vessels mixed with the rare, newly-built steamers from the UK, purchased by firms that had the finance to invest in these.

¹⁵ SR VIC 1876-1885, SR NSW 1876-1885. The statistical records for years prior to 1876 did not delineate between sail and steam.

¹⁶ Most early steamers were hybrids of square rigged vessels with boilers implanted to improve distance and travel time. A discussion on this is provided later in this chapter.

¹⁷ "Inward Shipping Reports." *VPRS 38* Public Records Office Victoria, Melbourne. Routes obtained from "Shipping Intelligence." *The Argus* for the various dates.

vessel on the China to Melbourne route had all but disappeared. Table 2.1 demonstrates the point of transfer from sail to steam for vessels travelling from China to Victoria was in 1880 and for China to NSW a few years later.

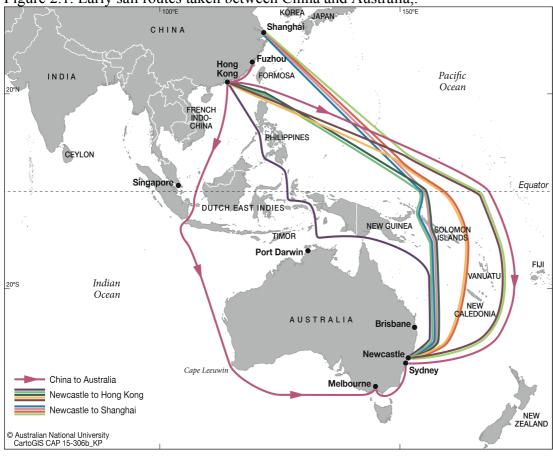


Figure 2.1. Early sail routes taken between China and Australia,

The path that square-rigged vessels took from China to Australia was what sea captains saw to be the quickest, shortest and safest route. Figure 2.1 displays the two options, the eastern and western routes. For the western option, the journey from China to Melbourne or Sydney would see the captain charting a course south to the Java Sea before breaking through the Indian Archipelago¹⁸ and to the Arafura Sea via the Sunda Strait that separates the East Indies islands of Sumatra and Java. A long journey followed, rounding Cape Leeuwin on the south-western tip of Western Australia. Occasionally vessels would land at King George Sound (Albany) for provisions and

¹⁸ This was the term used at the time for the Netherlands East Indies.

access to Western Australia. The ships then took advantage of the continuous westerlies, labelled the "Roaring Forties"¹⁹ on their journey towards Melbourne. Some shipping to Sydney ventured south of Tasmania prior to heading north to that port.²⁰ This choice of by-passing the Bass Strait, a shorter route, became popular as it avoided the tidal flows of the shallower strait that affected the general movement of the westerlies in the strait.²¹ The eastern route was somewhat simpler, though it favoured travel to Sydney or New Zealand over that to Melbourne. Vessels would make their way out to the Pacific and through Melanesia before eventually heading south-west towards the east coast of either Queensland or NSW and then to Sydney. The primary difference between the two routes was a lack of possible intermediary ports on the Pacific route and thus long travel times without sighting land. A conclusion here is that the sailing vessels taking the Pacific route would have required larger stores or, perhaps, been larger vessels in tonnage with more sails for quicker speed so as to reduce the time away from land.

Figure 2.1 also shows that vessels heading north, that chose a coal charter to China from NSW, took one of four routes. A treatise by Lieutenant Lizard of the *H.M.S. Challenger* in 1876 outlined the four possible options that coal traders, primarily square-rigged vessels, selected for their journey to China. The document presents the options of the "outer," "middle," "inner" and "Torres Strait" routes and concluded that from October to March shipping should take the middle route while during the other months, the inner route or the Torres Strait route would be preferable. The inner route took vessels to the Solomon Sea where they continued north either via the channel between Bougainville and Choiseul Islands or between New Britain and New Ireland. The middle route passed

 $^{^{19}}$ The Roaring Forties were an unobstructed path around the world between the southern latitudes of 40° and 50°.

²⁰ "Shipping." *The Sydney Morning Herald* 26 April 1860: 4. Note the section explaining the route taken by the *Eagle*.

²¹ Halligan, "Ocean Currents": 191.

east of the Solomon Islands to avoid the seasonal cyclonic weather and then north-west to the Caroline Islands prior to heading for their destinations. Shipping involved a journey from five weeks to two months depending on the winds.²²

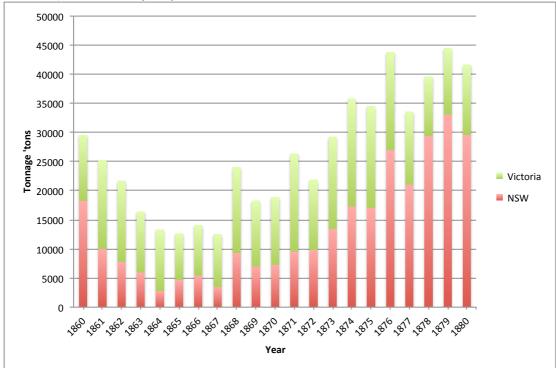


Figure 2.2. Tonnage of vessels arriving with cargo in Victoria and NSW from all ports in China, 1860-1880 (tons).²³

The direction of shipping from China to Australia during the 1870s altered. Prior to 1875, charters for shipments from Hong Kong or the Chinese ports directed the vessels to Melbourne primarily. Figure 2.2 shows that after 1875 the predominant port of disembarkation of cargo became Sydney. That is, vessels were being directed along a route which meant arrival in Sydney first. By 1875 that route was via the Torres Strait. What is also of interest is the surprisingly large tonnage arriving in NSW ports in 1860

²² "Route between Australia and China." *The Sydney Morning Herald* 24 May 1875: 4. Each of the options traversed east of the Barrier Reef. Viewing shipping records for other years, the average time taken was two months with some vessels suffering a journey of well over three months. Viewing the shipping records for 1864, the average trip to China (all ports) was 62 days.

²³ *SR VIC 1860-1880 and SR NSW 1860-1880*. A note that there was no data for the year 1868 in relation to the tonnage of those vessels with cargo destined for Victoria. However, as each of the years around that year's data showed no vessels arriving in Victoria in ballast from China, I have taken the total tonnage for vessels arriving from China to equate to the amount of tonnage for those with cargo.

and the continued tonnage throughout the period leading up to 1875. The data further shows that NSW retained its position, over the two decades, as an important port of entry for China's goods.

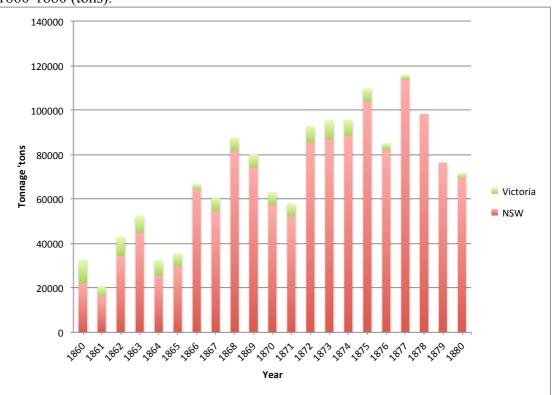


Figure 2.3. Tonnage of vessels departing with cargo from Victoria and NSW to China, 1860-1880 (tons).²⁴

Figure 2.2 also demonstrates that imports into Victorian and NSW ports were about the same, though with the variances already explained. By contrast, Figure 2.3 shows that the tonnage of vessels with cargo departing from NSW ports was overwhelmingly larger than that from Victorian ports. That is, Victoria had very few commodities of interest to export to the Chinese ports. What NSW provided to the importers at the Chinese ports was coal. Chapter 3 will discuss the prominence of coal as an export commodity from NSW to China. For the period until the late 1870s, almost all vessels departing from either Sydney or Newcastle for Chinese ports contained coal in their holds.

Differences existed for other inter-colonial ports. Fremantle, in Western Australia, was serviced purely by sail vessels to and from China throughout the 1860s and 1870s.²⁵ Sydney and the Queensland ports, in contrast, paint a completely different picture. Their choice of steam communication with China came earlier, from 1873 after the commencement of the E&A mail service.²⁶ Port Darwin, though only entering the China trade in the late 1870s, was also connected through steamers.²⁷ Thus, from the 1870s steam shipping played an important role in trade relations between China and the northern and eastern Australian colonies. To understand why, a historical context needs to be constructed.

Australia's early steam adventures

The development of steam usage in vessels plying Australian waters fits within two time periods, split by the technological advancement of maritime engine design by the late 1860s. Technological advancement led to alterations in ship design. The new steamers allowed for the organisation of more accurate trip times and timetabling.²⁸ In

²⁵ SR WA 1871-1880. Shipping records show no steamers travelling from WA to China or from China to WA during the period of the 1860s and 1870s.

²⁶ The E&A mail service, and its steamers, initially chose a route to Sydney, which was later extended to Melbourne. There were other companies involved, as discussed later in this chapter, yet none of these saw any requirement to travel to Melbourne from a Chinese port. "Trip of the Flintshire." *The Queenslander* 2 May 1874: 9.

²⁷ Port Darwin was a free port for most of the 1870s and thus there are little, if no statistics regarding shipping and interchange. Viewing the *SR SA* and comparing that to the shipping records from Port Darwin, extracted from the local newspaper, develop an understanding that the SA government chose not to include any Northern Territory data in their statistics. The data and comment here has been obtained from information obtained through the local newspaper. Owing to the lateness of the entry in to the China trade, and the fact that Port Darwin was on the route between Queensland and Singapore and thus China, meant that the primary, if not only, method of transport was by steamers. The shipping records I have formulated show no sailing vessels making the trip between a Chinese port and Port Darwin in the 1870s.

²⁸ W. A. Sinclair, *The Process of Economic Development in Australia*. Melbourne: Cheshire, 1976: 8; Brian Pinkstone, and David Meredith, *Global Connections: A History of Exports and the Australian Economy*. Canberra: Australian Government Publishing Service, 1992: 31-32; Paul Battersby, "Timetabling Globalization: Technology, Travel and Peripheral Integration." In *The Sage Handbook of Globalization*, edited by Manfred Steger, Paul Battersby, and Joseph Siracusa. 347-62. London: SAGE Publications, 2014: 347-48. It should be noted that the sizes of crews were only marginally affected when

turn, mail, goods and passenger transfer was quicker, leading to improvements in international commerce. Distance was tamed, the world was shrinking and a new stage of globalisation commenced.²⁹

Steam travel in Australia emerged in tune with the development of the various Australian colonies. The first steam journey in Australian waters was the *Surprise* on 1 June 1831 from Sydney to Parramatta.³⁰ From the earliest steamers of the 1830s to the large firms of the 1850s and 1860s, the vessels were mainly found performing Australian inter-colonial routes, leaving international travel to the global companies including Peninsular & Oriental (P&O). Further, for Australia, steamers provided a service, generally, to the "upper end of the market" which included mail and high-end freight.³¹ In the early days of the NSW colony, lengthy travel was made using new roads or by sail to other ports. Later, inter-colonial travel and trade remained the haven

steam power took over and further improvements were made. In fact, with the larger vessels, more crew were required as firemen and coal trimmers. Saif I. Shah Mohammed, and Jeffrey G. Williamson, "Freight Rates and Productivity Gains in British Tramp Shipping 1869-1950." *Explorations in Economic History* 41 (2004): 196; Anyaa Anim-Addo, "The Great Event of the Fortnight': Steamship Rhythms and Colonial Communication." *Mobilities* 9, no. 3 (2014): 371.

²⁹ David Harvey, *The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change*. Oxford: Blackwell, 1990: 240-41. Harvey uses the concept of "time-space compression" to show that over time, the pace of life is speeding-up and in a diagram (Figure 3.1 on page 241) shows the importance of steam technology in this concept.

³⁰ "The "Surprise" Steamer." *SGNSWA* 2 June 1831: 3. R. T. Sexton, "The 'Surprise': Australia's First Steamship." *AIMA Bulletin* 33 (2009): 49-51. The *Surprise* had two trial trips in May 1831 prior to the first trip to Parramatta; "Letter from Mr. Henry Gilbert Smith to Charles Smith." 1 June 1830, Smith Family Letters, MLMSS 660, Mitchell Library, Sydney; "Launch of the First Steam-boat in Australia." *SGNSWA* 2 April 1831: 2. George E. Arundel, "A Brief Historical Sketch of Australasian Steam Navigation." paper read before the Parramatta Historical Society, 12 September 1951, MLMSS 6400, Mitchell Library, Sydney; "Shipping Intelligence." *The Sydney Herald* 16 May 1831: 4; *SGNSWA* 21 May 1831: 2; Ian H. Nicholson, *Via Torres Strait: A Maritime History of the Torres Strait Route and the Ship's Post Office at Booby Island*. Nambour, Qld: Sunstrip Printers, 1996: 224. The *Sophia Jane* was used to tow a sailing vessel out of Port Jackson on 12 June 1831 and then made its maiden full journey to the Hunter River on 19 June 1831. The dates and the priority of which vessel was first have been argued in numerous newspaper articles from as early as 18 June 1831. "First Australian Steamer." *SGNSWA* 18 June 1831: 2. Even twenty years after the first journeys an item in the major Sydney newspaper continued to credit the *Sophia Jane* as the first steamer in Australian waters. "Our Steam Marine." *SMH* 19 May 1851: 2. The latter was replayed in a journal article. Vaughn Evans, "Our Steam Marine." *The Great Circle* 15, no. 1 (1993): 36-39.

³¹ Frank Broeze, "Distance Tamed: Steam Navigation to Australia and New Zealand from Its Beginnings to the Outbreak of the Great War." *Journal of Transport History* ser. 3:10, no. 1 (1989): 1; David M. Williams, and John Armstrong, "Changing Voyage Patterns in the Nineteenth Century: The Impact of the Steamship." *International Journal of Maritime History* 22, no. 2 (2010): 159-60. Williams and Armstrong stated that the early steamship concentrated on "high-value, low-bulk" goods for transport, which included mail and passengers.

of maritime transport, since all the capitals were ports.³² The introduction of steam shipping in NSW during the 1830s reduced travel times, improved communication and thus was a boon for commerce. Sail, though, retained preference for non-perishable trade, including coal, wool, grain and similar products.

Numerous companies became involved in inter-colonial trade along the Australian coast during the first three decades of maritime steam travel in Australia with some extending to foreign lands. The Hunter River Steam Navigation Company was founded in 1840 to service the NSW coast.³³ In March 1851 the company altered its name to the Australasian Steam Navigation Company (ASN). Others followed, including the Tasmanian Steam Navigation Company (1845), the Launceston Steam Navigation Company (1852), the Sydney and Melbourne Steam Packet Company (1853) and the Howard Smith and Sons line (1854).³⁴ These maritime firms each played an important role in the movement of cargo between the ports throughout the east coast of Australia, from Hobart Town to what would later become the colony of Queensland.

Technology and the transition to steam

The period of the late 1860s and the 1870s saw a major transformation in ocean-going transport. From the early years of steam through to the 1860s, ocean steam navigation only generated a gradual improvement in fuel efficiency and thus on the longer routes

³² Henry Ergas, and Jonathan Pincus, "Infrastructure and Colonial Socialism." In *The Cambridge Economic History of Australia*, edited by Simon Ville and Glenn Withers. 222-44. Melbourne: Cambridge University Press, 2015: 224.

³³ Founded by Messrs Eales, Grose, Love, Lord, Anderson, Hughes, Peacock and Walker.

³⁴ Arundel, "A Brief Historical Sketch"; Peter Plowman, *Ferry to Tasmania: A Short History*. Dural, NSW: Rosenberg Publishing, 2004: 14-15; Peter Plowman, *Coast to Coast: The Great Australian Coastal Liners*. Dural, NSW: Rosenberg Publishing, 2007: 14; John Bach, *A Maritime History of Australia* Sydney: Pan Books, 1976: 118.

sail was retained as the preferred option.³⁵ However, the primary breakthroughs in marine technology took place initially in 1864 with Randolph and Elder's compound reciprocating marine engine³⁶ and, a few years later in 1869, when a treatise on modern screw propulsion was published by N. P. Burgh.³⁷ These discoveries were considered a turning point for the economic viability of ocean-going steam ships as coal usage was significantly decreased. The result of the technological advancements was that steam maritime transportation became a strong competitor to sail vessels for many ocean-going long-haul routes.³⁸

The introduction of the compound engines in the late 1860s, though, did not halt the voracious appetite of the engines of the steamers. Sail continued to be used to supplement steam usage. These were composite vessels using both steam and sail power, many of which were modified barques, some with wooden hulls and others, later, with iron hulls.³⁹ There were three primary reasons for the existence of sail on a composite vessel: providing assistance when the next coal bunkering station was too far, given unfavourable wind and sea conditions; when the engines broke down; and to assist vessels when there was a strong favourable wind, thus allowing a reduction of fuel consumption.⁴⁰ Composite vessels were still being built well into the 1870s. Figure 2.4 displays the composite vessel *s.s. Brisbane*, built on the Clyde River in Scotland in 1874 specifically for the Singapore – Sydney mail route via the Torres Strait. The *s.s.*

³⁵ Gerald Peter Allington, "Sailing Rigs and Their Use on Ocean-Going Merchant Steamships, 1820-1910." *International Journal of Maritime History* XVI, no. 1 (2004): 135.

³⁶ Harold G. Bowen, "Steam in Relation to Marine Engineering." *Journal of the Franklin Institute* 222, no. 6 (1936): 728.

³⁷ N. P. Burgh, "On Modern Screw Propellers Practically Considered." *Journal of the Society of Arts* 17, no. 851 (1869): 274-85.

³⁸ Allington, "Sailing Rigs": 138-39.

 ³⁹ Sandro Mendonça, "The "Sailing Ship Effect": Reassessing History as a Source of Insight on Technical Change." *Research Policy* 42, no. 10 (2013): 1726, 1731. See also, R. T. Sexton, "Some Composite-Built Ships Compared." *Bulletin of the Australian Institute for Maritime Archaeology* 15, no. 2 (1991): 59-80.
 ⁴⁰ Allington, "Sailing Rigs": 136.

Brisbane was 1,503 gross tons, nearly 86m long, iron hull, twin-compound engines, brig rigged and a clipper bow.⁴¹

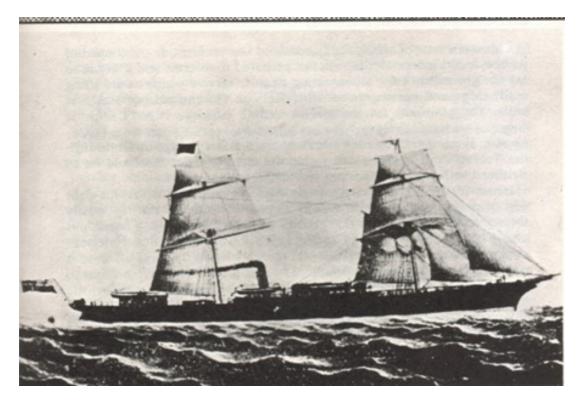


Figure 2.4. *R.M.S.S. Brisbane* (1874-1881).⁴²

The steamer played an important role in the international China tea trade, overhauling sail by the 1870s. The opening of the Suez Canal in 1869 was integral in altering the mind-set of the merchants such that eventually the composite racing clippers that had fought against each other for the fastest trip to England, were in the 1870s year by year, being crowded out of the trade.⁴³ The vast array of steamers, through sheer numbers, were creating lower freight rates and hence by the late 1870s clippers had all but been

⁴¹ Lloyd's Register of British and Foreign Shipping from 1st July, 1874, to 30th June, 1875. London: Wyman and sons, 1874.

⁴² <u>http://www.flotilla-australia.com/eanda.htm</u> accessed 2 March 2015.

⁴³ The two major proponents of the race from China to England with the first teas, the *Cutty Sark* and the *Thermopylae,* were also involved in the Australian trade to China during the 1870s. The *Cutty Sark* later became famous for its participation as a wool clipper from Australia to England.

driven from the China tea trade.⁴⁴ Together with new telegraphic communications, it led to the demise of many business interests in China, particularly American.⁴⁵ English traders, including JM&Co. and Butterfield Swire and Co., were more successful in their trading and thus were able to sustain and work with such an upheaval. They continued to play a stronger part in the China – Australia trade relationship beyond the mid-1870s.

The above analysis, though general to the China trade, provides a basis for an understanding of how technology affected the maritime trade relationship between China and the Australian colonies. Steamers thus offered advantages over sail and through gradual improvements in technology, specifically in the late 1860s, steamers became a viable, more economical option than sail. They had the ability to overcome routes that appeared dangerous to the sail vessels as well as those where wind direction was important. Steamers were thus placed in a positive light when it came to evaluating a trade-off between cost and time taken to travel the China – Australia route. The technology created better, bigger and faster vessels that presented a maritime company with the opportunity to fulfil their trade contracts in a shorter time and thus maximise their own profits. That is, the increase in transportability, or the ability to move items,⁴⁶ became significant to merchants. Technology was one of a number of factors that allowed steam to supplant sail in the Australian maritime theatre. It provided for and encouraged the search for an optimum maritime route between China and Australia.

⁴⁴ Max E. Fletcher, "The Suez Canal and World Shipping, 1869-1914." *The Journal of Economic History* 18, no. 4 (1958): 561.

⁴⁵ Ernest R. May, and John King Fairbank, *America's China Trade in Historical Perspective: The Chinese and American Performance*. Cambridge, MA: Harvard University Press, 1986: 262. Augustine Heard & Co. collapsed as an entity in April 1875. Robert W. Lovett, "The Heard Collection and Its Story." *The Business History Review* 35, no. 4 (1961): 571. Lovett advanced a number of reasons for the failure of AH&Co. including the "taking over of trade by the Chinese" Lovett also states that a number of Chinese friends created a new business, Heard & Co. yet without success. There is evidence that the firm Heard & Co. continued to exist until at least March 1877 as they were consignees of coal from Sydney until the *Joyce Phillips* arrived in Shanghai on 3 March, 1877. "Shanghai Shipping Intelligence." *The North China Herald and Supreme Court and Consular Gazette* 8 March 1877: 36.

 ⁴⁶ Jean-Paul Rodrigue, Claude Comtis, and Brian Slack, *The Geography of Transport Systems*. Abingdon, UK: Routledge, 2006: 2. See also James E. Rauch, "Networks Versus Markets in International Trade." *Journal of International Economics* 48 (1999): 7-35 for a discussion about transportability.

Nevertheless, the square-rigged sail vessel did continue to be part of Australia's trade with numerous countries around the world. As Gerald Graham points out in his defence of sail over steam in the second half of the nineteenth century, "even after the opening of the Suez Canal, much of the traffic to the Bay of Bengal, the East Indies and Australia was still carried by the sailing ship."⁴⁷ The most well-known example was that of the *Cutty Sark* which, after it was no longer required along the London -Australia-China-London route by the mid-1870s, altered to be part of the wool clippers that took their produce from Australian ports to England.⁴⁸ As shall be discussed in Chapter 3 (coal) and Chapter 4 (sandalwood), sail continued to play an important role until the latter part of the nineteenth century for Australia's bulk exports.

Search for an optimum route

Merchants and seafarers alike were involved in a continuous search for optimal shipping routes both to reduce distance and time. The Torres Strait was seen by merchants and ship's masters as significantly shortening the journey from Asian ports to eastern Australia. Through that they noted the indisputable economic advantages.⁴⁹ The combination of various factors assisted and led to the opening of and continual usage of the Torres Strait route as an option to trade with East Asia. Small craft had ventured the treacherous strait for centuries, perhaps millennia. Almost immediately following European settlement on the eastern Australian coast, these Europeans ventured to

⁴⁷ Graham, "Ascendancy of the Sailing Ship": 75.

⁴⁸ Charlie Cottrell, "Ship Shape." *History Today* 57, no. 6 (2007): 5; G. C. Steele, "Composite Tea Clipper *Cutty Sark.*" *The Mariner's Mirror* 25, no. 3 (1939): 283-84. The *Cutty Sark* was involved in the wool trade from 1883 to 1895. She was also involved in transporting coal from NSW to China throughout the 1870s.

⁴⁹ Stuart B. Kaye, *The Torres Strait*. The Hague: Martinus Nijhoff Publishers, 1997: 14; John C. Foley, *Reef Pilots: The History of the Queensland Coast and Torres Strait Pilot Service*. Sydney: Banks Bros & Street, 1982: 14.

attempt the route for trade purposes. Inexperience on the part of ship's captains of the Torres Strait led to many accidents, from as little as slight damage from hidden reefs or rocks to complete ship wrecks and loss of life.⁵⁰ However, the overwhelming desire by NSW and, later, Queensland politicians, fuelled by postal and mercantile considerations, to create an alternative, shorter link to East Asia and the UK, meant that the Torres Strait option was never far from their government's minds.

The passage through the Torres Strait had significance long before and immediately after the creation of European settlement in Australia. The first European to discover the Torres Strait was Luis Baéz De Torres, in 1606.⁵¹ The passage was viewed by ship's masters as the shortest route to the East Indies and thence to India for those travelling across the Pacific.⁵² The first merchant vessels that traversed the Torres Strait from Sydney to India were the *Shah Hornuzeer* and *Chesterfield* in 1793 and they were to be followed by numerous others.⁵³ It was normal practice for vessels, on their return journey to England, to make their way to India to collect cargo for the English market. Generally, the ships would sail close to the southern coast of Australia until they rounded Cape Leeuwin and entered the Indian Ocean. However, in the winter, these southern winds were too strong and thus shipping chose an option that journeyed past

⁵⁰ Kaye, *Torres Strait*: 34.

⁵¹ Brett Hilder. *The Voyage of Torres*. St. Lucia, Qld: University of Queensland Press, 1980: 23-24. A case has existed for the Dutch ship *Duyfken* which arrived on the western side of the Gulf of Carpentaria only a few months before Torres made land. Hilder (p. 141) and Emery are amongst a number of academics who believe that the *Duyfken* only navigated the gulf and visited the western entrance of the straits yet did not enter them. James Emery, *The Discovery of Australia Including the Mandated Territory of New Guinea*. Sydney: Hamlyn Guides, n.d.: 14. For notes on Torres and other earlier Portuguese and Dutch explorers and their discoveries of Australia, see: Kenneth G. McIntyre. *The Secret Discovery of Australia : Portuguese Ventures 200 Years before Captain Cook*. Medinde, S.A.: Souvenir Press, 1977; Richard H. Major. *Early Voyages to Terra Australis, Now Called Australia: A Collection of Documents, and Extracts from Early Manuscript Maps, Illustrative of the History of Discovery on the Coasts of That Vast Island, from the Beginning of the Sixteenth Century to the Time of Captain Cook. New York: Burt Franklin, 1963; A. J. Koutsoukis. <i>Western Australia: A Brief History*. Melbourne: Longman, 1988: 7.

⁵² Alexander B. Becher, Navigation of the Indian Ocean, China and Australian Seas : With an Account of the Winds, Weather and Currents Found Therein Throughout the Year ; According to the Most Approved Authorities, Including Extensive Extracts from the Nautical Magazine. London: J. D. Potter, 1864: 244-60. Becher describes the various routes used for travel from Port Jackson to Indian ports.

⁵³ Kaye, *Torres Strait*: 33.

the northern coast of New Guinea.⁵⁴ What the Torres Strait offered was a shorter passage for these returning vessels. Governor King of New South Wales was interested in investigating the Torres Strait route when he sent the Mersey in 1804 to obtain supplies from Ceylon. The trip was ill-fated with only a few of the crew surviving a shipwreck attempting the passage.⁵⁵

The Mersey was not the first or the last loss of a vessel in the Torres Strait. The Torres Strait held numerous dangers including hidden reefs and rocks and, in the earliest days of European settlement, the threat of attack by islanders and natives from New Guinea and the Cape York region.⁵⁶ Figure 2.5 demonstrates just how dangerous and complex the strait was for navigation. During the opening half of the nineteenth century, expeditions were held to map out the Torres Strait.⁵⁷ Of these, a few, Captains Mackensie, Longmuir and Ashmore, were common sights in the Torres Strait during the 1830s and 1840s. Mackensie also traded with the Far East.⁵⁸ However, by the mid-1840s a combination of work done on the Fly, Bramble and Rattlesnake created extensive surveys of the straits such that mariners could then negotiate the passage with greater confidence.⁵⁹ By the 1840s a number of vessels traversed the passage,⁶⁰ even the steamer *Victoria* on a journey from Sydney to Singapore in 1843.⁶¹ Taking steamers through the Torres Strait from Singapore and thus on to Sydney now appealed to

⁵⁴ G. W. Earl, "Steam Route through the Torres Straits." The Journal of the Indian Archipelago and Eastern Asia 5 (1851): 490.

⁵⁵ Allan McInnes, "Dangers and Difficulties of the Torres Strait and the Inner Route." Journal of the Royal Historical Society of Queensland 10, no. 4 (1978-79): 54.

⁵⁶ McInnes, "Dangers and Difficulties": 48-50. For a discussion on the shipwrecks of the Torres Strait, see: Peter Illidge, Coleman Doyle, and Peter Gesner, "An Assessment of Selected Shipwrecks in Torres Strait and Far North Great Barrier Reef." Memoirs of the Queensland Museum, Cultural Heritage Society 3, no. 1 (2004): 347-61; Kaye, Torres Strait: 34.

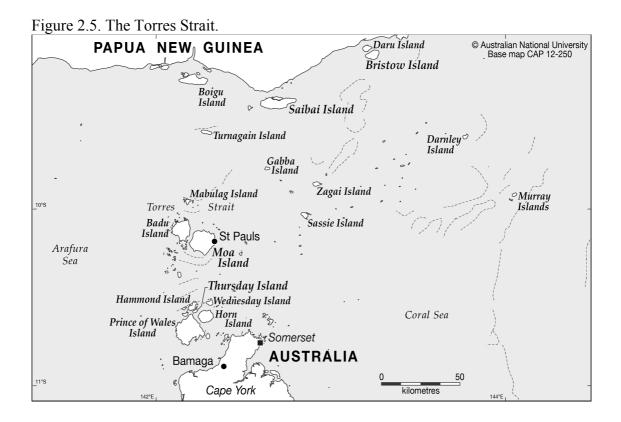
⁵⁷ R. G. Ledley, "Early Torres Strait and Coast Pilot's Service." *Journal of the Royal Historical Society of Queensland* 5, no. 5 (1957): 1267-68; Kaye, *Torres Strait*: 15, 33. ⁵⁸ Ledley, "Early Torres Strait and Coast Pilot's Service.": 1267-68.

⁵⁹ Earl, "Steam Route through the Torres Straits.": 493.

⁶⁰ Kave, *Torres Strait*: 33n40. Kave states that there were 32 vessels that took on the Torres Strait passage in 1848 and upwards of 80 vessels by 1862.

⁶¹ Foley, *River Pilots*: 16.

captains and merchants alike. Nevertheless, when taking into account the requirement for coaling stations so as to eliminate the excessive use of cargo holds to store coal for the boilers, the choice to use steamers on a route through the Torres Strait was checked, given that the journey was not a financially viable proposition.⁶²



Early steam attempts

The completed and published extensive surveys generated initial considerations of using the Torres Strait as a feasible option for steam communication by the late 1840s and early 1850s.⁶³ Neither of two such attempts were successful. At that time, India was the primary port of consideration for both communications with Britain and for trade. In

⁶² Foley, *River Pilots*: 21.

⁶³ Ian H. Nicholson, Via Torres Strait: A Maritime History of the Torres Strait Route and the Ship's Post Office at Booby Island. Nambour, Qld: Sunstrip Printers, 1996: 225.

1847 a company was created, the India and Australia Steam Packet Company. The company tendered to transfer mail from Sydney to Singapore via the Torres Strait, yet owing to a lack of capital, the venture failed without a single vessel completing a journey.⁶⁴

A few years later, in 1851, the *First Report from the Select Committee on Steam Communications with India, &c.* was presented to the House of Commons, Great Britain on 5 June of that year. The Committee's purpose was to:

Inquire into the existing Steam Communication with India and China, and into the Practicability of effecting say Improvement therein; and also into the best mode of establishing Steam Communication between England, India, China, Australia, New Zealand, or any of them, as well as say Points upon the several Routes between them.⁶⁵

Three options were presented for steam routes between England and India and thence to the Indian Archipelago, Australasia and China. One, "The Indian Route," involved the Overland Mail route between Alexandria and Suez and thence via the Red Sea to Point de Galle on the southern tip of Sri Lanka. From that distribution centre, steamers would travel through the Torres Strait before progressing south to Sydney.⁶⁶ The advantage of this route was the meeting in Singapore with the mail to China and the rest of the Indian Archipelago, the latter through Dutch transport.⁶⁷

The Committee, however favoured and thus recommended a route from Point de Galle to Singapore and thus via Cape Leeuwin and south of the Australian continent.⁶⁸ The

⁶⁴ Paul Battersby, *To the Islands: White Australians and the Malay Archipelago since 1788.* Plymouth, UK: Lexington Books, 2007: 23.

⁶⁵ First Report from the Select Committee on Steam Communications with India, &c. House of Commons, no. 372 (1851): ii.

⁶⁶ Select Committee ... Steam Communication: v.

⁶⁷ G. W. Earl, "Steam Routes through the Indian Archipelago:- Established, Proposed, and Prospective." *The Journal of the Indian Archipelago and Eastern Asia* 5 (1851): 443.

⁶⁸ Select Committee ... Steam Communication: vi, viii, 106; Foley. Reef Pilots: 16. The Committee heard from merchants who were in favour of the route stating it was already in use, merchant ship captains who

choice of opening the Torres Strait route for regular communications and thus trade had been denied. As John Foley, in his book on reef pilots, succinctly summarised the position by the mid-nineteenth century,

Gradually, but inevitably, opposition to the Torres Strait route itself crumbled. The economic advantages were indisputable and increasingly obvious. But a nucleus of antagonists continued to agitate against the route, often quite effectively, well into the 1860s.⁶⁹

Queensland and the Torres Strait route

The attempt to open the Torres Strait for trade and communications returned in the 1860s and 1870s. What altered in the process was the participation of the newly formed Queensland colonial government. When, in 1859, Queensland became a formal colony it inherited the coastline that was part of the Torres Strait.⁷⁰ Mail, trade and immigration, at the time, all passed through Melbourne and possibly Sydney, causing unacceptable delays to Queensland merchants and to the government. Thus, Queensland merchants and parliamentarians had a significant vested interest in creating a regular route for shipping through the Torres Strait. Over the first two decades of Queensland's existence there were three attempts at solving this dilemma.

emphasised their "nasty experiences" in the Torres Strait and from scientific officers employed by Admiralty to survey the strait.

⁶⁹ Foley, *Reef Pilots*: 14.

⁷⁰ Kaye, *Torres Strait*: 14, 35, 37; Steve Mullins, *Torres Strait*: A History of Colonial Occupation and Cultural Contact, 1864-1897. Rockhampton, Qld: Central Queensland University Press, 1995: 139. Queensland were so concerned about the Torres Strait that they petitioned the British government to allow it to take control of all of the strait, such was the threat of the Dutch to the west and the French to the east. In 1872, the Queensland colonial government were allowed to annex all islands up to 60 nautical miles from Cape York. In 1879, this was extended to include all islands in the Torres Strait. See also: D. Jean Farnfield, "Queensland and the Annexation of the Torres Straits Islands." *Australian Journal of International Affairs* 27, no. 2 (1973): 215-26; R. G. Casey, "Australia's Voice in Imperial Affairs." In *Australia's Foreign Policy*, edited by W. G. K. Duncan. 36-68. Sydney: Angus & Robertson Limited, 1938: 37.

As early as 1860 the Queensland colonial government opened the possibility of venturing via the Torres Strait for its mail and commerce.⁷¹ That proposal gained currency when the ship Herald had completed its new survey of the outer route, east of the Coral Sea where the oceans were without dangerous reefs. The new government also proposed opening up a port in the Gulf of Carpentaria with a cable line to Timor.⁷² The NSW government was approached by its Queensland counterpart to become part of the proposal and they showed some favour in the possibility of alternate arrangements to the P&O service.⁷³ However, the financial viability of the venture caused significant concerns for the NSW government and thus they chose to remain with what they had available at the time.⁷⁴ An editorial from the *Svdnev Morning Herald (SMH)* in Svdnev stated, emphatically, that the Torres Strait route will never be picked up by the southern colonies and thus Oueensland would have to go it alone. The editorial stated that the advantages of providing a link with the "marts of commerce in the East" through the connections with Singapore and the rest of the Indian Archipelago were countered by the financial constraints of the new colony. Queensland, the editorial warned, "cannot afford to be lavish of its income at starting."⁷⁵

⁷¹ Denver Beanland, "First Herbert Government 1860-1863." *Queensland History Journal* 21, no. 4 (2011): 244.

⁷² "The Torres Straits Route." *SMH* 21 July 1860:11.

⁷³ "The Governor of Queensland to the Governor General" 14 March 1860, No. 27 Steam Postal Service Further Correspondence *NSWVP 1860*: 1075-76; "The Governor of Queensland to the Governor General" 24 July 1860, No. 28 Steam Postal Service Further Correspondence *NSWVP 1860*: 1076.

⁷⁴ "Minute of the Executive Council of the 14th September, 1860" No. 29 Steam Postal Service Further Correspondence *NSWVP 1860*: 1077. Concern existed over costs, relying on others to contribute – French government of New Caledonia and Dutch government of the Indian Archipelago – and fact that they already were contributing significantly to the P&O contract via Suez and had pledged half towards the cost of a proposed Panama option.

⁷⁵ The Torres Straits Route." *SMH* 21 July 1860: 11. The editorial also stated: "Time was when the lastnamed (Torres Strait) route was the favourite in Sydney, and had the fairest promise of being adopted as the introductory method of steam communication between India and Australia. But that was before Victoria had received immense development, and before South Australia had established itself as the granary of this continent. The course of colonisation has established the permanency of the route by the Leuwin."

In 1866, the first regular steam service through the Torres Strait was completed. On 9 January 1866 the screw steamer *s.s. Souchays* departed Moreton Bay and stopped at Bowen, Somerset, Kupang and thence travelled to Batavia.⁷⁶ The creation of the venture met with numerous stumbling blocks, its enactment with financial disaster and its completion at the end of 1866 without renewal. The purpose, though, remained the same as previous attempts, to provide an alternate, more efficient, cost effective and quicker route for mail and trade with Great Britain.⁷⁷

The initial inclinations of the Queensland government were brought to the attention of its nearest neighbour, NSW. NSW was also considering other options than P&O for mail delivery to England. The two colonies maintained correspondence which included a proposal by a company titled British and Eastern Steam Company to run a route from London to Hong Kong with a branch through the Torres Straits to Queensland and NSW.⁷⁸ For Queensland, obtaining financial assistance from NSW was seen as crucial to affording the new route. However, NSW eventually withdrew their support and signed a new contract with P&O.⁷⁹

The Governor of Queensland, Sir George Bowen also put the matter of using the Torres Strait for steam communication to the Secretary of State for the Colonies in England, Edward Cardwell. Cardwell then contacted the Lords Commissioners of the Treasury to

⁷⁶ "Trip of the Souchays." *Queensland Times, Ipswich Herald and General Advertiser* 9 January 1866: 4. Batavia is now part of Jakarta.

⁷⁷ The P&O postal service from England terminated in Sydney and thus Queensland relied on an extension service to Brisbane and hence the reasoning for a proposed Torres Strait route. "The Governor of Queensland to the Secretary of State for the Colonies." 15 February 1865 Steam Postal Service via Torres Straits (Correspondence Respecting) *QVP 1865*: 942-43; "The Anglo-Australian Mail Service." *The Courier* 18 January 1864: 3; "The Governor of Queensland to the Secretary of State for the Colonies." 9 September 1864 Steam Postal Service via Torres Straits (Correspondence Respecting) *QVP 1865*: 933-34.

 ⁷⁸ "Steam Postal Service (Correspondence, &c., Respecting Torres Straits Route.)." NSWVP 1865: 859-70.

⁷⁹ "Steam Postal Service." *NSWVP* 1866: v. 4: 95-108.

view their opinion of assisting in the funding of such a venture's subsidy. The expectant rebuttal was delivered. The Commissioners did not "feel themselves justified in rendering any assistance from Imperial funds towards the establishment of a line of mail packets by the route in question, in addition to the existing line of packets via Ceylon and Cape Leuwin." A second attempt was made to the Lords Commissioner, which was also dismissed.⁸⁰

The authorities in the Netherlands East Indies were also enthusiastic to encourage a new line of communication. Enclosed within a letter received in Sydney in August 1865 was a prospectus from the Java representatives. It detailed the incitements of the project as: "first, a natural desire to make Java a centre of commerce; secondly, a desire to find in Australia a market for Javan produce; and thirdly, a desire to increase the maritime importance of Holland in the Eastern seas."⁸¹ Thus, while Queensland was soliciting a new and better mail route, as a side effect it found in the Dutch a willing participant in the broadening of trade. More importantly, the Dutch authorities presented a possible partner to assist financing the costs for the new route.

Without support from NSW or Great Britain, the fledgling Queensland government chose to set their own path. A select committee from the Queensland colonial government was formed in early May 1865⁸² and recommended a bi-monthly service, for a period of twelve months, to travel between Port Denison, or similar, and Batavia.⁸³

⁸⁰ "The Secretary of State for the Colonies to the Governor of Queensland" 18 January 1865, No. 3 Steam Postal Service via Torres Straits (Correspondence Respecting) *QVP 1865*: 935; "The Secretary of State for the Colonies to the Governor of Queensland" 18 April 1865, Steam Postal Service via Torres Straits (Further Correspondence Respecting) *QVP 1865*: 937-38.

⁸¹ "A New Mail Route." *The Age* 28 July 1865: 7.

⁸² "Steam Communication." *QPD LA* 11 May 1865: 16-18.

⁸³ "Steam Postal Communication.": *QPD LC*: 547. At the time, Bowen was called Port Denison and Kupang, Coepang. Somerset no longer exists. It is shown on the map in Figure 2.5. The Committee stated: "Your committee, therefore, recommend that for a period of twelve months, commencing at the earliest convenient date, a screw steamer be despatched from Port Denison, or some other port in

One option put forward was from Batavia through Mr. Henry Oliver Robinson, who held the contract for the inter-colonial mail service of Netherlands East Indies,⁸⁴ but this was rejected owing to the desire to stop at a large number of ports.⁸⁵ Eventually, a tender process was held⁸⁶ and, through that, the Souchays was chartered by the Queensland colonial government from the Melbourne company Woodville, Jarret and Co., at a cost of £5280.⁸⁷

The cost of running the service, for the Queensland colonial government, became untenable. Even with the proposed assistance by the Netherlands India government,⁸⁸ there was a blow out of costs. In June 1866, the service was passed to a private firm, Bright Brothers, of Brisbane.⁸⁹ At that time the cost for running the *Souchavs* had been £7,422 8s. 8d., that being under the assumption that the Netherlands India government would contribute £3,750. The cost of the new service was £2,300 per month.⁹⁰ For Bright Brothers, the new service was also financially unsuccessful. Bright Brothers

Queensland, on the first day of every alternate month, to proceed viâ Somerset and Coepang to either Sourabaya or Batavia, calling at the settlement formed by South Australia at Adam Bay, or elsewhere, should the Government be disposed to pay its proportion of the expenses."

⁸⁴ Robinson bid and won the mail contract for the Netherlands Indies in 1863. From 1852, it had been held by a syndicate led by Willem Cores de Vries. In 1864, Robinson floated a new company on the London stock exchange, the Netherlands India Steam Navigation Company. J. Forbes Munro, Maritime Enterprise and Empire: Sir William Mackinnon and His Business Network, 1823-93. Woodbridge, Suffolk: The Boydell Press, 2003: 72-73; Howard Dick, and Peter J. Rimmer, Cities, Transport and Communications: The Integration of Southeast Asia since 1850. New York: Palgrave Macmillan, 2003: 84; Gerrit Knaap, "Steamers, Freighting Contracts and Dock-Harbours Reflections on the History of the Java Sea, 1830–1930." Itinerario 30, no. 1 (2006): 43.

⁸⁵ "A New Mail Route." *The Age* 28 July 1865: 7.

⁸⁶ In their submission, Woodville, Jarret and Co. stated that their tender was "in accordance with your advertisement, dated 29th September, 1865, and published in the Argus." I have not found any advertisement relating to this matter in that issue of the Argus. All papers throughout Australia mention the tender in their issues on or after 3 October 1865, but no actual advertisement has been found.

⁸⁷ "Charter Party." Papers and Correspondence Connected with the Chartering of the "Souchays," -Steam Postal Communication through Torres' Straits, &c. 6 January 1866 QVP 1866: 1345, 1348-49. The s.s. Souchays was a three-masted converted schooner.

⁸⁸ "Captain Simpson to the Postmaster-General, Reporting his Negotiations with Batavian Government for Mail Service." 25 May 1866 Steam Postal Communication via Torres' Straits (Further Correspondence Respecting) QVP 1866: 1357-61; 20,000 rupees equated to approximately £1,750. "Temporary Steam Service Through Torres' Straits." QPD LC 21 June 1866: 316.

⁸⁹ Four tenders were offered. Others were (i) Jas. Coleman for £40,000 p.a.; (ii) A combined tender between Alexander Fraser of the NISN and William Eldred of ASN for £43,000 to run between Brisbane and Batavia; and (iii) Mr. van Delden for £41,666 10s. "Tenders for Mail Service via Torres' Straits." *QVP 1866*: 1363-1367. ⁹⁰ "Temporary Service." *QPD LC* 21 June 1866: 315-323.

assumed the lease of the *Souchays*, replacing it with the *Hero* for the three remaining journeys. As with the Queensland government, Bright Brothers were unable to realise the full risks involved. On the second journey to Batavia the *Hero* required £1,100 of repairs and, together with the remainder of the expenses, the company believed, midway through the contract, that they were due an overall loss of £3,400.⁹¹

The Queensland government chose not to extend the contract in 1867, though not because of past losses. The reason was that the Queensland colonial government was caught up in the financial crisis that related to the fall of the Overend-Gurney Bank in England.⁹² The crisis created a domino effect on a number of other banks, significantly the Agra and Masterman's Bank and the Union Bank where the Queensland government's accounts were kept and debentures were sought.⁹³ Thus, as it was now financially unfeasible to continue the service, the decision was made in August 1866 to maintain the Bright Brother's contract for only three trips during the remainder of the year and not to renew or to offer any new contract for a permanent service.⁹⁴

The venture by the Queensland government was not commercially successful. There was minor trade with Java, predominantly rice to Queensland and gold specie in return. No trade with China existed as there was no attempt to take advantage of existing connections between Batavia and Singapore or China.⁹⁵ Nevertheless, there was an important increase in the turnover of postal communications with the UK. The proof

⁹¹ "The Torres Straits Mail Route." *The Queenslander* 20 October 1866: 7.

⁹² Marc Flandreau, and Stefano Ugolini, "Where It All Began: Lending of Last Resort and the Bank of England During the Overend-Gurney Panic of 1866." *Norges Bank's bicentenary project: Working Paper*, no. 3 (2011).

⁹³ S. J. Butlin, Australia and New Zealand Bank. London: Longmans, 1961: 179-80; D. J. Farnfield, "Problems of Early Queensland 1859-1870." In Lectures on North Queensland History, edited by B. J. Dalton. 9-18. Townsville: James Cook University, 1974: 17-18. Nehemiah Bartley, and J. J. Knight, Australian Pioneers and Reminiscences : Together with Portraits of Some of the Founders of Australia. Brisbane: Gordon and Gotch, 1896: 257-61.

⁹⁴ The Brisbane Courier 4 August 1866: 4-5; The Brisbane Courier 16 February 1867: 4-5.

⁹⁵ SR QLD 1866 Brisbane: W. C. Belbridge (1867).

that a viable steam route could exist from the eastern colonies of Australia through to the Indian Archipelago via the Torres Strait gave clear evidence that with better finances a more permanent contract could be brought into action. The service, though, could not be fulfilled by a government. This was pointed out by Queensland parliamentarian Mr. Dalrymple in his speech to the Queensland Legislative Assembly mid-year stating that "(A) private company, accustomed to maritime pursuits, would undoubtedly conduct the service with more benefit to the public purse than the Government could do."⁹⁶ Looking to the future, the Queensland Postmaster-General ventured that "I do think that before long they will see that a very effective mail service can be secured by this route."⁹⁷ In seven years his optimism would be rewarded.

A permanent route to China

The development of a permanent steam communication route through the Torres Strait came into being in early 1873. One year later that was extended to China. The reasoning had not altered since the 1866 venture; it was to develop a shorter time for mail to be sent to and received from England and Europe together with a dissatisfaction with the P&O contract already in existence and supplying the southern colonies. One trigger for the re-emergence of the discussion on the Torres Strait route was the similar dissatisfaction in Victoria⁹⁸ and NSW⁹⁹ of the contract in existence with P&O by their respective mercantile bodies.¹⁰⁰ The only other options for a mail service were via America or a possible Torres Strait route. NSW favoured a service via San Francisco

⁹⁶ "Torres' Straits Route." *QPD LA* 28 June 1866.

⁹⁷ "Temporary Steam Service through Torres' Straits." *QPD LC* 21 June 1866.

⁹⁸ The Queenslander 10 February 1872: 4.

⁹⁹ "Eighteenth Annual Report of the Postmaster General, on the Departments under his Ministerial Control being that for the year 1872." *NSWVP 1873*: 32-33.

¹⁰⁰ Eventually in 1873, all the colonies and New Zealand, except for Queensland, accepted the new P&O contract with Melbourne as the terminus. Keith Sinclair, "Australasian Inter-Government Negotiations 1865-80: Ocean Mail and Tariffs." *Australian Journal of Politics and History* 16, no. 2 (1970): 170.

and invited Queensland to join them.¹⁰¹ Yet, discussions between Queensland and NSW were fruitless, the concerns primarily related to speed of steamers.¹⁰² The impetus had been quashed and Queensland was left, again, to go it alone with the Torres Strait route.¹⁰³

Similar to the 1866 venture, the process to create the service was both lengthy and complex. A Committee was initially created in April 1872. Through the Committee, the Queensland government agreed to a contract with the Netherlands India Steam Navigation Company (NISN) on similar terms to what existed with the 1866 venture.¹⁰⁴ The NISN eventually stated that they could not satisfy the agreement and the contract was terminated in October 1872.¹⁰⁵ At the same time, a London firm, Mactaggart, Tidman & Co. (MT&Co.) showed interest. Informing the Agent-General of Queensland, Richard Daintree, MT&Co. stated that their object was "to connect and develop the trade between India, China, and Australia, as well as ensure a quick and regular postal

¹⁰¹ "Melbourne Chamber of Commerce." *The Argus* 17 April 1872: 6; NSW and Victoria had also entered in to a provisional agreement for mail to be sent via the Panama isthmus. "Steam Postal Communication via San Francisco (Correspondence, &c.)." *NSWVP LA 1872-73 vol. 2*: 17-20; "Circular Despatch from the Earl of Kimberley." 14 August 1872 (No. 1) Papers and Correspondence relating to Proposals for a New Postal Service with the Australasian Colonies on the Termination of the Present Contract with the Peninsular and Oriental Steam Navigation Company at the End of the Year 1873 *QVP 1873*: 1219.

¹⁰² Foley, *Reef Pilots*: 27.

¹⁰³ "Telegram from the Colonial Secretary, Queensland, to the Colonial Secretary, New South Wales." 19 June 1873 (No. 42) Papers relating to Ocean Mail Communication *NSWVP LA 1873*: 981; "Circular Despatch from the Earl of Kimberley." 14 August 1872 (No. 1) Papers and Correspondence relating to Proposals for a New Postal Service with the Australasian Colonies on the Termination of the Present Contract with the Peninsular and Oriental Steam navigation Company at the End of the Year 1873 *QVP 1873*: 1219.

¹⁰⁴ "Heads of Agreement to form basis of Contract to be entered into between the Government of Queensland on the one part, and Alexander Fraser on the other part, for Establishing and Maintaining a regular Four Weekly Steam Service between Batavia and Sydney, via Torres Straits and the principal Ports of Queensland." 14 October 1871, (no. 5 of No. 1) Papers Respecting a proposed Steam Mail Service between Sydney and Batavia, via Queensland and Torres Straits, Intercolonial Conference, 1873 QVP 1873: 270.

 $^{^{105}}$ "The Under Colonial Secretary to Messrs. Eldred and Spence." 30 October 1872 (no. 3 of No. 2) Copy of Telegrams received and despatched re Fraser's Postal Service, Intercolonial Conference, 1873 *QVP 1873*: 271; Foley *River Pilots*: 27.

communication between Brisbane and this country,¹⁰⁶ this country being England. That is, unlike the NISN option which was centred on the Netherlands East Indies region, MT&Co. was a mercantile company that viewed the broader markets of East Asia and thus specifically the commercial gains the route offered as a supplement to delivering the mail.

A tender in January 1873 formalised the process of selection and with only MT&Co. and NISN offering worthwhile submissions, MT&Co. were awarded the contract.¹⁰⁷ Thus, on 21 February 1873, Daintree informed MT&Co. that they were successful and that a solicitor would draw up the agreement for all to sign.¹⁰⁸ The initial contract was signed on 18 April 1873 by a group of merchants in connection with MT&Co. and the Agent-General for Queensland.¹⁰⁹ Following four months of discussion, the Postmaster General was instructed by the British government, on 16 August 1873, to sign the "Articles of Agreement," thus formalising the contract. The contract, to the chagrin of the Queensland government, meant that the steamers would also travel to Sydney.¹¹⁰

¹⁰⁶ "Messrs. Mactaggart, Tidman, and Co., to Agent-General." 31 July 1872 (no. 3 of No. 5) Papers and Correspondence ... Steam Mail Service *QVP 1873*: 1237.

¹⁰⁷ "Agent-General to the Colonial Secretary." 21 February 1873 (No. 10) Papers and Correspondence relating to a proposed steam mail service between Sydney and Singapore, viá Queensland and Torres Straits *QVP 1873*: 1241. An additional tender was made by Monsieur Meiner but the Agent-General considered it insufficiently mature to forward it as an option; "Alexander Fraser, Esquire, to R. Daintree, Esquire." 27 January 1873 (no. 1 of No. 10); "Memorandum regarding Contract for Mail Service between Singapore, Queensland, and New South Wales." 25 January 1873 (no. 3 of No. 10); "Copy of Telegram from Agent-General for Queensland to the Honorable the Colonial Secretary." 8 February 1873 (no. 8 of No. 10) Papers and Correspondence relating to a proposed steam mail service between Sydney and Singapore, viá Queensland and Torres Straits *QVP 1873* : 1241-43.

¹⁰⁸ "Richard Daintree, Esquire, to W. Mactaggart, Esquire." 21 February 1873 (no. 11 of No. 10) Papers and Correspondence relating to a proposed steam mail service between Sydney and Singapore, viá Queensland and Torres Straits *QVP 1873*: 1244.

¹⁰⁹ "Contract for the Conveyance of Mails." 18 April 1873 (no. 2 of No. 2) Further Papers and Correspondence relating to a Proposed Steam Mail Service between Sydney and Singapore via Queensland and Torres Straits. *QVP 1874*: 374-77.

¹¹⁰ "Telegram from the Agent-General to the Colonial Secretary." 28 August 1873 (No. 23) Further Papers and Correspondence relating to a Proposed Steam Mail Service between Sydney and Singapore via Queensland and Torres Straits *QVP 1874*: 381-82. There was no financial support from either the government of private enterprise in NSW.

To satisfy the contract, a new international maritime company was formed by MT&Co. and other merchants. Along with MT&Co partners William Mactaggart and Paul Frederick Tidman, the latter also connected to Tidman, Balfour and Co. of Batavia, were added James Guthrie, partner of Guthrie and Co. of Singapore and James Henderson, partner in Scott, Henderson and Co. of Sydney, Australia. The group had also co-opted the services of Bright Brothers and Co. in Brisbane to act as agents there.¹¹¹ Thus was formed the Eastern and Australian Mail Steam Company. E&A was registered in London, with a capital of £150,000, on 3 May 1873 and with the objects

to:

convey passengers, goods, merchandise, mails, troops, and treasure, by sea or river, to and from Singapore, Java, Queensland and Sydney, and to and from such other places as the Company may from time to time determine upon, and to transact all business usually transacted by Ship Owners; to acquire or enter into contracts with the Governments of Queensland and New South Wales for the carriage of mails, or any other Colony, State or Country; to build, purchase, or hire ships or vessels, coal hulks, receiving ships, lighters, warehouses, houses, land, cattle or live stock, merchandise or treasure, and to charter or hire, sell or let, or otherwise employ or dispose of such ships or vessels, warehouses, houses, land, cattle, live stock and merchandise, and generally to transact all such business, and do all such things as are incidental or conductive to the attainment of the above objects.¹¹²

E&A immediately set about to purchase and lease steamers. Their first steamer, *Sunfoo*, was purchased for £38,000¹¹³ and departed London on 27 September 1873 bound for Singapore and Brisbane. During the following month, the *Jeddah*, *Tom Morton* and *Flintshire* were each chartered.¹¹⁴ The *Flintshire* was the second vessel placed in service

¹¹¹ William Olsen, *Lion of the China Sea: A History of the Eastern and Australian Steamship Company Limited.* Sydney: P & O Australia Ltd., 1976.: 5. Bright Brothers, with offices in Sydney and Melbourne, eventually took over from Henderson. Gibb, Livingston & Co. were the agents for E&A in Hong Kong.

¹¹² "Memorandum of Association." Eastern and Australian Mail Steam Company, BT 31/1851/7270 The National Archives, London.

¹¹³ "The Agent-General to the Colonial Secretary." 10 May 1873 (No. 25) Further Papers and Correspondence relating to a Proposed Steam Mail Service between Sydney and Singapore via Queensland and Torres Straits *QVP 1874*: 383; "Commercial." *Empire* 27 October 1873: 2. This article has a description of the meeting of E&A on 2 September 1873. The meeting was informed that the subsidy would be £23,000.

¹¹⁴ "Messrs. Mactaggart, Tidman, and Co. to the Agent-General." 7 October 1873 (no. 1 of No. 38); 27 October 1873 (no. 2 of No. 38); 28 October 1873 (no. 3 of No. 38) Further Papers and Correspondence relating to a Proposed Steam Mail Service between Sydney and Singapore via Queensland and Torres

following the *Sunfoo*.¹¹⁵ During the period of the contract, a number of vessels were built for E&A at various docks in Glasgow, Newcastle and Sunderland. They were the *Somerset, Normanby, Brisbane, Singapore, Bowen, Queensland* and *Menmuir*.¹¹⁶

The service commenced on 19 November 1873 when the *Sunfoo* departed Singapore with the English mails and other items bound for Queensland and Sydney.¹¹⁷ Her first journey was outside the guidelines of the contract, instead landing only at Batavia where an additional 100 tons of cargo was collected.¹¹⁸ The *Sunfoo* arrived in Moreton Bay, Brisbane in the early hours of Saturday 13 December 1873 carrying five passengers for the through journey to Sydney and 150 tons of goods for Brisbane made up predominantly of sugar, rice and tea from Batavia and tapioca, sago and pepper from Singapore.¹¹⁹ The *Sunfoo* then departed from Brisbane on 15 December 1873, arriving in Sydney within two days. There she unloaded more cargo, similar in both size and type to that in Brisbane together with some items to be transhipped to Melbourne.¹²⁰ The *Sunfoo* also brought mail from Singapore to Sydney.¹²¹ She departed Sydney on 1 January 1874 with the outgoing mail, after having been cleaned and re-painted.¹²²

Straits *QVP 1874*: 402. The *Jeddah* was owned by James Guthrie. Lloyd's Register of British and Foreign Shipping. From 1st July, 1874, to the 30th June, 1875. London: Wyman and Sons 1874.

¹¹⁵ "The SS. Flintshire." *The Queenslander* 31 January 1874.

¹¹⁶ Olsen, *Lion of the China Sea*: 17. The *Somerset* to the *Bowen* were built at Glasgow. The *Queensland* was built at Newcastle and the *Menmuir* was built at Sunderland.

¹¹⁷ "Fortnight's Summary." Straits Times Overland Journal 19 November 1873: 1.

¹¹⁸ "Telegraphic." *The Brisbane Courier* 27 November 1873: 5.

¹¹⁹ "Shipping Intelligence." *The Telegraph* 13 December 1873: 2; "Commercial Intelligence." *The Queenslander* 13 December 1873: 2; "Shipping." *The Brisbane Courier* 13 December 1873: 4. There has been no reason provided for this, once only, alteration to the contract and thus it was possibly just accepted by the Queensland Government. The ASN already provided a mail service to all the ports from Sydney to north Queensland. The return journey of the *Sunfoo* fulfilled the contract requirement for stops. ¹²⁰ "Shipping." *The Sydney Morning Herald* 18 December 1873: 4.

¹²¹ This would remain a discussion point as NSW were not providing financial assistance, yet taking advantage of the service for mail and, eventually, trade.

¹²² "Shipping." *Empire* 2 January 1874: 2.

The success of the first journey of the *Sunfoo* led E&A to fulfil their desire to open up the trade to include China. At the Extraordinary General Meeting of Shareholders, held in London on 6 January 1874, a resolution was proposed and passed to extend the line to China and Melbourne.¹²³ The decision was relayed to Singapore such that, upon arrival, the *Sunfoo* should continue her journey to Hong Kong. Extending the route to China was considered of vital importance to E&A.

That maiden journey by the *Sunfoo* would be its last, a portent to the disasters that were to befall the company's vessels over the following five years. On its journey north the *Sunfoo* ran aground near Bowen. When it arrived in Singapore the vessel was deemed unsuitable for further service until repaired.¹²⁴ The *Benton* was leased for a once only return journey, travelling from Batavia to Sydney with mail from Singapore and then returning to Singapore with mail for England and China.¹²⁵ Following repairs in Singapore, the *Sunfoo* continued her journey north to open up the new market of Hong Kong. Unfortunately, she struck a rock near Reef Island, a short distance from Hong Kong, on 10 March 1874 and became a total wreck. The passengers, the mail and some luggage were saved.¹²⁶ For E&A, the *Sunfoo* would only be the first of a number of accidents that occurred to its fleet during the mail contract. Other ships to suffer damage or sink were the *Flintshire, Jeddah, Bowen, Singapore, Normanby* and the *Oueensland*.¹²⁷

¹²³ G. A. Hardwick, "A Century of Service: The Eastern & Australian Steam Ship Company Limited." *Journal of the Royal Australian Historical Society* 66, no. 2 (1980): 121.

¹²⁴ "Arrival of the Torres Straits Mail." *Brisbane Courier* 12 March 1874: 2.

¹²⁵ "Shipping Intelligence." *The Telegraph* 1 June 1874:2. The English mail was delivered to Batavia from Singapore on the *HNMMS Minister Fransen van de Putte*. The vessel is titled both *Benton* and *Bentan*. The latter was provided in the Lloyd's Register. The vessel was also owned by James Guthrie, thus why it was so easy for a quick turnaround of the charter. Lloyd's Register of British and Foreign Shipping. From 1st July, 1874, to the 30th June, 1875. London: Wyman and Sons 1874.

¹²⁶ "Total Wreck of a Mail Steamer near Hong Kong." *The Hong Kong Times, Daily Advertiser, and Shipping Gazette* 13 March 1874: 2.

¹²⁷ "The Stranding of the Eastern and Australian Steam Navigation Company's R.M.S.S. Flintshire." *The Brisbane Courier* 24 June 1874: 2; "Local Intelligence." *The Bega Gazette and Eden District or Southern*

The incident of the *Sunfoo* did not alter the ambitions of E&A as the company continued to use Hong Kong as a terminus and from there, first with the *Jeddah* and then the *Flintshire*, also moved its southern terminus to Melbourne.¹²⁸ Throughout the period of the contract, E&A serviced all the required Queensland ports as well as Singapore and Hong Kong with the odd journey to Foochow to collect tea.¹²⁹ The contract would remain in place, though with a number of alterations, until its expiry after seven years of service in November 1880.

The extension of the termini to China and Melbourne proved a success, at least during the early years of the mail contract. In a report, dated 29 June 1874, the shareholders of E&A were informed that the steamers departing China for Australia had to "shut out" cargo at Hong Kong and Singapore due to an overwhelming demand.¹³⁰ Three months later, in another report, the Board of E&A stated "the extension of the line to China and Melbourne has largely increased the prospects of revenue, and it fully justifies the employment of additional capital, in the extension of the company's fleet."¹³¹

The China – Australia route provided E&A with one specific hidden advantage over its competitors, the intrinsic link between the mail contract and trade. A relationship that existed, and one not often drawn upon by historians, was the effectiveness of the mail subsidy on the trade. These mail contracts, though, provided benefits to the maritime

Coast Advertiser 3 September 1874: 2; "Shipping." *The Brisbane Courier* 9 September 1875: 2; *The Argus* 4 August 1876: 4; "Wreck of the E. and A. Company's Steamship Singapore." *The Sydney Morning Herald* 3 February 1877: 5; "The R.M.S. Normanby." *The Brisbane Courier* 16 August 1877: 3; "Collision of the *Queensland* and the *Barrabool.*" *Age* 5 August 1876: 5.

¹²⁸ "Trip of the Flintshire." *The Queenslander* 2 May 1874: 9.

¹²⁹ 30 July 1875. *Prices Current* P945 Cartons 31-33 AHA. The *Somerset* departed Foochow on 7 July 1875 with 175,789 lbs. of tea for Melbourne and 301,457 lbs. tea for Sydney and also made a journey to Amoy, departing there on 12 July 1875, to collect 10,540 lbs. tea for Brisbane.

¹³⁰ Hardwick, "A Century of Service.": 121.

¹³¹ "The Eastern and Australian Mail Steam Company." Brisbane Courier 15 December 1874: 3.

firms involved. For the firm, the subsidy of the contract assisted in reducing the transport costs and for the merchants at the ports there was the guarantee of regular shipping services. In India, for example, the British India Steam Navigation (BISN) company provided local connections to the P&O services from Britain and when new tenders were invited for other connections, the company knew "what an edge a mail contract gave the firm holding it over competing steamer concerns."¹³² However, while in competition an advantage was attained when coupled with a mail subsidy, adding the benefits of trade was also vital. When viewing an option to take up a mail subsidy for the Zanzibar to India link, BISN noted that American merchant interests had a near-monopoly on the trade between the two countries. Hence commercial realities kerbed any enthusiasm for BISN to embrace a mail subsidy for that route.¹³³

The route and contract taken up by E&A had similarities, differences and advantages over the BISN situation. Firstly, there was no initial competition between the East Asian ports of China and nearby countries directly with Australia's eastern colonies. That is, the fact that no regular service went through the Torres Strait was the fundamental reason for the development of the new service by E&A. Secondly, prior to the contract, almost all travel by sea between China and the Australian colonies was done by the square-rigged type of vessels with extremely few, if any, by steam, thus giving a new steam service an advantage. Previously, goods for the trade did not require fast transmission as they were not perishable and thus merchants considered that the lower freight cost outweighed the speed element. Thirdly, Clause XXV of the contract with

¹³² Stephanie Jones, "British India Steamers and the Trade of the Persian Gulf, 1862-1914." *The Great Circle* 7, no. 1 (1985): 26.

¹³³ J. Forbes Munro, "Shipping Subsidies and Railway Guarantees: William Mackinnon, Eastern Africa and the Indian Ocean, 1860-93." *The Journal of African History* 28, no. 2 (1987): 215.

the Queensland government waived all port costs in Queensland waters.¹³⁴ The elimination of port costs in Queensland waters placed E&A well ahead of their opposition, each of whom suffered "frustrating burdens" at the various levies imposed and inspired through colonial rivalries.¹³⁵ These advantages created for the merchants of colonial Australia a more enticing option to transport their goods faster and more regularly than if they had to charter steamers. The other problem was that there were few, if any, ocean-going steamers in Australian waters available for charter as most belonged to international maritime firms.

The contract with E&A did not exclude the addition of ports to the service. The extension to Hong Kong and Melbourne were clear examples. Various ports along the northern coastal region of Australia were also included. Two were synonymous with the Chinese and gold and thus attracted not only E&A but other maritime firms to service those ports. In northern Queensland the discovery of productive goldfields on the Palmer River, near Cooktown, created a "rush" of prospectors, including many from China. Port Darwin, the northerly port of the Northern Territory of South Australia, opened its port to Chinese immigration in December 1877 and thus from that point on E&A serviced both Cooktown and Port Darwin along their normal route.

Cooktown lies at the mouth of the Endeavour River in far north Queensland and is the first port of call after rounding the Torres Strait and entering the Inner Passage.¹³⁶ Cooktown was a substantial contributor to the China trade in terms of both passengers

¹³⁴ "Contract for the Conveyance of Mails." 18 April 1873 (no. 2 of No. 2) Further Papers and Correspondence relating to a Proposed Steam Mail Service between Sydney and Singapore via Queensland and Torres Straits. *QVP 1874*: 374-77: Clause XXV.

¹³⁵ Bach, *The Australian Station*: 138-39.

¹³⁶ The Inner Passage was the route between the Queensland coast and the Great Barrier Reef.

and cargo for E&A during the period of the contract.¹³⁷ The port was not part of the original service. Yet new commercial advantages redefined the route with Cooktown as a major stopover for E&A and other shipping companies in the mid-to-late 1870s. The success of the goldfields drew vessels replete with Chinese immigrants to Cooktown. From early 1875 until the end of 1877 over 20,000 Chinese arrived by boat from Hong Kong into Cooktown.¹³⁸ While E&A was not solely responsible for this influx, it was a regular and significant contributor. Cooktown offered E&A additional cargo and Chinese miners for the journeys between Cooktown and Hong Kong. The port's merchants imported Chinese goods, whether these were rice, opium, joss sticks or other commodities.¹³⁹ On the return trips primarily gold was carried back, its portion unknown.¹⁴⁰ In return, E&A offered the Chinese a regular return service between Cooktown and China, one that other shipping companies struggled to provide without a supplementary cargo to assist in paying for the journey. The fact that Cooktown opened its doors to the Chinese migrant workers gave the company impetus to push for more vessels travelling the route and thus the purchase of quicker and bigger steamers for the mail contract.¹⁴¹ The ability to use Cooktown helped E&A to pay its costs and also

¹³⁷ For a discussion on Cooktown and the Palmer River goldfields, see Robert Ormston, "The Rise and Fall of a Frontier Mining Town: Cooktown 1873-85." PhD. University of Queensland, 1996; Kevin Rains, "Intersections: The Overseas Chinese Social Landscape of Cooktown, 1873-1935." PhD. University of Queensland, 2005. Noreen Kirkman, "From Minority to Majority: Chinese on the Palmer River Gold-Field, 1873-1876." In *Race Relations in North Queensland*, edited by Henry Reynolds. Townsville: James Cook University, 1993.

 $^{^{138}}$ The total amount is unknown, though well over 20,000 arrived, an amount calculated using shipping records in the two Cooktown newspapers – *The Cooktown Herald* and *Cooktown Courier*. Many also arrived from various ports south, including Melbourne, Sydney and Queensland towns.

¹³⁹ The two newspapers contained detailed import and export lists of goods and merchants involved. For example, the *Bowen* on 2 March 1876 brought to Cooktown rice, sugar, sausages, rope, wine, cuttle-fish, crackers, sugar candy, olive seed, cakes, string, china ware, ducks, medicine, opium and paper. "Shipping." *Cooktown Courier* 4 March 1876: 2.

¹⁴⁰ "Export of Gold per Brisbane s.s." *Cooktown Courier* 15 December 1875: 3. There was no duty or tax on the export of gold from Queensland. The decision not to declare the amount of gold being exported in unknown and perhaps relates to that which is declared to the Chinese in Hong Kong when the transport vessel arrived at that port.

¹⁴¹ The vessels purchased and placed on the route during the period of the contract were: *s.s. Brisbane* (1874), *s.s. Somerset* (1874), *s.s. Singapore* (1874), *s.s. Bowen* (1874), *s.s. Queensland* (1875) and *s.s. Menmuir* (1878).

allowed the port itself to thrive. To a degree, a symbiotic relationship existed between Cooktown and E&A, through the Chinese migrant workers.¹⁴²

Port Darwin was an isolated port for South Australia. At the same time as the Palmer River goldfields were opened, gold was discovered inland of Darwin at Pine Creek.¹⁴³ Initially only Europeans mined the gold, arriving from the south by ship. In 1874, 187 Chinese were brought by the South Australian government to Darwin as indentured labourers, most remaining after their two years of service concluded.¹⁴⁴ However, the population of Darwin dwindled in the mid-1870s as more people departed than arrived. To counter this problem, the South Australian government debated about Chinese immigration to Port Darwin.¹⁴⁵ Eventually, in late 1877 the first Chinese arrived from Hong Kong to Darwin aboard the *s.s. Charlton*.¹⁴⁶ As with Cooktown, Darwin became an accessible market for E&A and others to provide a maritime service to China.¹⁴⁷

¹⁴² In the early years of the service and its connection with Cooktown, the service of E&A was successful. The fourth half-yearly report, dated 29 June 1875, stated that the connection to Hong Kong was one reason for this success. The ability to stop with cargo, both human and goods, at Cooktown was a bonus. *Brisbane Courier* 3 September 1875: 2.

¹⁴³ David Carment, "Writing the Mining History of Australia's Northern Territory: Past Themes, Current Research and Future Prospects." *Journal of Northern Territory History* 7 (1996): 2; Geoffrey Blainey, *The Rush That Never Ended: A History of Australian Mining*. Melbourne: Melbourne University Press, 1969: 90-96.

¹⁴⁴ Eric Rolls, *Sojourners: Flowers and the Wide Sea* St Lucia, Queensland: University of Queensland Press, 1992: 267-78; "Arrival of Coolies." *Northern Territory Times and Gazette* 8 August 1874: 2.

¹⁴⁵ The matter was discussed in the South Australia Parliament in 1876 and later as it was in the editorials and other items in both Adelaide and Port Darwin newspapers. See, for example: "House of Assembly. Wednesday, September 13: Immigration." *South Australian Register* 14 September 1876: 6; "House of Assembly. Friday, November 3: Northern Territory Immigration." *South Australian Register* 4 November 1876: 6; "The Northern Territory and Chinese Immigration." *South Australian Register* 3 January 1877: 6.

¹⁴⁶ The *s.s. Charlton* arrived from Hong Kong on 12 December 1877 with 90 Chinese. It had, a few months prior stopped in Port Darwin on a journey from Hong Kong to Cooktown enquiring about the option of providing Chinese immigrants from Hong Kong. "Shipping." *Northern Territory Times and Gazette* 18 August 1877: 2; "Shipping." *Northern Territory Times and Gazette* 22 December 1877: 1.

¹⁴⁷ The first E&A vessel to arrive was the *s.s. Normanby* from Hong Kong on 12 March 1878 with 137 Chinese. "Shipping." *Northern Territory Times and Gazette* 16 March 1878: 1.

The success of E&A in extending its route to Hong Kong was an impetus for three other companies to become involved in the China-Australia trade prior to 1880.¹⁴⁸ Though numerous private ventures and individual charters existed between China and Australia, it was not until after E&A's initial move into the market that other shipping companies became involved specifically on the route. Of the three, two originated from Hong Kong. They were Hop Kee and Co. and Kwong Hing Cheung and Co. The third was the Australasian Steam Navigation company (ASN).



Figure 2.6. Steam routes from China to Australia for three shipping companies (1873-80).

The Chinese firms became major competitors for E&A on the China – Australia route. Hop Kee and Co. leased a number of fast steamers to perform a shuttle service between Hong Kong and Cooktown with occasional journeys to Newcastle to collect a freight of

¹⁴⁸ A fourth, George R. Stevens & Co. line joined the route from May 1880 which, as it is at the latest part of the period under study, I have chosen to omit from the work.

coal for the return journey.¹⁴⁹ Hop Kee and Co provided the transport for the first Chinese from China to arrive in Cooktown.¹⁵⁰ The *Adria*, a P&O ship, was leased by Hop Kee and Co. for four months for the sole purpose of taking Chinese to Cooktown and then loading with coal from Newcastle on the return journey to Hong Kong.¹⁵¹ The *Adria* arrived at Cooktown on 20 March 1875, which was also marked by the arrival, only 90 minutes later, of the E&A steamer *Brisbane*. Together, the two vessels brought with them 754 transient Chinese gold miners to that part of north Queensland.¹⁵² Soon the second Hong Kong-based company, Kwong Hing Cheung and Co., which was managed by Mr. Leung Ah Yon, commenced a service between Hong Kong and Cooktown.¹⁵³ The two companies continued to be involved in the Hong Kong – Cooktown route throughout the late 1870s and both extended their routes to include Port Darwin from 1878 onwards when that port finally allowed Chinese immigration.

Hop Kee and Co. was also interested in investing in Australia. The South Australian government offered £5,000 for any company that could produce 500 tons of exportable sugar in the Northern Territory.¹⁵⁴ Hop Kee and Co. offered to set up a sugar plantation with the intention of providing up to 500 Chinese coolies to work the fields. The offer

¹⁴⁹ Card 279537, Carl Smith Collection, HKPRO.

¹⁵⁰ There is an assumption that the Chinese in China were informed of the new gold rush in northern Queensland by their compatriots in Australia. The time taken to organise themselves meant that they were unable to take advantage of a vessel travelling past that port until the departure of the *Adria* and *Brisbane*.

¹⁵¹ Memorandum for the Board, 8th March 1875. P&O/3/11, Reports from Managing Directors to Board 1874-77, Peninsular and Oriental Steam Navigation Records, National Maritime Museum, Greenwich, England; *Cooktown Courier* 27 March 1875: 2-3; *The Hong Kong Times, Daily Advertiser, and Shipping Gazette* 22 February 1875: 1. Noreen Kirkman, "From Minority to Majority": 249n37 states that the *s.s. Victoria* was the first vessel to arrive from overseas. The *Cooktown Courier* 6 February 1875: 2 clearly states in its description that the vessel left from Sydney as do numerous newspapers from New South Wales. The *Victoria* did carry Chinese, and they may have arrived into Sydney from overseas, but the *Adria* was the first vessel to specifically arrive from overseas to the port of Cooktown.

¹⁵² Cooktown Courier 27 March 1875: 2.

¹⁵³ Card 54635, Carl Smith Collection, HKPRO. The company has also been identified as Ah Yon and Co.

¹⁵⁴ "House of Assembly." *South Australian Register* 15 October 1875: 6. "Northern Territory of South Australia." *Northern Territory Times and Gazette* 11 August 1877: 1.

was not accepted and thus potentially the first investment by a Chinese-based firm in Australia did not take place.¹⁵⁵

ASN entered into competition with E&A and the two Chinese firms in late 1877, choosing, primarily, to lease steamers.¹⁵⁶ Only one, the *Ocean*, was owned by ASN while six other steamers plied the route for the ASN.¹⁵⁷ ASN wanted to capitalise on the lucrative Asian markets and the ability to take advantage of the transport of Chinese between China and Cooktown.¹⁵⁸ However, to challenge the established E&A with their subsidised line and the two low-cost Chinese companies with their Chinese crews, required cost minimisation by ASN.¹⁵⁹ ASN decided to replace their Australian seamen with lower-paid Chinese. That led to a revolt by Australian seamen against ASN and eventually a strike, initiated by the Seamens' Union, at the end of 1878. In response, the Queensland government, backed by the unions, chose to halt the use of Chinese labour on "Australian run ships"¹⁶⁰ and eventually imposed new immigration restriction Acts that were to be repeated throughout the Australian colonies. These became the catalyst

¹⁵⁵ "The Northern Territory." *Adelaide Observer* 6 April 1878: 17. An attempt was also made to bring Japanese coolies by a western merchant to develop a sugar plantation. "House of Assembly." *South Australian Register* 15 November 1877: 7.

¹⁵⁶ "Trade with China," Cooktown Herald and Palmer River Advocate 3 November 1877: 2.

¹⁵⁷ This has been deduced through the names of the steamers and their past record together with the fact that ASN records do not show ownership of the vessels. These were the *Thales*, *Charlton*, *Mecca*, *Zamboango*, *Athol* and *Crusader*.

¹⁵⁸ As demonstrated in Figure 2.8, there was a sudden increase in imports and exports relating to China, especially related to the Queensland market. These statistics were available to ASN and replayed in the newspapers. Ronald Parsons, *A Pioneer Australian Steamship Company: A History of the Hunter's River Steam Navigation Company and the Australian Steam Navigation Company, Including a Fleet List* Lobethal, S. A. : Ronald Parsons, 1970: 47-48. The ASN chose in March 1878 to extend their route to Port Darwin. Cooktown was also the farthest most port along the Queensland coast that the ASN serviced. S. E. Stephens. "The Endeavour River and Cooktown." *Queensland Heritage* 2, no. 2 (1970): 23.

¹⁵⁹ It is of note that the "official history" of ASN neglects to include, or pass it without much note, the venture to China even though it generated such a significant incident in both the history of the company and of Australia. See: F. H. Trouton, F. H. *Handbook and History of the Australasian Steam Navigation Co.* Sydney: J.L. Holmes & Co., 1884.

¹⁶⁰ The strike did not affect the vessels of either E&A or the two Chinese companies, each of which employed Chinese seaman, Thus, only those vessels leased or owned by an Australian firm (ASN in this case) were involved in the strike. The emphasis is the author's.

for development of the *1901 Immigration Restriction Act* and the policy of "White Australia."¹⁶¹

Effects of the trade

The consequence of the permanent Torres Strait service to Singapore and China for the eastern Australian colonies and especially Queensland was quite noticeable. One major factor, as shown in Figure 2.2, was the alteration of primary destination for vessels arriving from China in Australian ports. That was from Melbourne to Sydney. For the Queensland mercantile community, the effect on trade with China was significant. The work by E&A to open up new markets for the Queensland merchants created, by the end of the 1870s, a vibrant trade relationship with China. Figure 2.7 displays the sudden increase of shipping between China and Queensland after 1874.

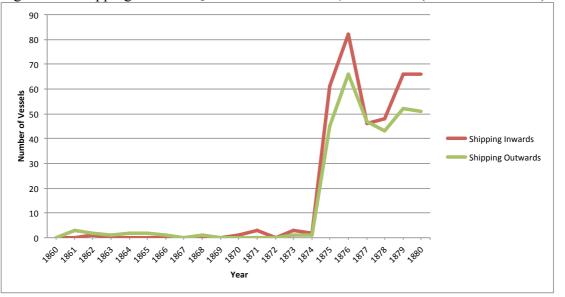


Figure 2.7. Shipping between Queensland and China, 1860-1880 (number of vessels).¹⁶²

¹⁶¹ For a lengthy review of the 1878-79 Seamen's Strike see: Ann Curthoys. "Conflict and Consensus." In *White Are Our Enemies? Racism and the Working Class in Australia.*, edited by Ann Curthoys and Andrew Markus, 48-65. Sydney: Hale and Monger, 1978; Phil Griffiths. "The Heroic Shameful Role of Labour: Mythology in the Making of White Australia." In *Legacies 09 Conference*. Toowoomba, Queensland, 2009; Pauline Kneipp. "The Seamen's Strike 1878-1879: Its Relation to the White Australia Policy." *ANU Historical Journal* 1, no. 2 (1965-66): 14-18.

¹⁶² SR QLD 1860-1880.

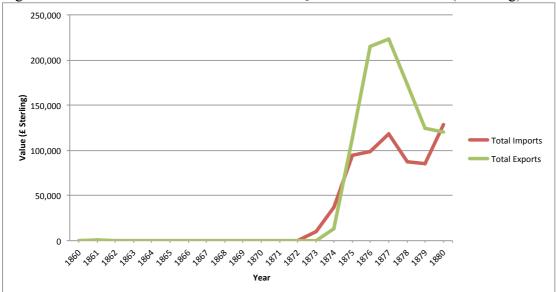


Figure 2.8. Value of trade between China and Queensland 1860-1880 (£ sterling).¹⁶³

Table 2.2. Shares of shipping and trade between China and Queensland, 1873 and 1880 (percentages).¹⁶⁴

	1873	1880
% international inwards shipping	3.3	28.7
% international outwards shipping	0.0	25.9
% of value of international imports	1.0	12.5
% of value of international exports	0.0	13.1

Similarly, Figure 2.8 demonstrates that the value of trade between Queensland and China also increased significantly after 1874, emphasising the little access to the Chinese markets prior to the 1873 contract between E&A and the government. To further put this in the context of the overall international trade for Queensland, Table 2.2 demonstrates the difference between 1873 and 1880 when viewing both the shipping and the trade statistics. By 1880 over a quarter of all international shipping and over an eighth of all international trade for Queensland was with China. In such a short time, trade with China had blossomed and the principal instigator was E&A and their steamers shuttling between China and Australia. The advantages gained from developing the mail contract were exploited by the merchants of Queensland.

¹⁶³ *ibid*.

¹⁶⁴ SR QLD 1873, 1880.

The introduction of steam-driven international shipping to the China – Australia route, together with the competition between first three and then four shipping companies, created new trade opportunities for the merchants in both China and the eastern Australian colonies. E&A had the most to gain as its vessels were travelling to Melbourne which was still a distribution point for a number of other colonies. JM&Co. began using the service, instead of the sail vessels, from the mid-1870s and many other merchants followed.¹⁶⁵ E&A vessels, as with a number of the steamers from Hop Kee and Kwong Hing Cheung, also collected coal to be taken to China. Thus, as was shown earlier in Table 2.1, the number of sail vessels on the route from China to Australia diminished to zero by the early 1880s. This is more stated for the route to Sydney than for the Melbourne route. The fact that steamers were now prominent on the China to Australia route and that most would have taken the Torres Strait route also corroborates the fact that vessels from China chose Sydney as their destination over Melbourne. The second effect, as shown in Table 2.1, was a lull at the end of the decade in shipping from China to Melbourne.¹⁶⁶ Nevertheless, by 1881 shipping resumed along the China to Melbourne route. The primary difference then was that all vessels were steamers.

It should also be noted that all trade between Western Australia and China, continued to be performed on sailing ships throughout the period. The *Blue Books* from 1878 onwards separate sail and steam in their shipping statistics and these show that there were no steamers travelling between Fremantle and China in either direction.¹⁶⁷ Even by

¹⁶⁵ JM&Co. commenced using steam powered vessels to transport tea to Australia from the beginning of 1864 and thence only rarely employed sail vessels instead. JMA A6/23 to A6/26.

 ¹⁶⁶ One possible reasoning may lay with the Victorian government crisis of the late 1870s. See Alfred Deakin, *The Crisis in Victorian Politics 1879-1881* Melbourne: Melbourne University Press, 1957.
 ¹⁶⁷ SR WA 1878-1880.

1896, there were no steam vessels travelling between WA and China.¹⁶⁸ Thus, for the period leading to 1880, the migration from sail to steam, generated primarily through the mail contract and its related competition for the eastern route, was specific to the eastern colonies. The victory of steam over sail, though inevitable, however was not complete until the end of the century.¹⁶⁹

Concluding comments

The China – Australia route through the Torres Strait provided an opportunity for international shipping in Australia's eastern waters to change from sail to steam. John Hutchins argues that foreign subsidies, predominantly British, had little or no effect on international trade, such was the growth in production post 1860 of iron and steam sailing ships.¹⁷⁰ The isolation of Australia created an exception to this general rule. As Blainey states, Australia was remotely located from its main markets and thus suffered from the tyranny of distance. The opening of the Torres Strait route brought Australia much closer to China and other parts of Asia. It showed merchants, predominantly those in Australia, that there was an opportunity to take advantage of, both in terms of new technology in marine architecture as well as geographical adjacency.

Australian merchants and governments strived to locate the most direct route for shipping to take from the eastern colonies to ports in Asia and thus towards England. This endeavour drove numerous attempts to locate the optimum route, a journey that meant traversing the Torres Strait. The development of the compound engine gave this

¹⁶⁸ SR WA 1896: Part IV:117. In the 1896 Statistical Register it was stated that there were eight vessels that departed from Western Australia towards either Hong Kong or China. All were sailing vessels. There were no vessels arriving from Chinese ports to Western Australia during that year.

¹⁶⁹ Bach, *The Australian Station*: 141.

¹⁷⁰ John Hutchins, "One Hundred and Fifty Years of American Navigation Policy." *The Quarterly Journal of Economics* 53, no. 2 (1939): 244.

dream impetus. It allowed for quicker travel between Singapore and the eastern Australian coast. It also eventually created economical advantages for both shippers and merchants when compared to sail. When the Queensland colonial government strove to open this route as part of a new link for their mail and commerce, they were initially greeted by failure in the ventures and admonishment from the other colonies. In 1873 that all changed. That year was the breakthrough for the development of continuous and regular travel through the Torres Strait, a new service that catered for all of eastern Australia's colonial needs.

A number of effects were created by the opening of permanent and regular travel through the Torres Strait. The most prominent was the promotion of steamers over square-rigged vessels on the journeys from China to Australia. During the 1860s and most of the 1870s, sail remained the mode of transport between China and Australia. The opening of the Torres Strait route meant that by the early 1880s, steam overwhelmed sail on that route. From that point on, there were few, if any, square-rigged vessels travelling from China to Australia. Secondly, the Queensland economy attained a boost, not only owing to a new method of the transport of mail, persons and goods from various parts of Asia, but through the development of Cooktown and its links to China. Towards the end of the 1870s, at the height of the gold diggings at the Palmer River, Cooktown was only behind Brisbane as a revenue producing town in colonial Queensland.¹⁷¹ Thirdly, for the ports of Sydney and Melbourne, the ability to attain tea and other goods from China at a quicker speed also assisted in providing a more economical market in those ports. Finally, although they were not supposed to be part of the mail contract, the ability for those in Sydney and Melbourne to send and

¹⁷¹ SR QLD 1877: 52. From 1874 to 1876, Cooktown provided the second highest value (in pounds sterling) for exports from Queensland, only behind Brisbane. In 1877, Cooktown exported total was just below that for Rockhampton.

receive mail from China much quicker than if that was to travel via Galle became an advantage for both the government and the merchants of the ports.

The development of the permanent route via the Torres Strait and its connection to the markets of China cannot be separated from the mail contract between E&A and the Queensland government. For Queensland, mail became intrinsically linked with the development of the eastern route. Mail contracts were essentially a two-part process made up of an alliance between the delivery of mail and the company's transportation of passengers and freight. The mail steamers were expected to carry cargo to supplement their travel. This placed a constraint on the traders in that the vessels were set to a timetable for the mails and any goods not on board at the time of departure would be left for the following ship.¹⁷² However, the very nature of mail subsidies allowed for market penetration into areas and routes that otherwise would have been provided with a poor quality of service. Further, as maritime historian Frank Broeze stated, the "very political nature of the process of awarding mail contracts and subsidies which went with them introduced an array of external influences into the shipping scene which could seriously interfere with the ordinary market forces at work."¹⁷³ That was definitely the case for the eastern route through the Torres Strait and its relationship to the advancement of the maritime industry on that route.

The part played by Mactaggart Tidman & Co., initially, and thence E&A cannot be underestimated. Their determination to extend the route beyond that specified by the Queensland government both opened up Asian markets to Queenslanders and allowed

¹⁷² Robert Greenhill, "Trans-Oceanic Mail Contracts: A Case Study in Nineteenth-Century Privatization and Deregulation." In *Transport Regulation Matters*, edited by James McConville, 55-77. London: Pinter, 1997: 59.

¹⁷³ Broeze, "Distance Tamed.": 2. It is of note that Broeze neglected the E&A contract in his analysis leaving a single intimation that the contract prior to that of BISN in 1881 (the E&A contract) was disappointing for the Queensland government. See Broeze. "Distance Tamed.": 10.

merchants in the ports of Sydney and Melbourne to take advantage of the mail contract route to deliver their goods faster. E&A promised to provide a regular carriage service for mail, cargo and passengers between the Asian ports of China and Singapore with Australia's eastern coast and this they delivered. As such, E&A's route decisions moved Australian trade with China into the new world of steam. Consideration should also be made to what may have transpired had the NISN option been taken up. Through a lack of competition with steam, sail usage on the China to Australia route could have continued for some time into the remainder of the nineteenth century as it did for the wool clippers that took their produce to the British market.¹⁷⁴

The mail contract between E&A and the Queensland government was not renewed in 1880. The demise of the contract was a by-product of the need by E&A to continue the service to Sydney to take advantage of the markets there and the determination of the Queensland colonial government to populate their colony through immigration from the UK. When E&A submitted its tender for a new contract, the stipulation to continue to Sydney was a point that the Queensland government no longer accepted.¹⁷⁵ The discussions between Queensland and NSW as regards a contribution to the new mail contract via the Torres Strait was not yet agreed upon and the Queensland government thus terminated discussions with E&A. Within a short time BISN put forward an option to not only deliver the mail from London to Brisbane but also to include the transport of migrants. That contract was agreed upon on 6 May 1880.¹⁷⁶ The government, however,

¹⁷⁴ R. V. Jackson, "The Decline of the Wool Clippers." *The Great Circle* 2, no. 2 (1980): 87-98. It will be shown in Chapter 3 that sail continued to be used by coal-laden vessels travelling to China, though by 1880 steamers provided a valid competition.

¹⁷⁵ *Morning Bulletin* 14 February 1880: 2; "Memorandum Relative to the Establishment and Maintenance of the Torres Straits Mail Service." 2 September 1880 Copies of Minutes of the Executive Council, and Telegrams between the Government and Contractors, in Reference to the New Mail Service between London and Queensland. *QVP 1880*: 1030.

¹⁷⁶ "The Mail Contract." *The Queenslander* 9 October 1880: 469; "Memorandum Relative to the Establishment and Maintenance of the Torres Straits Mail Service." 2 September 1880 Copies of Minutes

stated that they had been pleased with the performance of the E&A contract in that the company carried out its duties "to the full satisfaction of the Postmaster-General."¹⁷⁷

The Eastern and Australian Mail Steam company held a special meeting on 22 July 1880 with the intention to wind up the company voluntarily as the company was no longer involved in the mail contract.¹⁷⁸ That resolution was passed and on 10 August 1880 the new company, Eastern and Australian Steamship Company Limited, was formed.¹⁷⁹ The new E&A continued to service the route from Melbourne, Sydney and Brisbane to parts of Asia that included China, Philippines and Japan. More new steamers were purchased for these routes.¹⁸⁰ The BISN service, however, was altered to take a route between Aden and Brisbane with no stop at Singapore, the mail to be collected at Aden.¹⁸¹ Thus, any contact with the East had been removed from the mail contract. It was left to companies like E&A to maintain the trade connection.

Finally, there appears to have been an undisclosed, predetermined belief among the British authorities in favour of maintaining the usage of maritime routes via Cape Leeuwin. This belief created continuous conflict with attempts at opening up the Torres Strait route. For a number of decades leading up to 1873, shipping from Britain had chosen the quicker route towards Melbourne, taking advantage of the westerly winds. The choice of Melbourne to be the primary point of entry into Australia thus became fixed in the minds of those at the Admiralty. Further, when it came to an 1872 statement

of the Executive Council, and Telegrams between the Government and Contractors, in Reference to the New Mail Service between London and Queensland. *QVP 1880*: 1029-42.

¹⁷⁷ "Memorandum Relative to the Establishment and Maintenance of the Torres Straits Mail Service." 2 September 1880 Copies of Minutes of the Executive Council, and Telegrams between the Government and Contractors, in Reference to the New Mail Service between London and Queensland. *QVP 1880*: 1029.

¹⁷⁸ "Special Resolution "That the Company be wound up voluntarily." *Eastern and Australian Steamship Company Limited* BT 31/1851/7270 The National Archives, Kew, UK.

¹⁷⁹ "Memorandum of Association." *Eastern and Australian Mail Steam Company* BT 31/2682/14364 The National Archives, Kew, UK.

¹⁸⁰ "Shipping." *The Sydney Morning Herald* 9 October 1880: 4. See Olsen, *Lion of the China Sea* for a fuller description of the future of the company post-1880.

¹⁸¹ "Letter from H. Buxton Forman (for the Secretary) to General Post Office." 15 September 1881 *Queensland Mail Service via Torres Straits* POST 29/305B Royal Mail Archives, London.

by the Lords Commissioner of the Treasury, the favourite option and thus funding was still to travel via Cape Leeuwin and thus to Melbourne over and above the other options.¹⁸² Admiralty was always concerned about the risks of travel through the Torres Strait and thus did not believe in that route and found any excuse to avoid its usage. That is, the effect of Melbourne as the major port of that time defined the international shipping routes for Australia for a period prior to 1873. The work by E&A and the Queensland Government altered that belief.

¹⁸² "Circular Despatch from the Earl of Kimberley." 14 August 1872 (No. 1) Papers and Correspondence relating to Proposals for a New Postal Service with the Australasian Colonies on the Termination of the Present Contract with the Peninsular and Oriental Steam navigation Company at the End of the Year 1873 *QVP 1873*: 1219.

CHAPTER 3

THE LITTLE BLACK ROCK OF NEW SOUTH WALES

Australia's reliance on coal as a source of energy, both for domestic use and as an export to numerous ports around the world, has continued unabated for over two centuries. Stumbled upon by some of the earliest convicts to New South Wales (NSW), the little black rock¹ provided a boon for that colony in its early days, specifically as a viable export commodity throughout the second half of the nineteenth century. From the early 1860s, the coal mining industry of NSW expanded greatly. The coal mined in the colony of NSW, during the 1860s and 1870s, was exported to markets throughout the world. NSW coal reached such ports as Port Natal in South Africa and Portland, Maine, on the east coast of the United States of America.² The two principal overseas destinations were New Zealand and China.³ Thus, for those who worked and managed the collieries of the Hunter Region north of Sydney and the Bulli and Bellambi coal fields south of the colony's capital and those who shipped the coal overseas, the little black rock provided worthwhile profits.

The importance of coal to the world cannot be understated. W. Stanley Jevons declared the second half of the nineteenth century to be the "Age of Coal."⁴ The rise of the steamship both for naval and commercial interests required constant scientific

¹ I have taken this label for coal from a recent article in the *Guardian*. Bob Briton, "Coal's last gasp." *Guardian (Sydney)* No. 1703 23 September 2015: 5.

² For a complete list of ports where NSW coal was exported to, see Appendix 4.

³ China, in this instant, encompasses Hong Kong. Australian colonial government records tended to merge statistics for Hong Kong within a general China classification and thus, throughout this Chapter, unless otherwise stated, China will cover all Treaty Ports, plus Hong Kong.

⁴ Walter Stanley Jevons, *The Coal Question: An Inquiry Concerning the Progress of the Nation and the Probable Exhaustion of Our Coal-Mines.* London: Macmillan & Co., 1865: viii.

improvements in the engines that drove these metal vessels.⁵ However, while the new versions of boilers and furnaces created faster ships, they also made easier, simpler and more economical usage of the coal that took its place as the workhorse of steamer shipping. Thus, as Jevons stated in 1865: "Coal, in truth, stands not beside but entirely above all other commodities."⁶ Coal was the primary material of energy, not only for water-borne transport but also nearly everything that was done on land as well. NSW's place in the world's coal industry was only minor at the commencement of 1860s, an annual production of barely a third of a single per cent of that of Great Britain.⁷ Yet, its prominence as an exporter of coal in East Asia, and particularly China, developed throughout the 1860s and 1870s to eventually overtake the previous dominant exporter to China, that being Great Britain. By the end of the 1870s, the landscape of coal imports into China had altered dramatically. Not only had NSW broken Britain's stranglehold on coal exports to China, but so had other nations, including Japan.

The Chinese ports were havens for competition where complex market structures existed and where the NSW companies struggled to find a market for their products. Numerous hindrances were placed before the commission agents of Hong Kong and Shanghai, the two dominant ports of entry for overseas coal, as they tried to gain the best for the NSW exporters. Freight rates, inferiority of NSW coal to Welsh coal and later to the cheaper Japanese and Formosan coal, together with over-supply were only a subset of the problems that beset NSW's portion of the overall Chinese coal trade. For the NSW coal exporters, as much as their representatives in China, overcoming these

⁵ Ramon Knauerhase, "The Compound Marine Steam Engine: A Study in the Relationship between Technological Change and Economic Development." *The Journal of Economic History* 27, no. 4 (1967): 616; Ramon Knauerhase, "The Compound Steam Engine and Productivity Changes in the German Merchant Marine Fleet, 1871–1887." *Journal of Economic History* 28, no. 3 (1968): 390; Charles K. Harley, "British Shipbuilding and Merchant Shipping: 1850–1890." *Journal of Economic History* 30, no. 1 (1970): 262-63. See also discussion in Chapter 2.

⁶ Jevons, *The Coal Question*: viii.

⁷ Jevons, *The Coal Question*: 252.

adversities amidst intense competition became a building block in the development of their maturity as international merchants. By 1880, these merchants had established their reputation as traders in the NSW - China coal trade, that reputation extending to the general Asian economy of the nineteenth century.

For some historians, like K. H. Burley, NSW coal shipping to China was nothing more than an assumed requirement for shipping on their return journey to Britain.⁸ Termed by Burley as "back trade," it came out of the need to find a load to return to England, whether direct from Australia or via another port, including Hong Kong or Shanghai.⁹ The transport of NSW coal, Burley further declared, was for tramp shipping, vessels not requiring speed. Burley replayed a commentary in the Newcastle (NSW) newspaper of 1864, which stated that vessels at that time enquired for freight, lest they travel to China in ballast in the view of "procuring loading for Great Britain."¹⁰ The desire for the "back trade" thus defined the needs of the ship's captains once they had unloaded their cargo in an Australian port. Burley sums up his findings by stating that in the mid-1860s even "with the decline of exports to China, however, the part played by N.S.W. coal shipments to the Asian sector remained essentially that of providing freight-earning cargo for vessels which otherwise would have cleared in ballast."¹¹

Burley completely overlooked the part various elements, including coal companies, exporters, importers, commission agents and others, played within the NSW coal export industry. Each of these elements were vital for the NSW coal trade to China. Thus

⁸ K. H. Burley, "The Overseas Trade in New South Wales Coal and the British Shipping Industry, 1860-1914." *The Economic Record* 36, no. 75 (1960): 394-95.

⁹Burley, "The Overseas Trade": 401.

¹⁰ *NCHRDN* 10 February 1864: 2.

¹¹ Burley, "The Overseas Trade": 402.

understanding what each role the elements played is important in analysing why NSW coal fulfilled that need and how the remittances were made.

Contrary to Burley's statement, the amount of coal traded from NSW to China was not insignificant. It surpassed the two major coal exporters to China at the time - Great Britain and Japan. Further, coal as an export commodity from NSW to China provided a significant proportion of the export trade from NSW to international ports for the 1860s and 1870s. The coal traded to China was used both to power steam engines and as fuel for furnaces to develop iron and other products. NSW coal also attained a strong reputation, such that by the 1870s the British Royal Navy commonly mixed it with Welsh coal or used it directly. The trade of coal from NSW to China was a rather complex arrangement affected by numerous factors, both internally and externally to NSW and one which provides much value to an understanding of the overall trade relationship between Australia, as a whole, and China.

The analysis of the NSW coal trade of the 1860s and 1870s generates a number of questions that are put forward throughout this chapter. First, why did China require such a large amount of coal and how did NSW producers and traders situate themselves to meet this demand? Next, do the statistical data of the coal trade divulge a more expansive analysis of the trade? Thirdly, how can the statistical data be better explained through the qualitative material available, including correspondence and government official documents? Finally, how were the remittances in relation to the coal trade and offers an explanation of the role of coal from New South Wales within the larger trade relationship between China and the Australian colonies. This chapter, thus, queries Burley's conclusions.

China's demand for coal

Coal was an important commodity delivered regularly to China from various foreign ports.¹² Yet, what is unusual for this specific item is that the consumption of the steaming coal, and a portion of the coking variety, was not for Chinese end users per se, but for Western companies based in China for use in their own steamers or those vessels the Westerners chartered. The Chinese had little need, or interest, for steaming coal above what they already procured from their own mines.¹³ The first steamer built in China was the *Huanghu* in 1865.¹⁴ Further, the first Chinese owned steam shipping company, the China Merchants' Steam Navigation Company (CMSN), was only established in 1872.¹⁵ Thus, there was little or no demand for steaming coal by the Chinese in the 1860s and for a good portion of the 1870s.¹⁶

Western firms held an important role in defining the requirements of importing foreign coal into the Treaty Ports of China. During the 1870s, British and American shipping made up over 80 per cent of all ocean-going and coastwise traffic in Chinese waters.¹⁷ Firms such as JM&Co., Russell & Co., Trautmann & Co. and others competed with

¹² Robert Hart, "China. Trade Statistics of the Treaty Ports, for the Period 1863-1872." Shanghai: Imperial Maritime Customs Press, 1873. (Compiled for the Austro-Hungarian Universal Exhibition, Vienna, 1873): 28-29. For example, in 1872, coal as a single import commodity was only behind opium, cotton and wool. That said, it was only between 1% and 2% of the total value of imports.

¹³ Jenny Huangfu Day, "From Fire-Wheel Boats to Cities on the Sea: Changing Perceptions of the Steamships in the Late Qing, 1830s-1900s." *Australasian Journal of Victorian Studies* 20, no. 1 (2015):
60. Day concludes that the Chinese were inquisitive of the usages of steam yet took decades following the Opium Wars before they took advantage of it.

¹⁴ Hsien-Chun Wang, "Discovering Steam Power in China, 1840s - 1860s." *Technology and Culture* 51, no. 1 (2010): 47-51.

¹⁵ Kwang-Ching Liu, "Steamship Enterprise in Nineteenth-Century China." *The Journal of Asian Studies* 18, no. 4 (1959): 436.

¹⁶ There was no railway in China until a line from Wusong to Shanghai was opened in 1876. Railways were seen as a threat by the literati to the established order of transporting goods to inner-China. Richard C. Rapier, *Remunerative Railways for New Countries; with Some Account of the First Railway in China.* London: E. & F. N. Spon, 1878: 19; Percy Horace Kent, *Railway Enterprise in China: An Account of Its Origin and Development.* London: Edward Arnold, 1907: 13; Shellen X. Wu, *Empires of Coal: Fueling China's Entry into the Modern World Order, 1860-1920.* Stanford, CA: Stanford University Press, 2015: 13.

¹⁷ Han Qing, "Western Steamship Companies and Chinese Seaborne Trade During the Late Qing Dynasty, 1840-1911." *International Journal of Maritime History* 27, no. 3 (2015): 538.

each other for the lucrative Yangtze River trade as well as the coastal routes between Hong Kong and Shanghai.¹⁸ Overseas shipping companies, including P&O and the Pacific Mail Steam Ship Company, similarly relied on available imported coal reserves when their steamers arrived in the Treaty Ports.¹⁹ The other major contributors to coal imports were the governments of the foreign powers that maintained concessions in China.²⁰ The interests of the governments lay in the development of a combination of their military, political and commercial concerns in the East Asian region.²¹ NSW coal was imported for each of these parties and, to a lesser extent, by the Chinese throughout the two decades of the 1860s and 1870s.

By the 1860s, coal usage in Chinese waters grew at a rapid rate. Interest in improving transport speeds along common passages and the increasing use of steam ships drove the requirement for coal and sustained an influx of coal to the primary ports. The development of the Yangtze River trade through the opening of the Treaty Ports along the river from the late 1850s created new routes for steamers, as a replacement for junks, to ply.²² As soon as the port of Hankow was opened to foreign trade, foreign steamers became the major carriers of merchandise, both for local and international trade.²³ When combined with the existing coastal trade and the increasing tonnage of shipping for international trade, together they advanced the gradual change from sail to steam in

¹⁸ Howard W. Dick and S. A. Kentwell, *Beancaker to Boxboat: Steamship Companies in Chinese Waters*. Canberra: The Nautical Association of Australia Inc., 1988: 3-5; For a list of those founded prior to 1882, see: Liu, "Steamship Enterprise": 435.

¹⁹ Letter from JM&Co. to Henry Moore Esq., 21 September 1861 *General Letters from Shanghai* JMA C46/21. P&O used steaming coal from the Bellambi mines.

²⁰ Letter from JM&Co. to Thacker Daniell & Co., 1 May 1860 Letters to Europe JMA C11/27.

²¹ Shinya Sugiyama, Japan's Industrialisation in the World Economy: 1859-1899: Export, Trade and Overseas Competition. London: Athlone Press, 1988: 170.

²² Joseph Earle Spencer, "Trade and Transshipment in the Yangtze Valley." *Geographical Review* 28, no. 1 (1938): 116-18.

²³ William T. Rowe, *Hankow: Commerce and Society in a Chinese City, 1796-1889.* Stanford, CA: Stanford University Press, 1984: 85-86.

the Chinese waters.²⁴ While the coastal and river trade were directed by the movement of goods locally, a number of external factors increased the appearance of steamers in Chinese waters. The opening of the Suez Canal in 1869²⁵ and the trans-national railway across the United States²⁶ in the same year created an eventual new influx of steam shipping for both the transport of goods and delivery of mail to the ports of the world.²⁷ Coal from NSW helped feed this ever increasing appetite of new steamers that traversed between the Treaty Ports and overseas destinations.

The British Royal Navy was a major consumer of coal imported into China. Located primarily in Hong Kong, though also venturing to other ports in China, the British Navy required high-quality coal, coal that burnt to a maximum energy per ton, did not deteriorate when bunkered and burnt cleanly thus avoiding continuous cleaning of engines.²⁸ The Navy had, up to the early 1870s, worked with primarily Welsh coal, considered the "best steam-coal in the world".²⁹ Maintaining the Navy was essential for the protection of Britain's, and through that Australian, trade and commerce.³⁰ However, by the 1860s and 1870s, a need for a reduction of costs altered the view of the Admiralty in Britain as to the makeup of the coal to be used by the British Navy in East Asia. Certain coal from the mines of NSW became more popular and part of a mixture with Welsh coal used by the Royal Navy in China.³¹ Thus, in a sense, the coal delivered

²⁴ Wang, "Discovering Steam Power": 45-46; Bert Becker, "Coastal Shipping in East Asia in the Late Nineteenth Century." *Journal of the Royal Asiatic Society Hong Kong Branch* 50 (2010): 245.

²⁵ Max E. Fletcher, "The Suez Canal and World Shipping, 1869-1914." *The Journal of Economic History* 18, no. 4 (1958): 558-59.

²⁶ John H, Kemble, "The Transpacific Railroads, 1869-1915." *Pacific Historical Review* 18, no. 3 (1949):
332; E. Mowbray Tate, *Transpacific Steam: The Story of Steam Navigation from the Pacific Coast of North America to the Far East and the Antipodes*, 1867-1941. London: Cornwall Books, 1986: 23.

²⁷ Sugiyama, Japan's Industrialisation: 172-73.

²⁸ Steven Gray, "Imperial Coaling: Steam-Power, the Royal Navy and British Imperial Coaling Stations Circa. 1870-1914." PhD. University of Warwick, 2014: 141.

²⁹ Gray, "Imperial Coaling": 156.

³⁰ Donald M. Schurman, *Imperial Defence 1868-1887*. London: Frank Cass, 2000: 24.

³¹ Schurman, *Imperial Defence*: 29-31.

by Australian vessels to the Royal Navy was being used, in some cases, by the Navy for the protection of the very same coal deliveries.

The port of Shanghai, by the 1860s, attained a prominent position for coal imports. At that time, the major exporters of tea and other goods, including silks, for the British and American markets were companies based in Shanghai.³² Shanghai's geographical location gave the city a strong position as a transition port. Based at or - at that time - near the mouth of the Yangtze River meant further trade was thus available inland for the goods imported into Shanghai and similarly for goods shipped to Shanghai from such ports as Hankow, Chenkiang and Nanking heading for overseas markets.³³ Further, the Chinese foundries in Shanghai required increasing amounts of quality coking coal which was produced by both mines in America and New South Wales.³⁴ Thus, merchants in Shanghai were importers of both Australian steam and coking coal.

The other element of steamer traffic in China was that of the river trade. Primarily, the steamers of the Yangtze River trade consumed coal obtained from the mines of northern China. That coal was transported to the primary trading port along the Yangtze River, Hankow.³⁵ Unlike coal imported into Shanghai, the northern Chinese coal was not used for steamers traversing the coastal and international waters. It was seen as unaffordable, owing to a combination of high transport costs and heavy government taxation.³⁶ Thus

³² I base this assumption on the fact that exports of tea and silk from China were nearly all from Shanghai and not from the southern ports. See Prices Current *AH P945 Cartons 31-33*.

³³ Hart, "China. Trade Statistics" – Shanghai: 6; W. L. G. Smith, *Observations on China and the Chinese*. New York: Carleton, 1863: 124. At that time Shanghai was small in size and not located on the Yangtze River, but connected through the port of Woosung.

³⁴ T. L. Kennedy, "The Establishment of Modern Military Industry in China 1860-1868." *Bulletin of the Institute of Modern History, Academica Sinica* (1974): 796.

³⁵ Rowe, *Hankow*: 58.

³⁶ Elspeth Thompson, *The Chinese Coal Industry: An Economic History*. London: Taylor and Francis, 2003: 8. *Commercial Reports from Her Majesty's consuls in China, Japan, and Siam 1865-66*. House of Commons, no. 3940 (1867) London: Harrison and Sons, 1867: 100-1.

the coal delivered to Hankow was used for river traffic only.³⁷ That usage varied throughout the 1860s and 1870s. Initially, during the period of instability owing to the Taiping Rebellion of the 1850s and early 1860s, only foreign steamers could traverse the river safely.³⁸ Following the retaking of Nanking from the Taipings in 1864, junks became the preferred method of transport of goods along the river, primarily for cost reasons, thus relegating the steam traffic to rare services.³⁹ However, by 1871 Chinese shippers started to dominate the Yangtze trade route. Following the opening of a branch of the CMSN in Hankow, trade altered such that the Chinese steamships were able to eventually lure native traffic away from CMSN's foreign competitors.⁴⁰ Thus, the Chinese merchants progressively asserted control over steam navigation on the Yangtze River, and, in consequence, their requirement for local coal for this route as opposed to coal imported into Shanghai increased. By the end of the 1870s, steamers plying the Yangtze River almost exclusively used Hankow coal.⁴¹

The requirement for foreign coal in China by the Chinese was for coking purposes. Iron and nonferrous metal production in China had been in existence for centuries prior to 1800. The Chinese had mined local coal deposits to fire the furnaces.⁴² By the midnineteenth century, Chinese furnaces were becoming more prevalent and opportunities to investigate foreign variants of coal presented themselves, particularly for furnaces

³⁷ China. No. 2 (1871). Commercial reports from Her Majesty's consuls in China. 1869-70. HoC no. C.317 (1871): 6.

³⁸ Rowe, *Hankow*: 86-87; Kemp Tolley, *Yangtze Patrol: The U.S. Navy in China*. Annapolis, MD: Naval Institute Press, 1984: 18. Kwang-Ching Liu, *Anglo-American Steamship Rivalry in China 1862-1874*. Cambridge, MA: Harvard University Press, 1962: 13-14.

³⁹ Rowe, Hankow: 86-87; Reports from the Foreign Commissioners at the Various Ports in China for the Year 1865. House of Commons, no. 3823 (1867) London: Harrison and Sons, 1867: 126-27. Liu, Anglo-American Steamship: 67.

⁴⁰ Rowe, *Hankow*: 87.

⁴¹ China. No. 3 (1880). (Trade reports.) Commercial reports from Her Majesty's consuls in China. 1879. HoC, no. C.2718 (1880): 148.

⁴² See: Joseph Edkins, "The Bituminous Coal Mines West of Peking." *Journal of the North China Branch of the Royal Asiatic Society* 4, no. 243-50 (1867); Thos. W. Kingsmill, "Notes on Some Outlying Coal-Fields in the South-Eastern Provinces of China." *Journal of the North China Branch of the Royal Asiatic Society* n.s.3 (1866): 94-106. For a discussion on the Chinese use of steam power and their furnaces, see: Wang, "Discovering Steam Power in China.": 31-54.

located near Shanghai.⁴³ One significant reason for the increase of coal-using industries in China was the establishment of a modern military industry.⁴⁴ The uprising of the Taipings (1851-65) together with the Second Opium War required Chinese leaders to consider new options for the defence of the Empire.⁴⁵ By 1861, the understanding of the Chinese government was to move towards an industry that supported military development, whether that was steam craft or ordnance.⁴⁶ The creation of the Kiangnan Arsenal in Shanghai in 1865 was a result of these concerns and that arsenal required good quality coking coal.⁴⁷ Coal from the Illawarra district was one option, another was anthracite imported from America.⁴⁸ During the 1860s and 1870s, Australian coking coal gained a strong foothold in this market, significantly due to its lower cost compared with American coal but also due to its quality.⁴⁹ Chinese coal was increasingly too expensive to ship from the rural areas to these foundries.

The timing of the arrival of coal to the Chinese ports varied. While the British Navy was not constrained by seasonal requirements, those steamers involved in delivering the teas from the opening of the season to Great Britain were.⁵⁰ Thus, as these vessels arrived in Chinese waters in the first half of the year, high quality coal was needed at that time.⁵¹ This seasonal alteration to the coal market did not affect Australian coal shipments to any great extent. Thus, as JM&Co. remarked to the Newcastle merchant R. H. Grierson,

⁴³ Kennedy, "Modern Military Industry.": 792-803;

⁴⁴ Shannon R. Brown, and Tim Wright, "Technology, Economics, and Politics in the Modernization of China's Coal-Mining Industry, 1850-1895." *Explorations in Economic History* 18 (1981): 62-63.

⁴⁵ Kennedy, "Modern Military Industry": 781-84.

⁴⁶ Kennedy, "Modern Military Industry": 787.

⁴⁷ Kennedy, "Modern Military Industry": 803-7; Brown and Wright. "Technology Economics": 73.

⁴⁸ Anita B. Rice, "The Pacific in American Economic Policy. 1860-1880." Masters, University of Kansas, 1921: 16, 22; *Reports from the Foreign Commissioners at the Various Ports in China for the Year 1865*. House of Commons, no. 3823 (1867) London: Harrison and Sons, 1867: 126-27.

⁴⁹ In the regular communication between JM&Co. and their agents in Australia, the price of the different varieties of coal showed Sydney as less than American at all times.

 $^{^{50}}$ The tea export season was from May to April. A discussion of the tea trade to Australia is provided in Chapter 5.

⁵¹ China. No. 1 (1875). Commercial reports from Her Majesty's consuls in China. 1873. House of Commons no. C.1130 (1875) London: Harrison and Sons, 1875: 147.

"as respects the best time for shipping the demand is pretty constant throughout the year."52

Organisation of the coal trade

Figure 3.1. Views from Newcastle, ca. 1860.⁵³



VIEW OF THE QUEEN'S WHARF, NEWCASTLE, N.S.W.

It was common for ships from other inter-colonial and international ports to arrive in Newcastle and Sydney in search of a charter to transport coal.⁵⁴ The number of vessels in the ports of Sydney or Newcastle in search of a charter for coal varied. Figure 3.1 shows a time when the Newcastle docks were full of vessels. Other vessels were already

⁵² Letter from JM&Co. to R. B. Grierson Esq., 27 July 1863 Letters to India JMA C10/55.

⁵³ "Views of Newcastle." ca. 1860. *SLVIC: H141646*.

⁵⁴ "The Coal Trade of Newcastle." *NCHRDN* 21 January 1862: 2.

affixed to a contract prior to their arrival. They were either chartered in Melbourne or were owned by merchants or companies involved in the coal trade.⁵⁵

The companies involved in the transactions at the docks were commonly shipping agencies. They obtained the coal from the mining companies, having paid the pit cost of the coal. Numerous Western firms in Shanghai and Hong Kong imported coal from these shipping agencies.⁵⁶ AH&Co. and JM&Co., for example, dealt with many of the shipping agents in both Sydney and Newcastle. Charles Stokes of Newcastle and Henry Moore of Sydney, became close associates of JM&Co. and, in Stokes' case, was as the "agent" for JM&Co. in Newcastle.⁵⁷ Robert Towns & Co. of Sydney was also involved as a coal shipping agent, among his other extensive mercantile work, with numerous entities in Hong Kong, including the Pacific Mail Steam Ship Co. and Russell & Co.⁵⁸ Mining companies themselves were sometimes shipping agents. In Sydney, the Bulli Coal Company of the Illawarra district for example exported coal to various destinations, including China.⁵⁹ In a number of situations, the captain of a vessel would also be the shipping agent, thus taking responsibility for freight costs and insurance.⁶⁰

The process of acceptance of coal in China was quite different to the organising of charters and loading of coal through agents or similar. Commission agents in China,

⁵⁵ Burley, "The Overseas Trade.": 397. Burley states that practically all vessels arriving in NSW came from other inter-colonial ports. Burley discounts all the vessels arriving from New Zealand, the Pacific, China via the Pacific and the Americas.

⁵⁶ In Shanghai, the company Frazar & Co. was the main importer of NSW coal throughout the 1860s and 1870s. Russell & Co. were also a big participant in the NSW coal import industry to Shanghai. Frazar & Co. do not have any records for NSW coal importation in their archives and I have not seen any records from Russell & Co. on the trade of NSW coal to Shanghai.

⁵⁷ Janette Holcomb, *Early Merchant Families of Sydney: Speculation and Risk Management on the Fringes of Empire*. London: Anthem Press, 2014: 235-36.

⁵⁸ Frank Broeze, "Australia, Asia and the Pacific: The Maritime World of Robert Towns." *Australian Historical Studies* 24, no. 95 (1990): 229. Broeze, strangely, dismisses any connection with the coal trade, though mentions one abortive shipment to China.

⁵⁹ "Shipping." *SMH* 4 January 1871: 4. The *Amphrite* sailed on 6 January 1871 for Hong Kong with 173 tons coal. The Bulli Coal Co. were the agents.

⁶⁰ "Shipping." *SMH 24 December 1872: 4. The Fairlie* departed Sydney for Shanghai on 24 December 1872 with 275 tons coal, Captain Ebernethy agent.

including JM&Co., AH&Co., Russell & Co. and others, received the coal from the vessels and then sold it to local customers. These customers were primarily shipping companies or the masters of individual steamers that had received a charter and were in search of coal for fuel. The commission agents in China had one significant competitor, the shipping companies themselves. In some cases, these shipping companies chose to receive their coal direct to the steamer. Throughout the 1860s and 1870s, they would transact the coal "off ship" or from "ship's side," thus avoiding the costs of lightering to and from land as well as storage in godowns and commission.⁶¹ This method generated problems for the commission agents who, with a diminished number of customers, were either left with excess stock in their godowns or, the opposite, a paucity of stock that was required by new arrivals.

Each problem was significant for the commission agents in China. In the first case, excess stocks without buyers meant it was harder to clear the godowns and thus the requirement to offer lower prices. As JM&Co. remarked to his Newcastle agent, Charles Stokes, the then depressed market created declining rates and the reason was said to be "principally owing to the fact that lately nearly all the large steamboat companies have imported for their own requirements, thus leaving the ordinary shippers little chance of walking off their consignments."⁶² Thus, the inability to clear new stocks arriving, coupled with the diminishing number of customers created an uncertain market which, in some cases, rarely offered good prices on open sale.⁶³ The second case had a contrary effect, one that existed owing to a lack of stocks. On occasion, when imports were on

⁶¹ Letter from JM&Co. to Henry Moore Esq., 29 December 1860 *Letters to Europe* JMA C11/28; Letter from JM&Co. to R. H. Grierson Esq., 27 July 1863 *Letters to India* JMA C10/55; Letter from JM&Co. to Charles Stokes Esq., 2 February 1869 *General Letters from Shanghai* JMA C46/7; Letter from JM&Co. to T. W. Binney Esq., Secretary, Newcastle Wallsend Coal Co., 23 February 1864 *General Letters from Shanghai* JMA C46/4.

⁶² Letter from JM&Co. to Charles Stokes Esq., 2 February 1869 *General Letters from Shanghai* JMA C46/7.

⁶³ Letter from AH&Co. to Messrs Beilby Scott & Co., 22 July 1864 *Bound Correspondence: Letters sent* by A.H.&Co., Hong Kong to Pacific AHA II C 1 v518.

the "account of consumers," only a small amount of stock was available for sale.⁶⁴ The sales direct to the steamer companies left stocks un-replenished. This created a demand, at certain times, for the various varieties of coal, including from NSW. In the early 1870s the price of coal increased dramatically in Hong Kong from \$9.50 in April 1871 to \$14 by January 1872, specifically owing to the lack of stocks.⁶⁵ Such were just some of the effects of the various factors within a complex coal trade.

Coal mines of New South Wales

The coal mines of NSW produced two varieties of coal. The more common, found throughout the coal districts of NSW, was steaming coal. Specifically, the Hunter River region with its safe port of Newcastle provided the bulk of the steaming coal that was then exported to ports located in the other colonies and markets throughout the Pacific and along the Indian and west Atlantic Oceans.⁶⁶ The other variety was coking coal. Although sometimes used on steam vessels for their propulsion, coking coal's primary function was to provide an energy source for furnaces involved in manufacturing iron and similar products.⁶⁷ Most, if not all of the NSW coking coal was obtained from the mines of the Illawarra region, south of Sydney.⁶⁸

⁶⁴ Letter from JM&Co. to Charles Stokes Esq., 27 April 1871 Letters to India JMA C10/61.

⁶⁵ Letter from JM&Co. to Charles Stokes Esq., 27 April 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Charles Stokes Esq., 17 August 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Charles Stokes Esq., 14 Spetember 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Charles Stokes Esq., 17 October 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Charles Stokes Esq., 17 October 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Charles Stokes Esq., 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Charles Stokes Esq., 19 October 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Charles Stokes Esq., 19 January 1872 *Letters to India* JMA C10/61; Letter from JM&Co. to Charles Stokes Esq., 10 January 1872 *Letters to India* JMA C10/61. The price increased from \$9.50 in April to \$9.75 in August, \$10 in September, \$10.50 in October, \$12 in November and between \$13 and \$14 in January 1872.

⁶⁶ For a complete list of destination of New South Wales coal, see Appendix 4.

⁶⁷ Paul Graham, Sally Thorpe, and Lindsay Hogan, "Non-Competitive Market Behaviour in the International Coking Market." *Energy Economics* 21 (1999): 197.

⁶⁸ Clifford M. Zierer, "Industrial Area of Newcastle, Australia." *Economic Geography* 17, no. 1 (1941): 41; Helen Hughes, *The Australian Iron and Steel Industry* 1848-1962. Melbourne: Melbourne University Press, 1964: 14. Some was also mined in Newcastle and the Western (Lithgow) mines. Edward Combes, "The Industries and Commerce of New South Wales." *Journal of the Society of Arts* 34 (1886): 697-98.

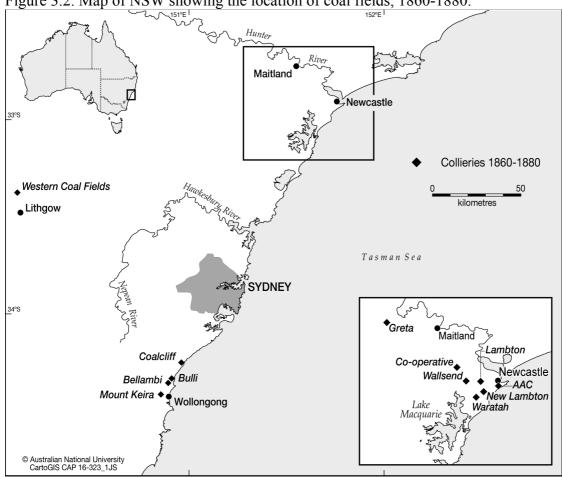


Figure 3.2. Map of NSW showing the location of coal fields, 1860-1880.

Coal deposits had been uncovered in various districts of NSW throughout the nineteenth century and, by 1880, significant mining of coal took place in regions to the north, south and west of Sydney, the colony's capital.⁶⁹ From the Queensland border through the valley of the Hunter River to the Illawarra district, new fields were regularly opened throughout the century. The initial discovery of coal was made, earlier in 1791, close to the ocean and near the opening of the Hunter River.⁷⁰ Later, coal was also found in the Illawarra⁷¹ and Van Diemen's Land.⁷² Most of the earliest coal was transported to

⁶⁹ For a description of where the fields are located, see: Adrian C. Hutton, "Geological Setting of Australasian Coal Deposits." In *Australasian Coal Mining Practice*, edited by R. Kininmonth and E. Baafi. 40-84. Carlton, VIC: The Australasian Institute of Mining and Metallurgy, 2009.

⁷⁰ Robin Gollan, *The Coalminers of New South Wales: A History of the Union, 1860-1960.* Melbourne: Melbourne University Press, 1963: 3.

⁷¹ Gollan, *The Coalminers*: 3; Henry Lee, "The Development of Coal Trade in the Wollongong District of New South Wales, with Particular Reference to Government and Business, 1849-1889." PhD. University of Wollongong, 1993: 5; William A. Bayley, "Discovery of Coal in Illawarra: Coal Cliff." *Illawarra Historical Society Bulletin* (September, 1971): 294-95.

Sydney to be consumed there. Yet, by the turn of the nineteenth century shipments were made to Calcutta.⁷³ Coal production and exports were sporadic and small and, not until the emergence of the Australian Agricultural Company (AAC), founded in 1824, was there any significant mining of coal in the Newcastle region for either domestic or foreign use.⁷⁴ The AAC held a monopoly, through an Act of the British Parliament, on the industry until 1847,⁷⁵ taking legal action against any potential competitors.⁷⁶ Following the close of the monopoly, a number of other companies commenced mining throughout NSW.⁷⁷ One company that became a force in the industry from the 1850s onward was that of J. and A. Brown.⁷⁸ Expansion into other fields located south and west of Sydney as well as inland along the Hunter River continued thereafter.⁷⁹ Figure 3.2 shows the location of various mines in NSW that produced coal during the 1860s and 1870s.

⁷² A. J. Hargraves, *History of Coal Mining in Australia*. Melbourne: The Australasian Institute of Mining and Metallurgy, Illawarra Branch., 1993: 1; David Francis Branagan, *Geology and Coal Mining in the Hunter Valley 1791-1861*. Newcastle History Monographs. Newcastle, NSW: Newcastle Public Library, 1972: 11.

⁷³ Zierer, "Industrial Area of Newcastle, Australia": 31; Christopher Schmitz, "The First Hundred and Twenty Years of New South Wales Coal Mining: A Statistical Survey." *Reference Australia* 2 (May, 1988 1988): 1.

⁷⁴ Schmitz, "First Hundred and Twenty Years": 3. Schmitz includes a table showing that the average annual coal production in NSW was 1,200 tons for 1805-19, 7,500 tone for 1820-39, 92,400 tons for 1840-59 and 949,000 tons for each year through 1860-79.

⁷⁵ Bill for granting certain Powers and Authorities to Australian Company of London for Cultivation and Improvement of Waste Lands in Colony of New South Wales. Bill number: 325, Parliamentary Session: 1824. House of Commons, 18 May 1824; J. F. Atchinson, "Port Stephens and Goonoo Goonoo - a Review of the Early Period of the Australian Agricultural Company." PhD. Australian National University, 1973: 15-18; G. F. Davidson, *Trade and Travel in the Far East, or, Recollections of Twenty-One Years Passed in Java, Singapore, Australia, and China.* London: Malcolm and Madden, 1846: 205; Zierer, "Industrial Area of Newcastle, Australia": 33.

⁷⁶ Frank R. E. Mauldon, *A Study in Social Economics: The Hunter River Valley, New South Wales.* Melbourne: Workers' Educational Association of N.S.W. in conjunction with Robertson & Mullens, 1927: 57-58. The AAC initially chose not to interfere with "pot-hole" pits but when J. & A. Brown wanted to open new mines, AAC took them to the Supreme Court and won to stop them.

⁷⁷ Schmitz, "The First Hundred and Twenty Years of New South Wales Coal Mining": 7. See Appendix 5 for a list of coal mine companies involved in the coal trade.

⁷⁸ J. W. Turner, "J. & A. Brown and the Overseas Trade in New South Wales." *Economic Record* 43, no. 4(1967): 588.

⁷⁹ Schmitz, "The First Hundred and Twenty Years of New South Wales Coal Mining": 2.

The quality of steaming coal from the different mines of NSW varied. The best coal suited the vessels that required speedy travel, including the naval vessels and the fast steamers with the opening season's teas for their journey to England.⁸⁰ However, in the general circumstance, NSW steaming coal was found to work better with the steamers that were satisfied with making distance more than time, typically tramp steamers. These tramp steamers carried bulk goods and thus were not expected to deliver under any timetable.⁸¹ Another source of request for NSW steam coal was from companies involved in providing a regular steam service, particularly those in Australian or nearby waters.⁸²

Australian coking coal was found at the collieries of the Illawarra district. The mines of the Bulli and Bellambi companies were two of the dominant producers of the coking coal in the 1860s and 1870s and both took advantage of the trade with China to cover any potential losses with the steaming kind.⁸³ The Bellambi Coal Company commenced overseas exports in 1857 and the Bulli Coal Mining Company in 1863.⁸⁴ Initially, coal from the Bulli company was shipped to various ports in India, California and China. However, in these early years of the company, only through China was any profit

⁸⁰ These vessels not only required more powerful boilers with larger heat release rates of their furnaces, but also within a smaller amount of space. The ability to raise the boiling temperature of water increased the pressure and thus the production of steam. Some NSW coal, as will be evidenced from tests discussed later in this chapter, could perform this duty sufficiently for naval vessels. Prabir Basu, Cen Kefa, and Louis Jestin, *Boilers and Burners: Design and Theory*. New York: Springer, 2000: 9; James H. Milton, and Roy M. Leach, *Marine Steam Boilers*. London: Butterworths, 1980: 6, 10, 15.

⁸¹ Becker, "Coastal Shipping in East Asia": 245.

⁸² Gordon de L. Marshall, *Maritime Albany Remembered: Les Douglas Et Al.* Kalamunda, WA: Tangee Pty Ltd, 2001: 1, 66; P&O used the *Kingfisher* as a coal hulk for King George Sound (Albany) from 1860 to 1885 and the *Larkins* from 1853 to 1876.

⁸³ The Coal Cliff mine commenced shipping coal to Sydney in January, 1878 with 100 tons about the *Eagle*. The mine was also considered to provide good quality steaming, melting and coking coal. Edgar Beale, "Events in the History of Coal Cliff and Its Colliery." *Illawarra Historical Society Bulletin* (July, 1959): 192-95.

⁸⁴ Schmitz, "The First Hundred and Twenty Years of New South Wales Coal Mining": 42, 52; "Coal Mining at Bulli." *The Sydney Mail* 18 October 1873: 498; William A. Bayley, "Bellambi as a Coal Port." *Illawarra Historical Society Bulletin* (June, 1960): 223.

created, such was the desire for and confidence in the quality of Australian coking coal by the importers in China.⁸⁵



Figure 3.3. The Bulli Coal Mining Company's Mine at Bulli.⁸⁶

THE BULLI COAL MINING CO.'S MINE, BULLI.

Coal from the Illawarra district, in the 1860s and 1870s, had to be shipped to Sydney or Newcastle prior to its export overseas. This was because of the lack of a safe harbour for vessels in the region, the inability to create a wharf long enough to allow for sufficient draught for large vessels⁸⁷ and no railway line to Sydney.⁸⁸ Without any

⁸⁵ "The Bulli Coal Mining Company: 6th Half-yearly Report to 31 December 1864." *SMH 24 February* 1865: 5.

⁸⁶ "The Bulli Coal Mining Co.'s Mine." *The Sydney Mail* 18 October 1873: 498.

⁸⁷ Bayley, "Bellambi as a Coal Port": 224.

shelter, vessels loading along the Illawarra coast were exposed to storms and heavy swells that pounded the coastline. The coal companies created jetties with tram lines traversing the trestles to the deep water. However, they too were prone to damage from storms.⁸⁹ Figure 3.4 demonstrates how much these jetties jutted out into the exposed ocean. Hence, when bulk transport was not required, it was small vessels that loaded up

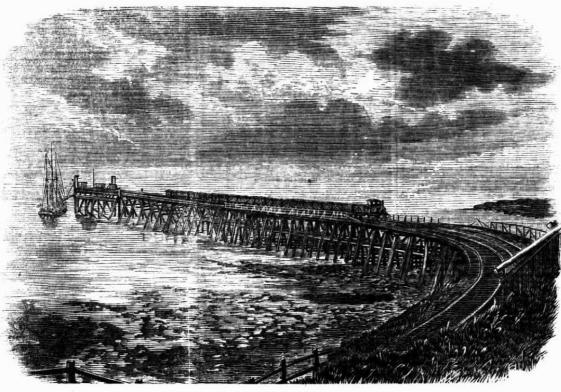


Figure 3.4. The Bulli Coal Mining Company's Jetty, Bulli.⁹⁰

THE BULLI COAL MINING CO.'S JETTY, BULLI.

to 500 tons of coal and travelled the short distance to Sydney where the coal was transhipped to larger ships.⁹¹ In the case of a demand for bulk transport, larger, independently-owned carriers, some with contacts to the Newcastle coal mining

⁸⁸ Brian Rogers, "Illawarra Coal Shipping: Some Operational Aspects." *Illawarra Historical Society Bulletin* (October, 1985): 60.

⁸⁹ "Coal Mining at Bulli." *The Sydney Mail* 18 October 1873: 498.

⁹⁰ "The Bulli Coal Mining Co.'s Jetty, Bulli." *The Sydney Mail* 18 October 1873: 499.

⁹¹ The Bellambi and Mount Keira mines developed tramways by 1862 taking up to 200 tons of coal to Sydney. *Reports received from Her Majesty's secretaries of embassy and legation respecting coal. With an appendix, and reports as to coal production in British colonies.* HoC, no. 3759 (1867): 115.

companies, were used.⁹² The Bulli company's first vessel was the *Waniora* in 1863.⁹³ In 1873, another steamer was added to the fleet, the *Bulli*, with the two carting coal to Sydney on alternate days.⁹⁴ The Bellambi Coal company used a number of small vessels. In 1858 the *Nightingale*, the company's first vessel, carried 55 tons of coal to Sydney. By 1860, the fleet was six vessels in size.⁹⁵ In a small number of cases, coal was shipped to Newcastle for transhipment to China.⁹⁶

The importance and favourability of NSW coking coal for Chinese consumption was commonly advertised by Western merchants in Shanghai and Hong Kong to coal shippers in Sydney and Newcastle. In 1865, JM&Co. advised their coal agent in Sydney, Henry Moore, that both Bellambi and Bulli coal "command higher prices" than Newcastle coal and that the Chinese have found it very good for smelting purposes.⁹⁷ Later, the companies Nicholls Brothers of Sydney and Messr Charles Stokes of Newcastle were informed by JM&Co. that the coking coal had "considerable favour with the Chinese" and that the Chinese buyers were thus active in the trade.⁹⁸ Further, Augustine Heard & Co. explained to Messrs Beilby & Scott of Sydney that there was an improved demand for bituminous coal with sale prices up to $\Im12$ per ton.⁹⁹ The coal was advertised by JM&Co. as "Sydney coal" differentiating it from Newcastle coal and owing to the fact that nearly all vessels with coking coal departed from Sydney.

⁹² Rogers, "Illawarra Coal Shipping": 62.

⁹³ Rogers, "Illawarra Coal Shipping": 61.

⁹⁴ "Coal Mining at Bulli." *The Sydney Mail* 18 October 1873: 498.

⁹⁵ Bayley, "Bellambi as a Coal Port": 224.

⁹⁶ "Bringing Coal to Newcastle." *Empire* 14 February 1865: 4.

⁹⁷ Letter from JM&Co. to H. Moore Esq., 7 October 1865 *General Letters from Shanghai* JMA C46/4.

⁹⁸ Letter from JM&Co. to Nicholls Brothers, 22 November 1867 *General Letters from Shanghai* JMA C46/4; Letter from JM&Co. to Nicholls Brothers, 14 April 1868 *General Letters from Shanghai* JMA C46/6; Letter from JM&Co. to Charles Stokes Esq., 11 April 1872 *General Letters from Shanghai* JMA C46/11.

⁹⁹ Letter from AH&Co. to Messrs Beilby Scott & Co., 29 April 1865 *Bound Correspondence: Letters sent by A.H.&Co., Hong Kong to Pacific* AHA II C 1 v519.

Coal export from New South Wales

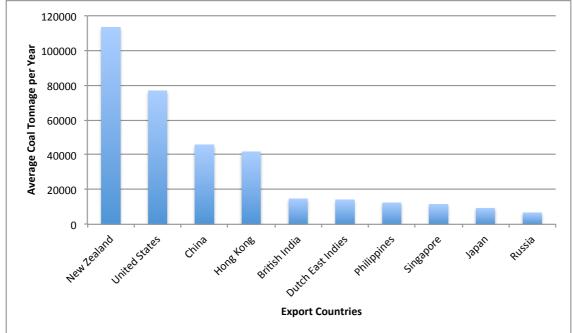


Figure 3.5. Export destinations of NSW coal, 1863-1880 (annual averages, tons).¹⁰⁰

The overseas markets for NSW coal were located in ports along the Indian, Pacific and Western Atlantic Oceans. From South Africa to western Malaysia, from Japan to Chile and to destinations as far as Boston, coal from NSW was consumed in numerous parts of the world.¹⁰¹ Of the exported coal, New Zealand, the United States of America and China accounted for more than 70 per cent, as Figure 3.5 displays. The graph shows Hong Kong and China separately to indicate that, on average, the export of coal to both destinations was the same. However, this chapter will demonstrate that there were significant differences in how much coal was exported from Sydney or Newcastle to Hong Kong or China. Further, China was, for all matters, just Shanghai as exports to other ports in China were minimal and thus, in size, irrelevant. When combined, the average exports for Hong Kong and China exceeded those to the United States of America. Finally, the tenth and most popular country of destination was Russia,

 $^{^{100}}$ SR NSW 1863-80. The Russian data refers to the port of Petropavlovsk located on the Kamchatka peninsular.

¹⁰¹ SR NSW 1863-80. A complete list of destinations is provided in Appendix 4.

specifically the port of Petropavlovsk, located on the peninsula of Kamchatka. Maritime historian Frank Broeze stated that Petropavlovsk, just like Guam, was often used as a destination of convenience to hide the true destination of the vessel.¹⁰² If true, then the data of the coal stated as destined for Petropavlovsk should be distributed to other destinations, including China.¹⁰³

Newcastle and Sydney became the two major ports for the export of coal. The town of Newcastle, located at the mouth of the Hunter River, was considered a safe port for square-rigged vessels.¹⁰⁴ The map provided in Figure 3.6 shows how Newcastle Harbour provided shelter for shipping. The port catered for the mines of the Hunter Valley, though most were, initially, within only a short distance of Newcastle (Figure 3.2).¹⁰⁵ As a transient port for goods, Newcastle took quite some time to resemble a town. One description, given in the 1860s, was as "miserable" and containing a single sandy street "lined with drab tin and wooden shops and houses."¹⁰⁶ Figure 3.7 displays the small town in 1865 as a line of houses along one or two streets that ran parallel to the port's harbour facilities.

¹⁰² Frank Broeze, "British Intercontinental Shipping and Australia, 1813-1850." *Journal of Transport History* n.s.:4, no. 4 (1978): 191. However, there is some evidence of a port there being involved in trade. AH&Co. was the consignee for the *Halle Jackson* that arrived in Shanghai from Petropavlovsk on 8 July 1864 with sundries having departed the Russian port on 30 May 1864. The *Halle Jackson* then returned to Petropavlovsk, departing Shanghai on 22 July 1864 with sundries and AH&Co. as the consignee. "Shipping Intelligence – Arrivals." *North China Herald* 9 July 1864: s1; Shipping Intelligence – Departures." *North China Herald* 23 July 1864: s1.

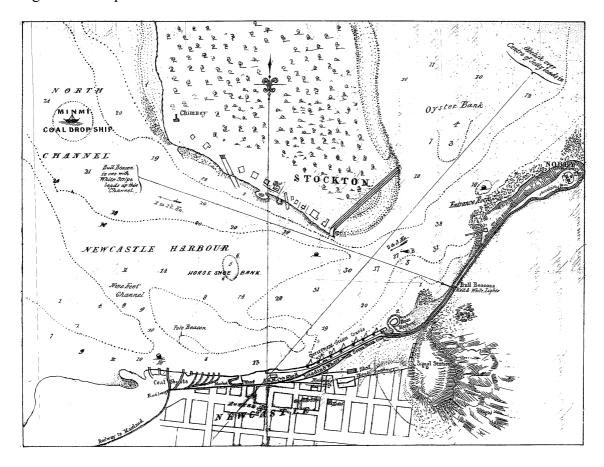
¹⁰³ During this period, there was always a concern where the true destination of vessels departing Australian ports was. Tracing the travels of each vessel is not a trivial task. Nevertheless, the Sydney newspapers, on occasion, provided arrival information from the China ports.

¹⁰⁴ Combes, "Industries and Commerce.": 697.

¹⁰⁵ Most of the original mines were within a few miles of the port of Newcastle.

¹⁰⁶ Zierer, "Industrial Area of Newcastle, Australia.": 33.

Figure 3.6. Map of Newcastle harbour.¹⁰⁷



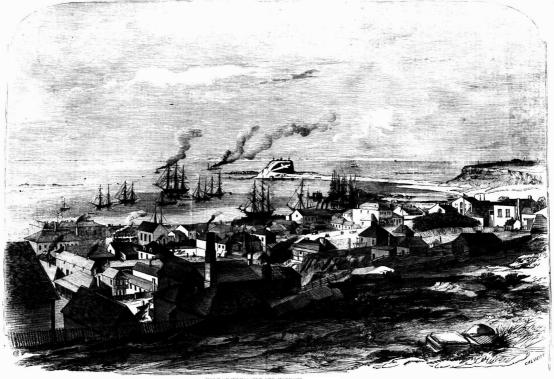
Sydney, on the other hand, was a well-established city by the 1860s. The population had risen to over 55,000.¹⁰⁸ A number of wharves had been created on both sides of the harbour. They were primarily for commercial use, with many of those located nearest the city centre owned by the major merchant firms including Henry Moore and Robert Towns. Coal was brought to the wharves in Sydney by small steamers from the Illawarra and transhipped to larger vessels. Coal from the western mines near Lithgow in the Blue Mountains arrived by rail to Sydney.¹⁰⁹ The city's wharves, thus, were a hive of activity with coal, one of the primary commodities loaded on to the large square-rigged vessels for export.

¹⁰⁷ "Map showing the entrance to Newcastle harbour." *1849-1874 Steam Ship Lines, Docks, Freight Charges, etc. AH II A18 C31 f. 41.*

¹⁰⁸ "Census 1861." *NSWVP LA 1861-62*: 1350.

¹⁰⁹ Aedeen Cremin, "The Growth of an Industrial Valley: Lithgow, New South Wales." *Australian Journal of Historical Archaeology* 7 (1989): 35-37

Figure 3.7. Newcastle and harbour, 1865.¹¹⁰



VIEW OF NEWCASTLE AND HARBOUR

The demise of the monopoly held by the AAC in 1847 created opportunities for many new companies to broach the industry.¹¹¹ While numerous small ventures came and went, some larger companies became important in the international export of coal.¹¹² By 1880, thirteen companies were strongly involved in the coal export industry, of which, practically all were exporting coal to China.¹¹³

The exploitation of coal deposits in the Hunter Valley region near Newcastle was significant. While those mines in the southern and western districts only slowly

¹¹⁰ "View of Newcastle and harbour." *The Illustrated Sydney News* 16 March 1865: 8.

¹¹¹ Zierer, "Industrial Area of Newcastle, Australia": 33.

¹¹² A list of firms with their commencement year of production is provided in Appendix 5.

¹¹³ "Export of Coal." *NMH&MA* 3 January 1880: 8. The Saturday editions of the *NMH&MA* included the week's export of coal, tabulated with the tonnage of coal matching the destination.

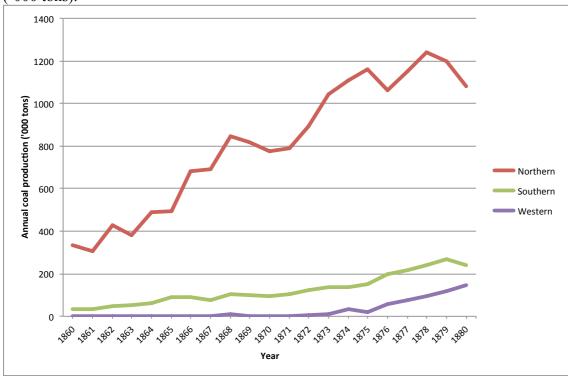
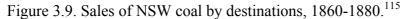
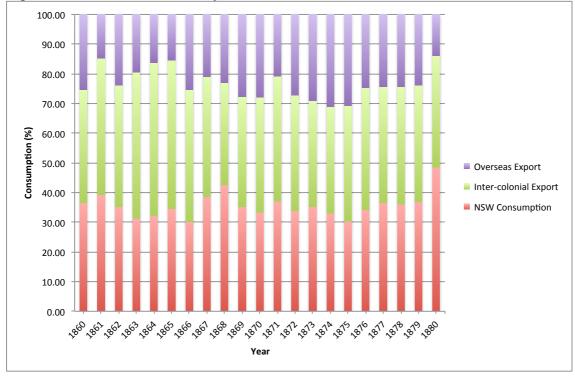


Figure 3.8. Average annual coal production for the three regions of NSW, 1860-1880 ('000 tons).¹¹⁴





¹¹⁴ Schmitz, "The First Hundred and Twenty Years of New South Wales Coal Mining": 12. This document contains numerous tables of which I have summarized into graphs. The data was obtained from the mining companies and not from the government statistics. The three regions are defined by their geographical position in relation to Sydney. ¹¹⁵ Christopher Schmitz, Output and Employment in the New South Wales Coal Industry, 1805-1923.

Melbourne: Australian Reference Publications, 1988: 21.

increased their output, output from the northern mines rose at a very fast rate (Figure 3.8). The continuous opening of fields and improvements of rail carriage of the coal to the Newcastle port allowed for this expansion.¹¹⁶ Yet, even with the increase in production at the mines, the distribution of the coal between local, inter-colonial and overseas consumption remained broadly similar throughout the 1860s and 1870s (Figure 3.9). For the overseas markets, the exports were between 20 and 25 per cent. Hence, the increase in the tonnage of coal delivered overseas rose at the same, or close to the same, rate as production.

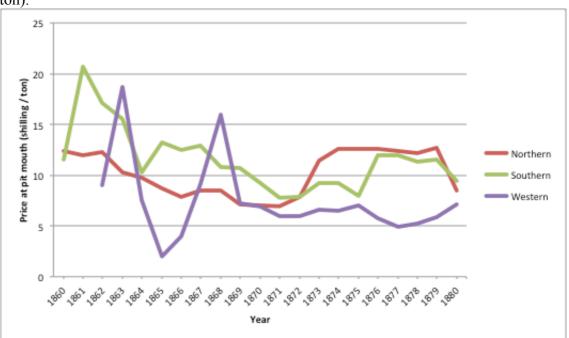


Figure 3.10. Average prices of NSW coal by region of origin, 1860-1880 (shillings per ton).¹¹⁷

The price of coal, as it was excavated from the mines, also differed between the three regions. Figure 3.10 shows significant volatility during the 1860s for the southern and western regions' mine prices. Yet, by the commencement of the 1870s, distinct trends and some sense of stability occurred for all regions with the coal from the Newcastle and Hunter Valley region settling as the most expensive at around 12/- to 13/- per ton

¹¹⁶ Zierer, "Industrial Area of Newcastle, Australia": 46; Schmitz, *Output and Employment*: 2.

¹¹⁷ Schmitz, *Output and Employment*: 22-23.

from the pit entrance. Finally, as is evident, there is little or no correlation between the amount of production and the price at pit entrance.

Coal had a strange and special place within the trade relationship between New South Wales and China. On the vessels trading to China, coal was the primary commodity, more often the only commodity on board. Rarely was space in the holds given to other commodities. The haulage of coal to China from NSW was important to the shipping industry in the 1860s and 1870s. Burley's commentary suggests that vessels travelling to China from NSW were occasionally full of coal and that travelling in ballast was common practice when a load of coal was unavailable. However, analysing shipping records yields different conclusions.¹¹⁸ The two decades of the 1860s and 1870s can be dissected into three periods when viewing shipping voyages from NSW to China. In the earliest, up until 1865, a few vessels travelled to China in ballast, though at that time the amount of coal exported from NSW was minimal.¹¹⁹ From the mid-1860s until the mid-1870s all vessels travelling to China took a load of coal. Only in extreme rare cases was a vessel specifically chartered in China and thus could not wait until a coal shipment was available to be loaded. Finally, the steam era was heralded by the traversing of E&A's and others' steamers through the Torres Strait route, as discussed in Chapter 2. A larger percentage of vessels from the mid-1870s sailed to China without coal, though more than likely also not in ballast. Further, by the late 1870s, coal shipments, and trips, to China fell away.

¹¹⁸ The author holds a complete list of all vessels that departed from NSW for ports in China, 1860-1880. See Appendix 6 for a summary of this data.

¹¹⁹ To summarise, 1861 had four vessels in ballast; 1862 had seven, 1863 and 1864, three each and 1865, only 1. There were no vessels heading to China in ballast from 1865 until approximately 1875. Some of the above may not have been in ballast as I was unable to locate information about their cargo or whether they were declared as travelling in ballast. The data for shipping in and out of Hong Kong shows similar results with a number of vessels arriving in ballast prior to the mid-1860s but then only the rare vessel arriving in ballast after the mid-1860s. Appendix 7 shows the number of vessels arriving and departing Hong Kong with cargo and in ballast in relation to Australia and New Zealand from 1860-1880.

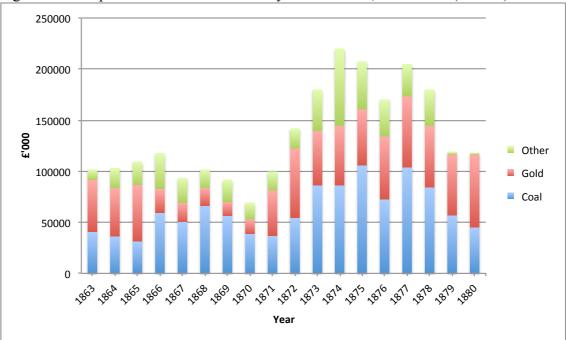


Figure 3.11. Exports from NSW to China by commodities, 1863-1880 (£'1000).¹²⁰

Coal, together with gold, were the two primary commodities exported from NSW to China, when measured by value. Their export was intrinsically linked. While the coal industry was the exclusive domain of Western merchants, Chinese merchants were primarily the gold exporters from NSW, specifically from Sydney.¹²¹ Prior to the mid-1870s, when a regular steam service to China became available, the Chinese relied on the coal vessels to transport their gold. During the 1860s and 1870s, coal and gold accounted for, on average, 80 per cent of the total value of all exports to China from NSW; coal represented 45 per cent and gold 35 per cent. Other goods exported during the period included recycled metals, sandalwood and bêche-de-mer.¹²² However, it is

¹²⁰ SR NSW 1863-80. For tabulated data, see Appendix 8.

¹²¹ Viewing shipping records showing the manifests of the shipments exported to China, the Chinese in New South Wales were the only exporters of gold. For example the *Euphrates* departed Sydney in April 1864 with "1452 ozs, 10 dwts gold, 1 box shipped by Chinese" and "238 ozs. gold, shipped by Chinese."
– "Shipping Gazette." *The Sydney Mail* 2 April 1864: 10; "Shipping Gazette." *The Sydney Mail* 9 April 1864: 9.

¹²² "Shipping." *SMH* 9 May 1868: 6. The *Felix Bernabo*'s manifest for Hongkong was: 80 bags bechede-mer, Beilby and Scott; 20 bags beche-de-mer, 63 packages provisions, F.G. Lender and Co.; 8 tons 10 cwt sandalwood, R. Towns and Co.; 422 tons coal, T. G. Sawkins; 133 pieces lead, 57 packages old copper, 4 cases nails, 6 cases glass, 20 cases horse-shoes, 31 bundles old-iron, On Cheong; 63 bundles metal, 25 boxes nails, 11 casks horse-shoes, 5 casks glass, 1 cask sandalwood, Sum Kum On; 16 oz. 13 dwts. gold, Chen War; 123 oz. 10 dwts. gold, An Gew; 5 oz. gold, Sam Loong; 1 oz. 18 dwts. gold Sam

noteworthy that at the end of the 1870s the export of these secondary goods to China diminished to almost nothing. Figure 3.11 exhibits the position of coal, gold and other commodities within the overall trade between New South Wales and China for the period from 1863 to 1880.

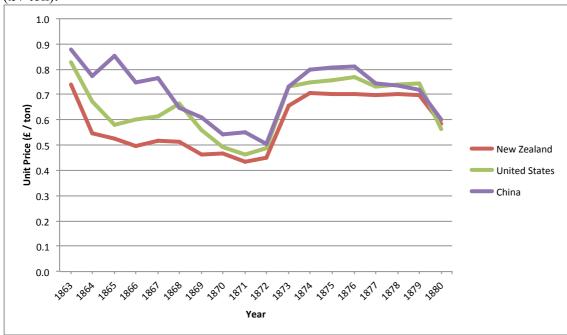


Figure 3.12. Unit prices of exported coal from NSW by export destination, 1863-1880 (f / ton).¹²³

The unit price of exported NSW coal followed a similar pattern to the amount exported. As demonstrated in Figure 3.12, a slow decline throughout the 1860s and into the early 1870s was followed by a rapid increase in price in 1873 and then another initially slow then rapid decline towards the end of the 1870s. In comparison with the tonnage exported (Figure 3.13) the increase around 1873 and the decrease at the end of the 1870s are mirrored. Other periods, however, do not match. There is also a single-year lag, certainly from 1872 onwards, between the two graphs. Consequently, pricing appears to have been affected by demand, rather than that demand was driven by the

Ashew. The lead imported was commonly used for the lining of tea chests. *China. No. 12 (1870). Commercial reports by Her Majesty's consuls in China. 1869-70.* House of Commons, no. C.212 (1870) London: Harrison and Sons, 1870: 3.

¹²³ SR NSW 1863-80.

pricing for coal exported to China. Thus, the analysis of Figures 3.12 and 3.13 indicates that the price of coal at the dock did not affect exports.

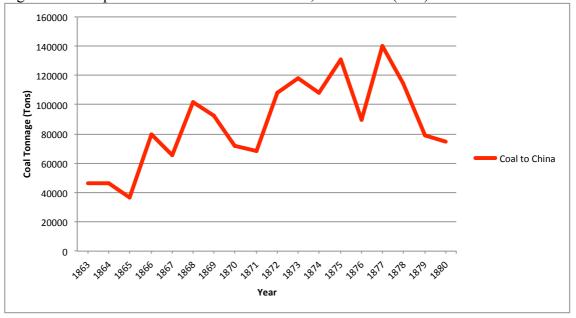


Figure 3.13. Export of coal from NSW to China, 1863-1880 (tons).¹²⁴

There are three distinct depressions in the export of coal to China. These are from 1869 to 1871, in 1876 and from 1878 onwards. When combining Figure 3.13 with the overall exports of coal for the same period as per Figure 3.14, what transpired for the export to China also did so for all other exports. Thus, the peaks and troughs are not specifically related to events in China, but either in Australia or throughout the world. There are several reasons for the changes in the exports to China, including price movements, competition with other country's exports and external factors not related to either China or Australia but affecting the quantity of shipping available. These effects are investigated in more detail later in this chapter.

¹²⁴ SR NSW 1863-80.

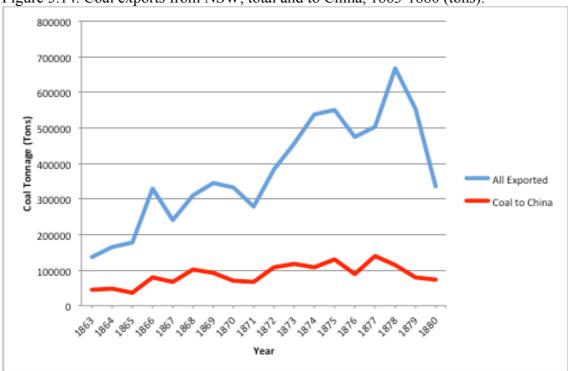


Figure 3.14. Coal exports from NSW, total and to China, 1863-1880 (tons).¹²⁵

The amount of transport available to coal exporters was related to the export of coal to China. Figure 3.15 shows the number of vessels travelling to China from NSW. The troughs and peaks, for the period 1863 to 1880 are comparable to those appearing in Figure 3.14, though the peak for vessels in 1868 is more pronounced. Thus, there was sufficient shipping available, at most times, when an excess of coal existed for export. Figure 3.16 complements this trend. It shows the average amount of coal per vessel delivered to China from NSW. That is, even though the average amount of coal per vessel increased over time, the types of vessels were able to satisfy the demand. The technological enhancements over time to all vessels whether sail or steam driven allowed larger capacity ships being employed on the voyage.

¹²⁵ SR NSW 1863-80.

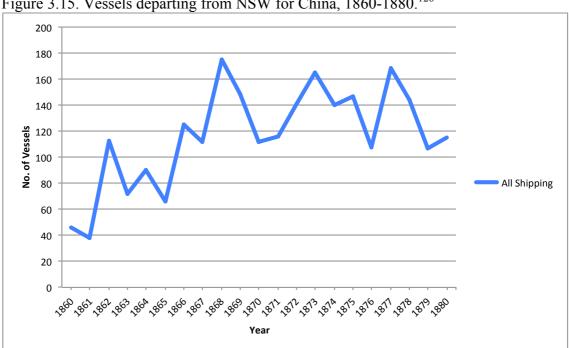
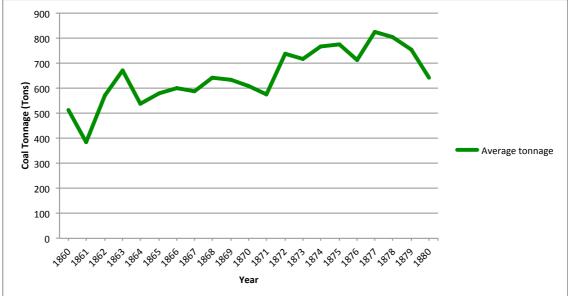


Figure 3.15. Vessels departing from NSW for China, 1860-1880.¹²⁶





¹²⁶ Data derived from Sydney and Newcastle shipping records of the period. See Appendix 6 for summary.

¹²⁷ Sydney and Newcastle shipping records. For completeness, these graphs are extended to include 1860-62. The Blue Books do not have specific and complete data for China for these early years.

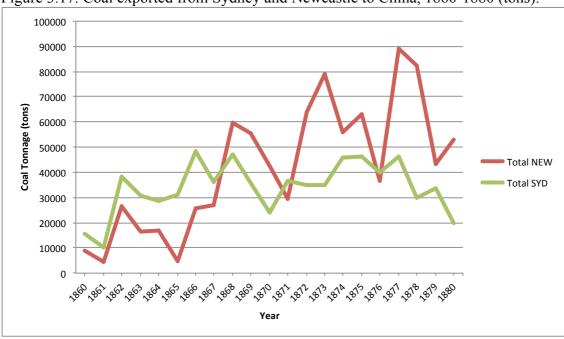


Figure 3.17. Coal exported from Sydney and Newcastle to China, 1860-1880 (tons).¹²⁸

Figure 3.16 defines an overall trend of increasing exports to China, yet with variances from the linear trend less dramatic to that provided in Figure 3.13. To assist in explaining the difference, the data of Figure 3.16 is dissected into its elements – the two export ports of Sydney and Newcastle. Figure 3.8 showed that production from the northern coalfields, where Newcastle was the port of export, was higher than that of the Illawarra and Western mines which used Sydney as the port of export. Further, coal exported from Newcastle was purely the steam variety while from Sydney both the steam and coking types were shipped. Any expected similarity between the production of coal and the tonnage exported from Sydney and Newcastle to China is non-existent. Figure 3.17 shows alternate export patterns for Newcastle and Sydney. Newcastle coal exports to China tended upwards over time. In contrast, Sydney coal exports were declining from the latter 1860s. However, the Sydney exports counter the fact that production was increasing at the same time, as shown in Figure 3.8. Thus, from the latter 1860s there appears an altered preference for Newcastle coal over Sydney coal in the

¹²⁸ Sydney and Newcastle shipping records.

Chinese markets. One reason was the increasing production of coal in the Newcastle area as compared to that from the Illawarra and West Sydney coal producing regions.

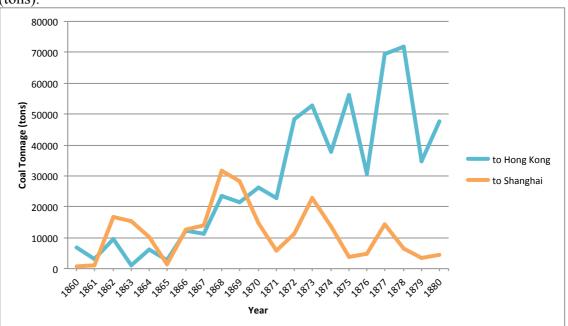


Figure 3.18. Coal exported from Newcastle to Hong Kong and Shanghai, 1860-1880 (tons).¹²⁹

Figure 3.18 shows the coal exported from Newcastle to Hong Kong and Shanghai. It indicates that the gradual growth of exports from Newcastle was driven by exports to Hong Kong. Thus the demand for Newcastle coal drove the decisions of Newcastle coal exporters to Hong Kong. On the other hand, in Shanghai, the demand slackened to become almost inconsequential by the commencement of the depression of the latter 1860s, except for a brief attempt to revitalise the trade in 1873 and, partially, in 1877. The previous graphs all show a tendency for a drop-off at the end of the 1870s while, strangely, the Newcastle data counters that trend with an apparent increase in 1880 for exports to Shanghai and, especially, Hong Kong.¹³⁰

¹²⁹ Sydney and Newcastle shipping records.

¹³⁰ I believe there was a sufficient likelihood that this was nothing more than a correction towards a general upwards trend of exports throughout the period.

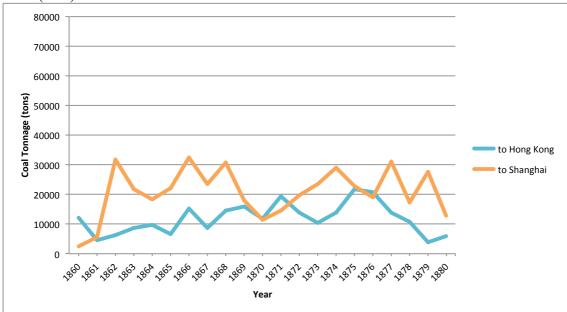


Figure 3.19. Tonnage of coal exported from Sydney to Hong Kong and Shanghai, 1860-1880 (tons).¹³¹

Figure 3.19 demonstrates that the destinations for coal exports to China from Sydney were significantly different to that from Newcastle. For the Sydney coal exporters, Shanghai was the dominant destination for their coal. One reason was that Sydney primarily exported the coking variety of coal which was popular in Shanghai, but not in Hong Kong. The peaks of Sydney exports to Hong Kong occur approximately when troughs exist for Newcastle exports, especially after 1870. Sydney steaming coal may have been used to supplement the exports from Newcastle when less Newcastle coal was available to cater for the demand in Hong Kong.

Quality of New South Wales coal

Australian coal exported to the China markets was initially considered inferior to that from Wales and the northern mines of England. From the earliest deliveries, the NSW variant was "found too brittle and dusty to render it well adapted for steam purposes."¹³²

¹³¹ Sydney and Newcastle shipping records.

¹³² Letter from JM&Co. to Henry Moore Esq., 27 December 1859 Letters to Europe JMA C11/27

During 1859, a sample of NSW coal was sent for tests in Hong Kong by the British authorities of that port. Their report showed that the coal examined was "not favourable as it burns with a large hard white residue."¹³³ The trial hence had detrimental effects on the sale and price of the NSW coal, making it almost unsaleable in 1860.¹³⁴ Such was the character of the coal delivered that year from NSW, one Chinese buyer in Hong Kong broke his purchasing contract, complaining about the quality.¹³⁵ The distaste for the quality of NSW coal was further enhanced through the prejudices of the English press of 1861.¹³⁶ Thus, by the early 1860s, NSW coal was sold in China at a much lower value to that of the two British varieties.

Performing tests on coal was commonly completed by the Admiralty in London to view options on what was best for their naval fleet throughout the world.¹³⁷ A major test of "Australian coal" was performed in 1862 with mixed results. Of the seven mines that provided samples, three, all from the Newcastle region – AAC, Wallsend and Minmi – were considered equivalent to that from England while the other four – Tomago and Four Mile Creek of the Newcastle region and Bellambi and Mount Keira of the Illawarra district – were poor or very inferior with evaporative power low and the quantity of ash high.¹³⁸ These test results were criticised in the Australian press. The tests were considered, for the Illawarra coal, to have been completed in furnaces and machinery that was not suitable for Illawarra coal.¹³⁹ In an 1863 letter penned to the

¹³³ Letter from JM&Co. to Henry Moore Esq., 26 January 1860 Letters to Europe JMA C11/27

¹³⁴ Letter from JM&Co. to Captain Brunell, 25 October 1860 Letters to Europe JMA C11/28

¹³⁵ Letter from JM&Co. to Henry Moore Esq., 26 November 1860 Letters to Europe JMA C11/28.

¹³⁶ "The Coal Trade of Newcastle." *NCHRDN* 21 January 1862: 2.

¹³⁷ Tests on Australian coal had taken place since as early as 1847, primarily in the nature of a replacement for Welsh and northern English coal for the Naval stations in the Western Pacific. John Bach, *The Australia Station: A History of the Royal Navy in the South West Pacific, 1821-1913.* Sydney: New South Wales University Press, 1986: 220.

¹³⁸ Australian coal. Return, showing the result of the recent experiments under the direction of the Admiralty, as to the value for naval purposes, of Australian coal. HoC, no. 337 (1862). See Appendix 9 for a copy of the results.

¹³⁹ "Illawarra Coal." *NCHRDN* 26 November 1862: 4.

Newcastle newspaper, Sir David Cooper, a well-respected merchant and parliamentarian of NSW, criticised the report exclaiming numerous apparent errors in the tests and results. Cooper hoped that the results of the experiments "will soon be obliterated by the practical reports of her Majesty's ships on the Australian station."¹⁴⁰ Further, in a report to Admiralty in 1863, the Government Examiner of Coal Fields, Mr. W. Keene, countered the test results when he stated he believed that "Australian coal excels average English north-country coal in power and evaporation; for one pound of our coal evaporates more water than a pound of English coal."¹⁴¹

The promise of equal quality coal obtainable closer to the depots of East Asia and thus relatively lower freight costs led Admiralty to consider the usage of NSW coals within her vessels plying the East Asian territories. In an 1863 report to the British House of Commons, one option was put forward by Commodore Seymour following communications with the Directors of the Australian Steam Navigation Company. As the coals from Newcastle and Bellambi, those mostly procured for the British naval fleets of the south Pacific region,¹⁴² were apparently unsuited for Far East British Navy squadron's furnaces, a conversion of their furnaces would be required.¹⁴³ Based on information from the chief engineer of the Australian Steam Navigation Company, J. McArthur, the cost was estimated at £500, either done in Britain or in Australia.¹⁴⁴ While detailed plans were provided to Admiralty the idea never came to fruition.

¹⁴⁰ "Australian Coal." NCHRDN 28 March 1863: 4.

¹⁴¹ Reports received from Her Majesty's secretaries. HoC, no. 3759 (1867): 111-12.

¹⁴² "Australian Agricultural Company." *MMHRGA* 25 October 1862: 4. The report of the Annual Meeting stated that P&O had accepted a tender for 10,000 tons of coal and the "Lords of Admiralty have sent out orders that New South Wales coal shall be used in her Majesty's ships on the Pacific and Australian stations."

¹⁴³ Australian coal. Copy of Commodore Seymour's report upon experiments made with Australian coal at Sydney, in 1862. HoC, no. 159 (1863): 1-2. The report notes the usage on the Niger and the Caetlagon. ¹⁴⁴ Australian coal.. HoC, no. 159 (1863): 2.

The choice to consider altering the furnaces on the Royal Navy fleet is explained by the fact that the boilers on ships were different throughout the maritime world. Not only were certain engines built for faster and more efficient performance, but also to work productively with the type of coal that would be best used with that combination of boilers and furnaces, especially on the China to England run.¹⁴⁵ Coal exports from Sydney struck such a problem in Hong Kong in 1864. JM&Co. explained that the coal may work well in various steamers in Australia, "but a good deal depends on the furnaces, and all we can say is that the Canton River Steamers found them unsuitable."¹⁴⁶ NSW merchants were, however, exporting small steamers, no longer viable to be used in Australian waters, to China for use in the river and coastal trade.¹⁴⁷ Thus one consideration was that a portion of the Australian coal purchased at Hong Kong in the early 1860s was actually for these old Australian steamers.

Coal from NSW, though, was accepted by the various mail steam companies. The steamers of Messageries Impériales Company, Peninsular and Orient and Company, Australian Steam Navigation Company and the Pacific Mail Steam Ship Company all burned coal from Newcastle.¹⁴⁸ However, in 1867 at least, Australian freight costs created a problem for P&O such that they found "it cheaper to bring English coals to King George Sound than to ship them coastwise from Sydney."¹⁴⁹

¹⁴⁵ China No. 2 (1871). Commercial Reports from Her Majesty's Consuls in China. 1869-70 HoC no. C.317 (1871) London: Harrison and Sons, 1871: 6. The report stated that "Cardiffs are only used by steamers not adapted for burning other kinds.."

¹⁴⁶ Letter from JM&Co. to Henry Moore Esq., 25 August 1864 *Letters to India* JMA C10/56.

¹⁴⁷ A number of steamers were sold in China for the local trade. For the *Champion* and *Prince Albert* respectively: Letter from JM&Co. to T. and H. Carter & Co., 30 April 1861 *Letters to Europe* JMA C11/29; Letter from JM&Co. to TH Clough & Co., 26 July 1862 *Letters to Europe* JMA C11/30.

¹⁴⁸ Reports received from Her Majesty's secretaries. HoC, no. 3759 (1867): 100. Sydney merchant Robert Towns was the Australian agent for coal being sent to both Hong Kong and San Francisco to supply the PMSS vessels. See: Letter from R. Towns & Co. to Allan W. Lane, President, Pacific Mail S.S. Coy, 24 February 1871 Foreign Letter Book no. 14 RT Item 20.

¹⁴⁹ Reports received from Her Majesty's secretaries. HoC, no. 3759 (1867): 100.

British Freight costs also posed a problem, and to more than just the importers of coal in China. By the early 1870s, the high cost of transporting British coal to East Asia was reaching a point where other options were required. This problem was further compounded when shippers noted that Welsh coal suffered when it was exposed to the conditions of the tropics. As late as 1872, Welsh coal was combined with English coal for use in the East Asian region.¹⁵⁰ Yet, just one year later, Admiralty chose economic prerogatives over speed when they took the results from earlier tests and replaced the more reliable British coal with NSW coal.¹⁵¹ The NSW coal, however, was still not of the quality required to power fast vessels alone and thus, more often than not, a mixture of Welsh and Newcastle was created for the Royal Navy.¹⁵² One advantage NSW held was that the coal from other overseas mines – located in Japan, Formosa and Labuan¹⁵³ – were either deemed unsatisfactory or insufficient for naval use.¹⁵⁴ Even so, the need for NSW coal in 1872 and 1873 provides one reason for the increase evident through these years as shown in Figure 3.18.

NSW coal was further put to trial between 1876 and 1877.¹⁵⁵ However, this time the NSW variety was to be compared not only with that from Wales but also those now obtained from Japan, local Chinese and the island of Labuan.¹⁵⁶ The tests found that Newcastle coal was still inferior to Welsh as it created an excess in consumption to

¹⁵⁰ Navy (use of Coal), Copy of all general orders issued by Admiralty to the fleet since 1850, restricting the use of coal in Her Majesty's ships. HoC, no. 192 (1872): 6. The report stated: "The Welsh smokeless coals hither to supplied, since 1867, exclusively to Her Majesty's ships, readily falls to pieces, both in the bunkers of ships, and especially when stored in tropical climates, and the small coal so produced is almost entirely wasted."

¹⁵¹ Gray, "Imperial Coaling": 160.

¹⁵² Naval (trial of coal). Return of all experiments made by the Admiralty on coal and patent fuel since the date of the last return, the 9th of March 1876; and, copy of any correspondence having special reference to the relative value of various coals and patent fuels. HoC, no. 397 (1877): 4-5.

¹⁵³ For a detailed description of coal in Formosa, see: James W. Davidson. *The Island of Formosa Past and Present*. London: MacMillan & Co., 1903: 476-91. For Labuan, see "Labuan." *The Singapore Free Press and Mercantile Advertiser* 5 September 1864: 1. Japanese coal is discussed in a following section of this chapter.

¹⁵⁴ Gray, "Imperial Coaling": 161-62; Bach, *The Australian Station*: 220.

¹⁵⁵ Naval (trial of coal). Return of all experiments. HoC, no. 397 (1877): 4-8.

¹⁵⁶ The Trial did not differentiate between coal from Formosa or from northern China.

evaporate water.¹⁵⁷ Nevertheless, for steamers with compound engines, they consumed a comparative amount of NSW coal to Welsh coal. Coal from Bulli also performed well but was not considered viable to be combined with Welsh coal.¹⁵⁸ Newcastle coal remained better in quality than each of the three other Asian types, thus ratifying the decision by Admiralty of 1873 to use Newcastle coal for the British Navy in China.¹⁵⁹ The proposition put forward in the report for British naval vessels was thus set to be two-thirds Welsh and one-third Newcastle mix.¹⁶⁰ The decision provides further evidence why Newcastle coal was favoured over Sydney coal when exported to Hong Kong.

Competing with Japan

The trials of 1875 and 1876 involved a number of other exporters of coal to China with advantages over Australian coal. The development of the Japanese coal industry by the late-1860s created great pressure on the traditional British and Australian coal imports. To a lesser extent was the influence of the Chinese mines on the Shanghai market, whether from within China itself or from Formosa. The closeness to the Chinese markets for Japanese and Formosan coal created, for importers, lower transport costs. Figure 3.20 demonstrates that coal from Japan and Formosa was sold at a lower price to that from NSW, Britain or America. Such was the strength of the Japanese coal exporter to Shanghai.

¹⁵⁷ Naval (trial of coal). Return of all experiments. HoC, no. 397 (1877): 6-7.

¹⁵⁸ Naval (trial of coal). Return of all experiments. HoC, no. 397 (1877): 7.

¹⁵⁹ In only one case, that being for the class of steamers with simple jet condensers and twin screw engines was Japanese coal found slightly more productive.

¹⁶⁰ Navy (trial of coal). Return of all experiments. HoC, no. 397 (1877): 7.

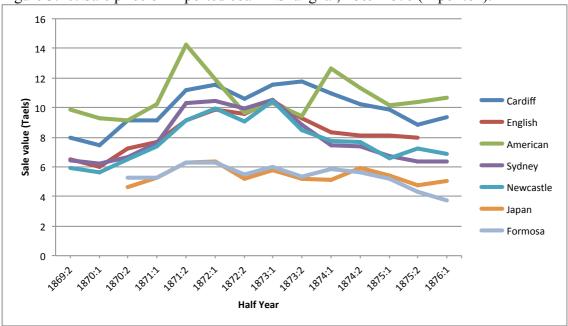


Figure 3.20. Sale price of imported coal in Shanghai, 1869-1876 (3 per ton).¹⁶¹

The Japanese coal industry had a bigger impact on the Shanghai market than the market in Hong Kong in the period leading to 1880. The industry had existed under government control for many decades prior with some sporadic shipments to Shanghai in the early 1860s.¹⁶² Following the abolition of the Japanese government monopoly in 1865, Japan's coal exports to Shanghai were initially rather small, though of good quality.¹⁶³ In the early years of commercial trade in coal, Japan's contribution rose rapidly from zero in 1865 to 9,373 tons in 1866 and 22,523 tons in 1867. The price varied little; between 36 and 38 per ton.¹⁶⁴ By 1869, the total arrivals of coal reached 58,281 tons.¹⁶⁵ Over the decade of the 1870s, coal from the Takashima and other mines

¹⁶¹ Data from the correspondence from Jardine Matheson to various Australian merchants. *General Letters from Shanghai JM C46/8 to C46/21*.

¹⁶² For example, the *Remy Hooper* arrived in Shanghai from Nagasaki with a shipment of coals on 28 April 1860. "Arrivals." *NCH* 5 May 1860: 72.

¹⁶³ Commercial Reports from Her Majesty's consuls in China, Japan, and Siam 1865. HoC, no. 3707 (1866): 85.

¹⁶⁴ Commercial Reports from Her Majesty's consuls in China, Japan, and Siam 1865-66. HoC, no. 3940 (1867): 102; Commercial Reports from Her Majesty's consuls in China, Japan, and Siam 1866-68. HoC, no. 4079 (1866-68): 111. It should be noted that coal was being imported to Shanghai from both Japan and Formosa in 1861. For example, the Anna Maria arrived from Nagasaki with coals on 18 May 1861 and the Adriatic from Keelung with coals for JM&Co. on 14 July 1861. "Shipping Intelligence. Arrivals." NCH 18 May 1861: 80, "Shipping Intelligence. Arrivals." NCH 20 July 1861: 116,

¹⁶⁵ China. No. 2 (1871). Commercial reports. HoC, no. C.317 (1871): 6. For a breakdown of the imports of foreign coals for the period from 1865 to 1870, see Appendix 10.

in Japan began to overwhelm their competitors in the Shanghai market. The transition from English to NSW to Japanese supremacy continued through the late 1860s and into the early 1870s. JM&Co. recognised the concern of Japanese coal dominating the Shanghai market, stating that in a letter to Newcastle coal shipping company Bingle White & Co. in 1873.¹⁶⁶

The low price of Japanese coal in the 1870s together with its quality and continuous supply created a further impediment to NSW imports than what the British coal had previously generated. Similarly, the large imports of Japanese coal generated an excess in stocks and thus put downward pressure on the British and NSW coal prices.¹⁶⁷ For the Shanghai market, the price of Sydney or Newcastle coal was commonly 32 per ton higher than Japanese. Upon the recovery of the NSW coal exports of 1872, the gap rose to 34. The price of Japanese coal tended to remain constant throughout the 1870s, as shown, partially, in Figure 3.20.¹⁶⁸ Cheaper Japanese coal thus became appropriate for the coastal and nearby international trade of China. This was most prominent during the downturn of world trade in mid-1873 where purchasing cheaper coal was financially prudent.¹⁶⁹

Japan attained prominence in the coal market of Hong Kong by the 1880s.¹⁷⁰ Japanese suppliers attempted to impose themselves on the Hong Kong market not long after the opening of their coal mines to private enterprise in the mid-1860s. Figure 3.21 shows

¹⁶⁶ Letter from JM&Co. to Bingle White & Co., 20 November 1873 *General Letters from Shanghai* JMA C46/15.

¹⁶⁷ Letter from JM&Co. to Charles Stokes Esq., 22 April 1869 *General Letters from Shanghai* JMA C46/7; Letter from JM&Co. to Bingle White & Co., 28 June 1873 *General Letters from Shanghai* JMA C46/14.

¹⁶⁸ Sugiyama, Japan's Industrialisation: 176.

¹⁶⁹ Letter from JM&Co. to Charles Stokes Esq., 31 May 1873 General Letters from Shanghai JMA C46/14.

¹⁷⁰ Sugiyama, Japan's Industrialisation: 182.

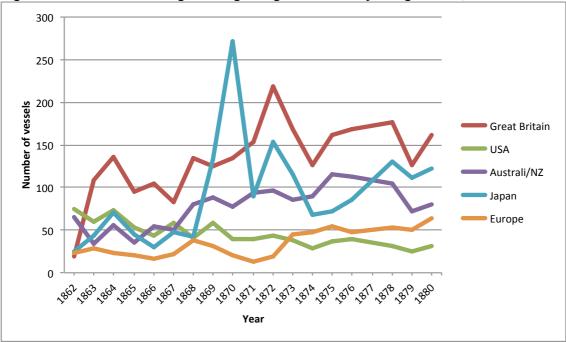
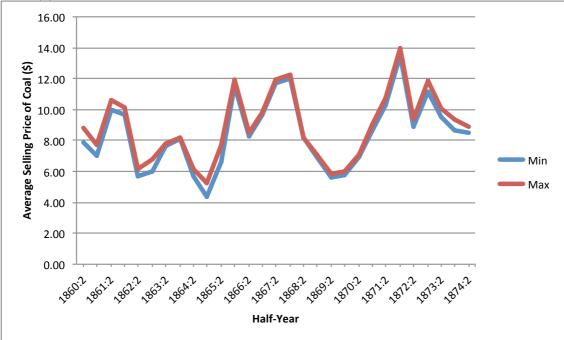


Figure 3.21. Vessels arriving in Hong Kong from coal exporting nations, 1862-1880.¹⁷¹

Figure 3.22. Average minimum and maximum price of NSW coal in Hong Kong, 1860-1874 (\$). 172



peaks during the late-1860s corresponding with the decrease in NSW coal exports shown in Figure 3.13. Viewing Figure 3.21 in comparison to Figures 3.15 to 3.19

¹⁷¹ Hong Kong Blue Book for the Year ... (1862-80) Hong Kong: Govt. Printer, (1863-81). The data for 1877 was unavailable and a linear extrapolation has been used.

¹⁷² Prices Current, Carton 31 AHA MSS 766 1782-1913 P945.

reveals that the movement of vessels from Japan appears to complement that from NSW. This conclusion is bolstered by viewing the price of NSW coal in Hong Kong, as shown in Figure 3.22. It is clear that the depression in prices for NSW coal in Hong Kong mirrors the spike in imports from Japan and the arrival of Japanese vessels carrying coal.

However, the growth of imports from Japan into China was not continuous. Relations between the Ch'ing government of China and the Meiji government of Japan were strained throughout the 1870s. As such, any incidents caused by friction in China -Japan relations generated possible positive effects for NSW coal exports as Japanese coal became scarcer in China, was withheld for military purposes or had its price increased by the Japanese government. For example, the 1874 Mudan Incident relating to Formosa and issues leading up to the formal Japanese annexation of the Ryūkyū Islands in 1879 impeded imports of Takashima coal, which in turn influenced the import market in Shanghai and other ports.¹⁷³ The effects, though nominally for a short period, allowed NSW coal exports to Shanghai to increase. In this case, the removal of Japanese imports from the Chinese markets was explained to the NSW merchants by the Shanghai commission agents that it would "no doubt cause an increase in the value of other descriptions, and lead to speculation."¹⁷⁴ The effect is noted in Figure 3.21 which shows a fall in arrivals of Japanese vessels to Hong Kong in 1874 and a corresponding rise in Australian vessels. Further, the price of Japanese coal in Shanghai rose in the second half of 1874 (Figure 3.20). Yet, there is no upward trend for the other varieties of coal, indicating that the incident actually had little effect in the Shanghai coal market. Without extended data, a similar effect in Hong Kong cannot be confirmed, though Figure 3.22 shows a small price rise of NSW coal in 1874. The British, however, in

¹⁷³ For a concise discussion of the Mudan Incident, see Edward H. House, *The Japanese Expedition to Formosa*. Tokyo, Edward H. House, 1875.

¹⁷⁴ Letter from JM&Co. to Messr. R. B. Wallace Esq., 22 Aug 1874 *General Letters from Shanghai* JM C46/17

protecting their own trade interests in Formosa, intervened and a peaceful solution was found.¹⁷⁵ JM&Co. lamented to their contacts in Newcastle that the "probability of the export of coal from Nagasaki being stopped is at an end."¹⁷⁶ The opportunity for NSW coal exporters to gain an advantage in the market in China disappeared as a result.

Britain and New South Wales coal prices

The second external factor affecting the value of NSW coal came from Great Britain. The importation to China of British coal, from both Wales and the northern coalfields, influenced NSW coal prices through the value of the coal from Britain and the amount in stock or suspected to arrive. The fact that the coal from Wales and northern England was considered by ship's captains and steam ship companies in China as superior for use over all other varieties created a situation where buyers would speculate upon arrivals. Given news of future deliveries from Great Britain, buyers in China paused their purchases of NSW coal and other varieties in the hope that the new deliveries from Britain were expected forthwith.¹⁷⁷ Thus, with NSW coal unsaleable, its market price decreased.¹⁷⁸ By contrast, when news arrived stating that there would be little or no prospect of new deliveries from Great Britain as was the case in the mid-to-late 1860s, the price of NSW coal, as with other varieties, would rise.¹⁷⁹

¹⁷⁵ Davidson, *The Island of Formosa*: 123-69.

¹⁷⁶ Letter from JM&Co. to Messr. C. Stokes Esq., 19 Nov 1874 *General Letters from Shanghai* JM C46/18; For the agreement and contract between China and Japan, see: House, *Japanese Expedition*: 204-6 and Davidson, *Island of Formosa*: 164.

¹⁷⁷ Letter from JM&Co. to Messrs Bingle & Co., 29 July 1872 General Letters from Shanghai JMA C46/12.

¹⁷⁸ Letter from JM&Co. to Charles Stokes Esq., 20 April 1871 *General Letters from Shanghai* JMA C46/11.

¹⁷⁹ Letter from JM&Co. to Thomas H. Barlow Esq., 27 April 1867 *Letters to India* JMA C10/57. From 1866 to 1867 coal imports from Great Britain to Shanghai fell by a third, from 60,705 tons to 40,900 tons. *Commercial Reports* HoC, no. 4079 (1866-68): 110.

The size of the stock of British coal also had severe effects on the trade of NSW coal. During the early-1860s, supplies of British coal were excessive, creating a large stock in Chinese ports and thus a decline of prices for all varieties of coal.¹⁸⁰ This was more prevalent in Hong Kong, where the trade-off between the lower price of NSW coal and the quality of the British coal approached equilibrium. Even so, at that time buyers of coal still believed that British coal use was more economically viable.¹⁸¹ However, from 1867, supplies from Britain to Hong Kong diminished, thus providing a promise of higher prices to NSW merchants.¹⁸² With the steamers from Britain arriving more often in Shanghai than in Hong Kong, carrying coal for sale, the supplies of British coal in Hong Kong dwindled, allowing for an eventual gain for NSW suppliers.¹⁸³

The size of coal stocks in Hong Kong and Shanghai created various pressures on the price of NSW coal. For Shanghai, Figure 3.20 confirms this variance. As the price of Welsh coal remained high from 1871 onwards, the English price fell by only 32 while both Sydney and Newcastle suffered a drop of nearly 34 each after the pre-1871 rise. For Hong Kong, the price data in Figure 3.22 are less conclusive, though there are rises in 1867 and, more so, in 1871 of NSW coal prices.

Nevertheless, NSW suppliers rarely took advantage of the knowledge of the price and stock variances and particularly suffered in Shanghai. Through a lack of instant communication, notably in the 1860s and early 1870s,¹⁸⁴ they sent numerous shipments

¹⁸⁰ Letter from JM&Co. to Henry Moore Esq., 4 June 1860 Letters to Europe JMA C11/27.

¹⁸¹ Letter from JM&Co. to Messrs Prost Kohler & Co., 31 October 1863 *Letters to India* JMA C10/55.

¹⁸² Letter from JM&Co. to Henry Moore Esq., 31 March 1867 Letters to India JMA C10/57.

¹⁸³ The steamers that arrived from Britain were intending to return with tea and silks. The British used the Shanghai tea and silk markets in preference to the Fuzhou or Hong Kong markets. This has been deduced through the shipments to Britain for the period. Prices Current, Carton 31 AHA MSS 766 1782-1913 P945.

¹⁸⁴ The first telegraph connection to Australia was connected in 1872 and prior to that all communications relied on letters by sea transport. Peter Putnis, "The Early Years of International

of coal from NSW without knowing the level of stocks. Having added to an already overstocked market, coal prices, now deflated, could barely cover the cost of freight.¹⁸⁵ Thus, it was usual for coal to be sold at a loss.¹⁸⁶

One reason for the deterioration of the volume of coal exports from Britain to Shanghai in the early 1870s was industrial action at the British mines. Britain was suffering from coal strikes, those in the early 1870s being both severe and successful.¹⁸⁷ The strikes created a positive effect on NSW coal prices. By mid-1872, prices in Shanghai had reached a turnaround, the improvement due to speculative demand having switched from British to NSW and others. The reason was a consequence of the telegraphic advice from England relating to the increasing cost of coal in Britain due to colliery strikes.¹⁸⁸ Prices in Hong Kong for NSW coal immediately jumped from a low of \$6.40 per ton to \$14 per ton upon receipt of the news from England, as Figure 3.20 shows.¹⁸⁹ One specific reason for the lesser effect in Shanghai was that coking coal was the primary import from NSW, so that any change in the amount of steaming coal imported from Britain would not alter coking coal imports. While unlikely to be the turning point for the NSW coal trade to Hong Kong, the British coal strikes provided an impetus for

Telegraphy in Australia: A Critical Assessment." *Media International Australia, Incorporating Culture & Policy* no. 129 (2008): 140.

¹⁸⁵ Letter from JM&Co. to Charles Stokes Esq., 3 April 1869 *Letters to India* JMA C10/5; Letter from JM&Co. to Capt. Baron, Barque "Adriatic", 23 November 1862 *General Letters from Shanghai* JMA C46/3.

¹⁸⁶ As an example: Letter from JM&Co. to James Lawrence Esq., 18 August 1869 *Letters to India* JMA C10/59.

¹⁸⁷ The 1860s and 1870s were replete with strikes at coal mines throughout the English midlands and South Wales. Roy Church, Alan Hall, and John Kanefsky, *The History of the British Coal Industry. Vol.3, 1830-1913 : Victorian Pre-Eminence*. Oxford: Clarendon Press, 1986: 662-5, 670, 673, 682, 703. Alan R. Griffin, *The British Coalmining Industry: Retrospect and Prospect*. Buxton: Moorland Publishing Co., 1977: 89.

¹⁸⁸ Letter from JM&Co. to Messr. Bingle & Co., 29 July 1872 *General Letters from Shanghai* JMA C46/12; Letter from JM&Co. to Messr. Bingle & Co., 13 February 1873 *General Letters from Shanghai* JMA C46/13.

¹⁸⁹ See also: "Coal." *Newcastle Chronicle* 28 September 1872: 4.

NSW coal suppliers and the coal mining companies to increase their prices, production and exports to China at that time.

Australian demands

Coal strikes were not isolated to England and Wales. The Newcastle fields of NSW also felt the consequences of numerous stoppages throughout the 1860s and 1870s. They were as disruptive to the Australian coal export industry as were those of the early 1870s in England to their industry. The strikes not only halted exports but also caused alterations in the pricing of coal from the pits. Most, if not all, strikes took place at the various Newcastle mines, not in the Illawarra, and their effects related mainly to the export of coal from Newcastle.¹⁹⁰ The stoppages were generally in relation to demands for higher wages or reductions of working hours.

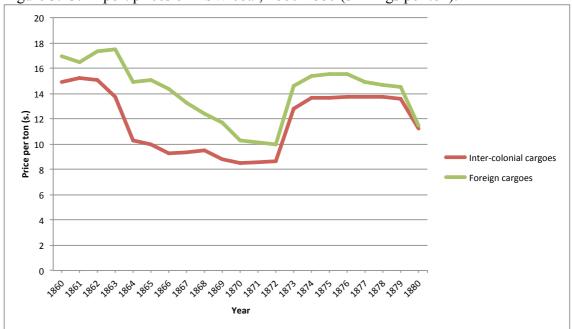


Figure 3.23. Export prices of NSW coal, 1860-1880 (shillings per ton).¹⁹¹

¹⁹⁰ The Illawarra coal mines tended not to be affected by the Newcastle strikes. There was a strike by the miners of a few Illawarra collieries for higher wages in 1865. "Strike amongst the Miners." *Sydney Mail* 11 November 1865:2.

¹⁹¹ Schmitz, *Output and Employment*: 23-24.

The early 1860s were years of dramatic disruption. Not long after the formation of a union to represent the miners,¹⁹² the most extensive and bitter industrial dispute in the history of NSW took place.¹⁹³ The halt in mining for an eight-week period in 1861 had a significant impact on the amount of coal extracted during those two months.¹⁹⁴ When production resumed in October, most vessels had left Newcastle harbour searching for charters elsewhere.¹⁹⁵ Towards the end of 1862 the miners went on strike again, causing further problems for coal exporters.¹⁹⁶ The two strikes, as noted by the AAC, created a "feeling of uncertainty" within the minds of many importers overseas.¹⁹⁷ Nevertheless, there was little effect on production from 1860 to 1862, as Figure 3.8 shows, and with a small effect on pricing as Figure 3.23 reveals.

In the 1870s, miners and coal companies were involved in a new series of strikes. The result of these disruptions, not just altered conditions and pay for the miners but also led to a "vend", an agreement to limit production and trade between five of the leading coal companies in the Newcastle district.¹⁹⁸ Each strike was different, whether for shorter hours,¹⁹⁹ to halt terminations²⁰⁰ or for more pay,²⁰¹ yet each created a breakdown of

¹⁹² E. O. G. Shann, "Economic and Political Development 1860-1885." In *Australia: The Cambridge History of the British Empire, Volume Vii, Part I*, edited by Ernest Scott. 296-323. Cambridge: Cambridge University Press, 1988: 572; Greg Patmore, *Australian Labour History*. South Melbourne: Longman Cheshire, 1991: 58; Gollan, *The Coalminers*: 27. Gollan admits the date of commencement of the union is a "matter of dispute" but considers that a formation of an organization that was a union took place in 1860.

¹⁹³ Gollan, *The Coalminers*: 36-38.

¹⁹⁴ "The Coal Trade." *SMH* 6 November 1866: 2-3. The article includes a table of the amount of coal exported coastwise or inter-colonial and international and the increase or decrease from the previous year. The author uses the decrease of 27,896 tons in 1861 to 1860 as being attributed to the strike (lockout) of that year.

¹⁹⁵ "The Coal Trade of Newcastle." *NCHRDN* 21 January 1862: 2.

¹⁹⁶ Gollan, *The Coalminers*: 40.

¹⁹⁷ Australian Agricultural Company. *Report to the Half-yearly meeting* London: J. J. Metcalfe, AAC/AR February, 1863; *Australian coal. Copy of Commodore Seymour's report upon experiments made with Australian coal at Sydney, in 1862.* House of Commons, no. 159 (1863).

¹⁹⁸ Gollan, *The Coalminers*: 14-16; See also Grant Fleming. "Collusion and Price Wars in the Australian Coal Industry During the Late Nineteenth Century." *Business History* 42, no. 3 (2000): 47-70.

¹⁹⁹ Monthly Reports, 1869-1874 *DLMSQ 316 AAC/MR* 25 January 1873, 22 February 1873.

²⁰⁰ Monthly Reports, 1869-1874 *DLMSQ 316 AAC/MR* 8 August 1870; Gollan. *The Coalminers*: 51-52; Timothy A. Coghlan, *Labour and Industry in Australia: From the First Settlement in 1788 to the*

production and thus a short supply of coal for overseas delivery. However, the strikes also occurred during the period when NSW coal producers were enthusiastic to take advantage of a Chinese market where the price of NSW coal was increasing.²⁰² Thus, in combination, the prices of coal both from the pits and in the Hong Kong and Shanghai markets rose as eventually did production and the export to China. Further, on 1 January 1873 the five primary companies, each involved in coal exports to China, agreed to fix the amount of coal produced by each colliery as part of a vend.²⁰³ Within six months the coal price had increased from 11s to 14s per ton.²⁰⁴ The increase was dramatic, as shown in Figure 3.23, and the value of coal almost reached levels comparable to that of the beginning of the 1860s. By controlling the pit price of coal, the mining companies also affected the export price at the docks and thus the profits of the shipping agents in the coal industry. In 1880 the vend collapsed, although it re-formed in 1881 and functioned until 1893.²⁰⁵

The strikes in the Newcastle area had little effect on the production and export of coal from the Illawarra region. The fact that the Illawarra region's exports to China were of the coking variety was the primary reason. As has been noted in Figure 3.10, the price of coal from the southern region did not increase until 1876. When compared to the price in Shanghai of Sydney coal (Figure 3.20), it is evident that during 1870-1876, exporters from Sydney should have achieved significant profits. That conclusion would

Establishment of the Commonwealth in 1901. 4 vols. Vol. 3, London: Oxford University Press, 1918: 1426.

 ²⁰¹ Monthly Reports, 1869-1874 *DLMSQ 317 AAC/MR* 13 March 1873.
 ²⁰² Letter from JM&Co. to Henry Moore Esq., 26 March 1873 *Letters to India* JMA C10/62.

²⁰³ Gollan, *The Coalminers*: 51. The five companies divided up the market on the basis of the expected production for each year, given what had transpired in the pits of the previous year. If a company exceeded that estimate, they contributed to a fund that supported the companies in the vend that were unable to fill their quota. The five companies were AAC, Newcastle Wallsend Coal Company, Waratah Coal Company, J and A. Brown and Co-operative Coal Company, J. W. Turner, Coal Mining in Newcastle, 1801-1900. Newcastle History Monographs No. 9. Newcastle: Newcastle Region Public Library, 1982: 85.

²⁰⁴ Gollan, *The Coalminers*: 14, 51.

²⁰⁵ Gollan, *The Coalminers*: 14.

be based on constant freight and charter rates. The rates, though, altered significantly, tending upward, and much of the profit was eaten into when obtaining charters.²⁰⁶ When the price of Illawarra coal increased in 1876 while the Shanghai prices were slowly decreasing, those profits shrunk significantly.

Demise of interest in late 1870s.

Interest of NSW coal in the markets of China decreased by the late 1870s. By the end of the decade, two of the main firms that dealt with NSW firms had either ceased trading altogether or were no longer trading in coal from NSW. Japan's coal exports into the Shanghai market had a strong influence on all coal import pricing.²⁰⁷ The graphs in this chapter show a downward trend in NSW's exports of coal to China following a period of strength in the market in the mid-1870s, the very time imports of Japanese coal increased.

The influx of Japanese coal imports into China, by 1875, significantly altered the landscape of the Shanghai coal industry for the remainder of the decade and after. In a commercial report to the Houses of Parliament of Britain in 1877, Walter Henry Medhurst, Her Majesty's Consul in Shanghai, warned that coal extracted from the "native" mines of Japan and Formosa was "slowly but surely forcing English and Australian coal from the market."²⁰⁸ Thus, the interlude of improved imports was short-lived. The quality of coal from the Takashima mines was improving and some of the shipments from NSW in the mid-to-late 1870s were found to lack the quality of the

²⁰⁶ The freight/charter rates dropped in 1869 and 1870 to about 10s. per ton of coal. Towards the end of 1870 these rates commenced an upward climb, reaching as high as 40s. per ton in September 1872 before returning to between 25s. and 30s. per ton at the end of 1873. See Appendix 11 for the Sydney freight rates to Hong Kong and Shanghai between June 1865 and March 1874.

²⁰⁷ Sugiyama, *Japan's Industrialisation*: 176.

²⁰⁸ China. No. 1 (1877). Commercial reports by Her Majesty's consuls in China. 1875-76. House of Commons, no. C.1665 (1877): 23.

previous years.²⁰⁹ This combination led to prominent merchant JM&Co. to depart from the coal trade, both in Hong Kong and in Shanghai.²¹⁰ Even an attempt, in 1877, to enter the market by a Queensland coal exporter was met with a lack of interest by JM&Co..²¹¹ From 1878, JM&Co. perceived that it would be impossible to revive coal exports to China to their previous levels.²¹² Another Western commission agent heavily involved in the coal trade, AH&Co., terminated trading in China altogether in 1875.²¹³ Their strength in the coal market prior to 1876 and the number of exporters connected to AH&Co. in NSW may explain the drop in exports of Newcastle coal in 1876, as shown in figure 3.17. That is, while shippers searched for new importers in China they exported their coal to other markets. Thus, with little profit available for both suppliers and commission agents, it was left to those with smaller margins or a sense of adventure to continue the trade.

One other reason for the demise of coal trade to China from the second half of the 1870s was the effect of the vend, running in the Newcastle area from 1873 until the end of the decade, on the profits of the shipping merchants. When the prices of coal exported from NSW to China (Figure 3.12) are compared with the value of the sales of NSW coal in China, particularly in Shanghai (Figure 3.20), the profit margin decreased over time. While the price in Shanghai increased in 1871 to around $\Im 10$ per ton, it decreased from

²⁰⁹ Letter from JM&Co. to Messrs. Henry Moore Esq., 11 June 1875 *Letters to India* JMA C10/63; Letter from JM&Co. to Messrs. Bingle White & Co., 8 July 1876 *General Letters from Shanghai* JMA C46/21.

²¹⁰ Letter from JM&Co. to Charles Stokes Esq., 8 April 1875 *General Letters from Shanghai* JMA C46/18; Letter from JM&Co. to Messrs. Bingle White & Co., 3 July 1875 *General Letters from Shanghai* JMA C46/26.

²¹¹ Letter from JM&Co. to Messrs. Unmack Heussler & Co., 14 August 1877 *Letters to India* JMA C10/65. There appears to be no previous export of coal from Queensland to China through the records of letters from the merchants in Brisbane and other ports. Coal was extracted in Queensland from the time of its creation as a new colony. 12,327 tons were obtained from the Ipswich field. E. F. Dunne, "Brief History of the Coal Mining Industry in Queensland." *Journal of the Royal Historical Society of Queensland* 4, no. 3 (1950): 319.

²¹² Letter from JM&Co. to Messrs. Bingle White & Co., 10 October 1878 *General Letters from Shanghai* JMA C46/26.

²¹³ Robert W. Lovett, "The Heard Collection and Its Story." *The Business History Review* 35, no. 4 (1961): 571.

then on throughout the remainder of the decade. Meanwhile, the large profits attained in 1871 and 1872 by the shipping agents when pit prices were just over 8s per ton initially turned into a significant loss in 1873, after prices rose significantly owing to the vend. The difference in selling price in Newcastle to that in Shanghai decreased each year thereafter. The much lower profit margin no doubt deterred many NSW coal shipping agents from either venturing into or continuing in the trade with China by the end of the 1870s.

Coal shippers from NSW had, by the mid-1870s, changed the direction of their coal shipments. While the amount of coal delivered to China decreased by the end of that decade, exports to both South America and North America increased dramatically.²¹⁴ Before the end of the century, Chile and California became primary importers of NSW coal. In his work on the Pacific coal trade, Michael Clark reports that between 1876 and 1896, imports of NSW coal to San Francisco rose from 88,552 tons to 319,593 tons and, for the same period, exports to Chile from NSW rose from a mere 480 tons to a massive 348,583 tons.²¹⁵ With the expanding economies of California, Chile and Peru in the 1880s, "Newcastle became the busiest port in Australia with about fifteen sailing ships loading coal each month for the industries and coaling stations of western America."²¹⁶ In contrast, the overall interest of NSW in the Asian markets decreased from 43 per cent of its coal exports in 1876-80 to just 19 per cent by 1896-1900.²¹⁷

²¹⁴ Burley, "Overseas Trade": 396. Burley attributes one reason for the increase in trans-Pacific coal shipments to be the prevailing winds encouraging vessels to head in that direction.

²¹⁵ Michael Clark, "Bound for Callao!' The Pacific Coal Trade 1876 to 1896: Selling Coal or Selling Lives? Part 1." *The Great Circle* 28, no. 1 (2006): 30.

²¹⁶ Clark, "Bound for Callao!": 31. Clark does warn us that vessels bound for Valparaiso, Chile arrived awaiting orders for a true destination and thus, again, what is found in the statistical records for NSW as coal to Chile, possibly was incorrect The rise of the Nitrate fertilizer trade from various ports along the western South American coast would have seen a need to transship the coal to these venues from Australia. For a discussion on the nitrate trade, see: M. B. Donald, "History of the Chile Nitrate Industry - Ii." *Annals of Science* 1, no. 2 (1936): 193-216.

²¹⁷ Sugiyama, Japan's Industrialisation: 211.

This section closes with an example of how the external factors discussed here combined to affect the prices of coal in China and how complex the coal market in China was. At the end of 1871 and into early 1872 there was a rare scarcity of shipping space for coal shipments in Newcastle.²¹⁸ That led to an increase in freight rates and lesser shipments of coal to Hong Kong.²¹⁹ Strikes in Great Britain at the same time resulted in both a higher cost of coal from the pit as well as higher delivery costs from Britain to Hong Kong.²²⁰ Together with the Newcastle problem, these generated a shortage of coal stocks in China, where demand forced prices to increase.²²¹ In April 1872, large shipments of coal from Formosa arrived. The new arrivals filled the stocks of steaming coal in Hong Kong and reduced Hong Kong coal prices.²²² The news of low stocks in Hong Kong, which took some time to reach the coal exporting ports, generated a number of shipments "from all quarters" which, in turn, put further downward pressure on coal prices in Hong Kong.²²³ The price of coking coal from Sydney in both Hong Kong and Shanghai remained unchanged.²²⁴ However, in Sydney there was a resulting effect. The preference of vessels to charter for coal at Newcastle meant less shipping available in Sydney and the continuation of rising freight costs.²²⁵ When the first shipments of Sydney coking coal did arrive, that in turn lowered the value of coking coal such that, as JM&Co. remarked, "with the high rates of freight now ruling we fear shipments from your side must lose heavily."²²⁶ While the above provides a

²¹⁸ Letter from R. B. Wallace & Co., 28 November 1871 *Correspondence: Business Letters: Australasia* JMA B6/3. Wallace stated that demand for tonnage to both Hong Kong and Shanghai was "great" with rates offered at 38/- per ton for Hong Kong and 46/- per ton for Shanghai.

²¹⁹ See Appendix 11. Freight rates continued to rise through to 1872, especially for coal from Sydney.

²²⁰ Letter from JM&Co. to R. B. Wallace & Co., 21 February 1872 *Letters to India* JMA C10/61.

²²¹ By March 1872, sales of Newcastle coal in Hong Kong were at \$14 per ton (Figure 3.22).

²²² Letter from JM&Co. to Charles Stokes Esq., 11 April 1872 General Letters from Shanghai JMA C4611.

²²³ Letter from JM&Co. to Charles Stokes Esq., 17 April 1872 *Letters to India* JMA C10/62.

 ²²⁴ Letter from JM&Co. to Charles Stokes Esq., 11 April 1872 General Letters from Shanghai JMA C46/11; Letter from JM&Co. to Messr Bingle, 29 July 1872 General Letters from Shanghai JMA C46/12.
 ²²⁵ See Appendix 11.

²²⁶ Letter from JM&Co. to Charles Stokes Esq., 19 December 1872 *General Letters from Shanghai* JMA C46/13.

clear example of how different external forces effect the coal market in China, the example also shows the market's complexity as well as the continuous risks merchants sending coal to China had.

Transactions and remittances

The movement of coal to China from NSW suffered from a series of impediments or set-backs. However, sales continued and remittances were completed. Burley provides a lengthy discussion on the organisation of the trade. Using AAC records, predominantly, Burley summarises the trade:

During the early years of trade expansion coal was marketed in a number of ways. Consignments were made on colliery or on ship account. Overseas consumers were supplied on direct orders, or on orders received through the consumer's consul in Australia, or via overseas or local agents.²²⁷

Burley's précis of the trade provides a background for how AAC treated shipments and the complexity involved in payments. It also provides an inkling to the fact that the coal markets in China had little structure and that with multiple variants of transactions, the commission agents worked with each on an individual basis. That is, transactions varied significantly, from remittances direct to the Australian-based merchants to remittances through London. In other cases, the ship's captain was provided with the draft by a merchant in NSW on the coal shipment or the value was advanced by a China-based commission agent towards a return cargo of tea, sugar or rice.

Firms with agencies in London, or elsewhere in Britain, frequently carried out the financial side of their transactions in England. That is the participation of the NSW exporter and the China-based importer was only through the handling of the coal and

²²⁷ K. H. Burley, "The Organisation of the Overseas Trade in New South Wales Coal, 1860 to 1914." *The Economic Record* 37, no. 79 (Sep., 1961): 372.

the initial purchasing and selling. The remittances and other charges were organised between the London firms. For example, the London firm, F. Parbury & Co., as the agent of Melbourne firm Parbury Brothers, were involved in organising coal shipments to China and tea shipments in return to Australia.²²⁸ In their negotiations with AH&Co., F. Parbury & Co. dealt with AH&Co.'s agents in London, Charles A. Fearon, exchanging remittances and other drafts either in pounds sterling or in American bonds.²²⁹ As such, F. Parbury & Co. and Fearon were the principals in the transaction process between the firms in Australia and China. The initiation, negotiation and completion of contracts all took place in London.

London firms also became involved in the trade of coal using either NSW or Chinabased companies to organise the shipments. Though not connected directly with the Australian firm, the London firm believed that profits could be accomplished, even with the numerous commissions to be extracted along the way. In late 1873, Messrs Sir John Pirie & Co. of London instructed two Newcastle shipping merchants to dispatch three vessels to arrive in Hong Kong from NSW with coal. The first two were the Berar and the Fontenave under the control of Messrs R. B. Wallace & Co. of Newcastle.²³⁰ The third was the Craigie Lee which was sent by Bingle White & Co., also of Newcastle.²³¹ Each was consigned to JM&Co. in Hong Kong which then remitted the draft of the proceedings from the sales to the London firm.²³² The London firm also paid a commission direct to the NSW firms through their representative in London.

²²⁸ In 1871, for example, Parbury Brothers were involved as coal agents in no less than five shipments of coal to China. For tea instructions, see Letter from F. Parbury & Co. to AH&Co., 6 May 1870 *FPC*. ²²⁹ Letter from F. Parbury & Co. to AH&Co., 2 June 1871 *FPC*.

²³⁰ Letter from Messr. R. B. Wallace & Co., 31 October 1873 Correspondence: Business Letters: Australasia JMA B6/3. The two vessels were chartered at 30s. per ton.

²³¹ Letter from JM&Co. to Henry Moore Esq., 31 March 1867 *Letters to India* JMA C10/57.

²³² Letter from JM&Co. to R. B. Wallace Esq, 31 December 1873 Letters to India JMA C10/63; Letter from JM&Co. to Bingle White & Co., 28 January 1874 Letters to India JMA C10/63.

Alternatively, London firms were transit points for requests. In 1871, JM&Co. contacted the London firm, Messrs. Wm. McDonald & Co., asking them to contact George King in Sydney with an indent of two loads of coal, one to Hong Kong and one to Shanghai.²³³ King showed concern about the situation in NSW at that time owing to increasing freight rates due to a shortage of vessels available for coal transports.²³⁴ Freight rates in the NSW ports had increased considerably over the previous year.²³⁵ Yet, with Hong Kong prices high (Figure 3.22), JM&Co. pushed for the completion of the order.²³⁶ At the same time, JM&Co. requested similarly for James Henty to organise for the *Adelheid* to depart for Newcastle and then travel to either Hong Kong or Shanghai on JM&Co.'s account. The preference at this time was for New Lambton coal.²³⁷

The AAC was a preferred supplier for JM&Co.'s shipments of coal in the early 1860s.²³⁸ The example of the *Ettrick* in the Introduction of this study demonstrates how JM&Co. worked with AAC. JM&Co. were involved in numerous shipments of AAC coal to China. The process for the orders were completed under the account of JM&Co. with the cost of the coal to be charged by AAC to Matheson & Co. in London.²³⁹ At the time of the early 1860s, AAC did not have much competition in the Hunter Valley

²³³ Letter from JM&Co. to George King & Co., 17 October 1871 Letters to India JMA C10/61.

²³⁴ Letter from George King & Co. to JM&Co., 29 December 1871 *Correspondence: Business Letters: Australasia* JMA B6/3.

²³⁵ In Sydney, for example, the freight rate to Hong Kong had increased from 17s. per ton in December 1870 to 34s. to 35s. per ton at the time of King's letter in December 1871. See Appendix 11 for all freight rates at the time from Sydney. The rise in Newcastle freights, at the same time, were not quite as dramatic. From 29s. per ton in December 1870 to 37s.6d. per ton in December 1871. "Rates of Freight and Charters." *Empire* 2 December 1870: 3; "Rates of Freight and Charters." *Empire* 30 December 1870: 3; "Rates of Freight and Charters." *Empire* 30 December 1870: 3; "Rates of Freight and Charters." *Empire* 29 December 1871: 3.

²³⁶ Letter from JM&Co. to George King & Co., 21 February 1872 *Letters to India* JMA C10/61.

²³⁷ Letter from JM&Co. to James Henty & Co., 14 November 1871 *Letters to India* JMA C10/61. The *Adelheid* eventually travelled to Hong Kong, Charles Stokes as the shipping agent in Newcastle and with a load of New Lambton coals.

²³⁸ Letter from JM&Co. to Capt. James Banks, 26 December 1860 *Letters to Europe* JMA C11/28. JM&Co. states that "of the New South Wales coal a preference is given here to that from the Australian and Agricultural Copper Co. Mines."

²³⁹ Letter from JM&Co. to Edward C. Merewether Esq., General Superintendent of the Australian Agricultural Company, 11 February 1864 *Letters to India* JMA C10/56.

region. Further, AAC coal had a reputation for being of a quality that was as good if not better than the English coal, as the 1862 Admiralty trials found.²⁴⁰ Thus, JM&Co. commonly requested of their representatives in Sydney and Melbourne to forward vessels to Newcastle for collection of AAC coal for the China markets.

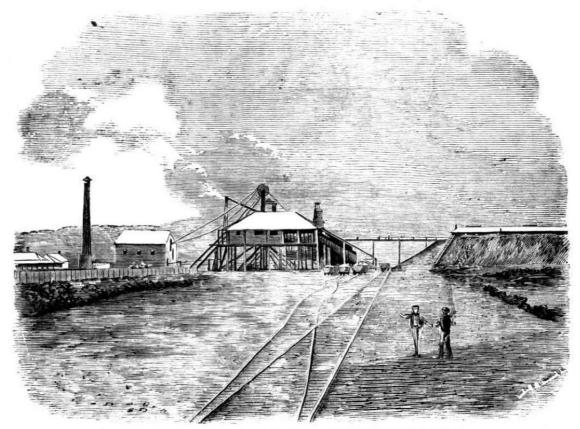


Figure 3.24. The Australian Agricultural Company's Mine.²⁴¹

THE AUSTRALIAN ACCRICULTURAL COMPANY'S COAL MINES, NEAR NEWCASTLE.

The captains of a number of vessels occasionally acted as agents in NSW when the coal was loaded onto their vessels. The sales from the shipments were remitted either directly to the captain or forwarded to a merchant in NSW whom the captain was representing. That merchant regularly owned the vessel. The *Mary Hamilton*, for example, transported 333 tons of coal for Parbury Brothers from Sydney to AH&Co.

²⁴⁰ Australian coal. Return. HoC, no. 337 (1862).

²⁴¹ "The Australian Agricultural Company's Coal Mines, near Newcastle." *The Sydney Mail* 24 January 1874: 112.

Hong Kong in 1871.²⁴² A draft, drawn on AH&Co., of £50 was created in Australia by Parbury Brothers and presented upon arrival by the captain.²⁴³ A further draft of £200 was received from London, reducing the payment to the captain of the profit.²⁴⁴ Payments to captains of vessels of the proceeds of the sales of coal were not uncommon; that of the *Albyn's Isle* in 1870 is another example.²⁴⁵

Payments were not always made through financial means. Payments in kind were common, predominantly in tea, rice and sugar for coal. JM&Co. kept accounts with merchants whom they considered trustworthy. Henry Moore, of Sydney, was a common supplier of coal to China. He also transported, on the same vessels, sandalwood²⁴⁶ and bêche de mer.²⁴⁷ The remittance was per instructions of Moore "for investment in teas at the earliest opportunity."²⁴⁸ In other cases, the remittances from coal sales in Hong Kong and Shanghai would be pooled by a Hong Kong commission agent into one account in Hong Kong to be used for future shipments of tea, or other commodities to Sydney or elsewhere.²⁴⁹ Nicholls Brothers, of Sydney, had a similar agreement. They exported coal to both Hong Kong and Shanghai, and used the proceeds to cover the costs of shipments of rice to Sydney.²⁵⁰ However, unlike Moore, who had a good relationship with JM&Co., Nicholls Brothers were not satisfied with their exchanges

²⁴² "Shipping Gazette." *The Sydney Mail* 18 March 1871: 86.

²⁴³ "Insurance for £50 draft." *1871 Ship Mary Hamilton AH II B C-S-10 f.8.*

²⁴⁴ "Account for Mary Hamilton." Account Current, Aug. 1870 – July 1871 Hong Kong AH I A 9 v. 87.

²⁴⁵ "Account for *Albyn's Isle.*" *Account Current, Aug. 1870 – July 1871 Hong Kong AH I A 9 v. 87.* The London draft would have been by F. Parbury & Co.

²⁴⁶ "Commercial." *Empire* 15 August 1862: 5; "Vessels in Harbour." *Sydney Mail* 16 August 1862: 5. The *Revely* departed from Sydney on 20 August 1862 for Hong Kong with 580 tons of coal and 60 tons of sandalwood. The coal and sandalwood agent was Henry Moore. The shipping agent was Gilchrist Watt & Co.

²⁴⁷ "Commercial." *Empire* 23 October 1862: 5; "Vessels in Harbour." *Sydney Mail* 18 October 1862: 5. The *Amalia* departed Sydney on 25 October 1862 with 550 tons of coal and 54 bags of bêche de mer. The coal, bêche de mer and shipping agent were Henry Moore.

 ²⁴⁸ Letter from JM&Co. to Henry Moore Esq., 1 October 1861 Letters to Europe JMA C11/29; Letter from Henry Moore. to JM&Co., 27 July 1861 Correspondence: Business Letters: Australasia JMA B6/3.
 ²⁴⁹ Letter from JM&Co. to Henry Moore Esq., 25 August 1860 Letters to Europe JMA C11/28.

²⁵⁰ Letter from JM&Co. to Messrs. Nicholls Bros. & Co., 31 October 1867 Letters to India JMA C10/58.

and in 1868 terminated their accounts with JM&Co., moving to the firm Messrs. Bourjan Hubener & Co. on Hong Kong.²⁵¹

James Henty, the agent for JM&Co. based in Melbourne, also ventured into the coalfor-tea business. In a shipment of 1868, coal was sent by Henty to Shanghai on Henty's own vessel, the *Francis Henty*. The coal was delivered to AH&Co. for sale with Henty directing the remittance to be collected by JM&Co. and then used to pay for a load of tea on the *Francis Henty* for Melbourne on joint account with JM&Co.²⁵² In another episode a decade later, Henty exported coal to Shanghai through the *Halton Castle*.²⁵³ Unfortunately, the vessel broke her moorings in Shanghai and collided, while adrift, with two other vessels. The cost of repairs to the other vessels was left to be collected from the captain through a series of charters for coal from Nagasaki to Shanghai. The captain, though, chose to abscond from Shanghai with debts remaining and leaving both JM&Co. and Henty to sort out the payments and other problems.²⁵⁴ Following that, Henty chose no longer be involved in the coal trade.

Another method of payment was by direct, or semi-direct, remittances to the merchants in Australia. In 1869, James Lawrence of Melbourne organised a shipment of coal per the *Harriet Ewing* to JM&Co. at Hong Kong.²⁵⁵ Lawrence requested that JM&Co.

²⁵¹ Letter from Messrs. Nicholls Bros. & Co. to JM&Co., 22 April 1868 Correspondence: Business Letters: Australasia JMA B6/3.

²⁵² Letter from JM&Co. to James Henty & Co., 13 October 1868 *General Letters from Shanghai* JMA C46/6. Invoice for 10464 packages of tea per *Francis Henty*, 30 November 1868, for James Henty on joint account with the shipper, JMA A6/19. Invoice for 600 boxes of tea per *Francis Henty*, 30 November 1868, for James Henty on joint account with the shipper, JMA A6/19.

²⁵³ Letter from James Henty & Co. to JM&Co., 13 April 1878 Correspondence: Business Letters: Australasia JMA B6/3.

²⁵⁴ There was lengthy correspondence relating to this vessel and its captain. The ship eventually went to Adelaide to load for London but it is unknown whether Henty was able to secure the £700 owed from the captain. The captain's brother, who owned the vessel paid out the creditors in Shanghai for 68% of what was owed. For the latter, Letter from JM&Co. to James Henty & Co., 6 May 1879 *General Letters from Shanghai* JMA C46/27.

²⁵⁵ Letter from JM&Co. to Messrs. James Lawrence Esq., 11 January 1869 *Letters to India* JMA C10/59.

transfer the proceeds to James Henty, in Melbourne.²⁵⁶ The vessel arrived in a market that was highly depressed and, even with half the godown charges waived, the proceeds of the shipment left a loss of \$1,452.²⁵⁷ Thus, JM&Co. asked Lawrence to pay Henty the balance, the sum of £334.2.5. While the venture proved disastrous for Lawrence, the event showed that by using the primary agent of JM&Co. in Melbourne, Henty, Lawrence was able to carry out direct financial transactions with JM&Co.

Concluding comments

The importance of New South Wales as a supplier of steam coal to China in the 1860s and 1870s is undeniable. During these two decades, NSW coal was considered equal or close to equal in quality to English coal and second only to Welsh coal. That meant that when the two British coal variants were unavailable, NSW coal gained preference in China over the various Asian varieties. The coking coal, primarily from the Illawarra collieries, was also considered of best quality by the Chinese who used the coal for their foundries, particularly those in and near Shanghai. Yet, specific trends occurred with the exports such that Newcastle steaming coal found preference in Hong Kong while "Sydney" or Illawarra coal was important for the Shanghai market. Thus, coal played an important role in the trade relationship between NSW and China.

The trading of NSW coal to China suffered from a number of issues, from within China as well as Japan and Great Britain. Changes in stocks in ports in China particularly, significantly affected the process of trading NSW coal and the ability of the merchants in the Chinese ports to sell that product. The growing imports of Japanese coal from the mid-1870s onwards flooded the markets in China and, together with the lower prices of

²⁵⁶ Letter from JM&Co. to James Henty. & Co., 11 January 1869 Letters to India JMA C10/59.

²⁵⁷ Letter from JM&Co. to Messrs. James Lawrence Esq., 18 August 1869 Letters to India JMA C10/59.

this coal, reduced the profitability of the coal trade for both Australian and Western merchants in China. Further, strikes in Britain and the need for the best and cheapest quality coal for the fast steamers meant that NSW coal was continuously tested for its ability to perform with the newest boilers. These tests showed some successes and by the mid-1870s Newcastle coal was mixed with Welsh coal to obtain the best performance at the optimum price.

In NSW exporting merchants had concerns about how profitable the coal trade was. The collieries in Newcastle, and to a lesser extent the Illawarra, suffered from a series of strikes for various reasons. These created disruptions to the export trade of coal. Further, a group of companies in Newcastle created a vend in 1873 to manipulate supply and therefore prices and exports in their favour. With freight rates high and sales prices of coal in both Hong Kong and Shanghai falling, the profits of coal merchants diminished which, in turn, drew many merchants away from the coal trade.

New South Wales companies involved in the trade also demonstrated the use of alternative payment methods. Some companies became involved in bilateral barter trade where the remittance from the sale of coal was used to secure a return cargo of tea, sugar or rice. Businesses in Great Britain, mostly in London, were also heavily involved in the coal trade of NSW and the payment system. Many NSW coal merchants were connected with these London firms and organised for remittances to be paid to the London firms so that these firms could organise shipments from England of goods for Australian ports. London merchants were also involved in the trade for their own sake and thus requested the NSW coal merchants to fulfil orders of coal while others were instructed by a Western company in China to act on their behalf in putting the request to the NSW companies. In other cases, captains of vessels would, either for themselves or

through a company in NSW, organise their own charters and shipments and finally, in the rare case, direct financial transactions between individuals in Australia and the Western firms in China allowing for a quicker, less complicated payment system. However, by the early to mid-1880s, the bulk of all NSW coal orders, whether to China or other overseas ports, emanated from London.²⁵⁸

Contrary to the thesis of Burley, who painted a picture of the NSW coal trade to China as of little relevance, this chapter shows that the trade was important to many and involved a complex set of relationships and forces that created involved markets within the Chinese waters as well as risk evaluation by NSW coal merchants. This trade satisfied China's need and contributed considerably to the overall trade relationship between Australia and China during the 1860s and 1870s.

²⁵⁸ Burley, "Organisation of Overseas Trade.": 376.

CHAPTER 4

THE WOOD OF THE WEST

The world-wide sandalwood trade to China pre-existed white settlement of Australia,¹ yet by the nineteenth century Australians were to play an important role in the wood's delivery to China. From the commencement of the nineteenth century, Australian merchants obtained sandalwood from the South Sea Islands² and transported the wood to China through the port of Sydney. Those merchants, including Simeon Lord, Robert Towns and Co., and others viewed with great interest the opportunities the product offered as payment for tea and other goods from the ports of Asia including Canton, China.³ When the stock of sandalwood in the south Pacific dwindled, new wood was discovered in Western Australia (WA). By the 1860s and 1870s, WA sandalwood became a primary export to China from the Australian colonies, behind coal.⁴ The supplies of wood were almost endless and its export from WA is still, though heavily controlled, in place today.⁵

¹ One of the earliest recorded instances of exportation of sandalwood took place in the late fifth century. Buddist monks sent a tribute to the Qi court in China. John Miksic, *Singapore and the Silk Road of the Sea, 1300-1800.* Singapore: National University of Singapore Press, 2013: 45-6.

² The term "South Sea Islands" was used by the governments of the time to define those islands of the South Pacific. The term is found in all government documents, including statistical records, and thus will be used here.

³ For the South Seas' sandalwood trade, see: Dorothy Shineberg, *They Came for Sandalwood: A Study of the Sandalwood Trade in the South-West Pacific 1830-1865*. Melbourne: Melbourne University Press, 1967; and D. R. Hainsworth. "In Search of a Staple: The Sydney Sandalwood Trade 1804-09." *Business Archives and History* 5 (1964-65): 1-20. For Robert Town's impact on the trade, see: Frank Broeze, "Australia, Asia and the Pacific: The Maritime World of Robert Towns." *Australian Historical Studies* 24, no. 95 (1990): 221-38; and A. G. King, *Looking Backward over 100 History-Making Years, to 1842: A Tribute to a Pioneer*. Sydney: Smith and Darling, 1942.

⁴ Coal, as discussed in Chapter 3, was the primary Australian export to China, a large portion of which entered at Shanghai. For example, in 1869, coal provided over 52% of all Australian exports to Shanghai and sandalwood covered roughly the remainder. *China No. 2 (1871). Commercial Reports from Her Majesty's Consuls in China. 1869-70* House of Commons, no. C.317 (1871) London: Harrison and Sons, 1871: 39.

⁵ For an overall analysis of the WA sandalwood trade to date, see: O. W. Loneragan, "Historical Review

The sandalwood trade was a vital industry for WA during the second half of the nineteenth century. The industry created employment for many individuals from the farmers who harvested the wood to the carriers transporting the wood to the ports and through to the export merchants. The merchants were important as they organised the export of the sandalwood, including such matters as procuring charters, loading, insurance and communications with importers at foreign ports. The work of the merchants created trade with such ports as Singapore, Hong Kong and Shanghai which, in turn, provided goods in return for WA.

The movement of WA sandalwood to the foreign ports was via a route that proceeded north to Shanghai. Shanghai was the most favoured port for WA wood and the ports, including Singapore and Hong Kong, were thus transition only. Many merchants were involved along this route north to Shanghai, at each of the intermediary ports and at Shanghai. WA merchants thus had a choice to trade directly to Shanghai or to choose one of the intermediary ports. With so many factors involved, the trade of sandalwood from WA to China was complex.

Investigating the WA sandalwood trade to China poses a number of questions. Was there a specific route to Shanghai and how was that route employed? How was the sandalwood transported to China and what impediments lay in the way of successful transport? Who were the merchants involved in the trade? Through these merchants, what market forces did they create on the sandalwood trade and what strategies were

of Sandalwood (*Santalum Spicatum*): Research in Western Australia, Research Bulletin No. 4." Como, WA: Department of Conservation and Land Management, 1990; Pamela Statham, "The Sandalwood Industry in Australia: A History." In *Symposium on Sandalwood in the Pacific*. Honolulu, Hawai'i, 1990; Pamela Statham, "The Australian Sandalwood Trade - Small but Significant." *Discussion paper (University of Western Australia)* 87, no. 09 (1987): 1-36; Len Talbot, "Wooden Gold: Early Days of the Sandalwood Industry." *Forest Focus* 30 (1983): 21-32; and Matthew Tonts, and John Selwood, "Niche Markets, Regional Diversification and the Reinvention of Western Australia's Sandalwood Industry." *Tijdschrift voor economische en sociale geografie* 94, no. 5 (2003): 564-75.

put in place to counter the forces? Finally, how were the WA merchants remitted for their parcels of sandalwood? Through interpreting a combination of statistical records with various correspondence, the current chapter answers these questions and provides an explanation of how the sandalwood trade fitted within the trade relationships between Australia and China during the 1860s and 1870s.

The sandalwood tree

Figure 4.1. Santalum Spicatum (Australian Sandalwood tree).⁶



Sandalwood is a slow-growing tree found in various parts of the South Asian, South East Asian, Pacific and Australian regions. There are approximately 18 species of the genus *Santalum*, each a hemi-parasite as they grow using host trees to obtain their nutrients.⁷ The Indian species *Santalum album* (Santalaceae) from the Mysore Kingdom

⁶ M. Fagg, *Santalum Spicatum* Australian Plant Image Index, Australian National Botanic Gardens, dig.1084.

⁷S. C. U. M. P. Subasinghe, "Sandalwood Research: A Global Perspective." *Journal of Tropical Forestry and Environment* 3, no. 1 (2013): 1

and the Malabar Coast was considered by consumers throughout the world as being the finest quality. The wood from India had been harvested for approximately five millennia. India led the world in extracting the oil from the wood for perfumes and medicines.⁸

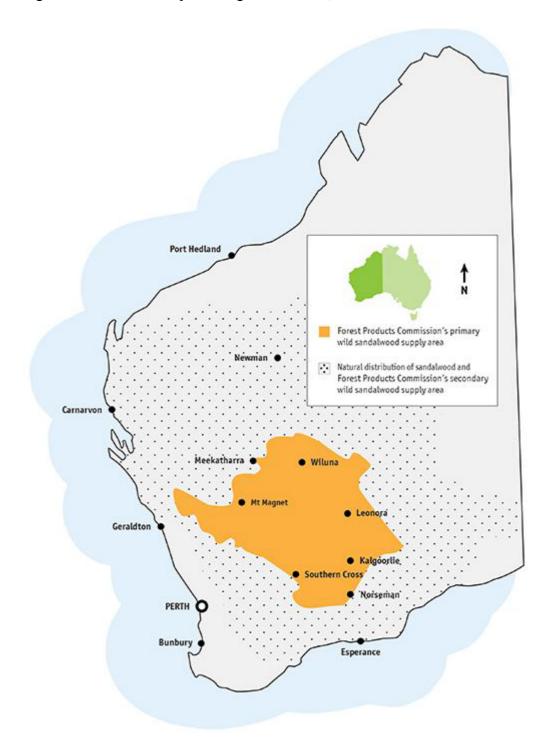
Uses of sandalwood were numerous. Depending on the size, the colour, aroma and quality of the wood, it was used to produce articles as large as desks to as small as inlaid boxes or ornaments. Yet, this practice of crafting the wood into luxury artefacts was rare with the greater portion of the sandalwood, instead, ground into incense for religious and ceremonial uses.⁹ The size of the wood was also important with the larger diameter logs attracting higher prices in the markets of Singapore and China than the smaller offcuts. Parcels of sandalwood of less than 10 logs per picul (133 1/3 lbs) were reputed the best. These larger logs were considered optimum for presentation as offerings. The smaller pieces, either logs or chips, were ground into powder and sold to and used by the poorer people as religious offerings.¹⁰ Thus, the most superior quality wood had both a large size and strong aromatic qualities.

⁸ A. N. Arun Kumar, Geeta Joshi, and H. Y. Moham Ram. "Sandalwood: History, Uses, Present Status and the Future." *Current Science* 103, no. 12 (2012): 1408; Edward H. Schafer. *The Golden Peaches of Samarkand: A Study of T'ang Exotics*. Berkeley: University of California Press, 1963: 136-38.

⁹ Shineberg. *They Came for Sandalwood*: 1; Statham. "The Australian Sandalwood Trade.": 1.

¹⁰ Shineberg. *They Came for Sandalwood*: 1; The prices given in reports from merchants based in Singapore, Hong Kong and Shanghai discerned a difference between large wood and small wood, large wood attaining a higher selling price; One picul in weight equated to 133 1/3 lbs.

Figure 4.2. Sandalwood producing areas in WA, 2016¹¹



Four species of sandalwood currently exist in WA.¹² Of these, only one, *Santalum spicatum* is commercially exploitable. Figure 4.2 shows that *S. spicatum* grows predominantly in the southern parts of WA, from the south-west coastal regions, north

¹¹ Sandalwood Forest Products Commission Western Australia <u>http://www.fpc.wa.gov.au/sandalwood</u> accessed 5 July 2016. There are also known sandalwood plantations in the north-west of WA near the town of Kunumurra.

¹² The four *Santalum* species are: *S. spicatum*, *S. acuminatum*, *S. murrayanum* and *S. lanceolatum*.

to Shark's Bay and east into South Australia.¹³ In the early days of the colony, the harvesting was restricted to the land that was within easy carriage of the coast from where it could be transported. Although there were no controls in gathering the wood and an unregulated market, the sandalwood forests withstood their continuous dismantlement while thousands of tons of the wood were exported annually from the 1860s onwards.

Early trade of sandalwood

The trade of sandalwood has a history that extends into at least the past two millennia. For example, tributes including sandalwood statues were presented by the Buddhist monks of Funan to the Qi Court in China in the late 5th century¹⁴ and similarly a tribute was sent to the Tang court from further south in the East Indies in 647.¹⁵ At that time India was the primary producer and trader of sandalwood with their product distributed to ports in both the Mediterranean in the west and to China in the east.¹⁶ Prior to Western settlement, Timor was recognised by the Chinese as an island yielding vast quantities of sandalwood and, from the early fifteenth century, vigorous trade took place between Timor and China.¹⁷ By the early sixteenth century, Portuguese merchants became involved in the trade of sandalwood was traded to the Portuguese port of Macao.¹⁸

¹³ Other varieties of *Santalum* have been found along the far north coast of WA, but these were not involved in any export at the time and were used by the local indigenous population.

¹⁴ Miksic, *Singapore and the Silk Road of the Sea, 1300-1800*: 45-6. Funan was the region located in South East Asia around the Mekong Delta.

¹⁵ Schafer, *Golden Peaches of Samarkand*: 136.

¹⁶ William E. Hillis, "Introduction and Historical Background." In *Natural Products of Woody Plants I*, edited by John W. Rowe, 1-25. Berlin: Springer-Verlag, 1989: 8.

¹⁷ Andrew McWilliam, "Haumeni, Not Many: Renewed Plunder and Mismanagement in the Timorese Sandalwood Industry." 1-21. Canberra: Resource Management in Asia-Pacific Program, Australian National University, 2001: 3 The harvesting, transport and trade of sandalwood on the island was controlled by the native kings in each region.

¹⁸ John Villiers, "The Vanishing Sandalwood of Portuguese Timor." *Itinerario* 18, no. 2 (1994): 86.

Towards the end of the eighteenth century and through into the early nineteenth century, Western traders expanded the reach of sandalwood harvesting to include the islands of both the North and South Pacific.

The harvesting of these other districts where sandalwood was produced were each terminated by the 1870s or earlier thus allowing WA sandalwood to emerge as the predominant variety of the wood sold in China by the 1870s. In Hawaii, then known as the Sandwich Islands, sandalwood was traded to China from 1791.¹⁹ By the early 1830s, over-harvesting together with diminished prices in Canton, owing to other sandalwood imports, saw a halt in the trade.²⁰ By 1870, the Indian government had concerns of maintaining an export market for sandalwood. The needs of the domestic market were not being met and thus the Indian government halted exports.²¹ Competition for other sandalwood in the China markets led to the termination of the Netherlands India sandalwood trade. Portuguese farmers and merchants in Timor found that profitability from parcels of sandalwood was negligible. Thus, by the 1870s, these farmers and merchants began producing and exporting coffee as an alternative to sandalwood.²²

¹⁹ Linda W. Pratt, and Charles P. Stone, *Alteration of Native Hawaiian Vegetation : Effects of Humans, Their Activities and Introductions*. Honolulu: University of Hawaii, Cooperative National Park Resources Studies Unit, 1990: 38; Patrick V. Kirch, and Marshall Sahlins, *Anahulu : The Anthropology of History in the Kingdom of Hawaii*. Vol. 1, Chicago: University of Chicago Press, 1992: 58. The trade of sandalwood was initially a royal monopoly. By the mid-1820s, over-harvesting led to a scarcity of sandalwood and at that time Boston merchants became involved to counter the shortage of specie in New England. Pratt and Stone. *Alteration of Native*: 38; Marshall Sahlins, "The Political Economy of Grandeur in Hawaii from 1810 to 1830." In *Culture through Time: Anthropoligical Approaches*, edited by Emiko Ohnuki-Tierney. 26-56. Stanford, CA: Stanford University Press, 1990: 32, 35; Harold W. Bradley, *The American Frontier in Hawaii: The Pioneers 1789-1843*. Stanford, CA: Stanford University Press, 1968: 60, 118; Jennifer Fish Kashay, "Agents of Imperialism: Missionaries and Merchants in Early-Nineteenth-Century Hawaii." *The New England Quarterly* 80, no. 2 (2007): 285; Kirch, and Sahalin, *Anthropology and History of Hawaii*: 58, 65.

²⁰ Bradley, *The American Frontier*: 67, 117; Pratt and Stone, *Alteration of Native*: 39. In the mid-1820s, the price of Hawaiian sandalwood in Guangzhou was between \$10.50 and \$14 per picul. By 1830, Hawaiian sandalwood sold for a mere \$1.50 per picul.

²¹ Statham, "The Australian Sandalwood Trade.": 10; Talbot, "Wooden Gold.": 25; Ezra D. Rashkow, "Perfumed the Axe That Laid It Low: The Endangerment of Sandalwood in Southern India." *The Indian Economic and Social History Review* 51, no. 1 (2014): 53, 55.

²² Villiers, "Vanishing Sandalwood.": 93; "Items from the Java Papers." *Straits Times and Overland Journal* 13 July 1873: 5.

Australia's initial connection with sandalwood came about not long after European settlement. Following the discovery of sandalwood in Fiji in 1804, the first shipment arrived in Sydney in April 1805.²³ A small portion was sold for local consumption by Asiatic seamen,²⁴ the remainder transhipped to Canton.²⁵ Sandalwood was transported to China mostly through American vessels that had landed in Sydney.²⁶ In a few cases the sandalwood was sold in Canton for a "quantity of Teas and other Goods."²⁷ To the Sydney merchants who received the sandalwood, the ability to trade it in Canton for Chinese cargo was most beneficial and created profitable commerce.²⁸ Although the forests of Fiji had been stripped of sandalwood by 1816, other islands in the region soon became a source of the product including Marquesas Islands, Isle of Pines, Loyalty Islands, New Caledonia and parts of the New Hebrides.²⁹ Following the dismantling of the British East India Company's monopoly over British-run trade in the East in 1834, Australian merchants became strongly involved in the sandalwood trade.³⁰ Shipments of South Pacific sandalwood, through Sydney, continued until, as Dorothy Shineberg stated that, in her analysis of Pacific region, "the sandalwood trade as such was dead by 1865 "31

²³ John McNeill, "From Magellan to Miti: Pacific Rim Economies and Pacific Island Ecologies: Since 1521." In *Studies in the Economic History of the Pacific Rim*, edited by Sally M. Miller, A.J.H Latham, and Dennis O. Flynn. 72-93. London: Routledge, 1998: 78; Ian C. Campbell, *A History of the Pacific Islands*. Berkeley, CA: University of California Press, 1989: 61; Hainsworth, "Search of a Staple.": 3. Hainsworth believes that Simeon Lord was responsible for this first venture of sandalwood to Australian shores.

²⁴ "Sydney." *SGNSWA* 23 March 1806: 2.

²⁵ For example, the *King George* in 1808. "Sydney." *SGNSWA* 24 July 1808: 2.

²⁶ A large number of American vessels landed in Sydney to trade or obtain fresh supplies. Many were involved in the whaling and seal-skin industries of the Southern Ocean. Others were en route to Canton. For example, according to shipping records in the *Sydney Gazette and New South Wales Advertiser* for 1805, five vessels arrived from the American east coast ports. In 1806 two departed for China while another returned from China.

²⁷ "Proclamation." *SGNSWA* 13 July 1806: 1.

²⁸ Hainsworth, "Search of a Staple.": 2.

²⁹ Shineberg, *They Came for Sandalwood*: 7-9.

³⁰ Shineberg, *They Came for Sandalwood*: 6-7.

³¹ Shineberg, *They Came for Sandalwood*: 9. Evidence exists of continuous shipments by both Westerners and Chinese throughout the period from Sydney to Hong Kong, though in much smaller amounts than prior to 1864 and also less than those from WA.

Thus by the 1860s, two important developments were to affect the WA sandalwood merchants. The first was the reduction to near elimination of any competition in sandalwood exports to China. The second involved a degree of knowledge among the early Australian sandalwood traders that was most likely passed to the WA merchants by their Sydney counterparts.

WA and sandalwood pre-1860

WA's initial connections with China were incidental, though very noticeable. The establishment of the Swan River Colony in 1829 provided a new port of call for shipping in the Indian Ocean. Renamed WA three years later, the colony's development required trade and immigration. When the BEIC monopoly was abolished by the UK Parliament in 1834, it had profound effects on all traders throughout the Australian colonies.³² In an article in the local paper of Perth, the editor explained the effects of such a transition in Asia and Australasia. He relayed a speech by the member of the British House of Commons, Charles Grant, who stated in 1833, in relation to the East India Company: "That it is expedient that all his Majesty's subjects be at liberty to repair to the ports of the empire of China, and to trade in tea and all other productions of the said empire."³³ WA was now in the "same boat" as every other British colony in appreciating the opportunities of trading with China.

The colony of WA, in the 1830s, had limited resources for trade. As a new colony, WA relied on the issue of Treasury Bills to cover the costs for all imports. Most goods

³² Sandra Tweedie, *Trading Partners: Australia and Asia 1790-1993* Sydney: University of NSW Press, 1994: 14-15; Francis E. Hyde. *Far Eastern Trade: 1860-1914*. London: Adam & Charles Black, 1973 2.
C. H. Philips, *The East India Company 1784-1834*. Manchester: Manchester University Press, 1961: 287.

³³ "East India Question." *Perth Gazette and Western Australian Journal* 23 November 1833: 187. The item was part of an article found in the London newspaper *Spectator* 15 June 1833. Grant was also known as Lord Glenelg and was, at that time, President of the Board of Control of the BEIC. Philips, *East India Company*: 338.

arrived in WA, having originated from New South Wales, Van Diemen's Land and England. On occasions, a vessel arrived at Fremantle from China. For example, the *Caledonia* landed at Fremantle on 20 September 1839, following its trip from China and Timor, with 15 tons of coffee, six tons of rice, 2000 chests of tea and other sundries.³⁴ As such, the lack of locally produced goods to trade became a concern for the WA colonial government. In 1843, Governor John Hutt opened the WA parliament exclaiming the need to find an export commodity to replace the then used specie or the issuing of extra Treasury Bills.³⁵ One solution to the problem lay with exporting sandalwood.

The possibilities of the sandalwood trade were understood during the early period of WA's colonial existence. Indian and Chinese labourers, indentured to assist with the development of the colony,³⁶ noted the logs used as firewood being sandalwood. In her study of WA sandalwood, Pamela Statham suggests that these workers "recognized the commercial potential of the wood."³⁷ Further confirmation of the potential for the development of a sandalwood export industry came from explorer Ensign Dale in 1832.³⁸ Yet neither generated any interest from WA merchants or the government at the time.

³⁴ "Shipping Intelligence." Perth Gazette and Western Australian Journal 21 September 1839: 150.

³⁵ Talbot, "Wooden Gold.": 22; "The Governor's Speech." *Swan River News and Western Australian Chronicle* 2, no. 1 (1 January 1844): 6.

³⁶ Anne Atkinson, "Chinese Labour and Capital in Western Australia, 1847-1947." PhD. Murdoch University, 1991: 2. Atkinson states that she believed those in WA were connected to those who had migrated to the new colony. Statham mentions that there were indentured Chinese. Statham, "Sandalwood Industry in Australia.": 27.

³⁷ Statham, "Sandalwood Industry in Australia.": 27.

³⁸ W. B. Kimberly, *History of West Australia: A Narrative of Her Past Together with Biographies of Her Leading Men.* Melbourne: F. W. Niven & Co., 1897: 59; Statham, "Australian Sandalwood Trade.": 5.

The first export of native sandalwood from WA took place in 1845 with shipments to Mauritius, Singapore and, possibly, India.³⁹ A year later, James A. M. Moulton chartered the *Paul Jones* to take sandalwood direct to China.⁴⁰ While the wood sold for a very good price in Canton, about £30 per ton, Moulton was killed following a mutiny on the *Paul Jones* and the proceedings from the sale never made it to WA.⁴¹

The trade of sandalwood accelerated in the late 1840s, bringing a good return to the farmers and settlers.⁴² The trade receded into a short abeyance in the early 1850s, reemerging in the second half of that decade. In 1848, for example, a combined 1,335 tons was exported to ports as exotic as Lombok, Mauritius, Batavia and Madras as well as at least a dozen trips to Singapore and two to Hong Kong.⁴³ A portion of the sandalwood

³⁹ Inquirer 9 July 1845: 2; "The Western Australian Journal." Perth Gazette and Western Australian Journal 1 November 1845: 2; Perth Gazette and Western Australian Journal 5 April 1845: 2. There is contention as to any trip to Bombay in 1845 with sandalwood. Len Talbot states that four tons were transported to the "Far East" and sold for \$20 per ton. Pamela Statham states that the government schooner Champion transported a "quantity" to Bombay, returning "early in 1845." WA newspapers show that local merchant C. D. Ridley met the WA governor, John Hutt, in January 1845 enquiring about selling sandalwood to Bombay merchants. The Champion departed Fremantle, WA on 7 February 1845, returning on 24 May 1845. There is no clear evidence that any sandalwood was carried on this trip. Talbot, "Wooden Gold.": 22; Statham, "Sandalwood Industry in Australia.": 27-28; Inquirer 22 January 1845: 3; "To the Editor." Inquirer 26 February 1845: 3; "Shipping Intelligence." Inquirer 12 February 1845; "Shipping Intelligence." Inquirer 28 May 1845: 2; The statistical records for 1845 show 11 tons of sandalwood exported at a value of £110. Colony of Western Australia, Year ending 31st December 1845 Perth: Government Printers, 1846: 124.

⁴⁰ "Sandal Wood for China." *Perth Gazette and Western Australian Journal* 31 January 1846: 2; "Shipping Intelligence." *Inquirer* 11 February 1846: 2.

⁴¹ Inquirer 17 February 1847: 3; "The Western Australian Journal." Perth Gazette and Western Australian Journal 23 January 1847: 2. Reports, materialised a year after the vessel had sailed, stated that the cargo fetched upwards of \$9 per picul, or about £30 per ton, which provided a handsome profit for Moulton. On the Paul Jones' return journey, Moulton took over as captain when the original captain departed the vessel. Moulton then took on two Malay seamen, a Briton and his young Malay servant. One, the chief Malay, a "Macassarman" by the name of "Roeta," chose to mutiny, eventually killing the British passenger, Moulton and his mate and ordered the others to sail for Makassar. Roeta, however, was shot by Moulton in the exchange. A few days later the Paul Jones was taken back by the two remaining Englishmen and Roeta put in chains. Before they were rescued, Roeta died of his own wounds, all those dead also having been given a watery funeral. The ownership of the vessel and its cargo were eventually part of proceedings in the Court of Justice at Sourabaya. "Government Notification." The Singapore Free Press and Mercantile Advertiser 19 October 1848: 1.

⁴² J. S. Battye, ed. *The Cyclopedia of Western Australia*. 2 vols. Vol. 2. Adelaide: Hussey and Gillingham Ltd, 1912: 286.

⁴³ Statham, "Australian Sandalwood Trade." In Appendix II, Statham uses the *Western Australian Blue Books* to obtain figures for volume and value of sandalwood exports. These figures do not match up with those obtained from viewing the shipping records in the two newspapers of the time. While the newspaper data is generally lower, in 1847 it is higher and while the Blue Books show no exports in 1852, two ships did travel with an export of sandalwood. Further, the *Blue Books* show that in 1845 only four

shipped to Singapore that year was then transhipped to China.⁴⁴ In the following year, the total value of sandalwood exports diminished slightly, but then, with new taxes, tolls and licensing installed by the WA colonial government, exports dwindled.⁴⁵ A depression of sandalwood prices in China caused further angst to the WA sandalwood merchants, which dulled their interest in the trade.⁴⁶ There were at least six departures in 1850 and eight in 1851. The amount of sandalwood dispatched, though, was only a mere 230 tons for each year. In 1852, only two ships took on the commodity, one to Singapore and one to Mauritius, totalling 39 tons.⁴⁷ The trade lay dormant for only two years, a single shipment in May 1855 seeing the commencement of further exports.⁴⁸ Shipping information from the various Perth newspapers during the years from 1856 to 1860 reveals that almost all shipments of sandalwood from WA during those years were to Singapore.⁴⁹

The re-commencement of sandalwood exports from WA to China was delayed until 1860 and experienced some setbacks in its initial stages. The Fremantle firm T. & H. Carter & Co. corresponded with JM&Co. in Hong Kong with the view of transporting a sample of the WA variety of sandalwood to Hong Kong for sale.⁵⁰ The Hong Kong firm encouraged the plan and provided details of the market which it stated was "firm" even

tons were exported yet I have explained above that three ships, one to Mauritius and two to Singapore took sandalwood with them. Thus there is some question as to the accuracy of the *Blue Book* data.

⁴⁴ "Report on the Market." *The Singapore Free Press and Mercantile Advertiser* 7 September 1848: 4. The article mentions that the sandalwood from the *Hawk* was transshipped to China.

⁴⁵ Talbot, "Wooden Gold.": 24; Statham, "Australian Sandalwood Trade.": 7-8.

⁴⁶ The sale value of sandalwood was sufficiently high enough to attract heavy exports from WA. This created an oversupply and thus a drop in prices which, when accompanied by the taxes applied by the WA Governor, created a disincentive to continuing in the trade. Statham, "The Sandalwood Industry.": 29; Talbot, "Wooden Gold.": 24.

⁴⁷ A full list of all vessels travelling with sandalwood from WA is available from the author. For a summarised version, see Appendix 12. In this list, it is noted that there were shipments in 1852, 1855 and 1856 countering the statistical records and thus the literature that state there was none.

⁴⁸ "Shipping Intelligence." *Inquirer* 16 May 1855: 2.

⁴⁹ Of 28 known shipments, one in 1857 was to Batavia and one small shipment of 5.5 tons in 1859 to London. See Appendix 12 for a summary of shipments.

⁵⁰ Letter from T. & H. Carter & Co. to JM&Co., 11 May 1860 Correspondence: Business Letters: Australasia JMA B6/3.

though two vessels had recently arrived from Sydney with sandalwood.⁵¹ The brig *Kestrel* was chartered by T. & H. Carter & Co. and departed from Fremantle, with 171 tons of sandalwood aboard, on 8 July 1861, arriving in Hong Kong on 18 August 1861.⁵² Upon arrival, the sandalwood was tested by a number of principal merchants in Hong Kong and found to be of "inferior description called 'New Island' as distinguished from the best called 'Old Island', worth from perhaps 50 to perhaps 100 per cent more."⁵³ A portion of the goods were sold in Hong Kong and the remainder in Canton.⁵⁴ On the return journey, the *Kestrel* brought tea, rice and sugar for the Western Australians under the consignment of T. & H. Carter & Co.⁵⁵

Preference in China

The decreasing supplies of sandalwood, by the early 1870s, from the traditional markets of India, Timor and the South Sea Islands, created a new preference and acceptance for the WA variant. However, this preference was not the same throughout the ports of China. Chinese merchants in Hong Kong continued to favour sandalwood from the traditional ports and rarely purchased wood from WA unless they were speculating on sales in Shanghai through transhipment to that port. Yet at Shanghai, the opposite was the case. Sandalwood from the South Sea Islands was unsaleable while the buyers at

⁵¹ Letter from JM&Co. to T. & H. Carter & Co., 6 July 1860 Letters to Europe JMA C11/27.

⁵² "Shipping Intelligence." *The Inquirer and Commercial News* 17 July 1861: 2; Letter from JM&Co. to T. & H. Carter & Co., 24 August 1861 *Letters to Europe* JMA C11/29. The *Kestrel* may have been purchased by the Carter company as it was used thereafter for many years by that company for travel between Sydney, Fremantle, China and Mauritius. The *Kestrel* was declared in the local newspaper as travelling to Singapore and not Hong Kong and thus, possibly, likewise in the customs records creating an error in the statistics relating to the trade to China for that year.

⁵³ Letter from JM&Co. to T. & H. Carter & Co., 24 August 1861 Letters to Europe JMA C11/29.

⁵⁴ Letter from JM&Co. to T. & H. Carter & Co., 24 September 1861 *Letters to Europe* JMA C11/29.

⁵⁵ The inventory consisted of 1595 packages of tea, 600 bags of rice and 400 bags of brown sugar. Invoices to Captain Davis, *Kestrel* and T. & H. Carter & Co. 18 September 1861 *Invoices of Hong Kong Office* JMA A6/12; "Shipping Intelligence." *The Perth Gazette and Independent Journal of Politics and News* 10 January 1862: 2.

that port showed a preference for the WA wood.⁵⁶ That is, as WA sandalwood progressed north, Hong Kong was primarily a transition port towards Shanghai and not one where the good was only sold for consumption.

The choice of destination in China as with the sales themselves were also governed by seasonality. Although WA sandalwood was generally used for incense, the primary times when sales would be best made were not during the major festivals but in late Spring and late Autumn. While the largest consumption took place during the Chinese New Year of January or February,⁵⁷ the best time for sales remained prior to the festival.⁵⁸ In a letter to George Glyde in 1872, JM&Co. explains the then position of selling sandalwood in Shanghai.

It is important that shippers of sandalwood be aware that the consumption in the North of China is limited and that one of the guarantees to successful business is to keep the trade as much as possible in few hands on this side. The months of largest demand are usually April, May and June, and again during October, and November, and the market is capable of taking 50/60000 piculs per annum from all sources.⁵⁹

Therefore, it seems plausible that WA merchants were able to organise their shipments to Shanghai when the trade was at its, expected, best at that port and use the other ports south along the route at other times. However, this was not the case. Viewing the shipping records, there does not appear any clear regimen relating to the departure dates when considering specific destinations. They appear random.⁶⁰

⁵⁶ Henry Moore attempted to sell sandalwood in Shanghai in 1869 only to be informed by JM&Co. "South Sea Island sandalwood is more largely saleable in the South of China than at this port." The parcel was unsold in Shanghai and eventually shipped to Hong Kong for sale. Letter from JM&Co. to H. Moore, 5 January 1869 *General Letters from Shanghai* JMA C46/7; Letter from JM&Co. to H. Moore, 2 February 1869 *General Letters from Shanghai* JMA C46/7; Letter from JM&Co. to H. Moore, 2 March 1869 *General Letters from Shanghai* JMA C46/7. See also: Letter from JM&Co. to J. H. Monger Esq., 3 November 1872 *Letters to India* JMA C10/62.

⁵⁷ Letter from JM&Co. to H. Saw Esq., 4 January 1871 *General Letters from Shanghai* JMA C46/10.

⁵⁸ Letter from JM&Co. to J. H. Monger Esq., 11 April 1872 General Letters from Shanghai JMA C46/11.

⁵⁹ Letter from JM&Co. to G. Glyde and Son, 21 November 1872 *Letters to India* JMA C46/13.

⁶⁰ See Appendix 13 for a tabulation of monthly numbers of departures to China, 1860-1880.

Taking sandalwood to China – the China route

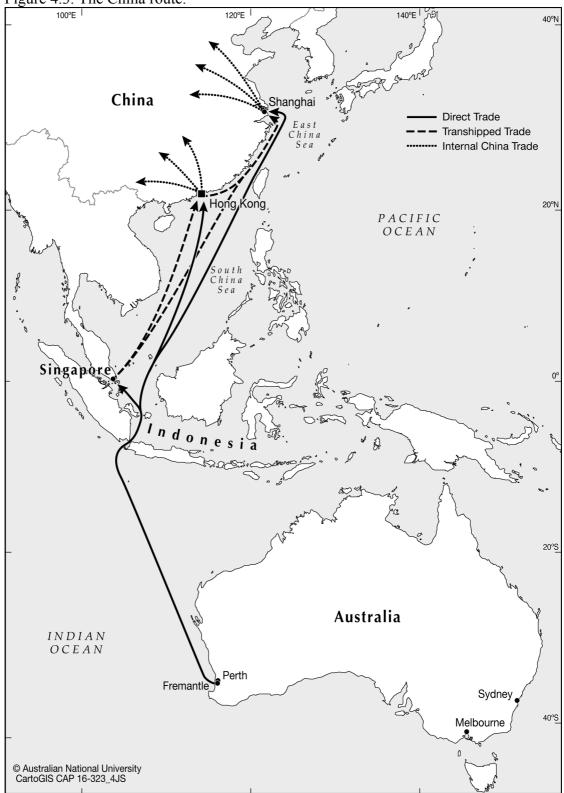


Figure 4.3. The China route.

The destinations for WA sandalwood during the 1860s and 1870s varied significantly. According to the WA newspapers and government statistical records, the wood was shipped to Singapore, a few ports in China, England, Batavia, India and the eastern Australian colonies.⁶¹ The predominant ports were Singapore, Hong Kong and Shanghai. Singapore and Hong Kong were transition ports where sandalwood was transhipped north towards Shanghai. The northerly direction of the trade of sandalwood, as shown in Figure 4.3, I have labelled the "China route." In this section, the three questions of where did the sandalwood go along the route, who was involved in transhipping to each port and why did it take that route are answered.

Sandalwood was transported from WA to China using various routes. These routes included stopovers at ports where the wood was bought, sold and transhipped further north towards its final destination. A portion of the wood was shipped via Singapore and Hong Kong. Ports in India, as noted, were occasionally used as an intermediary prior to the wood eventually being delivered to China. Sydney was another port of transhipment for sandalwood towards China. Singapore, though, was the primary transition port.

Figure 4.4 demonstrates that Singapore and ports in China were the predominant destinations for the export of sandalwood from WA during the 1860s and well into the 1870s. Together, they accounted for, on average, 90 per cent of all WA sandalwood exports. The chart reveals that there was no consistency in the proportion of sandalwood being exported to these ports. In some years the shares of Chinese ports exceeded that of Singapore.

⁶¹ SR WA 1860-80.

Figure 4.4. Destinations of sandalwood exported from Western Australia, 1860-1880 $(\text{cumulative percentages})^{62}$

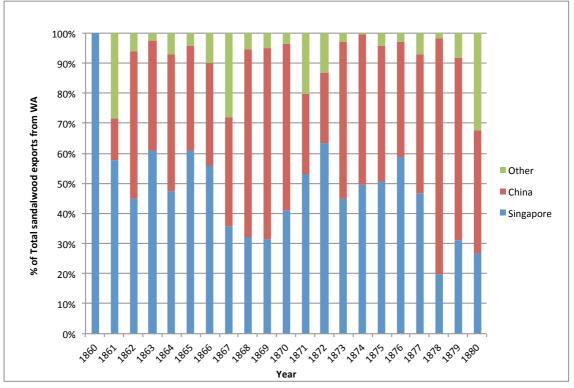
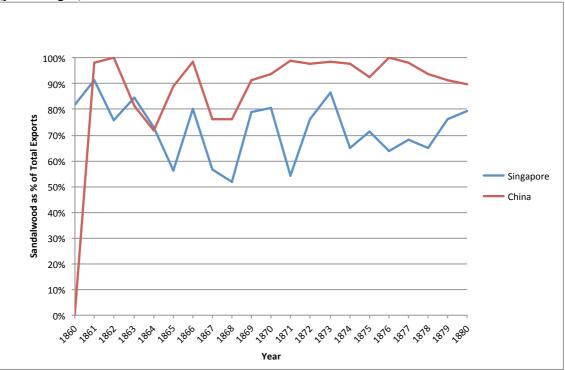


Figure 4.5. Share of sandalwood in total exports to Singapore and China from WA (percentages).⁶³



⁶² Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. [Parts VII to XVII – 1860 to 1881] London: G. E. Eyre and W. Spottiswoode [1862-1885].
⁶³ SR WA 1860-80.

Conversely, for Singapore and China, sandalwood provided the bulk of all exports from WA during the 1860s and 1870s. Although Singapore imported other goods from WA for transhipment, including horses and on rare occasions also wool,⁶⁴ sandalwood maintained its position as the dominant item exported from WA. Similarly for the Chinese ports, the merchants of WA ventured into the export of numerous other products, some of value yet none that would sustain exports. These included animals, bêche-de-mer, lead ore and guano.⁶⁵ Figure 4.5 shows sandalwood as a percentage of exports from WA to Singapore and China. In the case of Singapore, the average for the two decades is approximately 70 per cent while for China, that same average is nearer 90 per cent. What Figures 4.4 and 4.5 do not reveal is that Singapore and Hong Kong were not final destinations, but ports of transhipment towards Shanghai.

Table 4.1. Total quantities of Sandalwood, in tons, imported and re-exported in foreig	'n
boats for Shanghai, 1868-1872. ⁶⁶	

Year	1868	1869	1870	1871	1872
Import from Foreign Ports	41,210	74,326	46,941	35,442	59,262
Import from Treaty Ports	993	816	79	80	226
Re-Exports to Foreign Ports	2	239	16	210	8
Re-Exports to Treaty Ports	36,857	40,183	36,581	41,955	49,602
Shanghai Consumption	5,344	34,720	10,423	-6643	9878
% for local consumption	12.7	46.2	22.2	-18.7	16.6

The sandalwood that arrived in Shanghai also was not generally for the consumption in the local market but for re-export to other parts of China. The data in Table 4.1

⁶⁴ In 1871, 9,535 lbs. of wool was exported from WA to Singapore. SR WA 1871: 58.

⁶⁵ For example, *SR WA 1875*: 62-63 shows that 51 horses, four cows and a quantity of lead ore was exported to China.

⁶⁶ Robert Hart, *China. Trade Statistics of the Treaty Ports, for the Period 1863-1872* Shanghai: Imperial Maritime Customs Press, 1873: Shanghai: 9, 11, 13, 15. The data is for foreign registered vessels as there appears to have been little or no data kept for Chinese junks and other vessels that transshipped the wood from Hong Kong and other ports. The data varies slightly with that in Table 4.1 for the years 1870 to 1872; the reason is unknown. The negative consumption figure for 1871 occurs as some sandalwood is kept in stock awaiting sale or transshipment and is thus carried over to the following year's figures.

demonstrate that a significant percentage of the sandalwood imported to Shanghai was on-sold to the other Treaty Ports between 1868 and 1872. The "Foreign Ports" mentioned in the table included Singapore and Hong Kong. A portion of the re-export included that by Western commission agents, including JM&Co., who searched for better markets, including Chenkiang and Hankow, to sell the sandalwood.⁶⁷ By the midto-late 1870s, JM&Co., commonly split parcels between sales in Shanghai and Chenkiang, normally attaining a higher selling price in the latter port than in Shanghai.⁶⁸ Numerous reasons drove JM&Co. to source buyers in outlying ports. They included the need to counter the low prices offered by Chinese importers or the need to respond to a flooded local sandalwood market.

The other port of transition, as mentioned above, was Sydney. Specifically, one merchant firm, T. & H. Carter & Co., used this route until 1868. The *Kestrel*, returning from China in January 1862, was sent on to Sydney.⁶⁹ Its cargo included 84 tons of sandalwood with the expectation to "find its way thence to some part of China."⁷⁰ That first shipment in 1862 was transhipped by R. Towns & Co., in Sydney, to Paterson, Simon & Co., of Singapore, per the *Royal Saxon*.⁷¹ A second shipment, later in 1862, from WA per the *Kestrel* was forwarded directly to Hong Kong. H. Moore chartered the *Revely*, loading it with a large tonnage of coal and the "Australian sandalwood" collected from the load of the *Kestrel*.⁷² In Hong Kong, the sandalwood was received by

⁶⁷ JM&Co. used agents in these ports. Letter from JM&Co. to G. Shenton Esq., 1 March 1871 *General Letters from Shanghai* JMA C46/10; Letter from JM&Co. to B. Mason Esq., 8 Spetember 1870 *General Letters from Shanghai* JMA C46/9.

⁶⁸ Letter from JM&Co. to G. Shenton Esq., 4 January 1872 *General Letters from Shanghai* JMA C46/11.

⁶⁹ "Shipping Intelligence." *The Inquirer and Commercial News* 5 February 1862: 2.

⁷⁰ Letter from T. & H. Carter & Co. to JM&Co., 24 January 1862 *Correspondence: Business Letters: Australasia* JMA B6/3.

⁷¹ "Shipping." *SMH* 20 May 1862: 4; Letter from R. Towns & Co. to Paterson, Simon & Co., 19 May 1862 *Letterbook No. 5* RT 307/12.

⁷² Invoice of Sandalwood shipped by Henry Moore aboard the *Revely*, 14 August 1862 *Invoices from Australia* JMA A8/66/1; Invoice of Coals shipped by Henry Moore aboard the *Revely*, 7 August 1862 *Invoices from Australia* JMA A8/66/1.

JM&Co. to sell there.⁷³ The primary reason for using Sydney instead of Singapore or a Chinese port for T. & H. Carter & Co. was the expected return cargo for WA, paid for through the sale of the sandalwood. The trade of sandalwood to Sydney was a lucrative venture for T. & H. Carter & Co.. For the Sydney merchants, the WA sandalwood replaced the dwindling stocks of South Pacific sandalwood, allowing extra cargo for the vessels travelling to Singapore or China.⁷⁴

Chinese transhipment

The use of Singapore and Hong Kong as intermediary ports for transactions in the purchase and sales of sandalwood was prevalent among the Chinese merchants operating in those ports. The Chinese were the primary handlers of the sandalwood in the intermediary ports. Their work created concerns for the western merchants based in China. From Hong Kong, JM&Co. described the sandalwood trade as one that was placed in "too many" hands, that being the number of transhipment points along the China route. In a letter to Perth merchant George Shenton, dated 7 July 1876, JM&Co. discussed the brief history of Hong Kong sales.

In former years we used to receive consignments for the wood, but we believe consumption in the south of China is only small and our correspondents have for some time past been directing their ventures to Shanghai. On the other hand we believe it to be perfectly true that the sandalwood shipped to the Straits eventually finds its way to Hong Kong and ultimately to Shanghai or the other Northern Ports. We cannot call to mind a consignment to foreign hands direct from your port, within the past 2 years, and yet the sales reported to have taken place on this market within that period amount to 3500 Tons !! Whether that quantity has really been shipped to Singapore you will be able to judge. The

⁷³ "Shipping." *SMH* 21 August 1862: 4; Letter from H. Moore Esq. to JM&Co., 17 July 1862 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from JM&Co. to H. Moore Esq., 30 October 1862 *Letters to India* JMA C10/55.

⁷⁴ A number of Sydney merchants were involved in the sandalwood trade. Specifically Robert Towns & Co. and Ferguson, Webb & Co. imported sandalwood from New Caledonia and then exported it to Hong Kong or Shanghai, the former the primary port. For example, Ferguson, Webb & Co. imported 27 tons of sandalwood from New Caledonia per the *Syranos* in 1866 and then immediately exported it per the *Ellen Southard* to Hong Kong. "Shipping Gazette." *Sydney* Mail 25 August 1866: 10; "Shipping." *SMH* 30 August 1866: 4.

Singapore Chinese do, we know, import largely and sell to the China Chew Hongs, those connected with the Northern traders. Shanghai quotations of Tls. 3.4.5, less duty, equals \$4.16 ppc and while prices there have been much higher, our quotations you will notice, have values about \$3.70 @ \$4.00 ppc. In Singapore the price is now quoted \$3.30 @ \$3.50 ppc and if it will pay Chinese to remove the article to Hong Kong and thence to Shanghai we think it should pay shippers to direct the whole of their stocks to Shanghai.⁷⁵

Table 4.2. Total quantities of Sandalwood, in tons, imported in foreign boats for Tianjin (Tientsin) and Fuzhou, 1868-1872.⁷⁶

Year	1868	1869	1870	1871	1872
Tianjin: Import from Foreign Ports	141	1,226	147	795	220
Tianjin: Imports from Treaty Ports	4	29	184	19	35
Fuzhou: Imports from Foreign Ports	862	1,912	1,457	2,157	2,170
Fuzhou: Imports from Treaty Ports	8	0	253	139	17

The position the Chinese held within the transhipment of sandalwood along the China route is revealed through the statistical records from both WA and the China Treaty Ports. The statistical records of WA together with correspondence from JM&Co. reveal that the sandalwood exported directly to China was delivered to either Hong Kong or Shanghai with the rare shipment arriving in either Canton or Amoy. Separately, viewing the trade statistics of the Treaty Ports, other ports than those mentioned in the WA records show an import of sandalwood from foreign origins.⁷⁷ Table 4.2 shows data for the two ports of Tientsin and Foochow. The foreign ports in Table 4.2 are presumed to be primarily Singapore and Hong Kong, where the Chinese traders performed the traders were taking advantage of Western traders' vessels that were travelling to the ports of Foochow and Tientsin. The data in Table 4.2 when matched with the records of

⁷⁵ Letter from JM&Co. to G. Shenton Esq., 7 July 1876 *Letters to India* JMA C10/64. "ppc" = per picul.

⁷⁶ Hart. *China. Trade Statistics*: Tientsin: 9, 11-13, Foochow: 9, 11-13.

⁷⁷ Hart, *China. Trade Statistics.* Hart divides his book into sections for each port. For ports other than Shanghai, there is evidence of imports from foreign origins which would have been provided by Chinese merchants.

WA indicate that sandalwood was traded from the major transhipment ports to many Treaty Ports by the Chinese.

Role of Singapore

Singapore was a prominent shipping destination for WA sandalwood for a number of reasons. Singapore was the nearest entrepôt of the British Empire and one commonly accessed by Chinese merchants who were the primary purchasers of various products from Australians.⁷⁸ The port's geographical position also opened it up to continuous shipping to and from the Chinese ports as well as many other ports.⁷⁹ Located off the tip of the Malay peninsula, Singapore provided a centre-point for trade arriving from all directions, whether the East Indies, China and other north-east Asia countries, through the Malacca Straits or from the south through the Sunda Strait. Thus, for WA, Singapore was a convenient and major trading centre. Singapore offered a significantly wider variety of merchandise for importation than would the Chinese ports. In return, as well as sandalwood the island was also a port for the importation of horses from WA, most on their way to India and Batavia.⁸⁰ Hence, strong connections existed between firms based in Singapore and other countries throughout the extended Asian region, including those in China,⁸¹ and through these intermediaries to merchants in WA.

⁷⁸ Chiang Hai Ding, *A History of Straits Settlements Foreign Trade: 1870-1915.* Singapore: National Museum, Singapore, 1978: 5, 51-53; Stephen Dobbs. *The Singapore River: A Social History, 1819-2002.* Singapore: Singapore University Press, 2003: 29-31.

⁷⁹ Ding, Straits Settlements Foreign Trade: 5, 37-8.

⁸⁰ By the mid-1870s, Singapore became the primary port for the export of horses from Western Australia. For a discussion on the equid trade throughout Asia, see: William Clarence-Smith, "Cape to Siberia: The Indian Ocean and China Sea Trade in Equids." In *Maritime Empires: British Imperial Maritime Trade in the Nineteenth Century*, edited by David Killingray, Margarette Lincoln, and Nigel Rigby, 48-67. Woodbridge, Suffolk, UK: Boydell Press, Boydell & Brewer, 2004: 56-57, 59, 63.

⁸¹ Behn, Meyer & Co. of Singapore worked closely with Siemssen & Co. with offices in Batavia, Hong Kong and Shanghai. Douglas Earp, *Behn, Meyer & Co. Arnold Otto Meyer*. Translated by Heidi Hartmann. 2 vols. Vol. 1. Hamburg: Hans Christians Verlag, 1981: 52-3, 91-2. Siemssen & Co. were the major competitor to JM&Co. in Shanghai for the WA sandalwood trade and Behn, Meyer & Co. were instrumental in a number of transshipments of tea from China to Fremantle as well as providing the WA newspapers with the latest market advices from Singapore.

The relatively short distance to Singapore provided a number of advantages over transport links reaching all the way to ports in China. A quick turnover of the trips taken resulted in vessels obtaining further charters upon reaching Singapore, a better prospect than if the ship had arrived in the Chinese ports of Hong Kong or Shanghai. In addition, merchants in Perth and Fremantle were able to take advantage of other merchants who were involved in a regular shipping service between Fremantle and Singapore.⁸² WA merchants used these services to add their own export goods to the inventory of the vessel. Those vessels involved in trade between Fremantle and Singapore or Batavia tended to be small in size. Their masters recognised that the journey was short and lacked any dangers. One other advantage, early in the trade, was that the commission and godown charges were lower in Singapore than in the Chinese ports.⁸³ Based on shipping records of the 1860s, the approximate average load of sandalwood per vessel to Singapore was 170 tons while for Chinese ports it was 300 tons per vessel.⁸⁴

Singapore was a vital cog in the movement of WA sandalwood to China. Tables 4.3 and 4.4 demonstrate that sandalwood arriving in Singapore was, in fact, being transhipped to China. For 1873-1880 the statistical records of Singapore provide that the total amount of sandalwood imported to that port was 16,775 tons and that exported 17,282 tons.⁸⁵ Table 4.3 shows that a high portion of the sandalwood imported to Singapore arrived from Australia. By the 1870s, that sandalwood was exported from WA.⁸⁶ Table

⁸² For a list of regular transport between Fremantle and Singapore, see Appendix 14.

⁸³ Letter from H. Saw Esq. to JM&Co., 25 July 1865 Correspondence: Business Letters: Australasia JMA B6/3.

⁸⁴ The data is approximate as it only uses the available records of the newspapers from WA as well as the Singapore circulars that were reproduced in the WA newspapers. The total shipping based on these records did not always match those found in the *Blue Books*. It should also be noted that a regular service, though not assumed to be related to the sandalwood trade, existed between Port Walcott and Singapore.

⁸⁵ Straits Settlements Blue Books (1873-1880) Singapore: Government Printing Office, (1874-1881). Note that only the data from 1873 onwards was available at the National Archives of Singapore. The *Statistical Tables* for the years prior to 1873 of the United Kingdom House of Commons also do not include information for the trade of sandalwood. One ton = 20 cwt.

⁸⁶ This is deduced by the lack of sandalwood exported from any other Australian colony at the time.

4.4 shows that, for most years, a very high percentage of sandalwood was exported to China. The data, thus, provides clear evidence that sandalwood from WA was primarily a transient commodity within the Singapore markets and that China was, instead, the destination of sandalwood sent to Singapore.

	1873	1874	1875	1876	1877	1878	1879	1880
Australia	37,976	44,029	53,987	86,517	35,036	11,722	20,736	17,652
Total	38,196	44,384	55,739	88,191	43,099	2,0265	23,123	22,515
Australian %	99.4	99.2	96.9	98.1	81.3	57.8	89.7	78.4

Table 4.3. Imports of Sandalwood in Singapore, 1873-1880 (cwts)⁸⁷

Table 4.4. Exports of Sandalwood from Singapore, 1873-1880 (in cwts).⁸⁸

Year	1873	1874	1875	1876	1877	1878	1879	1880
China/HK	56,040	38,670	50,868	38,771	50,113	29,284	36,019	25,270
Total	58,492	41,922	57,230	39,945	51,255	29,689	38,486	28,626
China/HK %	95.8	92.2	88.9	97.1	99.8	98.6	93.6	88.3

Significant, however, is that WA sandalwood was being transhipped and not being made available for local consumption in a number of the ports of entry, including Sydney, Singapore and Hong Kong. Even Shanghai was not the final destination for much that was received and sold in that port. The statistical information delivered in the *Blue Books* and similar registers, including that held by Customs, disguise the true nature of the sandalwood export trade from WA. The data divulges a variety of destinations, yet almost all of the wood eventually made its way to Shanghai along the China route.

⁸⁷ Straits Settlements Blue Books (1873-1880) Singapore: Government Printing Office, (1874-1881).

⁸⁸ Straits Settlements Blue Books (1873-1880) Singapore: Government Printing Office, (1874-1881).

Transporting sandalwood

The transport of sandalwood along the China route suffered from a number of problems. The available transport options were the primary concern of the WA merchants. Sandalwood was the only item traded in bulk to China, as shown in Figure 4.5, and thus there was no competition for space on vessels. At the commencement of the 1860s, demand along the China route and supply from WA was constrained by a shortage of available transports. At that time merchants, like T. & H. Carter & Co., employed methods to overcome the problem. By the late 1860s, the number of vessels increased to cater for the demand. This section answers the questions of why there was a shortage of transports, how the problem was overcome and what else affected the transport of sandalwood along the China route.

The ports of WA were small and isolated communities, including the colony's capital, Perth. Thus, they required only minimal imports. That is, there was little requirement for the continuous large importation of goods that were necessary for the established ports of the eastern colonies of Australia. That meant there were few large vessels arriving in the early 1860s with cargo and thus available for chartering to take sandalwood to Singapore or China. Those vessels that arrived, including the convict transports to WA, and that were unencumbered by an existing charter, were guaranteed a charter with sandalwood.

The population of WA created only a small requirement for a return shipment of teas and other goods from China. Those vessels under charter to Singapore or China from WA with sandalwood obtained further charters, many returning to the UK, at their destinations. The transport of tea fell to WA merchants, a journey rarely completed more than once per year. For example, WA merchant firm J. & W. Bateman's brig *Laughing Wave* performed the single WA to China return trip for each of the years 1871 to 1875, only once being accompanied by the *Rose*, that vessel also performing the route solely in 1870.⁸⁹ For some years during the 1860s and 1870s, no vessels arrived from China and thus no tea also came direct from China.⁹⁰ Tea for WA was also commonly procured from either Singapore or the eastern colonies.

Vessels with low tonnage, as noted above, were used for the shorter journey to Singapore or Batavia, many part of a regular trade service. The vessels carried cargoes of under 100 tons of sandalwood. Initially, in the early 1860s, the *Guyon* and *New Perseverance* were the only two ships that were regularly involved in the trade of sandalwood to the South East Asian ports. Over the following years no less than eight vessels took on a regular return trip to either Singapore or Batavia with sandalwood. Many of these continued on the route until the late 1870s.⁹¹ The WA merchant company J. & W. Bateman chose to assemble a fleet of vessels, some purchased and others built in WA.⁹² Many of Bateman's vessels, other than the *Laughing Wave*, were involved in the sandalwood trade to Singapore.

Vessels arriving in Fremantle from England also became involved in the regular trade to both Singapore and China. In the early period, prior to 1860, these ships, having unloaded their cargo in Fremantle, were often available for charters. Though mostly

⁸⁹ For a complete list of all vessels arriving in Fremantle from Chinese ports, see Appendix 15.

⁹⁰ There were no arrivals from China in 1860, 1864-65 or 1878. The *Blue Book* for 1878 shows an import of tea of 310 lbs. from China though it also shows no vessels arriving from a Chinese port. *SR WA 1878*: 62, 78.

⁹¹ See Appendix 14 for a full list of those vessels performing the regular trade with Singapore and Batavia and the years they were involved.

⁹² Frank Broeze, "Western Australia until 1869: The Maritime Perspective: Part 2." *Journal of the Royal Western Australian Historical Society* 8, no. 6 (1982): 104-107; Bill Walker, "Western Australia's Coastal Shipping: Government Versus Private Enterprise Part One: 1863-1908." *The Great Circle* 30, no. 1 (2008): 20.

only travelling to Singapore, India or Java, they provided a service for the WA merchants. What is unclear is who was directing where the sandalwood was taken in the years prior to 1860. That is, were the vessels travelling to the foreign ports where the sandalwood was to be delivered or were the sandalwood merchants taking advantage of a vessel heading to a certain port? By the mid-1860s, there was less uncertainty as ships from England regularly arrived in WA, knowing that they could obtain a charter for either Singapore or Hong Kong from where another charter could be procured for the return trip to England. The *Hastings* (6 trips, 1861-1877), *Fitzroy* (7 trips, 1867-1877) and *Robert Morrison* (6 trips, 1862-1876) were commonly seen in Fremantle throughout the 1860s and 1870s performing this triangular route.⁹³ Such was the availability and need of vessels, that in a letter to London from one Perth newspaper, written in 1874, the Editor stated that even though a large tonnage had arrived "it is very significant as a proof of the growing activity of our export trade that no vessels in search of freight have visited us unsuccessfully, nor are likely to do so, provided that they are open to accept a charter at a reasonable figure."⁹⁴

Vessels from Melbourne, a primary port for shipping into and around Australia, made their way to WA in search of a sandalwood charter. Perth firm Bickley and Company were prominent in enticing ships' masters to travel from Melbourne to Fremantle with the potential of a sandalwood cargo to Singapore. Between 1865 and 1867 at least twothirds of the vessels lured to Fremantle from Victoria were organised by Bickley & Co.⁹⁵ A decade later, Melbourne ship-broker S. De Beer reported that there was a demand for chartered shipping in WA to load sandalwood for Singapore or China ports

⁹³ Obtained from the various WA newspapers' shipping records.

⁹⁴ "Our Letter Home." *Inquirer and Commercial News* 25 March 1874: 3. Of the 83 vessels that departed WA with cargo, 13 went to China and 25 to Singapore.

⁹⁵ Obtained from shipping records of 1865 to 1867. Also, see the advertisement for the barques *Douglas* and *Thomas Brown* in *The Perth Gazette and West Australian Times* 26 October 1866: 1.

and merchant J. F. T. Hassell, also of Melbourne, advertised for charters to take sandalwood from King George's Sound to China.⁹⁶ The influx of vessels from Melbourne further provided a small boon for WA, creating a healthy and guaranteed supply of goods from the eastern colonial ports.

Accidents or disasters were not uncommon for vessels travelling along the China route. The *Lady Elizabeth*, for example, chartered together by the WA companies of J. H. Monger and G. Shenton for Shanghai, attempted to sail from Fremantle against a midwinter gale in 1878. A few days after departing she foundered on the reefs just to the west of Rottnest Island. The *Lady Elizabeth* was carrying one of the largest loads of sandalwood ever exported from the colony up to that date, 611 tons in total. While all aboard survived, the cargo went, initially, down with the barque.⁹⁷ However, it commenced surfacing and recovery was then being made by salvagers. The sandalwood departed Fremantle at a cost of £7 10s. per ton, but being waterlogged it was now only worth £5 15s. per ton.⁹⁸ Notwithstanding, the total loss represented a considerable value.⁹⁹ Of the 611 tons, 167 were eventually placed on the *Janet* which sailed three months later for Hong Kong and another 24 tons per the *Laurel* to Singapore in May, 1879.¹⁰⁰

The quality of sandalwood, upon arrival in China, varied due to the method of storage during transit. Some parcels arrived in poor condition, mostly waterlogged following

⁹⁶ "Commercial Report." *The Inquirer and Commercial News* 7 April 1875: 3; "Shipping." *The Argus* 3 February 1877: 1.

⁹⁷ "The Gale on Sunday." *Inquirer and Commercial News* 3 July 1878: 3.

⁹⁸ "Miscellaneous Shipping." Inquirer and Commercial News 17 July 1878: 2.

⁹⁹ One Perth newspaper quipped, that the "beach-combers and speculative boatowners" took advantage of the salvaging. What followed was a complex question as to the ownership of the wood which the same newspaper described as a vexed question that "will more than puzzle all the Philadelphia lawyers put together." "Miscellaneous Shipping." *Inquirer and Commercial News* 31 July 1878: 2.

¹⁰⁰ "Shipping Report." *Herald* 19 October 1878: 2; "Shipping Report." *Herald* 28 June 1879.

storms at sea or other reasons.¹⁰¹ These had to be sold at a lower value. Occasionally, damage occurred when the vessel sunk while unloading in a Chinese port. Such were the cases at Shanghai of the *Farmingham*¹⁰² and the *St Francois*¹⁰³ respectively within a very short period towards the end of 1874. Individually, the damaged wood should have had a minor effect on the overall market. However, with both incidents taking place almost at the same time, the sandalwood sold for prices well below the nominal values at the time and in doing so, as JM&Co. explained, influenced the sandalwood market in a detrimental manner.¹⁰⁴

Sandalwood merchants

The firms involved in the WA sandalwood trade fell into three categories. The merchants in WA created the supply of sandalwood and obtained charters to transport the wood along the China route. The Chinese, the second group, participated as transhippers in the intermediary ports. Other Chinese were buyers in Shanghai. The final group were the commission agents located in China, particularly Shanghai.

The interest to participate in the sandalwood trade grew among WA merchants throughout the 1860s and 1870s. During these two decades, JM&Co.'s offices in Hong Kong and Shanghai dealt with no less than 21 companies, predominantly all in relation

¹⁰¹ Letter from JM&Co. to J. H. Monger Esq., 25 November 1875 *General Letters from Shanghai* JMA C46/20. JM&Co. stated regards the *Albert Victors*' sandalwood cargo, "the wood is exceedingly small, & bleached or weather beaten – the finest logs in the shipment had been stowed on deck and being damaged by salt water have been realised at auction stated as poor."

¹⁰² Letter from JM&Co. to Padbury Loton & Co., 29 October 1874 *General Letters from Shanghai* JMA C46/17.

¹⁰³ Letter from JM&Co. to G. Shenton Esq., 26 November 1874 *General Letters from Shanghai* JMA C46/18.

¹⁰⁴ Letter from JM&Co. to Padbury Loton & Co., 29 October 1874 *General Letters from Shanghai* JMA C46/17.

to providing sandalwood to China.¹⁰⁵ The larger portion of the merchant group were based in either Perth or Fremantle, though a few were located north along the coast in Champion Bay at the port of Geraldton.¹⁰⁶ Sandalwood was also exported from Albany, but Albany traders sent none of it to JM&Co. The sandalwood trade provided for these WA merchants their primary contact with China.

Chinese merchants played multiple roles in the overall WA sandalwood trade. In the ports of Singapore and Hong Kong, the Chinese were buyers as well as exporters. The Chinese purchased sandalwood from importers, shipping agents representing WA exporters. The Chinese then transhipped the wood north towards Shanghai where they dealt with other Chinese importers. Those Shanghai-based Chinese then on-sold the sandalwood to merchants in other markets throughout China or, perhaps, in Shanghai.¹⁰⁷ Another entity, the compradors, also attained a level of influence in the sandalwood market. They were the intermediaries in the sandalwood trade between the Western merchant houses in China who they represented and the Chinese communities of merchants and hongs.¹⁰⁸

Chinese merchant networks, primarily familial, existed to assist with the movement of goods. The networks promoted transnational diasporic connections for the Chinese merchants. The creation of these networks involving those from Hong Kong, Canton and the Fukien ports with the communities of the Nanyang and elsewhere overseas has

¹⁰⁵ Obtained from the correspondence from merchant houses in WA to JM&Co. See *Correspondence: Business Letters: Australasia* JMA B6/3.

¹⁰⁶ There were 11 from Fremantle, two from Geraldton, one from York and seven from Perth.

¹⁰⁷ A discussion on the internal China trade by the Chinese has been provided in Chapter 1.

¹⁰⁸ C. G. F. Simkin, *The Traditional Trade of Asia*. London: Oxford University Press, 1968: 279; Yen-Ping Hao, *The Comprador in Nineteenth Century China: Bridge between East and West*. Cambridge: MA: Harvard University Press, 1970: 2.

been well documented.¹⁰⁹ For those in Singapore, they not only successfully appropriated "the supplies of capital and new technologies that Europeans brought with them," but continued their usage of maritime trade with China throughout the nineteenth century.¹¹⁰ Mark Frost, in his discussion on Nanyang networks, argues that these diasporic linkages began to impact on other parts of China by the later nineteenth century.¹¹¹ That is, the movement was not just overseas but also within China. The Cantonese merchants migrated to various strategic locations including Shanghai.¹¹² Thus, pre-existing the first arrival of sandalwood into Singapore from WA was a highway of diasporic networks that allowed for an almost ready-made transfer and sale of goods from one port to another along the China route.

The third group in the sandalwood trade were the Western commission agents. The port of Shanghai housed the offices of numerous agents. Yet, only two were specifically involved in the WA sandalwood trade for a lengthy period.¹¹³ They were JM&Co. and Siemssen & Co. During the 1860s and much of the 1870s the two companies went head-to-head in competition for and working with the WA sandalwood businesses, using different strategies. Each had their stable of WA merchants with whom they dealt,

¹⁰⁹ Adam McKeown, "Conceptualizing Chinese Diasporas, 1842 to 1949." *The Journal of Asian Studies* 58, no. 2 (1999): 317, 319; Gungwu Wang, *China and the Chinese Overseas*. Singapore: Times Academic Press, 1991: 3-21.

¹¹⁰ Mark Ravinder Frost. "*Emporium in Imperio:* Nanyang Networks and the Straits Chinese in Singapore, 1819-1914." *Journal of Southeast Asian History* 36, no. 1 (2005): 37.

¹¹¹ Frost. "*Emporium in Imperio*": 31.

¹¹² McKeown. "Conceptualizing Chinese Diasporas": 314.

¹¹³ Others were briefly involved. Glover, Dow & Co. took sandalwood from J. H. Monger until the China firm fell into liquidation at the commencement of the 1870s. Letter from JM&Co. to J. H. Monger Esq., 4 January 1872 *General Letters from Shanghai* JMA C46/11; Letter from J. H. Monger Esq. to JM&Co., 28 January 1871 *Correspondence: Business Letters: Australasia* JMA B6/3. Russell & Co. took shipments from J. & W. Bateman on the *Hannah Nicholson*. Letter from JM&Co. to G. Shenton Esq., 8 September 1871 *General Letters from Shanghai* JMA C46/10; Letter from JM&Co. to J. H. Monger Esq., 11 October 1871 *General Letters from Shanghai* JMA C46/10; Letter from JM&Co. to J. H. Monger Esq., 11 October 1871 *General Letters from Shanghai* JMA C46/10. From 1860-1880, shipping records in the *North China Herald* (Shanghai), show only ten shipments of sandalwood to other companies than Siemssen or JM&Co. A number of shipments, however, arrived with the Captain as the importer or on order. Those other merchants were Frazar & Co. (1869), Gilman & Co. (1869), Morris, Lewis & Co. (1875), Butterfield and Swire (1877, 1879), Forrester, Lavers & Co. (1878, 1880), Gibb, Livingston & Co. (1879), Adamson, Bell & Co. (1879) and Fearon, Low & Co. (1879).

and the stables hardly overlapped. Figure 4.6 shows that the offices of both companies were adjacent, which suggests the possibility that some co-operation existed between them. However, as will be discussed below, the two firms competed vigorously in the sandalwood trade.



Figure 4.6 Jardine Matheson & Co. (left) and Siemssen & Co. (right) in Shanghai, 1880.¹¹⁴

During the 1860s and 1870s, Siemssen & Co. received parcels from the Perth firms J. & W. Bateman & Co. and Padbury Loton & Co.¹¹⁵ Siemssen & Co. also had a nearmonopoly on the Western merchants based in Albany who, on a number of occasions,

¹¹⁴ "Siemssen Co. and Ever Victorious Army Monument" Virtual Shanghai, Image 206 <u>http://www.virtualshanghai.net/Photos/Images?ID=206</u> accessed 7 July 2016.

¹¹⁵ Padbury Loton & Co. commenced negotiations with Jardine Matheson in mid-1874. Letter from JM&Co. to Padbury Loton & Co., 24 March 1874 *General Letters from Shanghai* JMA C46/16; see also Letter from Padbury Loton & Co. to JM&Co., 6 November 1873 *Correspondence: Business Letters: Australasia* JMA B6/3.

shipped sandalwood to Shanghai.¹¹⁶ The choices and strategies of the WA, Chinese and Western merchants each had differing effects on the price of sandalwood in Shanghai.

Market forces in the trade of sandalwood

The fact that most of the WA sandalwood travelled along the China route to Shanghai provides for a compelling analysis of the market and the methodologies used by the various parties involved in the trade. Numerous market forces affected the pricing of sandalwood whether at an intermediary port or upon its arrival in Shanghai. The ramifications of sandalwood arriving damaged at the docks were noted above. The strategies of the merchants who sold and bought the wood influenced both the ability to sell the wood, and also its sale price. This section asks questions of what influences were placed on the trade by the merchants involved and what strategies were attempted to attain the best results from sales in Shanghai.

By the 1870s, the position of WA merchants in the Asia-based, and possibly worldwide, sandalwood trade was so prominent that it resembled an oligopoly. At that time the almost elimination of competition could have created for them a seller's market. In effect, they were able to choose which markets they wanted to commit their wood to and which should be left to run out of stock, so that they could manipulate sale prices. Their decisions were influenced by a combination of factors including the information arriving about sandalwood markets along the China route, the communication with merchants in those markets and the amount of sandalwood available for export. For

¹¹⁶ I base this on the fact that there were shipments from Albany to Shanghai and that JM&Co. had no contacts in that port. There is also a possibility that Albany sandalwood merchants sent their sandalwood to Melbourne considering that Albany was a transition port for vessels travelling to Melbourne from ports both north and west.

example, a commercial circular would arrive from Singapore with news that stocks had been cleared and that dealers were awaiting new supplies.¹¹⁷

The ability to manipulate the sandalwood market by WA merchants was evident in their dealings with the Chinese merchants, through intermediaries, in Singapore. When a shortage of sandalwood in Singapore occurred because of the WA merchants undersupplying that port or a sudden need for the Chinese merchants in Singapore to unload their stocks, the WA merchants had the power to control the flow and thus the pricing of new sandalwood to Singapore. The WA merchants, essentially, could request of their Singapore contacts to sell at the best price. As such, the WA merchants would cause a rise in prices, from Singapore to Shanghai. That is, as the Chinese in Singapore searched for a profit on their new purchases of sandalwood, they needed to ask for higher selling prices in Hong Kong and Shanghai, which in turn would increase the overall price of the product in those ports. Other sellers would note that the competition was requesting higher selling prices, which allowed them to raise their own prices. There is, however, no actual evidence that any attempt to influence the overall sandalwood market was purposefully implemented by the WA merchants. The fact that Singapore sandalwood prices for the early 1860s fell and remained at a low level even with stocks cleared, provides evidence that WA merchants rarely influenced the Singapore sandalwood market.¹¹⁸

The ability of WA merchants to manipulate the market was constrained by the lack of immediacy in communications. International telegraph was not connected to Australia

¹¹⁷ For example: "Home and Foreign Commercial Report – Straits Markets." *The Inquirer and Commercial News* 21 January 1874: 3.

¹¹⁸ Throughout most of 1863 the stocks remained small yet prices for imported wood stayed at values well below that from the previous years. In November, 1863 the prices was \$2.87 per picul, down from between \$4.50 and \$7.00 per picul at the commencement of 1860. The price fell further by the end of 1864 to \$2.25 per picul. "Overland Free Press Price Current." *SFP&MA* 5 January 1860: 5; 7 November 1863: 4; 22 December 1864: 6.

until 1872 and to Perth until 1877.¹¹⁹ But even with the telegraph connection in place, the cost of transmitting information was prohibitive, thus precluding its use for communicating pricing information along the China route to WA.¹²⁰ Steam travel from WA to Singapore was also rare and any newspapers arrived at least a few weeks following their publication.¹²¹ Similarly, correspondence that was either transshipped at Singapore or, in some cases taken via Galle and Albany, reached Perth after a delay.¹²² Thus, the WA merchants were at a disadvantage in relation to promptness of trade information when compared to the Chinese along the China route in Singapore or Hong Kong.

The Chinese merchants in the sandalwood trade, as has been noted through the letter to George Shenton above, used strategies that aimed for a fast turnover with low margins. To maintain such margins, the Chinese merchants offered the best purchase price to the importing agents of the WA exporters in Singapore or Hong Kong. They then minimised the transport and storage costs so as to offer the best price to their buyers further along the China route. The Chinese merchants were thus able to undercut their competition, in the Western commission agents, when the sandalwood arrived in Shanghai.

¹¹⁹ J. Wagstaff Blundell, *Blundell's Manual of Submarine Telegraph Companies*. London: J. Wagstaff Blundell, 1872: 54-6; Peter Putnis, "The Early Years of International Telegraphy in Australia: A Critical Assessment." *Media International Australia, Incorporating Culture & Policy* no. 129 (2008): 140.

¹²⁰ Putnis, "Early Years of International Telegraphy.": 145. Putnis states that the cost for 20 words from London to Adelaide was £9/6/6. As all telegraph had to go via Adelaide, the cost to other colonies was much higher. This equated to five week's wages of a working man. Geoffrey Blainey, *The Tyranny of Distance: How Distance Shaped the World*. Melbourne: Sun Books, 1966: 223-24.

¹²¹ Even by 1875, reports from Singapore arrived a month late. The Chinese reports were also forwarded on by Singapore-based merchants. "Foreign and Commercial Report." *Inquirer and Commercial News* 13 January 1875: 3. Behn Meyer's report of December 10 was published a month later. In the following month, Wm Spottiswoode & Co. of Singapore forwarded news from China as well as Singapore. "Commercial News." *Inquirer and Commercial News* 10 February 1875:3.

¹²² Commonly a letter would be delivered and answered approximately two to three months after its writing in China. For example, a letter from JM&Co. to G. Glyde & Sons was written on 19 December 1872 and one received a reply on 1 March 1873. Letter from G. Glyde and Son to JM&Co., 1 March 1873 *Correspondence: Business Letters: Australasia* JMA B6/3. Even in 1873, a letter sent from Perth took seven weeks to arrive. Letter from JM&Co. to J. H. Monger Esq., 20 February 1873 *General Letters from Shanghai* JMA C46/14.

The value of sandalwood in Shanghai defined the prices for the sale of the wood in both Singapore and Hong Kong. The Chinese buyers in these two ports were governed by the Shanghai sandalwood market in what price they could offer to incoming shipments. They were in the business of avoiding a loss and understood the relevant costs that would be incurred between the purchase of the product in the southern port and the eventual selling of the same in Shanghai, Hong Kong or any other Chinese port. Hence, when the market was becoming gradually depressed in Shanghai, a similar occurrence would take place in Hong Kong and thence in Singapore, though with a slight time lag. The fact that steamers were regularly performing the Singapore to Hong Kong and Shanghai route meant that information could travel to the Chinese merchants more quickly, allowing them to mould their decisions around the information at hand.¹²³

The consumers and retailers throughout China relied on the Chinese traders who purchased the sandalwood, whether "first hand" as per immediate arrival from Australia or "second hand" where the good was transshipped from at least one other port.¹²⁴ As buyers, their strategy was three-fold; obtain the wood at the cheapest price, of the best quality and at a time of the year before the sales to consumers were about to peak.¹²⁵ Thus, not only were the dealers forcing prices lower but they were also using information through their networks to manipulate the market. If a large quantity was due to arrive, the dealers paused, awaiting the quality of the new product upon its arrival.¹²⁶ At the same time they created and noted that any excess in stock would lead

¹²³ For a discussion on the development of communications for the period, see: Mark Ravinder Frost, "Asia's Maritime Networks and the Colonial Public Sphere, 1840-1920." *New Zealand Journal of Asian Studies* 6, no. 2 (2004): 63-94.

¹²⁴ Rarely would the consumers have dealt with the Shanghai Chinese traders. More likely, the wood was traded through a supply chain of traders. Also, I have obtained no proof that WA merchants sold direct to Chinese in Shanghai but believe it cannot be discounted. If it did exist, the amount was probably insignificant.

¹²⁵ For example: Letter from JM&Co. to J. H. Monger Esq., 11 October 1870 General Letters from Shanghai JMA C46/9.

¹²⁶ Letter from JM&Co. to G. Shenton Esq., 28 June 1873 General Letters from Shanghai JMA C46/14.

to a "buyer's" market. This action meant that, commonly, Western merchants were unable to clear much of their stock. They were therefore forced to advise their Australian contacts that, upon this delay, prices quoted had to be nominal.¹²⁷ When the new parcels were presented in Shanghai, the Chinese buyers chose the finest items, in turn leaving a large quantity of lesser-quality sandalwood in storage.¹²⁸ When stocks ran low at a time when consumer demand increased, the remaining parcels could be cleared much easier, thus creating a more promising market for any new stock.¹²⁹ This latter situation assisted in creating sales at higher prices, thus also generating a sufficient profit margin to cover the additional cost of storage.

The Cantonese merchant groups along the China route speculated on the sandalwood prices in Shanghai, thus creating further pressures of the market at that port.¹³⁰ Those merchant groups from Singapore and Hong Kong, based on information provided, would procure sandalwood from WA sellers at a price that would give them a possibly small margin of profit. In some cases, this way of manipulating the market was done to excess and large shipments of WA sandalwood flooded the Shanghai market thus both reducing prices and eliminating the possible advantage of the speculators.¹³¹ As such, the speculations of the Chinese decreased the revenues derived from the product and led to either a delay in clearing first hand stocks or concessions to sell at lower prices.

¹²⁷ Letter from JM&Co. to G. Glyde & Son, 3 May 1873 *General Letters from Shanghai* JMA C46/14; Letter from JM&Co. to G. Shenton Esq., 28 June 1873 *General Letters from Shanghai* JMA C46/14.

¹²⁸ Chinese buyers in 1871 chose to purchase the more colourful and better quality sandalwood while stocks of the "inferior wood" remained unsold. Letter from JM&Co. to B. Mason Esq., 14 July 1877 *General Letters from Shanghai* JMA C46/10.

¹²⁹ Letter from JM&Co. to G. Glyde & Son, 10 April 1873 General Letters from Shanghai JMA C46/14.

¹³⁰ Letter from JM&Co. to J. H. Monger Esq., 22 August 1876 *General Letters from Shanghai* JMA C46/21; Letter from JM&Co. to J. H. Monger Esq., 23 September 1876 *General Letters from Shanghai* JMA C46/22.

¹³¹ Letter from JM&Co. to G. Glyde & Son, 15 January 1874 General Letters from Shanghai JMA C46/16.

	-	υ,	, ,	<u> </u>	
	1870	1871	1872	1873	1874
Overall	46,940	35,523	60,115	51,160	66,685
from Hong Kong	8,380	14,451	30,471	29,706	18,444
from Singapore		680	5,749		2,327

Table 4.5. Sandalwood Imports into Shanghai, 1870-Oct, 1874 (piculs).¹³²

The increased imports by the Chinese from the ports of Singapore and Hong Kong antagonised the Western commission agents. Such was the damage caused to the market in Shanghai, that JM&Co. delivered their frustrations in one letter to J. H. Monger. To the Shanghai house, the amount of sandalwood being presented in Shanghai through the other two ports was excessive. JM&Co. provided the information as a table, depicted here as Table 4.5. The table provides figures up to the end of October, 1874.

The table shows that a significant amount of sandalwood was transhipped from other ports to Shanghai, which affected the selling price in Shanghai. Further, for the ten months to October, 1874, JM&Co. explained that only two-thirds of all sandalwood imported to Shanghai was directly from Australia. That is, of 66,685 piculs imported in 1874, 43,156 arrived from Australia, 18,444 from Hong Kong, 2,327 from Singapore, 19 from Amoy, 163 from Canton, 374 from Bangkok and 202 from Bombay.¹³³ The fact that one third arrived through transshipment was an issue of concern for JM&Co.

The Chinese merchants in Shanghai were also affected by a system of foreign structures and regulations used by the Western trading communities at that port or enforced by the Western authorities in the concessions in Shanghai. That led to order being imposed by the Chinese government on the Chinese merchants through the management of

¹³² Letter from JM&Co. to J. H. Monger Esq., 29 October 1874 *General Letters from Shanghai* JMA C46/17. JM&Co.'s table showed no data for 1870 and 1873 for imports from Singapore. That is not to say that there were none.

 $^{^{133}}$ A more comprehensive version of the letter is provided in Appendix 16.

monetary flows, the development of insurance and Chinese maritime customs services, with their fixed tariffs.¹³⁴ Thus the Chinese merchants of sandalwood in Shanghai faced a complex situation as they attempted to maintain their traditional mercantile strategies while being influenced and compartmentalised by the community of Western traders.

The strategy implemented by Siemssen & Co. guaranteed them a commission on all transactions. The sale price was irrelevant to Siemssen & Co., as they obtained their commission through the amount of sales and not a percentage of the profit. Low prices guaranteed by Chinese buyers or sellers were often matched by Siemssen & Co. in order to clear their own stocks. JM&Co., in a letter to one of the WA merchants, summed up the problems that existed in the market when the competition was selecting low prices.

The low prices which have been accepted by Cantonese Importers for their speculative purchases on the South, most of which found their way to this market, have almost entirely prevented sales from first hands, and on this occasion we cannot report any settlements on your a/c, either on this market or at Chinkiang. The above native consignments, as mentioned in our last, have been passing into consumers hands at prices ranging from 3.15 to 3.40 per picul and at the latter price Messrs. Siemssen & Co. are reported to have placed about 1500 piculs of their consignments.¹³⁵

The actions of Siemssen & Co. created downward pressure on the price of sandalwood in Shanghai and thus affected the market in the other ports. For JM&Co., the effect was to force them to store their sandalwood in godowns awaiting the moment when "cheap" wood would be sold. Only then would prices, they believed, return to acceptable levels.¹³⁶ That is, JM&Co. did not want to compete in the market when prices were low. The attempt to "force sales" at the lower price level by Siemssen was not financially

¹³⁴ Simkin, Traditional Trade: 279; Yao, The Comprador: 64-65, 133, 147-48.

¹³⁵ Letter from JM&Co. to J. H. Monger Esq., 23 September 1876 *General Letters from Shanghai* JMA C46/22.

¹³⁶ Letter from JM&Co. to G. Shenton Esq., 23 September 1876 *General Letters from Shanghai* JMA C46/22.

advantageous to the WA merchants whom they represented and only proved successful for Siemssen & Co. themselves.¹³⁷

JM&Co's sale strategy was the opposite of Siemssen's, which explains why the two came into conflict regularly. Working under the agreement of obtaining a commission based on profit, JM&Co. operated with and for the WA merchants. Thus, it was to the benefit of JM&Co. to push the price higher and to try to eliminate any hindrances that caused the opposite. Siemssen's tactics became an impediment to that of JM&Co. In a series of communications with WA merchants, JM&Co. chided the tactics of its competitor. In mid-1877 JM&Co. wrote that the actions taken by Siemssen & Co. were "harassing to our endeavours to improve the value of sandalwood" and that only when the recommendation by JM&Co. to purchase Siemssen & Co.'s parcels was completed that it had "enabled us to advance the price of sandalwood considerably in this market as well as the distributing outpost of Chinkiang."¹³⁸ In another letter of the same date, JM&Co. lamented that while healthy demand existed and sales may have continued at a healthy price, when a parcel arrived for Siemssen & Co., sandalwood prices became depressed.¹³⁹

The two commission agents, hence, had alternate pay-off strategies. For Siemssen, their benefit was related to the amount of sales, such was their selling strategy. Yet, the choice of selling price could not drop below a level that would discourage the WA merchants from continuing as suppliers for Siemssen. To Siemssen, there was little

¹³⁷ JM&Co. confided information about Siemssen & Co. to both G. Shenton and J. H. Monger on a continuous basis and a strong picture of the, assumed, poor approach of the German firm to its duty to uphold the best practice for its partners in Western Australia becomes apparent. For example, JM&Co. admonishes Siemssen for trying to sell at "absurdly low currencies." Letter from JM&Co. to J. H. Monger Esq., 23 November 1876 *General Letters from Shanghai* JMA C46/22.

 ¹³⁸ Letter from JM&Co. to G. Shenton Esq., 12 April 1877 General Letters from Shanghai JMA C46/22.
 ¹³⁹ Letter from JM&Co. to J. H. Monger Esq., 12 April 1877 General Letters from Shanghai JMA C46/22.

alternative choice and little aspiration to achieve any satisfactory improvement on the result of the sales. Each sale, whatever the price guaranteed Siemssen their commission. For JM&Co, the aspiration level, that point which provides a satisfactory alternative to the optimal solution, was different and higher.¹⁴⁰ They attempted to find more optimal solutions that would guarantee better profits. However, as JM&Co. chose not to sell sandalwood when the result was only a small gain, instead waiting for better prices, they realised that the strategy incurred the extra costs of sandalwood storage in godowns. For JM&Co. the trade-off that operated between the cost of storage and the potential profit was one that not always resulted in an optimal outcome.¹⁴¹ Nevertheless, they also manipulated the market to their best advantage when the opportunity existed.

One strategy not uncommonly employed by JM&Co. or Siemssen & Co. to counter the lower prices of the Chinese buyers was to pre-sell cargoes prior to their arrival. In early 1873, a sale "for arrival" was made for George Shenton per the *Antipodes* at \Im 3.94 per picul in Shanghai. One sale just prior to the arrival of the *Antipodes* was for \Im 4 per picul. The decision to set a price, was based "on the condition that the quality and size is equal to our usual receipts" by JM&Co. and thus covered the contingency that the price may fall.¹⁴² In fact, just prior to the *Antipodes* arriving in Shanghai, the *Charlotte* landed its 450 tons of sandalwood and were asking \Im 3.96 per ton, but the Chinese buyers were only willing to pay between \Im 3.85 and \Im 3.9 per picul.¹⁴³ The sandalwood did arrive in good order per the *Antipodes* and thus Shenton was afforded a better price than what was paid for the *Charlotte*'s stock. Similarly, in 1871, Siemssen & Co.

¹⁴⁰ For a fuller definition of aspiration levels, see: Herbert A. Simon, "A Behavioral Model of Rational Choice." *The Quarterly Journal of Economics* 69, no. 1 (1955): 111.

¹⁴¹ Letter from JM&Co. to J. H. Monger Esq., 1 August 1874 General Letters from Shanghai JMA C46/17.

¹⁴² Letter from JM&Co. to G. Shenton Esq., 31 May 1873 General Letters from Shanghai JMA C46/14.

¹⁴³ Letter from JM&Co. to G. Shenton Esq., 28 June 1873 General Letters from Shanghai JMA C46/14.

received a parcel of sandalwood on the *Laughing Wave* from J. and W. Bateman & Co. which was pre-sold for \$3.25 per picul, 5 candareens below the nominal rate.¹⁴⁴

The merchants in the sandalwood trade also attempted to create artificial price levels, either not allowing sales below a certain price or attempting to force the market up to a higher price. Perhaps not so in the case of Siemssen, but WA merchants asked JM&Co. on occasion not to sell the sandalwood under a certain price. That choice of price level was calculated by the very circulars sent by either JM&Co. or Siemssen and Co. and other information at hand. If the market suffered a depreciation of prices between the time that the information was forwarded and the sandalwood parcel arrived, the wood would remain in storage for long periods of time, occasionally up to one year or longer.¹⁴⁵ It also meant that accounts for parcels could not be closed and that when the remittance came, the exchange rate for the pound sterling may have been at a lower rate, possibly cancelling out any gains.

In Shanghai, JM&Co. made an attempt at price fixing. In 1874, the company believed the best price was between \$3.90 and \$3.95. To set this price, JM&Co. requested of the WA merchants to collude such that all new sandalwood shipments to arrive with a fixed requested price. As long as the collusion was successful, JM&Co. believed the result would be "raising the prices in this market."¹⁴⁶ The attempt was unsuccessful and no doubt it was to try to counter Siemssen & Co.'s strategy. However, the idea also did not factor in the transshipped wood from the south along the China route, which arrived "on

¹⁴⁴ Letter from JM&Co. to G. Shenton Esq., 11 August 1871 *General Letters from Shanghai* JMA C46/10. J. and W. Bateman & Co. were the shipping agents in WA although the newspapers stated that the vessel was only heading to Singapore. "Shipping Intelligence." *PGWAT* 26 May 1871:2. There are 100 candareens to the Tael.

¹⁴⁵ Letter from JM&Co. to J. H. Monger Esq., 30 June 1877 *General Letters from Shanghai* JMA C46/23. Monger was requesting his latest parcel to not be sold for less than \$4.50 although the market was somewhat lower at the time, leaving the parcel to be stored until a better market was available.

¹⁴⁶ Letter from JM&Co. to J. H. Monger Esq., 1 August 1874 General Letters from Shanghai JMA C46/17.

Chinese Account"¹⁴⁷ to Shanghai or the "Outer ports," including Ningbo.¹⁴⁸ That wood arrived cheaper and was always going to be sold quicker.

Remittances and other payments

The process of remittances for the sale of sandalwood fell into two categories. The first fitted within a simple bilateral barter economy. The proceeds from the sale of the wood were diverted specifically for the purchase of commodities in China for WA. The second, and more complex, remittance involved the creation of drafts in London and a representative entity of the WA firm in England to receive these. Payment was thus made through a parent company, an intermediary finance company or a bank with a branch in both China and England. The funds remitted to England were likely used for the payment of goods being sent from England to WA, thus creating a triangle of trade. This latter choice, however, was not available initially at the reestablishment of the sandalwood trade in 1857.

At the commencement of the 1860s, a lack of banking facilities in WA created complications for those involved and extra costs to the WA merchants.¹⁴⁹ When the *Kestrel* arrived in Hong Kong in 1861, JM&Co. signalled that they were unable to remit directly or pass any drafts to T. & H. Carter & Co. as "there is no bank here that has an agency at Swan River."¹⁵⁰ To circumvent this problem, and considering that the indent for tea, sugar and rice was larger than the remittance for the sandalwood, Melbourne

 ¹⁴⁷ Letter from JM&Co. to J. H. Monger Esq., 16 June 1871 *General Letters from Shanghai* JMA C46/10.
 ¹⁴⁸ Letter from JM&Co. to T. & H. Carter & Co., 21 April 1870 *General Letters from Shanghai* JMA C46/9; Letter from JM&Co. to J. H. Monger Esq., 29 March 1871 *General Letters from Shanghai* JMA C46/10.

¹⁴⁹ While small banks existed in Western Australia, including the Bank of Western Australia, there was no branch of any of the international banks. The Bank of Australasia existed from 1841-45. Noel Butlin, *The Australian Monetary System 1851 to 1914*. Sydney: J. F. Butlin, 1986: 395-401.

¹⁵⁰ Letter from JM&Co. to T. & H. Carter & Co., 24 August 1861 *Letters to Europe* JMA C11/29.

merchant James Henty & Co. was asked to become an intermediary, and to release documents, including the invoice and bill of lading, for the return trip of the *Kestrel*, "under hypothecation."¹⁵¹ The documents were handed over and, through another intermediary, Bickley & Co. of Perth, the agent for Henty in that city, the appropriate payment was made.¹⁵² The Treasury Note was then passed back to Melbourne before being remitted again, this time to Matheson & Co. of London.¹⁵³ An extra charge was included for the handling of the paperwork and processing of the payments, that being of one per cent of the total owed, which T. & H. Carter & Co. paid Henty.¹⁵⁴ While not overly large, that one per cent was an extra charge generated owing to the lack of international banking agencies in WA or of T. & H. Carter's lack of an existing account through an international bank at a branch in Sydney or Melbourne.

The usage of England as a channel for the movement of funds became common practice for the sandalwood exporters by the latter part of the 1860s. As the WA merchants were entering the China markets they understood the problems of processing remittances. The example of T. & H. Carter & Co. in 1861 created for both new and established companies in WA a need to develop connections in England. Only a few worked with a parent firm in England. One was T. & H. Carter & Co. through Carter & Co. of London.¹⁵⁵ Others chose brokers for the monetary transfers. The Bank of South

¹⁵¹ Letter from JM&Co. to J. Henty & Co., 26 August 1861 Letters to Europe JMA C11/29; Letter from JM&Co. to J. Henty & Co., 27 August 1861 Letters to Europe JMA C11/29; Letter from JM&Co. to J. Henty & Co., 24 September 1861 Letters to Europe JMA C11/29. Hypothecation is a "species of pledge in which the pledger retained possession of the thing pledged," or "the act of pledging a thing as security for a debt or demand without parting with the possession." J. M. Lely, Wharton's Law-Lexicon: Forming an Epitome of the Law of England; and Containing Full Explanations of the Technical Terms and Phrases Thereof, Both Ancient and Modern. Including the Various Legal Terms Used in Commerce Business; Together with a Translation of Latin Law Marims; and Selected Titles from the Civil, Scotch, and Indian Law. 7th ed. Boston: Soule and Bugbee, 1883: 395.

¹⁵² Letter from Bickley & Co. to JM&Co., 23 January 1862 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from T. & H. Carter & Co. to JM&Co., 24 January 1862 *Correspondence: Business Letters: Australasia* JMA B6/3. The exchange rate at the time was 4s/6d per \$1 in Hong Kong. ¹⁵³ Letter from JM&Co. to J. Henty & Co., 30 October 1861 *Letters to Europe* JMA C11/29.

¹⁵⁴ Letter from JM&Co. to J. Henty & Co., 26 May 1862 Letters to Europe JMA C11/30.

¹⁵⁵ John Nairn, Walter Padbury: His Life and Times. Perth: North Stirling Press, 1985: 171.

Australia (London branch), Dalgety Du Cruz & Co. and J. McDonald & Co. were the primary recipients in London for the acceptance of remittances from JM&Co., representing most of the firms in WA.¹⁵⁶

Transferring remittances to London through drafts almost became common practice. By the 1870s, WA merchants were requesting at least a portion of their remittance to be sent to London.¹⁵⁷ The drafts, though, were not always created on JM&Co.'s London connection, Matheson & Co., but through other companies including, for example, Rathbone Bros. & Co. in 1870.¹⁵⁸ Most drafts were drawn on in London to cover the costs of other ventures; shipments to WA being the most likely primary reason. Some, however, were immediately transferred from China to the merchant in WA as was the case with George Shenton in 1871.¹⁵⁹

A few WA merchants chose to use the remittances through the sale of sandalwood as barter for shipments of goods from China. The example of the *Kestrel* discloses how sandalwood was used to partially pay for the tea, sugar and rice on the return trip. Sandalwood, hence, was a staple monetary credit for the WA merchants allowing them to cover the costs of shipments of tea back to Australia. Frequently, the value of the sales of the sandalwood, especially given the number of shipments made between individual tea purchases, exceeded the cost of a shipment of tea to WA or any

¹⁵⁶ For a full list of London banks and brokers connected to the Australian-China trade, see Appendix 17. I have not found any existing archives for these companies.

¹⁵⁷ Letter from JM&Co. to J. McDonald & Co., 29 August 1874 *General Letters from Shanghai* JMA C46/17.

¹⁵⁸ Letter from JM&Co. to J. McDonald & Co., 11 August 1870 General Letters from Shanghai JMA C46/9.

¹⁵⁹ JM&Co. organised for the remittance as a draft on the Bank of South Australia in London "to be credited to your acct with the Western Australian Bank" as per Shenton's instructions. Letter from JM&Co. to G. Shenton Esq., 16 June 1871 *General Letters from Shanghai* JMA C46/10.

intermediary port, including Singapore or Melbourne.¹⁶⁰ For some merchants, they chose to split their remittances between a tea purchase and sending the remainder as drafts to London. Further, as much of the remittance was taking place in Hong Kong, a portion was saved in Hong Kong and placed in credit on the supplier's account for the purpose of future tea purchases.¹⁶¹

The sales of sandalwood were rarely immediate upon arrival in either Hong Kong or Shanghai and thus advances were made upon the expected sale of the wood.¹⁶² If a parcel of tea was to be shipped prior to the completion of the sandalwood sale then a pre-sale draft on the expectation of sales was used to cover the indent for the tea.¹⁶³ This was not an expectation and required the WA merchant to make a specific request.¹⁶⁴ However, on the assumption that the wood would be sold in Shanghai, or a related port, and at the nominal rate that existed at the time, JM&Co. at Hong Kong evaluated the expected remittance and based their decisions of tea purchases on that. Similarly, advances on remittances to London could be made prior to the goods being sold as long as the goods had arrived or the relevant documents were present "protected by policy of

¹⁶⁰ Letter from JM&Co. to J. H. Monger, Esq. 29 August 1873 *Letters to India* JMA C10/62. York (W.A.) merchant J. H. Monger was sent an invoice for 140 packages of tea to be sent per *s.s. China* from China to Messrs Behn, Meyer & Co. of Singapore, that company then forwarding the tea to York. Charles Crowther of Geraldton and George Shenton of Perth organised for shipments of tea via Melbourne and through James Henty & Co. Letter from JM&Co. to C. Crowther Esq., 30 December 1874 *Letters to India* JMA C10/63; Letter from JM&Co. to C. Crowther Esq., 2 October 1874 *Letters to India* JMA C10/63; Letter from JM&Co. to G. Shenton Esq., 27 October 1875 *Letters to India* JMA C10/64; Letter from JM&Co. to G. Shenton Esq., 9 November 1875, *Letters to India* JMA C10/64.

¹⁶¹ Letter from JM&Co. to G. Shenton Esq., 23 September 1876 *General Letters from Shanghai* JMA C46/22. Shenton organised for part payment to cover a shipment of tea and £1000 to be delivered to the Bank of South Australia as a draft on Matheson & Co. See also Letter from JM&Co. to G. Shenton Esq., 11 April 1872 *General Letters from Shanghai* JMA C46/11 as well as the Statement of Account within Letter from JM&Co. to J. H. Monger Esq., 11 April 1872 *General Letters from Shanghai* JMA C46/11.

¹⁶² As an example, J. H. Monger Esq. ordered tea to be sent prior to the usual shipment, to be discussed towards the end of 1873. The tea was sent to Singapore care of Behn, Meyer & Co., with the amount of \$786 debited in Shanghai to J. H. Monger Esq.'s account. Letter from J. H. Monger Esq. to JM&Co., 16 June 1873 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from JM&Co. to J. H. Monger Esq., 29 August 1873 *Letters to India* JMA C10/62; Letter from JM&Co. to J. H. Monger Esq., 20 September 1873 *General Letters from Shanghai* JMA C46/15.

 ¹⁶³ Letter from JM&Co. to G. Shenton Esq., 15 April 1876 General Letters from Shanghai JMA C46/21.
 ¹⁶⁴ Letter from J. H. Monger Esq. to JM&Co., 23 April 1873 Correspondence: Business Letters: Australasia JMA B6/3.

insurance."¹⁶⁵ These advances were charged at an interest rate equivalent to five per cent per annum, until reimbursed.¹⁶⁶

Time was also relevant when related to the variance in the exchange rate with London.¹⁶⁷ The pound sterling was the one standard currency that other currencies could be converted into and for Hong Kong that other currency was the Spanish dollar.¹⁶⁸ For all correspondence from Hong Kong, JM&Co. concluded their letters with the then current exchange rate for drafts in England, based on the dollar. That rate would vary, sometimes to the disadvantage of the WA merchants who may then choose to delay payments. In one case, J. H. Monger wrote to the Shanghai office of JM&Co. to request that they "avail themselves of a more favourable moment for remittance so as to avoid the venture to be materially prejudiced by a low rate of exchange."¹⁶⁹ Thus, not only were the value of the goods negotiated but also when the remittance was completed for them.

Concluding comments

The sandalwood trade of WA delivers a clear example of the trade relationships that existed between China and just one of Australia's colonies - WA - during the 1860s and 1870s. The relationship was important for the WA economy as it created an export market that was second only to wool while it also provided a method of payment for the

¹⁶⁵ Letter from JM&Co. to I. Brown & Co., 20 July 1871 Letters to India JMA C10/61.

¹⁶⁶ Letter from JM&Co. to Padbury Loton & Co., 6 June 1874 General Letters from Shanghai JMA C46/16.

¹⁶⁷ For example, in Sep 1871 the rate for 60 day 1st class drafts was 4s. 4 1/8d. per \$. One year later that rate was 4s. 7 3/4d. per \$ with some exchanged at 4s. 8 1/2d. Letter from JM&Co. to J. H. Monger Esq., 14 September 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Henry Moore & Co., 4 October 1872 *Letters to India* JMA C10/62.

¹⁶⁸ Butlin. *The Australian Monetary System*: 143.

¹⁶⁹ Letter from J. H. Monger Esq. to JM&Co., 23 April 1873 Correspondence: Business Letters: Australasia JMA B6/3.

purchase of tea and sugar as well as a supplement to goods purchased from England. For the Chinese along the China route and the Western commission agents in Shanghai, the relationship provided a new connection to the Australian markets.

The path taken by the sandalwood was one that made its way from WA to Shanghai. Shanghai was the port of favour with the Chinese who wanted to purchase the sandalwood from the importers while the ports of Singapore and Hong Kong were transition ports. Thus, this route was in one direction, north to Shanghai and I have labelled it the "China route." The main proponents of trade at these intermediary ports were the Chinese. They purchased the wood from other traders and then transhipped it north to the next destination. The WA merchants also played a role in the movement along the China route, as they chose which port to export the sandalwood to. However, their options were also constrained by the available transport options of which the WA merchants found various ways to overcome.

The Shanghai sandalwood market was complex. It was affected by various market forces brought about by the Chinese in the ports along the China route as much as by the Chinese and Western commission agents in Shanghai. Each created positive and negative movements in the price of sandalwood upon its arrival in Shanghai. The Western commission agents instituted a number of methods and strategies to counter the forces placed upon the market, to varying success.

The remittances for the parcels of sandalwood were performed somewhat similarly to that as shown in Chapter 3 with the coal trade. However, there were a number of significant differences owing to the nature of the sandalwood trade. There were few financial institutions in WA with connections to those in China. The need for tea and other Chinese commodities was very small in WA. The nature of the sandalwood trade was that it existed within a complex and competitive market in Shanghai. That meant many packages of sandalwood were stored for large periods. The use of London merchants was also more common. The methodology thus shows partial similarity to the coal trade. Each of these created varying problems for remitting the proceeds from sandalwood sales to WA merchants, problems that were overcome.

While there were numerous WA merchants across the ports of the colony, from Albany to Geraldton, and also many Chinese merchants in Asian ports, one Western firm emerged as a leader within the Shanghai market, the overall destination of most WA sandalwood. Jardine Matheson and Co. was instrumental in delivering the optimum prices for imports from WA. Their competition were the Chinese traders from the "south" - more often than not, Cantonese or Fukien - and the German firm Siemssen and Company. The latter employed a quick-sale strategy that created a buyers' market. The Chinese, though, continued to supply the Shanghai sandalwood market with wood purchased from either Singapore or Hong Kong and sold at a low profit margin. JM&Co. always found a way to overcome the hurdles their competitors presented. In most cases JM&Co. eventually were able to obtain the prices they felt were best and most profitable. Thus to the majority of the WA sandalwood throughout the period.

CHAPTER 5

GOLD FOR ALL THE TEA IN CHINA

You can talk of your whisky or talk of your beer, I've something far better waiting me here; It stands on that fire beneath the gum tree; And you cannot much lick it – a billy of tea.¹

The first stanza of the late nineteenth century folk song "Billy of Tea," embodies the cultural and social traditions of the colonial Australian outback. It is the tea, boiled in the billy, over the camp fire and under a gum tree that appeals more to the bushman that does whisky and beer. With overtones of prohibition and temperance, the cup of tea is portrayed as the drink to refresh the weary. While Australia strongly maintained its imperial ties with Great Britain, its appreciation of tea, however, varied significantly to that of Britain. For those in the cities and towns, they sipped their tea. Yet in the outback, the jolly swagman "sang as he watched and waited 'til his billy boiled."² Such was the fascination with the tea leaf in both city and country that Australians were entranced by tea. By the 1860s and 1870s, Australians were among the largest importers of tea. It is that connection that brings China's exports into Australia's realm of trade.

The prime commodity imported from China by Australia's colonies, during the 1860s and 1870s, was tea. China also held the mantle as the dominant supplier of tea for the Australians. China provided well over ninety per cent of all tea imports throughout those two decades. The supremacy that China had in the tea market, coupled with the fact that China was seen as uninterested in Australia's main export commodities,

¹ "The Billy of Tea." *Native Companion Songster*. Vol. 3, Brisbane: R. S. Hews & Co., 1889.

² Banjo Paterson, and Christina Macpherson, "Waltzing Matilda." 1895.

created an uneven trade balance between the two nations. Sandra Tweedie, in her book on Australia's trade with Asia, concluded that "the trade advantage that China enjoyed with Australia was to continue until towards the end of the nineteenth century when Indian and Ceylonese tea exports began to erode China's market in Australia."³ However, this bi-lateral narrative creates only a macroeconomic picture of the trade. It eliminates some of the fundamentals of the transactions that were common between merchants in China and Australia and, for that matter, other parts of the world. It tends to place in the background the extensive and complicated multi-lateral trade that took place. And, it neglects the numerous other entities that existed within the simple tea transaction. Dissecting the tea trade at the transaction level is, thus, important in providing a more comprehensive understanding of this element of the Australia – China trade relationship.

The relationship that existed around the tea trade included firms within the China – Australia direct partnership. That relationship extended to the financial institutions of both Calcutta and London. It drew in firms from different countries, each with varying interests in the Australia – China tea transaction. These transactions, therefore, consisted of numerous parts. Most important were the indent, the payment and, if required, the remittance. In this chapter, these relationships and the part played by the financial transactions and remittances are discussed. The chapter answers the questions of who was involved, how they were involved and how the payments and remittances were completed. The chapter also ventures into a discussion relating to the joint-account transactions between China Treaty Port merchants and Australian merchants. The chapter specifically ventures to investigate those joint-account tea transactions that involved JM&Co. and firms in Australia where the remittances were completed with

³ Sandra Tweedie, *Trading Partners: Australia and Asia 1790-1993*. Sydney: University of NSW Press, 1994: 15.

transfers of gold to India. Thus, these transactions generate questions of who was involved, how these transactions were performed, what problems occurred and what were the benefits from such a type of relationship. The chapter finishes with a discussion on the sugar trade and how JM&Co., as a merchant and not a commission agent, invested in shipments of sugar to Australia.

Tea for Australia

Australians had a strong love for tea in the nineteenth century. Australia was a major importer of tea from China, though not to the extent as that to the UK. On average, between 12 and 13 million pounds of tea arrived per year from China for the Australian colonies during the 1860s and 1870s.⁴ From the time of the gold rushes, Australia had also became one of the top four countries of the world in tea importation.⁵ From the 1860s extending to the end of the nineteenth century, Australians consumed the most tea per capita throughout the world.⁶ Australian's fancy of the leaf was directed through a need to not only quench the thirst created by the climatic conditions of where they lived but also to continue the propagation of British imperial influence over the culture of colonial Australia.⁷

⁴ This is a rough estimate based on the data from Prices Current *AH P945 Cartons 31-33*. This figure does not take into account any imports by Chinese merchants. Accurate figures are not available as the *Statistical Records* for some of the colonies have separate sections for tea released for sale with duty paid and tea warehoused. The latter includes the previous year's warehoused tea. The Chinese also commonly listed tea as "sundries."

⁵ Geoffrey Blainey, *The Tyranny of Distance: How Distance Shaped the World*. Melbourne: Sun Books, 1966: 202.

⁶ Peter Griggs, "Black Poison or Beneficial Beverage? Tea Consumption in Colonial Australia." *Journal of Australian Colonial History* 17 (2015): 23.

⁷ Melissa Dive, "Steeped in History: Afternoon Tea at Vaucluse House." *Ideas in History* 4, no. 2 (2012): 2; Griggs, "Black Poisson.": 24; Jessica Knight, "A Poisonous Cup?' Afternoon Tea in Australian Society, 1870-1914." Honours, University of Sydney, 2011: 14, 15.

The primary points of entry for tea from China were Sydney and Melbourne. Upon arrival the tea would either be released for auction, with the appropriate duty paid, warehoused in bond until a later release or transhipped to another colonial port in Australia or New Zealand. During the 1860s and 1870s, the volume of tea imported to Victoria was, on the whole, larger than that of NSW. The reason related to the route taken by tea vessels from China. As discussed in Chapter 2, the square-rigged vessels chose the route from China via Cape Leeuwin. Melbourne, thus, was the first major port of call. The effect of steam transport on tea from China did not take place until late in the 1870s.

Black and green tea were imported into Australia from China in the 1860s and 1870s. At that time, the preference by Europeans in Australia was for black teas as they provided a thirst-quenching counter to the harsh hot climate of Australia.⁸ The choice could also be related to British influence. The earliest importations of tea to the UK were green teas.⁹ In the early eighteenth century Chinese green tea was half the cost of black tea and thus appealed to the masses of England.¹⁰ By the late eighteenth century, the tea price fell allowing British to afford black teas such that it became a staple of the British diet. A result of this alteration was the escalation of the demand for sugar and the use of the sweetener together with milk in the tea.¹¹ Australians preferred both green and black teas initially. Mauritian sugar was commonly added to green teas in Van Diemen's Land in the mid-nineteenth century.¹² The 1860s saw a change in preference

⁸ Griggs, "Black Poisson.": 24; Sydney Cuncliffe, "British Imperialism and Tea Culture in Asia and North America, 1650-1950." Masters. University of Victoria, 2014: 15; Roy Moxham, *Tea: Addiction, Exploitation and Empire*. New York: Carroll & Graf Publishers, 2003: 31.

⁹ Helen Saberi, *Tea: A Global History*. London: Reaktion Books Ltd, 2010: 85-91. The first tea arrived in 1645.

¹⁰ Cuncliffe, "British Imperialism and Tea Culture.": 16.

¹¹ Barbara Sanich, "History through the Lens of Food." In *Eat History, Food and Drink in Australia and Beyond*, edited by Sofia Eriksson, Madeleine Hastie and Tom Roberts. 1-18. Newcastle, UK: Cambridge Scholars Publishing, 2013: 11.

¹² Kaz Ross, "Imagined Futures and Forgotten Pasts: Tasmania's Asian Connections." *Journal of Australian Studies* 41, no. 3 (2017): 301.

to black teas, primarily in response to the adulteration of Chinese green teas.¹³ Thus, for Westerners in Australia, the preference was black tea over green tea during the 1860s and 1870s. The Chinese, however, continued to drink and prefer green tea.¹⁴

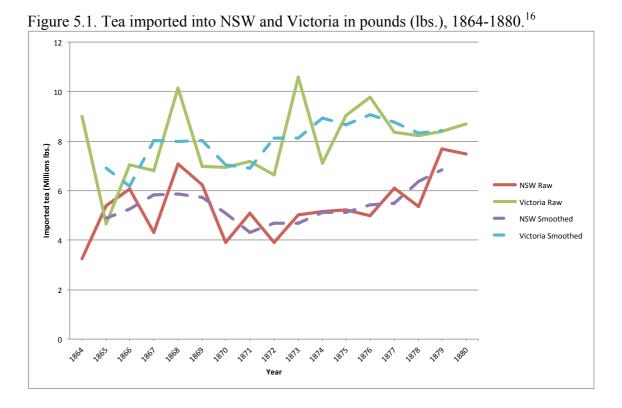
Calculating the tea trade

The traditional methodology for the investigation of trade relating to Australia has been through the use of statistics compiled by the individual Colonial Customs divisions.¹⁵ As goods arrived, they passed through Customs and were recorded. While maintaining a record for statistical purposes was essential, collection of customs duties and any other taxes and payments were more important. Tea was one of the imported items that drew a tax and hence Customs kept complete records of all arrivals. The details were annually summarised and recorded in the *Blue Books* of each Colony. The details were also included within the abridged *Statistical Tables* that were presented to the House of Commons in England.

¹³ Ross, "Imagined Futures and Forgotten Pasts.": 303.

¹⁴ For a discussion on the preferences of East Asians as opposed to other parts of the world for black or green tea, see: Peter C. Perdue, "Is Pu-Er in Zomia? Tea Cultivation and the State in China." Agrarian (2008).Studies Colloquium, Yale Universitv http://agrarianstudies.macmillan.yale.edu/sites/default/files/files/colloqpapers/07perdue.pdf. (cited 5 October 2017). Perdue states, on page 3, that for the present, "China produces both kinds, but exports most of its black tea and only part of its green teas. Black and green teas have almost entirely separate markets, with black teas dominant in Western Europe, India, and North America, and green teas dominant in East Asia and the Middle East. The Chinese state divides tea into three categories, reflecting the historical position of tea production in global politics. "Border teas" are brick teas consumed within the Inner Asian regions of China and in Central Eurasia, "green teas" are for domestic markets, mainly; and "black teas" serve foreign markets." See also, Yujiro Hayami, "The Peasant in Economic Modernization." American journal of Agricultural Economics 78, no. 5 (1996): 1159. Hayami states that the unfermented green teas were the product of the peasants in China and thus also those who drank it. The miners, whom the Chinese merchants were servicing, were primarily from the peasant areas of Kwangtung.

¹⁵ The statistics were displayed in the respective colonial *Blue Books* or *Statistical Registers* for each calendar year. The collection of tea statistics commenced in the 1830s. Griggs, "Black Poison": 27.



The data in the *Blue Books* provide the amount of tea imported into NSW and Victoria from the various origins. The period chosen for analysis is from 1864 to 1880.¹⁷ The import data of tea to NSW and Victoria is presented in Figure 5.1. The solid lines represent the actual amount of tea imported to the two colonies for each year. The dashed lines represent the smoothing of the data. A three-year moving average centred on the middle year has been used in the smoothing process. The amount of tea imported per year into NSW and Victoria altered significantly each year. The randomness of the peaks and troughs shown in Figure 5.1 demonstrates this. The graphs give the impression that the trade was haphazard. One reason for the randomness relates to the period the data is collected. Tea arrived throughout the year. Most departures from China adhered to the yearly tea trade cycle from China.¹⁸ It was not unusual for late season tea shipments to be made. They occurred when there was sufficient demand in

¹⁶ Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. (Parts VII to

XVII). ¹⁷ The reason for choosing 1864 as the initial year is that prior to 1864 China and Hong Kong were either ¹⁸ The reason for choosing 1864 as the initial year is that prior to 1864 China and Hong Kong were either ¹⁹ The reason for choosing 1864 as the initial year is that prior to 1864 China and Hong Kong were either combined under the label "China" or that Hong Kong became part of the grouping labeled "Other British Colonies" for the NSW statistics.

¹⁸ The yearly tea trade cycle was from 1 June to 31 May of the following year.

Australia. That demand was also based on stocks. When stocks were high, imports dropped as opportunities for profitable sales were low. Competition between numerous merchants in the Australian ports also meant that stocks varied continuously. Reaching an optimum point for stock and deliveries was difficult. Thus the reason for the peaks and troughs. By applying a smoothing technique, the randomness is almost eliminated and trends emerge providing a clearer picture of tea importation to NSW and Victoria.

The smoothed data in Figure 5.1 shows similarities for imports into NSW and Victoria to 1875. After 1875, the two graphs converge. The effect of the use of steamers as transport for tea is demonstrated by the convergence. To explain the rise in the late 1860s and the following drop at the commencement of the 1870s, I only need to return to the discussions on the coal trade. Numerous influences affected the world markets at that time. In this case, the influences related to the need for teas in the UK as well as the amount of coal being provided for shipping for the trade.

An alternate method of interpreting the tea trade from China to Australia is by viewing the export figures from China. Figure 5.2 provides the total amount of tea exported to Australia from China for the yearly tea trade cycles from 1861/62 to 1875/76. Similarities exist between Figures 5.1 and 5.2. A strong relationship exists between the exports from China and the imports to Victoria more than to NSW. This is evidenced by the peaks of 1868/69 and 1872/73. One reason for this observation may lie with the fact that shipping arrived in Melbourne first. That is, tea for NSW may have been transhipped at Melbourne instead of being sent direct to NSW. That could have resulted in a smoothing of the effects of the exports from China.¹⁹ It also could explain why the sudden changes to tea imports to Victoria mirror those of the exports from China.

¹⁹ Tea commonly sat in warehouses prior to sale or transhipment.

Figure 5.2. Yearly tea trade cycles of exports of tea from China to Australia in pounds (lbs.), 1861/62-1875/76.²⁰

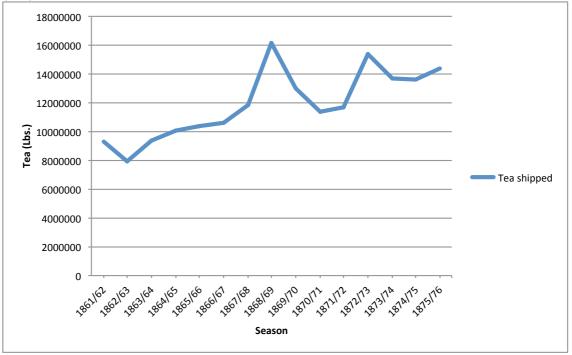
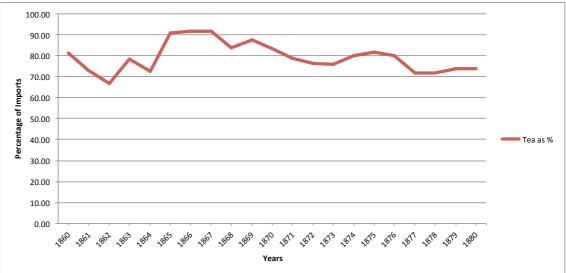


Figure 5.3. The share of tea in total imports into the Australian colonies from China, 1860-1880.²¹



Tea was the main export commodity from China to colonial Australian ports between 1860 and 1880. Figure 5.3 shows tea as a percentage share of all exports from China to

 $^{^{20}}$ Prices Current *AH P945 Cartons 31-33*. These cartons are not part of the general AH collection, *AH MS766* which are all on microfilm. The Prices Current circulars have not been digitized and are located in a set of boxes that require a special request for access. The circulars are from late in the 1859-60 season until the end of the 1875-76. At the conclusion of each season a summary was provided for that season and previous few. See Appendix 18 for a summary of the seasonal data.

²¹ Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. (Parts VII to XVII). See Appendix 19 for complete figures.

Australia. Except for the surge in deliveries in the late 1860s, as also shown in Figures 5.1 and 5.2, tea provided approximately 80 per cent of all exports from China to Australia. Other items imported in to Australia from China included fireworks, biscuits, candles, Chinaware, porcelain and sugar.

Origins of tea

Australia's teas, imported from China, were purchased from a number of locations in China. The Prices Current circulars of Augustine Heard & Co. indicate that vessels regularly departed towards Australia from various ports, including Hong Kong, Amoy, Foochow and Hankow. The same circulars provide sparse evidence of any departures direct to any Australian port from Shanghai.²² The first three ports obtained their tea from the Fukien, Kwangtung and nearby southern provinces. From 1861, Hankow, located on the Yangtze River, became known among Westerners as a traditional market for teas from the nearby provinces in central and north China.²³ Foochow was the primary export port for tea to Australia and by the late 1870s took over the mantle from Shanghai as lead exporter of Chinese teas to the world.²⁴ The teas from the ports in Fukien province were handled through "agency houses" or "commission houses," made up mostly of the Western businesses.²⁵ They had their headquarters located in Hong Kong and thus, although Australian importers received their tea direct from Foochow, all transactions were made with the houses in Hong Kong. Principally, tea shipments to Australia were derived from markets located in the above four ports. Hankow tea was shipped on ocean-going sail vessels down the Yangtze River with either the first or

²² Shanghai was a primary export port for tea shipped to both the U.K. and the United States.

²³ William T. Rowe, *Hankow: Commerce and Society in a Chinese City, 1796-1889.* Stanford, CA: Stanford University Press, 1984: 56. Hankow is now part of Wuhan.

²⁴ Robert Gardella, *Harvesting Mountains: Fujian and the China Tea Trade, 1757-1937.* Berkeley, CA: University of California Press, 1994: 62.

²⁵ Gardella, Harvesting Mountains: 55.

second crop of the northern season.²⁶ It would take approximately a month to reach Shanghai, at the mouth of the Yangtze River, before the vessels continued on to either Melbourne or Sydney.²⁷

The teas from the four ports were, predominantly, of the black variety, namely a type of Congou, though some green teas were also exported. There were a number of variants of Congou. The Invoices of tea shipments to Australia show these as predicated by the title of "fine," "finest," and other superlatives. The definitions assisted in advertising the various levels of the quality of the tea.²⁸ These strata of teas would also give rise to an understanding of the difference in the purchase price in Foochow. Plain congou was cheaper than fine which was of less value than finest. The higher quality tea was the "Kyshow" Congou that, to some merchants, was regarded as the "prince of teas" owing to its true Kyshow flavour. Other black teas imported included the various scented Pekoe teas as well as Caper, Oolong and Lapsang Souchong. Other green teas exported from China included Gunpowder and Imperial variants.²⁹

The quality of teas varied throughout the season in China. At the beginning of the season in China these teas would be of the best quality. As the season progressed, the quality of tea diminished. There was also a problem of tea adulteration. In a letter to a Sydney merchant house explaining the problem, JM&Co. stated:

The admixture, to which you refer, of dust and old season's leaf with the new teas is very much to be deplored but it is one of those evils arising from the undue competition with which we meet in the tea market and which it is very difficult to eradicate.³⁰

²⁶ Rowe, *Hankow*: 80, 130. Hankow also normally produced the first departures of the China tea season.

²⁷ The *Albyn's Isle* took exactly one month from departure at Hankow to pass Shanghai. "Shipping." *The Age* 12 September 1870: 2.
²⁸ See for example: Invoice for 9579 packages of tea per *Great Britain*, 14 January 1861, for Downie

^{2°} See for example: Invoice for 9579 packages of tea per *Great Britain*, 14 January 1861, for Downie Murphey, JMA A6/12.

²⁹ For a summarised description of the teas, see: *The Tablet* 28 July 1866: 478; A more detailed description – John H. Blake, *Tea Hints for Retailers in Two Parts*. Denver: The Williamson-Haffner Engraving Company, 1903: 103-20.

³⁰ Letter from JM&Co. to Daniell King & Co., 14 September 1870 Letters to India JMA C10/60.

Adulteration of teas by the Chinese sellers was a common practice, with the poorer green teas being tinged with various types of dyes, some considered poison.³¹ Many complaints were raised by the early colonists in Australia in reaction to the adulteration. This related both to the poor, dusty black teas as well as the adulterated green teas.³²

Two other origins of tea for the Australian markets were Shanghai and Canton. Neither of these ports appear in the statistical records for NSW or Victoria. The Shanghai and Canton markets provided mainly green teas. European Australian palates preferred the southern black teas. Thus, there were fewer requests in Australia for the tea sold in Shanghai.³³ That meant the total number of packages for Australia were considered by commission agents in Shanghai as too small for one vessel to be devoted to the transportation of teas. The tea from Shanghai was shipped to either Foochow or Hong Kong prior to transhipment onto a vessel bound for Australia. Similarly, various varieties of green teas were purchased in the Canton tea markets. The teas were transported to Hong Kong. The teas were then placed on vessels that were to depart for an Australian port.³⁴ Further, upon arrival at an Australian port, the colonial Customs regarded all of the cargo as a single element "tea," not differentiating between black and green tea. In doing so, the recording of the tea assisted in masking the true origins of the tea.

Japanese teas bound for Australia were also included amongst shipments from China. The Japanese Hyson green tea was in competition with the Chinese varieties. In one

³¹ Victor H. Mair, and Erling Hoh, *The True Story of Tea*. London: Thames & Hudson, 2009: 190.

³² Griggs, "Black Poison": 40-41.

³³ By 1853, Shanghai had overtaken Canton as the major port for tea shipments. The Taiping Rebellion altered that preference. Later, Fuzhou attained a stronger position for exports as it had the Bohea tea. Mair, and Hoh, *True Story of Tea*: 232. In the 1860s and 1870s, the first teas for London departed from Shanghai. See Prices Current *AH P945 Cartons 31-33*.

³⁴ See for example: Invoice for 1090 boxes of tea per *Golden Fleece*, 26 December 1863, for James Henty & Co., JMA A6/14.

example in 1861, 1,067 packages of Japanese Hyson teas were transported from Fuzhou to Sydney on the *Algemon*, chartered by JM&Co. The Japanese Hyson tea was part of a large cargo. That cargo included 7,982 packages under joint account between JM&Co. and Thacker Daniell & Co. of Sydney. Also included were 375 packages for Smith Peate & Co. that Thacker Daniell & Co. delivered.³⁵ A letter from JM&Co. to Thacker Daniell & Co., stated that the Hyson teas had "been sent down from Shanghai for shipment."³⁶ However, the invoice for the teas clearly declared that all 1,067 packages were from Japan.³⁷ The above shows that, in some cases, tea believed to have arrived from China actually originated from Japan. The example also implies that Japan teas bound for Australia were transhipped at Shanghai and not shipped direct to Foochow or Hong Kong.³⁸

Buying tea

There were various methods employed by colonial merchants in Australia to pay for the tea shipments. Four methods are discussed in the following sections. They are: bartering using a return commodity including coal and sandalwood; pre-payment of the tea direct from Australia; pre-payment using intermediaries in London who represent Australian firms; and sharing a transaction between a Treaty Port merchant and an Australian merchant through a joint-account transaction. The final method is of most importance.

³⁵ Invoice for 7982 packages of tea per *Algemon*, 12 August 1861, for Thacker Daniell & Co., JMA A6/12; Invoice for 375 packages of tea per *Algemon*, 12 August 1861, for Smith Peate & Co., JMA A6/12.

³⁶ Letter from JM&Co. to Thacker Daniell & Co., 26 August 1861 Letters to Europe JMA C11/29.

³⁷ Invoice for 1074 packages of tea per *Algemon*, 13 August 1861, for Thacker Daniell & Co., JMA A6/12.

³⁸ The consolidation of tea shipments, including Japanese tea, led to an anomaly in the colonial statistics. The customs officers treated all tea on a vessel from China as being Chinese tea. There was no separation of Japanese tea. This is evidenced by the statistics for tea imports to NSW and Victoria. There is only one instance, in 1867, of a tea shipment from Japan to NSW. Similarly, the statistics reveal no tea shipped from Japan to Victoria until 1880. While an anomaly of the import statistics, Japanese tea as a percentage of the total Chinese export to Australia was in all likelihood insignificant, though still worth noting. *SR NSW 1867* and *SR VIC 1880*.

That method involved, in some cases, the movement of gold to Calcutta as a remittance. Further, these methods commonly overlapped.

The choice of buying tea for sale in Australia was not exclusively the domain of Australian merchants, whether by themselves, through a London representative or through a joint-account transaction. In the extremely rare case the Treaty Port merchant chose to invest in a package of tea to be sent to Australia. Similar to how JM&Co. chose to invest in the coal trade as shown in the *Ettrick* example at the commencement of this thesis, JM&Co. also purchased tea and sent it to Australia on his own risk and account. In 1868, JM&Co. organised for 888 packages of tea to be sent to Sydney per the *Minnie*, under the consignment of Brown & Co. of Sydney and on account and risk of JM&Co.³⁹ The tea reached a poor market in Sydney and was still unsold a year after it arrived.⁴⁰

Bartering

Bartering was common for those merchants in the sandalwood and coal trades. As sandalwood and coal were the only two commodities of value to the importers of the Treaty Ports, only merchants of those trades could barter for tea. A brief description of the bartering of these commodities has been provided in Chapters 3 and 4. One example in Chapter 4 is of T. & H. Carter's sandalwood shipment to China in 1861. The sales of the sandalwood paid for a portion of the cargo of tea and sugar bound for WA.

³⁹ Invoice of 888 packages tea per *Minnie*, 21 October 1868, consigned to Messrs. Brown & Co. on a/c and risk of Shippers. JM A6/19. The packages were shipped with a larger cargo of tea for Brown & Co. Letter from Messrs. Brown & Co. to JM&Co., 3 December 1868 *Correspondence: Business Letters: Australasia* JMA B6/3.

⁴⁰ Owing to a lack of documents, it is unknown as to how the remittance for the sales for JM&Co. were organised. Options include passing it through Brown & Co. of London, submitting a draft direct to JM&Co. in Hong Kong or having JM&Co. debiting Brown & Co.'s account. I believe it to be the latter. This was the only incident where JM&Co. ventured a shipment of tea on his own account and risk to Australia that I have found.

Other commodities were used for bartering in China. In Chapter 3, I mentioned that both gold and recycled metals were exported by Chinese merchants from Sydney to China. These goods were placed on vessels containing coal shipments destined for Hong Kong.⁴¹ The amount of gold shipped, as shown in Figure 3.11 of Chapter 3, was significant. Almost all of the gold was exported by Chinese merchants. Some of the gold may have been remitted as savings and the remittance was similar to the *qiaohui* performed by Chinese miners in California.⁴² The larger portion was sent by Chinese merchants as payment for goods imported. Gold was also shipped from Melbourne, though towards Galle on P&O steamers. In a memorial to the Victoria Chief Secretary, merchant Messr. King stated that, in 1859, Chinese merchant Lowe Kong Meng had shipped gold to China to pay for goods. Shipping gold direct to China from Melbourne was employed as the primary method for paying for goods until the mid-1860s. Figure 5.4 shows that from the mid-1860s, the export of gold direct to China diminished slowly until it terminated in the mid-1870s. From that time, a number of Chinese merchants altered their philosophy to using Galle as an alternate venue for the exportation. Meng was one who shipped gold via Galle.⁴³ The importation of recycled metals into China was different. While a portion may have been used for the creation of temple materials, some may also have been sold to those who were maintaining steamers and other metalclad vessels.

⁴¹ The manifests from the shipping records of the period show specifically that the only gold being transported from Sydney to Hong Kong, with none to Shanghai, was completed by the Chinese. Recycled metals were also shipped by the Chinese although there are a few rare examples of Western merchants becoming involved in that trade. These manifests were attained from the various newspapers export lists.

⁴² Elizabeth Sinn, *Power and Charity: A Chinese Merchant Elite in Colonial Hong Kong*. Hong Kong: Hong Kong University Press, 2003: 71-73. Other items transported included human remains, letters and personal effects. For a discussion on *qiaohui*, see Elizabeth Sinn, *Pacific Crossing: California Gold, Chinese Migration, and the Making of Hong Kong*. Hong Kong: Hong Kong University Press, 2013: 173-75.

⁴³ Paul Macgregor, "Lowe Kong Meng and Chinese Engagement in the International Trade of Colonial Victoria." *Provenance*, no. 11 (2012). I will discuss this in more detail at a later stage of this chapter.

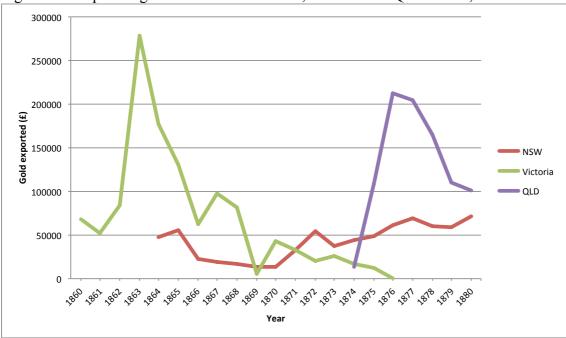


Figure 5.4. Export of gold to China from NSW, Victoria and Queensland, 1860-1880.44

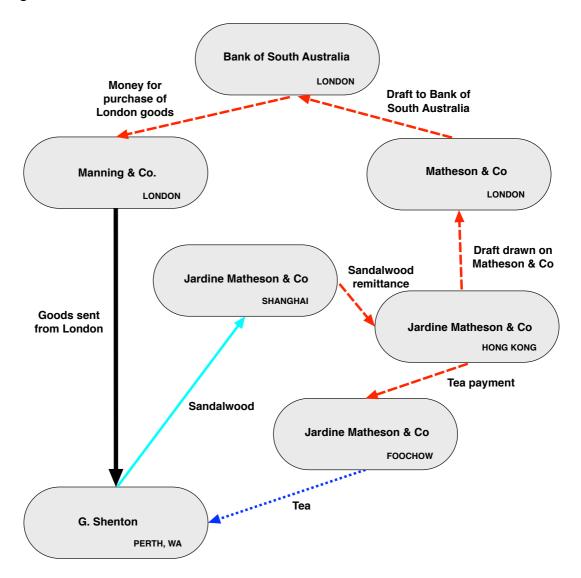
A second example of bartering is provided in Figure 5.5. WA merchant George Shenton sent a parcel of sandalwood to JM&Co. in Shanghai aboard the *Tartar*. Shenton gave instructions to JM&Co., Shanghai that the remittance be sent to JM&Co., Hong Kong. From the remittance, £1,250 was to be passed to the Bank of South Australia in London. The balance was to be put to Shenton's account in credit with JM&Co., Hong Kong. There, the instructions were to use the account to pay for a purchase of tea to be sent to Perth.⁴⁵ The £1,250 delivered as a draft to London, was for the purchase of goods to be exported to Perth from London.⁴⁶

⁴⁴ SR NSW 1860-1880; SR VIC 1860-1880; SR QLD 1860-1880.

⁴⁵ Letter from JM&Co. to G. Shenton Esq., 11 April 1872 *General Letters from Shanghai* JMA C46/11; George Shenton Esq. in A/C Current with Jardine Matheson & Co. Shanghai, 6 April 1872 *General Letters from Shanghai* JMA C46/11; Letter from JM&Co. to G. Shenton Esq., 17 April 1872 *Letters to India* JMA C10/62.

⁴⁶ I have no ability to verify this although it is a fair assumption. WA received numerous shipments of goods from the UK.

Figure 5.5. G. Shenton sandalwood and tea transaction.⁴⁷



Cooktown, in the late 1870s, was a much clearer example of Chinese merchants using gold to pay for imports. Trade directly between Cooktown and Hong Kong was continuous owing to the regular steam vessels serving the port. There were at least a dozen Chinese merchants importing various goods, including tea, in Cooktown. For these merchants the method of payment would have been through the gold shipments. There were no other goods exported by the Chinese on vessels traveling to Hong

⁴⁷ George Shenton used two different London firms. The most popular was Manning & Co. The other was William Felgate & Co. In this example the name of the firm in London is unknown and I have adjudged that it was Manning & Co. The red dashed lines show the direction of finances, including drafts. The dotted and solid lines show the movement of goods.

Kong.⁴⁸ As with Melbourne and Sydney, Cooktown demonstrated the strong connection between the export of gold and the import of various products by the Chinese merchants located in the Australian ports.

Pre-payments

The method of pre-payment by drafts was common. Drafts as an instrument of payment were provided prior to the purchase. Drafts were commonly on six months sight to run. That meant they were available to be withdrawn up to six months from when the draft was initially drawn. They could also be passed to or bought out by others in further transactions. The passing-on of drafts was also commonly completed at a discount. The discount depended upon the financial reputation of the issuer.⁴⁹ Pre-payment by draft, thus, was found to be a convenient method for processing tea transactions.

The pre-payment method may have been convenient, yet its overall processes could also become quite complex. Nevertheless, in its simplest form, an indent was sent from either London or Australia along with a draft on a common bank to pay for the indent. The tea was procured and placed on the next available vessel heading to the Australian port of destination. An Invoice and Bill of Lading for the purchaser in Australia was included, or sent separately, detailing the costs of the transaction and goods included. If an amount remained from the original draft, that was then transferred to the account between the two companies. Insurance was normally taken up by the Australian

⁴⁸ Gold from Cooktown was rarely recorded as the Chinese merchants commonly smuggled the gold to Hong Kong. Gold was not dutied by the Queensland government. The reasons why the Chinese chose smuggling is unknown. Robert Ormston. "The Rise and Fall of a Frontier Mining Town: Cooktown 1873-85." PhD. University of Queensland, 1996: 159; Kevin Rains. "Intersections: The Overseas Chinese Social Landscape of Cooktown, 1873-1935." PhD. University of Queensland, 2005: 198-99.

⁴⁹ John A. James, "Payment Systems." In *Handbook of Cliometrics*, edited by Claude Diebolt and Michael Haupert. 353-73. London: Springer-Verlag, 2016: 357-58.

merchant whether in Australia, if that was possible, or in London, which was more common.⁵⁰

Direct pre-payment for tea shipments from China to Australian ports was normally reserved for one-off transactions by new merchant connections. When Simeon Comrie of Melbourne, in 1875, investigated the possibilities of commencing a tea trade with JM&Co., the latter requested that any order be "accompanied by a bank credit for our reimbursement of funds in due course."⁵¹ Similarly, in 1872 the Perth Cooperative Society Limited requested JM&Co. to fulfil an indent for tea.⁵² JM&Co. stated that the customary practice was of "handing us a Bank Credit." Without the bank credit the order was not fulfilled "as none of our local banks have agencies or branches at your port."⁵³ As both JM&Co. and Augustine Heard & Co. dealt with a standard group of merchants, direct pre-payment tea transactions tended to be rare. More common were the pre-payment transactions involving London firms on behalf of Australian merchants.

The use of London or India further placed Australia within a global, multilateral trade environment. The payments involved a third party, or even more, and were frequently accepted by merchants. Drafts and bullion were common methods for balancing trade deficits as well as creating methods of payment for such goods as tea, opium and cotton. Samuel Saul summarises this monetary phenomenon for the period in and around the nineteenth century as:

In its most simple form the transfer of precious metals provided the mechanism of settlement; later the use of bills of exchange greatly reduced the size of flows and during the last half of the nineteenth century the system works in a still more

⁵⁰ Maritime insurance was then covered in London by Lloyds.

⁵¹ Letter from JM&Co. to Simeon Comrie Esq., 11 June 1875 Letters to India JMA C10/63.

⁵² Letter from Perth Cooperative Society Limited to JM&Co., 13 August 1872 Correspondence: Business Letters: Australasia JMA B6/3.

⁵³ Letter from JM&Co. to Perth Cooperative Society Limited 3 October 1872 Letters to India JMA C10/62.

simple manner through fluctuations in the size of sterling balances held by foreign banks in London. 54

That is, there were any of a number of assorted methodologies employed for the process of payment. Further, numerous triangles, where these payment practices were employed, endured well prior to the mid-nineteenth century. The position of the British East India Company and trade between China, India and England provides a clear example.⁵⁵ For JM&Co., Augustine Heard & Co. and a group of Australian merchants, usage of both London and India as intermediaries within a multi-lateral flow of goods and money became an important strategy to allow for the continuous trade of tea into Australia.

Where Australia fits into the general multi-lateral trade paradigm is through its resource of gold. Takeshi Hamashita draws our attention to the nature of how the United States, particularly California following the opening of the gold fields in 1849, created for itself new avenues to cover the payment of tea by exporting bullion to Canton. The influx of gold from California to China also alleviated the latter's responsibility for payments to India in either silver or gold for China's purchases of opium. Where the United States thence entered the trade regime was to assist China, and in some way bypass England, when it came to a complicated multi-lateral trade involving tea, opium and other goods.⁵⁶ When Australia became a gold exporter in the 1850s, it too gained access to this multi-lateral trade conference. Australia was no longer considered "trifling."⁵⁷ For many merchants outside of Australia, the Australian gold exports provided an alternate

⁵⁴ Samuel B. Saul, "Britain and World Trade, 1870-1914." *The Economic History Review* 7, no. 1 (1954): 49.

⁵⁵ D. K. Fieldhouse, *Economics and Empire 1830-1914*. Ithica, NY: Cornell University Press, 1973: 213; For a comprehensive discussion on the banking and financial transactions involving China, India and England, see Michael Greenberg, *British Trade and the Opening of China 1800-42*. Cambridge, UK: Cambridge University Press, 1969: 152-74.

⁵⁶ Takeshi Hamashita, Linda Grove, and Mark Selden, eds. *China, East Asia and the Global Economy: Regional and Historical Perspectives.* New York: Routledge, 2008: 120-21.

⁵⁷ Hamashita, et. al., *China, East Asia*: 121.

method of covering the trade between London, India and China, that being through either payments of gold to India or to Great Britain.

Pre-payments were instigated through firms in London as it was the centre of world finance at that time. Hashamita puts forward, on several occasions, that much of the world's finances were "centered on the money market in London."⁵⁸ The British Pound Sterling was the primary method of exchange for Western merchant houses in China. At the conclusion of all correspondence sent out of China by these merchants were the then current exchange rates between the local currency, whether dollar in Hong Kong or Tael in Shanghai, with the Pound Sterling.⁵⁹ Further, all drafts drawn in London would be converted at these exchange rates. That allowed merchants in Treaty Ports to make an informed judgement as to the time of when it was best to make the exchange.

The England-based firms provided the linkage between Australian merchants and their counterparts overseas. They were either partners or representatives of the Australian firms. With the centre of banking in London, they also provided a closer source to the international banks with branches in China and elsewhere. These ties became relevant and well-used during the 1860s and 1870s. The London firms assisted numerous Australian firms to establish and maintain their trade relationships with those in China.⁶⁰ The following example of a tea transaction between 1860 and 1861 presents an overview of the usage of a draft on London and also what transpired from the indent stage to the final payments.

⁵⁸ Hamashita, et. al., *China, East Asia*: 121, 126, 128.

⁵⁹ As an example: "Exchange closes for the mail at $4/4\frac{1}{2}$ for 4 Mo's Bank bills and $4/5\frac{1}{4}$ for similar credits & proportionately higher for the longer term." Letter from JM&Co. to Henry Moore Esq., 31 October 1867 *Letters to India* JMA C10/58. Here JM&Co. is referring to the exchange between English currency and the dollar in Hong Kong. Thus, four shillings and four and one half pence equates to a dollar for four month's bank bills.

⁶⁰ A discussion of the firms involved and the relationships between London and Australia was discussed in Chapter 1.

The London firm, Redfern Alexander & Co. (RA&Co.), requested of JM&Co. to organise a shipment of tea. If possible, the tea was to be delivered direct to the company Henty Learnmonth & Co. of Portland, Victoria. RA&Co. provided the draft for the cost of the teas.⁶¹ The order was for a variety of teas including the standard Congou, Kyshow Congou and Hyson Skin tea. The latter was to be obtained from Shanghai, either from local dealers or imported from Japan. The Hyson Skin, however, was found scarce in Shanghai at that time and thus unavailable for the shipment.⁶² The order was completed in Foochow by JM&Co.'s representative in that port. With no direct shipment to Portland available, the tea was sent direct to Melbourne per the *Great Britain*. The vessel departed Foochow on 6 January 1861.⁶³ The *Great Britain* arrived in Melbourne and the teas to Portland were transhipped using the *Queen* and the *Lady Bird*.

The financial process, as shown in Figure 5.6, illustrates the movement of drafts (red solid lines) and the deployment of invoices (green dashed lines). It was of a triangular form involving China, Australia and England. The process would have commenced with the company requesting the indent, RA&Co. in this example, through Matheson & Co. RA&Co. drew the draft, placed it upon a London bank and delivered the draft to Matheson & Co. As an intermediary, Matheson & Co. provided the finances to JM&Co. for the tea purchases. The original draft was passed on or another draft was drawn by

⁶¹ Letter from JM&Co. to Henty Learnmonth & Co., 23 August 1860 *Letters to Europe* JMA C11/28. The letter only states that an order had been requested by the London company. I have made an assumption, based primarily on later correspondence relating to this order and other orders that all monetary transactions, drafts, etc., were made in London between Redfern Alexander & Co. and Matheson & Co.. There was no request by JM&Co. for payment of the tea made to Henty Learnmonth & Co.. A further assumption is that Henty Learnmonth & Co. would have sent remittances to Redfern Alexander & Co. to cover the sale of the teas.

⁶² Letter from JM&Co. to Henty Learnmonth & Co., 29 December 1860 *Letters to Europe* JMA C11/28.

⁶³ Letter from JM&Co. to Henty Learnmonth & Co., 31 January 1861 *Letters to Europe* JMA C11/28.

⁶⁴ Letter from Henty Learnmonth & Co. to JM&Co., 22 March 1861 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from Henty Learnmonth & Co. to JM&Co., 22 April 1861 *Correspondence: Business Letters: Australasia* JMA B6/3. The *Great Britain* arrived in Melbourne on 14 March 1861. "Shipping." *The Age* 15 March 1861: 4.

Matheson & Co. If the latter, that may have covered numerous indents. Once that draft had been guaranteed in Hong Kong, the purchase of the tea at Foochow was completed. Upon the finalisation of the tea purchases, JM&Co. then forwarded the invoice and the bill of lading. One copy was delivered to Henty Learnmonth & Co. and a second to RA&Co.⁶⁵ The tea was sold in Victoria. Henty Learnmonth & Co. then transferred a portion of the amount derived from sales to RA&Co. to cover the original draft plus commission. A common bank in both London and Australia was used. At each stage commissions and other expenses were subtracted for the various firms involved in the transactions.

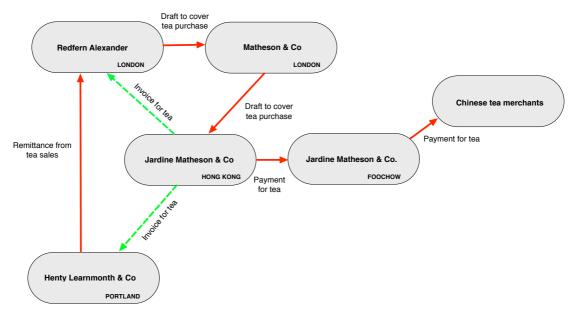


Figure 5.6. Financial process chart relating to Henty Learnmonth order.

The tea process in Figure 5.7 demonstrates its simplicity when compared to the financial part of the transaction. The indents, or requests, (purple solid lines) were initially made by RA&Co. and then by JM&Co. to that company's offices in both Shanghai and Fuzhou. The movement of the tea (blue dashed lines), required an

⁶⁵ Letter from JM&Co. to Henty Learnmonth & Co., 31 January 1861 Letters to Europe JMA C11/28.

intermediary in James Henty & Co. of Melbourne to assist in transhipping the tea, when it arrived at that port, to Portland.⁶⁶

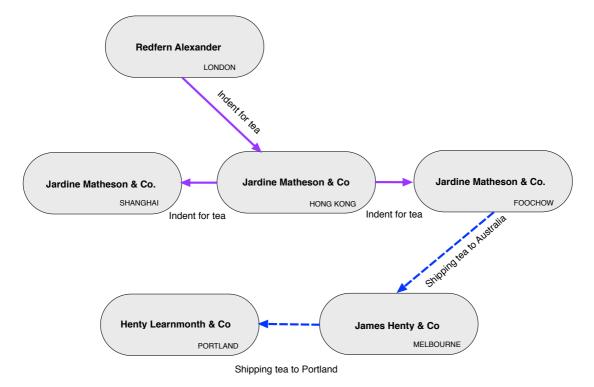


Figure 5.7. Tea process chart relating to Henty Learnmonth order.⁶⁷

The movement of correspondence attained somewhat more complexity. In Figure 5.8, numerous lines of communication existed. JM&Co. was in contact with all firms that were part of the transaction. They received the indent and draft from RA&Co. and Matheson & Co. of London. JM&Co. then communicated with their representatives in Shanghai and Foochow. Finally, JM&Co. informed James Henty & Co. and Henty Learnmonth & Co. of the shipment of tea. The dashed lines equate to the assumed correspondence that would have existed.⁶⁸ For the tea order to have occurred, these lines

⁶⁶ Letter from JM&Co. to James Henty & Co., 31 January 1861 Letters to Europe JMA C11/28.

⁶⁷ Bold purple lines represent the direction of indents for tea. The dashed blue lines show the movement of the tea as it travelled from Foochow to Portland.

⁶⁸ Records for these are not available. However, there is a fair indication of what transpired based on the analysis of other correspondence.

of correspondence were essential. Most conversations were two-way, though there were some that only required notification of an action.

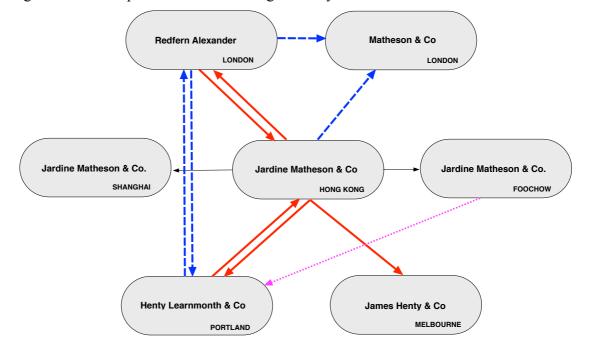


Figure 5.8. Correspondence flow relating to Henty Learnmonth order.⁶⁹

There are a number of points that can be extracted from this example. Most important was that the initial drafts were drawn on London. Through that is the recognition that a three-way – tri-lateral – transaction existed. As with the United States involvement in the India-China-London triangle, there is a similar trait present involving Australian merchant firms. That is, the income from the sales of the tea would have been used in London to cover the purchases of other goods being sent to Australia and these goods could have originated from other countries, for example cotton from the United States. To a certain extent, RA&Co. was a clearing house, involved with and representing

⁶⁹ Bold red lines are the general correspondence between JM&Co. and other firms. The dotted purple line represents the communication by the Foochow representative of JM&Co. to Henty Learmonth & Co. about the teas. The dashed blue lines show the correspondence between RA&Co. and Henty Learmonth & Co. The black thin lines show the communication by JM&Co. with their representatives in Shanghai and Foochow regards the purchase of tea.

numerous companies around the world and, in doing so, created numerous trade triangles.

Joint-account tea transactions

The other method of payment and remittance was through the joint-account tea transactions. A Treaty Port merchant and an Australian merchant shared the costs, risks and financial results of the transactions. That is, instead of acting as a commission agent, the Treaty Port merchant was investing in shipments of tea to Australia. In the next few sections, I answer the questions of who was involved in joint-account tea transactions, how were the transactions completed, where were the remittances sent and why there, what problems occurred and how these were overcome and what benefits came to the parties that participated in the joint-account tea transactions. The ability for joint-account transactions to be carried out requires specific levels of trust. A lengthy discussion of how trust and networks work with joint-account transactions is provided in Chapter 6.

The idea of investing, or risk taking in merchanting, which according to N. S. Buck was ever-increasing by the mid-nineteenth century, was not unusual for Western merchants in China.⁷⁰ The reason, as Stephen Lockwood puts succinctly, was monetary. "Commission business for principals in the West … involved minimum risk for the house, but it also involved minimum control and minimum profits."⁷¹ Thus houses including Augustine Heard & Co., Russell & Co. and JM&Co. viewed the opportunities of selling goods on their own accounts and risk. However, without control of the

⁷⁰ Norman S. Buck, *The Development of the Organisation of Anglo-American Trade 1800-1850*. New York: Greenwood Press, 1968: 129-31. Merchanting is the act of selling goods.

⁷¹ Stephen C. Lockwood, *Augustine Heard and Company, 1858-1862; American Merchants in China.* Harvard East Asian Monographs. Cambridge, MA: East Asian Research Center, Harvard University, 1971: 31.

external market, losses were common. To counter the risk, "joint-account shipping" was developed whereby costs and profits were shared as was the risk. Commissions were still applied individually. By the beginning of the 1860s, numerous houses commenced joint-account shipping with Australian companies. AH&Co. was a leading exponent in this type of trade from, at least, 1861.⁷² By 1870 their dealings of tea to Australia with F. Parbury & Co., of London, were on joint-account.⁷³ JM&Co. were also involved in joint-account transactions from the beginning of the 1860s.

The particular group of Australian merchants who became consignees for JM&Co. were those most trusted by JM&Co. The merchants were located in both Sydney and Melbourne. The house of Messr. Henry Moore had been transacting with JM&Co. well prior to 1860. A second firm were the agents for JM&Co in Sydney. During the 1860s and 1870s the agents were Thacker Daniell & Co. (1860-64), Daniell King & Co. (1864-71) and George King & Co. (1871-80). James Henty & Co. was the only firm in Melbourne taking part in joint-account transactions with JM&Co.

Augustine Heard & Co. were involved in joint-account transactions with a number of firms in Australia. Wilkinson Brothers performed joint-account tea transactions until 1866. Parbury Brothers, in Melbourne, began joint-account transactions in the 1860s. Their transactions were organised from London through the parent firm F. Parbury & Co. Other companies, connected to F. Parbury & Co. also worked similarly with AH&Co.

Firms based in countries other than China or Australia were involved on the periphery of joint-account transactions. F. Parbury & Co., as mentioned above, were one example.

⁷² Lockwood, *Augustine Heard*: 34.

⁷³ See the discussion in Letter from F. Parbury & Co. to AH&Co., 2 June 1871 *FPC* and Letter from AH&Co., to F. Parbury & Co., 29 July 1871 *FPC*.

Matheson & Co. and other London firms provided drafts and received remittances. The Calcutta, India firm Jardine Skinner & Co. were also important to the process of joint-account transactions involving JM&Co. Their contribution to the transactions will be discussed in depth shortly. Jardine Skinner and JM&Co. were related, both through blood and in connection with the London firm Matheson & Co.⁷⁴

The processes

The process of a joint-account tea transaction varied between being either simple or somewhat complex. The process included the purchase, payment and remittance stages. In most cases an indent was supplied to the Treaty Port merchant for tea. Some were sent directly from an Australian merchant. Other indents arrived from London firms on behalf of the Australian merchant. In other cases, the order was initiated from the merchant in China. Similar to the transactions described earlier, the Treaty Port merchant sourced the tea and delivered it to the Australian merchant. While the purchase stage was similar between joint-account transactions, the payment and remittance stages differed significantly. In the case of Parbury Brothers, the inclusion of the London firm assisted in simplifying the overall process. That was not the case for joint-account transactions between JM&Co. and James Henty & Co. The following examples will explain both the simple case (Parbury) and the complex (Henty) case.

⁷⁴ Robert Blake, *Jardine Matheson: Traders of the Far East.* London: Weidenfeld & Nicholson, 1999: 118-19; Stanley D. Chapman, *Merchant Enterprise in Britain: From the Industrial Revolution to World War I.* Cambridge, UK: Cambridge University Press, 1992: 114-15; Stephanie Jones, *Merchants of the Raj: British Managing Agency Houses in Calcutta Yesterday and Today.* London: Macmillan Press, 1992: 12.

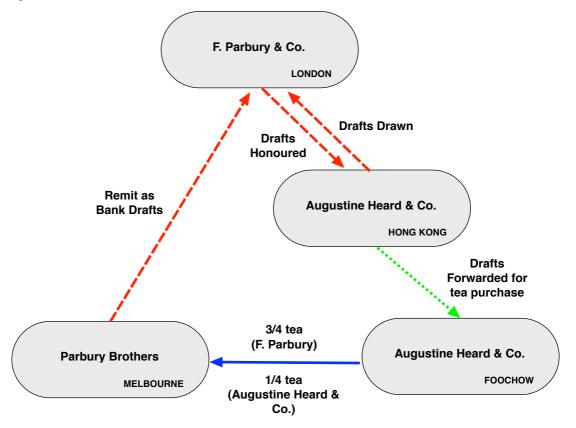


Figure 5.9. Process of a tea order between Parbury Brothers and Augustine Heard & Co., on joint account.⁷⁵

The Parbury Brothers tea transaction was organised by their agent in London, F. Parbury & Co. Prior to the season commencing, F. Parbury & Co. informed AH&Co. of the amount of money to be spent on tea purchases. If AH&Co. believed that the time was good for purchases, they drew up to the amount on F. Parbury & Co. in bank drafts in Hong Kong. Those drafts were then placed on credit to AH&Co. in Foochow where the teas were purchased. As a joint-account transaction, 75 per cent of the shipment was covered by F. Parbury & Co. and 25 per cent by AH&Co. The tea was then shipped to Melbourne or Sydney or both ports. When the tea was sold, Parbury & Co. then placed 25 percent of the drafts into AH&Co.'s account. Lastly, F. Parbury & Co. honoured the drafts that AH&Co. drew on them for the tea purchase to the extent of the credit account.

⁷⁵ The red dashed lines show the movement of drafts. The blue solid line shows the tea shipment and the green dotted line, the drafts forwarded to Foochow by AH&Co. to pay for the tea.

Figure 5.10. Financial process for a typical James Henty & Co. order of tea from Jardine Matheson & Co., on joint account.⁷⁶

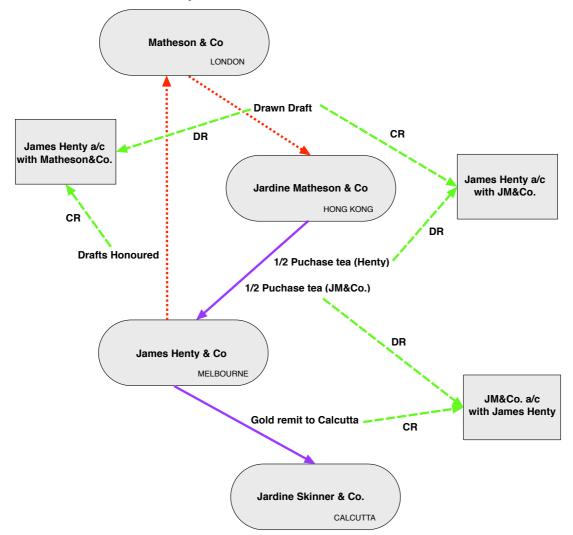


Figure 5.10 shows the financial process for a James Henty & Co. joint account tea transaction with JM&Co.⁷⁷ The financial portion of the transaction brings together firms from four different countries. A multi-lateral trade arrangement existed involving China, India, Australia and the United Kingdom. Figure 5.10 provides a detailed description of this process. Included were the agent of JM&Co., that being Matheson & Co. of London. Also participating was Jardine Skinner & Co. of Calcutta. To explain the transaction more succinctly, Figure 5.10 adds the layer of the accounts between the different firms. From the drafts through the tea purchases and to the remittance, each is balanced within

⁷⁶ The dashed green lines show the entries into each of the account books for the various parts of the transactions. The solid purple lines show the movement of tea and gold. The dotted red lines show the drafts that were obtained from London and then paid to London.

⁷⁷ See Appendix 20 for an example of an Invoice with detailed explanation.

the various accounts.⁷⁸ To take the mapping further, there would have been an account between Jardine Skinner & Co. and JM&Co. to cover the payments made to Jardine Skinner by Henty. The above diagram was closely replicated with the other trusted Australian merchants. However, it also can be extended to a complex set of accounts between firms such as James Henty & Co. when they imported tea on behalf of a number of other firms.⁷⁹

The movement of finances was primarily on paper, as described in Figure 5.10. The initial payment for the tea purchases was provided by a single draft or multiple drafts, each for six months, drawn by JM&Co. upon Matheson & Co. for Henty. These were then credited to Henty's account with JM&Co. whereby Henty was requested to honour them at maturity.⁸⁰ To counter the drawn drafts was Henty's portion of the cost of the tea, nominally half the overall cost. Matheson & Co. then debited an account with Henty to the value of the drafts. It is important to note that the drafts were not drawn from London until after the tea was purchased.⁸¹ Thus, unlike the pre-payment drafts, JM&Co. used their own funds or bartering to purchase the tea from the Chinese merchants at Foochow, Canton or other venues. In doing this there was an element of risk present with the drafts. To mitigate the risk, the financial transactions were arranged on the basis of mutual and reciprocal trust.

The sales of the tea were then remitted in various ways. One half was owed to JM&Co. as part of the joint-account and thus the value was debited by Henty for their account of

⁷⁸ The account for Matheson & Co. with James Henty & Co. will ostensibly be the same as that of James Henty & Co. with Matheson & Co.

⁷⁹ As an agent for JM&Co., Henty was also the pivot for financial transactions relating to a number of merchants both in Australia and New Zealand.

⁸⁰ Letter from JM&Co. to James Henty & Co., 10 July 1874 Letters to India JMA C10/63.

⁸¹ In correspondence, JM&Co. would normally value a new draft on Matheson & Co. to pay for the goods purchased. See, for example: following the purchase of tea to be shipped per *Maria Elizabeth* on joint-account in 1870, JM&Co. informed Henty that they had "valued on our London friends for an additional sum of £3000 with the equivalent of which we credit you at the exchange of $4/5^{3}/_{4}$.." Letter from JM&Co. to James Henty & Co., 7 March 1870 *Letters to India* JMA C10/60.

JM&Co. These remittances were fulfilled through the delivery of gold to Jardine Skinner & Co. When the tea was sold, or during the selling process, remittances of gold to Jardine Skinner & Co. would then be credited to the JM&Co. account with Henty.⁸² To cover the Henty portion of the sales, an amount equivalent to the drafts would also be paid to Matheson & Co., thus balancing out the account with that firm. That amount would be subtracted from the overall receipts from Henty's portion of the sales, thus leaving a profit or loss for Henty.

The diagram of accounts in Figure 5.10 shows a set of triangles, each involving multiple companies and multiple countries. That between Matheson & Co, JM&Co. and James Henty is evident. The assumption of a direct connection between JM&Co. and Jardine Skinner creates a second triangle when James Henty is added. The line between JM&Co. and James Henty is the join of the two triangles that, in turn, creates an example of a multi-lateral trade arrangement. While this work is investigating individual companies as opposed to countries, it is not hard to draw comparisons with the multi-lateral trade triangle trade triangles as described by Hamashita.

Gold to Calcutta

Remittances from joint-account transactions were sent to London, India and Australia. In previous chapters and above, I have already discussed the remittances to London and Australia. The following section concentrates on the portion of joint-account transactions that were sent to India. Figure 5.10 showed that the portion of joint-account transactions belonging to JM&Co. was delivered in the form of gold to Jardine Skinner

⁸² For example, see: "Messrs. Jardine Matheson & Co. in account with James Henty & Co." 27 January 1875 *Current accounts: Australia JM A8/48/1*. Within this six month period, there were two deliveries of gold to Calcutta – *Nubia* on 7 September and *Ceylon* on 30 December.

& Co. at Calcutta. How did the remittance travel to Calcutta and why was Calcutta chosen are two questions that arise from this discussion.

The method of remittance for JM&Co.'s portion of joint-account transactions was through the delivery of gold bars to Calcutta. The remittances were part of a general movement of bullion to India.⁸³ India had been on a monometallic silver currency since Lord Dalhousie demonetised the gold currency of India in 1853.⁸⁴ For trade, silver had to travel a great distance and at a heavy cost. Henry Macleod, in his 1898 treatise on Indian currency stated

That the exclusive Silver standard and Currency of India rendered direct trade with Australia and other Gold producing districts impossible, and forced a country with abundance of Gold to traverse half the globe in search for Silver before she could pay for our commodities.⁸⁵

However, Figure 5.11 shows that in the early years of the 1860s a large amount of gold was exported direct from Australia to India. It was part of a general increase in gold exports to India at that time.⁸⁶ Thus, in 1864, an attempt was made to re-introduce gold sovereigns as legal currency.⁸⁷ At the time, gold bars were already being used by some India merchants to counter the deficiency of silver. The Indian merchants, as explained by Macleod, were "using Gold bars stamped by the Bombay Banks as a circulating Medium."⁸⁸ While India continued to import gold, the 1864 proposal was quashed in

⁸³ It is important to note, though not calculable, that bullion was also sent to Galle with its final destination being India, the gold being transshipped at the Ceylonese port. This is not included in the Australian data.

⁸⁴ Marc Flandreau, and Kim Oosterlinck, "Was the Emergence of the International Gold Standard Expected? Evidence from Indian Government Securities." *Journal of Monetary Economics* 59, no. 7 (2012): 651.

⁸⁵ Henry D. Macleod, Indian Currency. London: Longmans, Green & Co., 1898: 20.

⁸⁶ The total imports of gold in value went from £4 millions in 1860 to £7 millions in 1863 and to just under £10 millions in 1865. *Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom.* (Parts VII, X, XI)

⁸⁷ There is no evidence of a connection between Australia's large export of gold to India and the movement in 1864 to re-introduce gold currency.

⁸⁸ Macleod, *Indian Currency*: 21. A greater portion of these bars would have been minted in Sydney.

the UK Parliament.⁸⁹ India, by the end of the nineteenth century, eventually worked with a Gold Standard Reserve which was based in London.⁹⁰

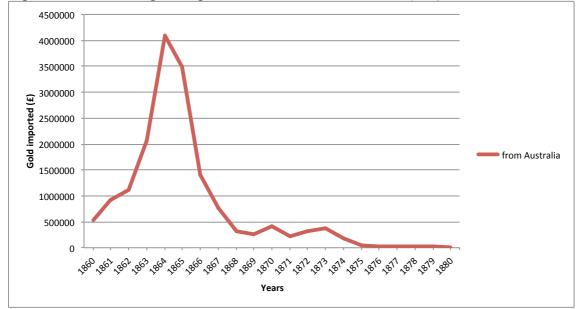


Figure 5.11. Value of gold imported into India from Australia (in £), 1860-1880.⁹¹

Australia's contribution to India's importation of gold was very large for the years 1863 to 1865. The *Statistical Tables* provided by the UK government show that a large amount was imported by the Presidency of Bengal. That included Calcutta as a main port for imports. The remainder, though small when compared to that for Bengal, was sent to the Presidency of Bombay. In the year ending 31 March 1863, just over 75% of the gold imported into Bengal was from Australia. Figure 5.11 shows that following 1865 the amount of gold exported from Australia to India declined to an almost insignificant figure. For 1880, only £8,041 of gold travelled from Australian ports to

⁸⁹ Sashi Sivramkrishna, "India's Failed Transition to a Gold Currency in the 1860s." *Economic & Political Weekly* L, no. 4 (2015): 49-50.

⁹⁰ Pierre van der Eng, "The Silver Standard and Asia's Integration into the World Economy, 1850-1914." *Review of Asian and Pacific Studies* 18 (1999): 67; G. Findlay Shirras, *Indian Finance and Banking*. London: Macmillan & Co, 1919: 270-79.

⁹¹ See Appendix 21 for data used. Obtained from *Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom.* (Parts VII to XIV) and *Statement of the Trade of British India and Foreign Countries for the Five Years* (1869-70 to 1874-75 through to 1876-77 to 1880-81). The gold was primarily exported from Melbourne with a smaller portion from Sydney.

India.⁹² Australia, though, remained a key exporter of gold. Over £5 million of gold was exported to other countries in 1880. India's desire for gold had also diminished. From a high of approximately £10 million in 1865, the arrivals of gold fell to between £1.5 million and £2 million in value by the late 1870s.⁹³ One reason for the fall in imports related to the downturn in the price and stability of silver.⁹⁴

There is one concern about the accuracy of the statistics for gold exports from Australia to India. For example, the Victoria total of gold exported to Calcutta in 1874 was £8,335.⁹⁵ However, viewing the account statements between James Henty and JM&Co., there was £23,880 of gold made in four shipments throughout the year.⁹⁶ The seemingly possible prognosis is that the gold shipments were recorded with a destination of Galle (Ceylon) instead of Calcutta.⁹⁷ There was no direct steamer service to Calcutta. P&O mail steamers regularly travelled from Melbourne to Galle. From there a similar service provided the transshipment of gold to Calcutta.⁹⁸

The movement of specie and bullion throughout the Indian Ocean was never-ending. Attempting to analyse where Australian gold and silver went is difficult. As mentioned above, gold was delivered to Galle by P&O steamers from Melbourne. A portion of that gold was to be delivered to Jardine Skinner & Co. in Calcutta. The portion was

⁹² Statement of the Trade of British India with British Possessions and Foreign Countries for the Five Years 1875-76 to 1879-80. London: G. E. Eyre and W. Spottiswoode, 1882: 22.

⁹³ Shirras, Indian Finance and Banking: 452-53.

⁹⁴ Arnold P. Kaminsky, ""Lombard Street" and India: Currency Problems in the Late Nineteenth Century." *Indian Economic and Social History Review* 17, no. 3 (1980): 307-09; A. G. Kenwood, and A. L. Lougheed, *The Growth of the International Economy 1820-1960*. London: George Allen & Unwin, 1971: 120-21; Shirras, *Indian Finance and Banking*: 122 includes a table of the value of silver through the 1870s.

⁹⁵ SR VIC 1874: 68.

⁹⁶ "Messrs. Jardine Matheson & Co. in account with James Henty & Co." 31 July 1874 *Current accounts: Australia JM A8/48/1*; "Messrs. Jardine Matheson & Co. in account with James Henty & Co." 27 January 1875 *Current accounts: Australia JM A8/48/1*.

⁹⁷ Noel Butlin, *The Australian Monetary System 1851 to 1914*. Sydney: J. F. Butlin, 1986: 52.

⁹⁸ Stephanie Jones, "British India Steamers and the Trade of the Persian Gulf, 1862-1914." *The Great Circle* 7, no. 1 (1985): 26.

transhipped from Galle to India.⁹⁹ For merchants including Lowe Kong Meng, their gold was possibly transhipped straight to China on P&O steamers.¹⁰⁰ For Chinese merchants, this method was considered safer than choosing the sailing vessel.¹⁰¹ It was also regulated in that the P&O vessels kept to a timetable and thus Chinese merchants in Australia and in Hong Kong knew when the gold would arrive in China. Further, mail relating to the gold shipment was on the P&O vessels.¹⁰²

I have previously shown that Gold was also shipped directly to China from Australia by Chinese. Figure 5.5 shows the amount of gold shipped direct to China from each of the three colonies, NSW, Victoria and Queensland. From the mid-1860s, merchants, such as Louis Ah Mouy, sent their gold to China via Galle instead of direct and thus there is a decline of direct shipments from Victoria. The increase in NSW is due to the development of the eastern route using E&A steamers. It is of note that although the E&A steamers travelled to and from Melbourne, the Chinese merchants continued to use the P&O service to Galle and Hong Kong instead.¹⁰³

⁹⁹ Owing to the various mail contracts between Galle and Indian ports, including Calcutta, the gold was first unloaded from the vessel before being loaded onto whichever steamer was first to travel to the port of destination. The data from the *Statistical Tables* show a large amount of gold being shipped from Ceylon to India. *Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom*. (Parts V to XVII).

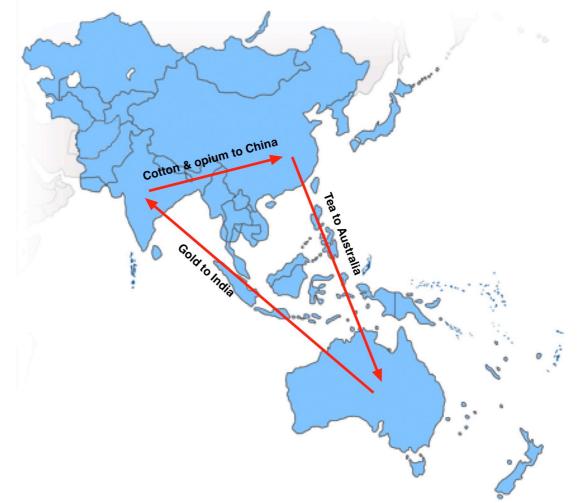
¹⁰⁰ Unlike the transshipment from Galle to ports in India, the journey for the gold from Galle to Hong Kong was also by P&O vessel. That is, the gold shipments from Australia were moved from vessel to vessel without being unloaded. The data in the *Statistical Tables* show a negligent amount of gold being exported from either Ceylon or India to China. However, up to 1861, the *Statistical Tables* entry for Hong Kong provides the value of treasure (gold, silver and copper) that was imported from India to Hong Kong on P&O steamers. While that data stated "India," I believe that a fair assumption can be made that, in fact, this was from Galle and not from India. There were no direct P&O routes from India to Hong Kong and the other data, as mentioned, would counter any argument of shipments of treasure from India to Hong Kong. *Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom*. (Parts V to XVII). However, no assumptions can be made as to whether this was gold, silver or a combination of the two.

¹⁰¹ Steamers offered a safer route when travelling to China as vessels were able to outrun pirates as well as navigate tricky passages.

¹⁰² Mail from the ports of Sydney and Melbourne was sent via the P&O steamers as it was quicker and more secure. It is important to note that, at the time, Westerners sent two copies of the same letter, on two different vessels. This method of redundancy covered any possibility of loss of the first letter sent. The second, or "Press Copy," was normally hand-written on a poorer quality paper or a pressed copy through a device to create such copies.

¹⁰³ There is a possibility that the shipping rates were less for transport by P&O as opposed to E&A. Ah Mouy continued to transport gold via Galle up until 1880.

Figure 5.12. Triangle of Trade: Jardine Matheson & Co. using the sale of tea in Australia to assist with the purchasing of goods from India.



The shipments that were completed by the Australian European merchants were based on the ability to frequently deliver the gold to Calcutta. This depended on the regular mail steamer service of P&O which ran between Galle and Australia. However, unlike the clearing of drafts where payment was made upon final sales, the Australian merchants would submit part-payments in gold at regular intervals.¹⁰⁴ Smaller shipments of gold bars were easier to create through the Mint where only a portion of the gold was moulded into bars, the remainder primarily for coinage.¹⁰⁵ Transporting a

¹⁰⁴ For example, James Henty & Co. submitted one box of gold, each on three occasions during the second half of 1871 – 15 July, 9 October and 6 November. "Messrs. Jardine Matheson & Co. in account with James Henty & Co." 1 January 1872 *Current accounts: Australia JM A8/48/1*

¹⁰⁵ Except for the period 1862-64, gold bars only account for between 1% and 4% of total minted gold for the period 1860-1870. "Enclosure 1. Return of the Quantity and Value of Gold received for Coinage at the Sydney Branch of the Royal Mint, of the Gold Coin and Gold Bars issued therefrom, and of the Revenue derived from Mint Charges &c., from the opening of the Mint on the 14th May 1855 to the 31st

continuous supply of small quantities allowed for improved speculation on the part of Jardine Skinner in the Calcutta silver market.¹⁰⁶ However, if the shipments were held back in Australia, JM&Co. complained that the interest on the tea shipments through the drafts was being lost, such was the small gain from the silver sales.¹⁰⁷

The decision to use Jardine Skinner & Co. as an intermediary in the tea transactions with a select group of Australian merchants was one based on financial imperatives. For JM&Co., the movement of gold to pay for the tea allowed the Hong Kong firm to create a debit in an account with their Calcutta counterparts. It assisted in maintaining a trading avenue between Hong Kong and Calcutta for the movement of such goods including cotton and opium. Further, it allowed for JM&Co. and Jardine Skinner & Co. to take advantage of business opportunities through trading on the Calcutta silver market.¹⁰⁸ Figure 5.12 demonstrates the movement of commodities for the connection involving Jardine Skinner & Co.

A few Chinese merchants in Australia had strong connections in India. Lowe Kong Meng, for example, only returned to Australia in 1853 when his close friends in

December 1870. Second Annual Report of the Deputy Master of the Mint. 1871 HoC, no. C.552 (1872) London: G.E. Eyre and W. Spottiswoode, 1872: 63.

¹⁰⁶ Based on the *Statistical Tables* there appears to be a significant amount of gold entering the Indian market. Gold was not a viable currency for standard transactions, though it was available for conversion into silver. *Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom*. (Parts V to XVII).

¹⁰⁷ Letter from JM&Co. to Daniell King & Co., 25 July 1867 Letters to India JMA C10/57.

¹⁰⁸ In an alternative version, Andrew Pope states: "The trading firm Jardine, Skinner and Co. engaged, amongst other trades, in shipping tea from China to the Australian colonies. The tea was paid for in gold, both bars and sovereigns. The gold, however, was not shipped from Australia to China as a simple bilateral settlement, rather, it was shipped to India where Jardine, Skinner and Co. generally sold it to local gold dealers. The rupee proceeds of the sales were used to buy opium in India, which was, in turn, shipped to China and traded for tea, and so the cycle continued." Pope's version was developed from viewing the evidence presented by Claud Hamilton of the firm Jardine Skinner & Co., 20 February 1866 and reproduced in the Mansfield Commission Report, vol. 2: 29. Andrew Pope, "Precious Metals Flow in the Indian Ocean in the Colonial Period: Australian Gold to India, 1866-1914." In *Evolution of the World Economy, Precious Metals and India*, edited by John McGuire, Patrick Bertola and Peter Reeves. 155-78. Oxford: Oxford University Press, 2001: 158. It is unknown why Hamilton would state this when it was obviously incorrect and why Hamilton would not mention JM&Co. in his evidence.

Calcutta advised him to.¹⁰⁹ Thus, there is every possibility that the gold, or a portion of it, sent by Meng to Galle was then delivered to his associates in India. Those associates, similar to Jardine Skinner & Co., converted the gold into goods such as opium and cotton for transportation to Hong Kong. Meng was known as an importer of opium into Australia, sometimes as part of clandestine shipments.¹¹⁰ Thus, the opium may have originated from India, paid for through Meng's shipment of gold to India and using Hong Kong as a transshipment point prior to delivery to Australian ports.

The preference of Jardine Skinner was to have the gold shipped from Australia in bars so that it could be easily sold. The other option, specie (or coinage), was considered hard to pass within the markets of India given the fact India was on a mono-metallic silver currency at the time. The gold bars were sold for silver Rupees (Rp). The Rupees were then credited "in account of the Government Debenture originally deposited as security for the execution of the tea contract."¹¹¹ Yet, it was also only sold when the silver market was favourable. In early 1863 Jardine Skinner informed JM&Co. that they were retaining the gold from sale "in view of a better price shortly."¹¹² The poor exchange would have been exacerbated by the glut of imported gold at that time (see Figure 5.11). Such was the concern of obtaining the optimum value from the sales in Calcutta that JM&Co. requested of Henty "that it would frequently prove of service to telegraph to them advice of your gold missions in order that they may take advantage of any prospective changes in their market to sell to arrive as desirable."¹¹³ "Them" was Jardine Skinner and the service would have proved quite profitable. However, the

¹⁰⁹ Macgregor, "Lowe Kong Meng and Chinese Engagement".

¹¹⁰ Argus 16 September 1863: 4. Kong Meng & Co. was the consignee for shipments from the Jack Frost and Kingfisher. Boxes labeled as "dirt" in Chinese characters held large quantities of opium. The estimated value of duties that were about to be bypassed was at least £3,000.

¹¹¹ Letter from JM&Co. to Jardine Skinner & Co., 20 August 1869 Letters to India JMA C10/59.

¹¹² Letter from JM&Co. to Jardine Skinner & Co., 17 April 1863 Letters to India JMA C10/55.

¹¹³ Letter from JM&Co. to James Henty & Co., 18 October 1869 Letters to India JMA C10/59.

request was made in 1869 prior to the telegraph being connected between Australia and Asia.

The quality of the gold was of importance and caused problems. Gold was initially cast into specie and bars solely at the Royal Mint in Sydney. In 1872, the Melbourne branch of the Royal Mint opened.¹¹⁴ Commonly gold was mixed with copper to increase hardness. With pure gold set at 24 carats, the combination with copper alloy at the time for coins was 22 carats.¹¹⁵ This was also translated to the casting of gold bars.¹¹⁶ Some native Indian merchants, in the early 1860s, found the quality unacceptable and thus bought the bars at a lower cost to that of a more pure variety.¹¹⁷ In 1860 the general sale was at Rs. 15/1 per tolah but, with some containing copper alloy, perhaps too much,

¹¹⁴ H. C. Bolton, and N. H. Williams, "Weighing and Assay in the Early Days of the Melbourne Branch of the Royal Mint." *Historical Records of Australian Science* 14 (2002-03): 47. *Copy of Captain Ward's report on the Mint at Sydney, presented to the legislature in January 1860.* HoC, no. 358 (1860) C. Fortescue. Colonial Office, 5 June 1860: 6.

¹¹⁵ Bolton, and Williams, "Weighing and Assay": 48. A carat (or karat) is a measure of the fineness or purity of gold. It is measured as a 24th of the percentage such that 24 carat = 100% fineness and 22 carat lies between 22/24 and 23/24 or 91.66% to 95.83%. Donald Clark, "Jewelry Metals 101: Gold, Silver, and Platinum." (2017). https://www.gemsociety.org/article/fundametals-jewelery-metals-overview/. (cited 5 October 2017).

⁽cited 5 October 2017).¹¹⁶ Though the gold bar was termed and accepted as the "gold of commerce," that minted in the Sydney Royal Mint was inferior in fineness to that from the Royal Mint in London. The silver alloy portion was, legally, approximately 6.3% of the total of each bar with 2% allowable of another alloy, mostly copper. For the Sydney Royal Mint, the cost to transport the materials for processing the gold, namely the chemicals, to Australia was exorbitant and thus the Australians were left with a stronger mix of silver alloy. Further, that amount varied with the origin of the gold. That from Victoria was more fine than from NSW with Queensland extractions the least fine, containing over the legal level of silver in the gold mined. When the gold arrived in Sydney it was mixed together to bring the silver alloy amount as close as possible to the 6.3% level. The English gold minted, though, was of a purer amount, the silver being leeched out of the gold. Later in the 1860s new technologies were developed by one of the Sydney assayers, Francis Miller, which allowed for the extraction and refinements of the silver alloy. At the commencement of the 1870s, the improvements meant that Australian minted gold was finally accepted by the British government to be used as currency in England. Report from the Select Committee on the Sydney Branch Mint; together with the proceedings of the committee, minutes of evidence, appendix, and index. HoC, no. 421 (1862) 17 July 1862: xvii, 2-5; Francis. B. Miller, "On Gold Refining by Chlorine Gas." Transactions of the Royal Society of New South Wales 3 (1869): 158. Victorian gold was at 23 carats (96% gold), NSW gold was 22 carats 1 7/8 grain (93.5% gold), Queensland was 21 carats (87¹/₄ gold) with as far north as Maryborough at only 85% of gold. The percentage of gold is also called "touch." Thus, Victorian gold was "96 touch."; David Collins, "The First Chemists an Australian Chronicle Part 5." Chemistry in Australia 77, no. 7 (2010): 12-16; For the paper on the process, see: Miller, "On Gold Refining by Chlorine Gas."; Fourth Annual Report of the Deputy Master of the Mint. 1871. House of Commons, no. C.1016 (1874) London: G.E. Eyre and W. Spottiswoode, 1874: 5.

¹¹⁷ The fact that native Indian merchants were attempting at sourcing purer gold suggests that the gold was not then used for bartering but for either some method of adornment or as part of a wealth storage.

they were bought for only Rs. 14/15.¹¹⁸ In another shipment, of 1862, the gold was found inferior and "sold for one anna per sicca weigh." From that, Jardine Skinner had recommended the bars to be "from 22½ to 23¾ carat instead of one uniform standard of 22 carat."¹¹⁹ Further complaints related to the origin of the gold where, as early as 1860, the finer quality from Melbourne was found preferable to that of Sydney.¹²⁰ However, as the bars were minted in Sydney, and to the specifications of that Mint, the option of choosing solely the better quality gold from Victoria did not exist. Silver became the alloy of choice by the Indian buyers and, after the Sydney Mint commenced charging "for all silver over and above two per cent contained in gold bars," Jardine Skinner offered other options. A suggestion was made to Daniell King & Co. of Sydney to submit a shipment where one half was of gold bars alloyed with silver and the other with "2 per cent silver & copper," to allow the market in Calcutta to be tested.¹²¹

The drop in exports of gold from Australia to India at the end of the 1870s was related to the fall in the prices of silver. The exchange rate for selling gold for silver made transactions unprofitable. Merchants, such as JM&Co., explored other options. JM&Co. advised their Australian agencies to make alternate arrangements for remittances.

The course of exchange between HongKong and Calcutta having becoming very adverse we have decided that, for the next four months it will be more advantageous that you should remit our friends in London in first class drafts instead of continuing shipments of gold to Messrs. Jardine Skinner & Co.¹²²

¹¹⁸ Letter from JM&Co. to James Henty & Co., 26 August 1860 *Letters to Europe* JMA C11/28. The tolah were a silver rupee coin initially issued by the BEIC in India.)

¹¹⁹ Letter from JM&Co. to Thacker Daniell & Co., 26 May 1862 Letters to Europe JMA C11/30.

¹²⁰ Letter from JM&Co. to Thacker Daniell & Co., 27 October 1860 *Letters to Europe* JMA C11/28. Melbourne related to gold from Victorian mines and Sydney to finds in NSW.

¹²¹ Letter from Daniell King & Co. to JM&Co., 30 December 1870 Correspondence: Business Letters: Australasia JMA B6/3. There was no further correspondence on this matter. At that time, the export duty on gold differed between NSW (1s. 6d.) and Victoria (1s.) per ounce. Customs tariffs (colonies). Return of the changes made in the customs tariffs of Her Majesty's possessions abroad (in continuation of Parliamentary Paper, no. 560, of session 1864). HoC, no. 419 (1867) C. B. Adderley. Colonial Office, 2 July 1867: 42, 44.

¹²² Letter from JM&Co. to James Henty & Co., 12 June 1879 Letters to India JMA C10/65.

The letter was a confirmation of a telegram, dated 7 June 1879, from JM&Co. that instructed James Henty to "make all remittances on your account to Messrs. Matheson & Co. by drafts on London until otherwise instructed."¹²³ Further, to improve the movement of finances and owing to the downturn in London, Henty chose to submit direct to JM&Co. a large pre-payment draft on the Bank of Australasia to cover a number of indents, both from Henty and from others through Henty.¹²⁴ However, the depression on tea prices matched with the lack of money for purchases and speculative decisions meant that the tea markets suffered.¹²⁵ Thus, the number of indents for tea diminished towards the end of the 1870s. The lack of purchases in the latter 1870s was another reason for the general downturn of Victorian imports of tea, as shown in Figure 5.1.

Factors relating to joint-account transactions

The process of generating a joint shipment of tea between a western merchant house in China and one in Australia during the 1860s and 1870s had a number of benefits for both parties. The gains for both sides came most commonly through the transaction charges, especially freight, which were split between the two parties. The insurance was not only divided evenly but was also sometimes with two different offices, the Australians choosing to insure through England or an Australian firm while JM&Co. used the Canton Insurance Office.¹²⁶ The fact that the shipment was joint meant that

¹²³ Letter from James Henty & Co. to JM&Co., 11 June 1879 Correspondence: Business Letters: Australasia JMA B6/3.

¹²⁴ Letter from James Henty & Co. to JM&Co., 22 March 1879 *Correspondence: Business Letters: Australasia* JMA B6/3. The draft was for £15,000.

¹²⁵ Letter from George King & Co. to JM&Co., 19 April 1879 Correspondence: Business Letters: Australasia JMA B6/3.

¹²⁶ In 1863, for example, Thacker Daniell & Co., of Sydney, organised for their half-share of insurance be directed to Matheson & Co. in London to organise. This was common also with James Henty. An example of a Thacker Daniell transaction: Letter from JM&Co. to Thacker Daniell & Co., 31 October 1863 *Letters to India* JMA C10/55; Invoice for 8206 packages of tea per *Brunswark*, 27 October 1863 for Thacker Daniell & Co., JMA A6/14.

each firm trusted the other to do the best for the combined interests. The purchase was of best quality and of the best price with the cheapest and fastest freight. Further, advantage was always taken of the exchange rates for conversion of pounds sterling to dollars and taels. Finally, in Australia, the sales were assumed to be at the optimum price. The Hong Kong merchant knew that the best profit was obtained for the parcel.

The shipments were generated based on the information available to the Treaty Port merchant. That information was composed of a number of attributes and was delivered through correspondence and reports. The movement of vessels from China to Australia was keenly recorded, predominantly for insurance purposes. The records furnished a picture of the size of the freights heading to individual Australian ports.¹²⁷ The quantitative information was complemented with a qualitative analysis by the Australian partner within the joint account transaction. The Australian merchant provided market advice as well as any other factors affecting the market. These included political decisions relating to taxes, levies and duties that were found to hinder a profitable sale or where an unfortunate event could be exploited. Put together, this knowledge allowed for the Hong Kong merchant to make a business judgement relating to the ability of a shipment to gain acceptance in the foreign market.

In the 1860s, overcoming distance created delays in the transfer of information. The time for a message to arrive and the reply to be available to the original sender was up to four months. When the telegraph from Galle to China was installed, messages

¹²⁷ The China-based merchant houses provided their own circulars which detailed this information. Thus, the size and number of shipments and their destinations were well documented for tea. See, for example, Prices Current *AH P945 Cartons 31-33*; *Prices Current, Melbourne JM G5 and Prices Current and Market Reports, Australia JM G6.*

travelled by steamer from Australia to Galle and then by telegraph to Hong Kong.¹²⁸ That reduced the time taken for transfer of information to a few weeks. Australia was connected by telegraph to Asia in 1872.¹²⁹ The telegraph improved communication significantly, though it was extremely expensive despite the creation of codes to abbreviate the messages.¹³⁰ Thus letters remained the primary focus of communication between Australia and China. The delays created uncertainty for the Treaty Port merchants as to the accuracy and relevance of market advices. The delays also hindered opportunities to take advantage of favourable markets. When permission from the Australian merchant was required prior to proceeding with a purchase, any delay meant opportunities could be lost.

The information gathered by the China-based merchants allowed for informed decision making. Compiling and evaluating both an understanding of the aspects of the Australian markets together with the knowledge of the amount of tea that had departed for the Colonies, the merchant in China was in a strong position to understand how any new parcel of tea would perform in and react with those markets. The decision-making most often related to secondary and later indents during each tea season. It was unusual that a first indent, made at the opening of the tea season, would have been held back owing to either an excess in deliveries to or an excess of warehoused stock at the Australian market.¹³¹ The despatching of the first teas to Australia, as with the old tea

¹²⁸ The connection between China and the UK, via India, commenced in 1871. Ariane Knuesel, "British Diplomacy and the Telegraph in Nineteenth-Century China." *Diplomacy & Statecraft* 18, no. 3 (2007): 523.

¹²⁹ Peter Putnis, "The Early Years of International Telegraphy in Australia: A Critical Assessment." *Media International Australia, Incorporating Culture & Policy* no. 129 (2008): 140. See also Chapter 2 for a discussion of the effect of steamers.

¹³⁰ Putnis, "The Early Years": 145. JM&Co. and a number of Australian merchants created codes to work with. Luke Trainor, *British Imperialism and Australian Nationalism: Manipulation, Conflict and Compromise in the Late Nineteenth Century.* Cambridge, UK: Cambridge University Press, 1994: 51. Rates into Australia were 10s. per word in the 1870s, as opposed to 2¹/₂s. per word for messages from NSW to elsewhere in Australia or New Zealand.

¹³¹ Stocks always existed, unsold and in the warehouses, and thus first indents could, and did, reach markets in Australia which were still struggling to clear the previous year's teas. In 1871, F. Parbury &

races to London, was of importance to obtain the best price in Australia.¹³² Commonly, there were only two shipments per season to the merchants in Australia. Yet, in some seasons the second shipment was held back while in others multiple shipments were expected and sold in an encouraging market. The decision making process altered with specialised teas, especially Hyson Skin and other green varieties. The Australian markets were rarely over-stocked and it was more the timing to fit with the desires of the consumers that generated shipments of these specialised varieties of teas. Thus, a China-based merchant was more attuned to following through on an indent for green tea or fine teas than they would for the normal indents of Congou teas.

The factors affecting the speculation by Australian merchants varied. The information passed on from Australia provided details of how the market was reacting to teas as well as any surrounding determinants.¹³³ The effect of monetary flow, for example, clearly altered the way speculators in Australia proceeded with their purchases. In 1879 a shortage of money at the banks meant that these same banks commenced requests on their debtors to clear their accounts, a number of these being Australian merchants who had imported tea. Thus, the price of tea dropped quickly as the parcels were sold to cover the bank drafts now being called.¹³⁴ That information reached China and the result was indents being denied under the belief that the tea would be hard to sell, for a

Co. requested of AH&Co to hold off on the new season's teas so as to allow for the old stock to be cleared. Letter from F. Parbury & Co. to AH&Co., 3 May 1871 *FPC*. This choice was rare as the old stock was generally saleable, whether after all the new stock was cleared, when there was a gap in delivery and a need for saleable stock or solely for a lower price than what the market was offering. Generally, new stock was preferred.

¹³² Initially the first sailing ship to arrive attained an advantage. In 1874, it became a race between two steamers – the E&A *Legislator* and the *Amoy*. "The Tea Race." *SMH* 23 July 1874: 4. That race was considered a draw as "honours are divided." The *Legislator* arrived in Sydney first and Melbourne second and the *Amoy* arrived in Melbourne first and Sydney second. The *Amoy* travelled around Cape Leeuwin.

¹³³ Numerous circulars and hand-written pamphlets were sent to China from Australia explaining the situation of tea importations. One group of documents detailed periodically the situation regards the forwarding of tea to New Zealand from 1860 to 1862, the period of the initial gold rush in the South Island. See the documents within *Prices Current, Melbourne* JM G5 and *Prices Current and Market Reports, Australia* JM G6.

¹³⁴ Letter from George King & Co. to JM&Co., 19 April 1879 *Correspondence: Business Letters: Australasia* JMA B6/3. Parcels were lots that included either packets, chests or half-chests of tea.

decent profit.¹³⁵ Another, though unusual, effect was that of a disaster to a vessel on its journey to Australia. When the *Hindoo* was lost with its load of fine teas in 1871, the Melbourne market suffered, being "bare" of such teas. Henty informed JM&Co. immediately of the proposition of taking advantage of the loss to obtain a new shipment of fine teas for sale in the Melbourne markets.¹³⁶ One other was an understanding of the variance of the price of teas available for purchase in China. The speculation for obtaining a profit required not only an estimation of the market the teas were arriving in but also the initial cost in Foochow and other ports of purchase.

Sugar for the tea

Tea and sugar were almost inseparable both for the consumer and also as products conveyed to Australia from Chinese ports. Sugar was mainly imported from Mauritius and Manila while plantations were appearing in Queensland and New South Wales.¹³⁷ In the early 1860s, JM&Co. was involved in assisting with shipments of sugar from Manila through their agent there, A. Barretto & Co. The Hong Kong firm chartered a vessel for delivery to Manila prior to it sailing for Australia with a cargo of sugar and other goods.¹³⁸ The position for JM&Co. was to assist with the purchases, primarily in providing the drafts under the Australian merchant's name and thus as part of their account with JM&Co.¹³⁹ As the Hong Kong firm stated that there was no profit for them and little or no commission either, the venture was short lived with only a few parcels

 ¹³⁵ Letter from JM&Co. to Messrs. Unmack Heussler & Co., 5 August 1879 Letters to India JMA C10/66.
 ¹³⁶ Letter from James Henty & Co. to JM&Co., 22 April 1871 Correspondence: Business Letters: Australasia JMA B6/3.

¹³⁷ Barry Higham, "The Regional Impact of the Sugar Industry of New South Wales, 1870-1912." *Australian Geographical Studies* 6 (1968): 43-58; Peter Griggs, "The Decline of Competition: The Emergence of a Duopoly in the Australian Sugar Refinery Sector, 1841-1915." *Australian Geographer* 32, no. 3 (2001): 359-76; A. C. Hannah, and Donald Spence, *The International Sugar Trade*. Cambridge, UK: Woodhead Publishing, 1996: 13-14.

¹³⁸ Letter from JM&Co. to Thacker Daniell & Co., 25 June 1861 *Letters to Europe* JMA C11/29.

¹³⁹ Letter from JM&Co. to Thacker Daniell & Co., 31 October 1861 Letters to Europe JMA C11/29.

of sugar using JM&Co. as an intermediary.¹⁴⁰ However, during its brief existence, a separate, small trade triangle existed.

The proposition of assisting with the shipping of refined sugar to Australia direct from China re-emerged for JM&Co. in the late 1860s. A new company had formed in Hong Kong, the China Sugar Refinery. Messrs. Wahee Smith & Co. were the initial proprietors.¹⁴¹ In mid-1869 a trial shipment of 2,400 bags was delivered from Hong Kong to JM&Co.'s trusted agents, Daniell King & Co. in Sydney and James Henty & Co. in Melbourne.¹⁴² JM&Co. stated that they wanted to introduce Wahee Smith & Co. to prospective Australian traders and that JM&Co. had little interest in developing a sugar trade from China to Australia.¹⁴³ The initial shipments were provided by JM&Co. on their own account and risk. The remittance from the sales was made as a box of gold bars to Jardine Skinner in Calcutta with a pro-forma draft on London sent to JM&Co. to pay for the goods. When, in 1872, the number of orders exceeded the capabilities of Wahee Smith & Co. and the company appeared to teeter on liquidation, JM&Co.

¹⁴⁰ Letter from JM&Co. to James Henty & Co., 25 April 1862 Letters to Europe JMA C11/30.

¹⁴¹ "The Sugar Refinery at East Point." *The Hong Kong Daily Press* 30 December 1869: 2; Carl T. Smith, *Chinese Christians: Elites, Middlemen, and the Church in Hong Kong.* Hong Kong: Hong Kong University Press, 1985: 50; Shinya Sugiyama, "Marketing and Competition in China, 1895-1932: The Taikoo Sugar Refinery." In *Commercial Networks in Modern Asia*, edited by Shinya Sugiyama and Linda Grove. 140-58. Richmond, UK: Curzon, 2001: 152. The date of commencement is unknown. Smith does not supply a date, but believes it to be prior to December, 1869. Shinya Sugiyama offers that its liquidation in May 1928 was "after sixty-one years of operation," thus alluding to a commencement between 1867 and 1869.

¹⁴² Letter from JM&Co. to Daniell King & Co., 13 May 1869 *Letters to India* JMA C10/59; Letter from JM&Co. to James Henty & Co., 13 May 1869 *Letters to India* JMA C10/59.

¹⁴³ Letter from JM&Co. to Daniell King & Co., 7 March 1871 Letters to India JMA C10/60.

¹⁴⁴ Letter from JM&Co. to George King & Co., 5 July 1872 Letters to India JMA C10/62.

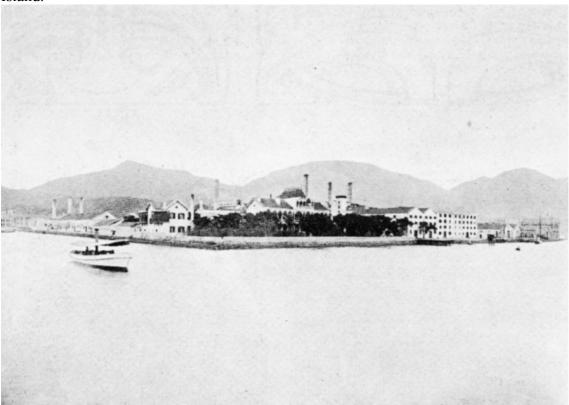


Figure 5.13. China Sugar Refinery, located at East Point, Causeway Bay, Hong Kong Island.¹⁴⁵

The China Sugar Refinery (Figure 5.13) recovered within just a few months. A Mr. Dickie took over as manager and JM&Co. became a significant partner in the new enterprise.¹⁴⁶ In an initial shipment of sugars to Australia from the new company, JM&Co. requested that, to assist with getting the trade active again, a minimal commission be afforded on both sides, Hong Kong and Australia. The shipments continued on JM&Co.'s account and risk with the Australian merchant as the commission agent receiving and selling the consignments of sugar. Further, the remittances were, again, to be in the form of bars of gold and sent to Jardine Skinner in Calcutta for JM&Co. on the account of the China Sugar Refinery.¹⁴⁷ Small parcels of sugar continued to be sent to Australia, though competition with the local refineries

¹⁴⁵ Arnold Wright, ed. *Twentieth Century Impressions of Hong Kong*. Singapore: Graham Brash, 1908:
236. From Hong Kong Memory Project No. WL-HIS-014a.

¹⁴⁶ Sugiyama, "Marketing and Competition": 140. JM&Co. were owners until 1928.

¹⁴⁷ Letter from JM&Co. to George King & Co., 4 October 1872 *Letters to India* JMA C10/62. JM&Co. was specific in requesting that the sugar remittances should be separate to those for tea. It leaves a slight question mark over exactly how sizeable was JM&Co.'s involvement in the company.

became a concern.¹⁴⁸ By the mid-1870s, interest in Chinese sugar increased. California was also another major importer of Hong Kong sugar and thus placed an additional burden on the refinery.¹⁴⁹ The China Sugar Refinery was struggling to keep up with requests and that limited the number of parcels sent to Australia.¹⁵⁰ Exportation of sugar continued on JM&Co's account for the remainder of the 1870s. The sugar shipments supplemented the floundering Australian tea trade towards the end of the 1870s. Remittances continued to be made in boxes of gold from Australia to Calcutta per JM&Co., yet separate of the remittances for tea. However, as per that for tea in the late 1870s, the process of using Calcutta for remittances was terminated and drafts were thereafter sent direct to London.

The importation of sugar from China into Australia fluctuated throughout the 1860s and 1870s. The trade suffered from severe competition with other exporting countries and refineries in Australia. Figure 5.14 shows an initial importation of sugar from Hong Kong and China for the opening years of the 1860s. These initial imports may be accounted for by shipments from Manilla travelling to Australia via Hong Kong. This was followed by the lapse of half a decade prior to returning as an import industry. Imports were only received in Sydney and Melbourne. The re-emergence of the imports in 1868-69 matches with the development of the China Sugar Refinery and the involvement of Jardine Matheson & Co. Further, the takeover by JM&Co. in 1872 mirrors the large increase in imports to Australia in that year from China, as does the decrease in 1876 when the refinery was overloaded with requests. Notwithstanding, JM&Co. was involved throughout with the transport of sugar from China to Australia and the use of Jardine Skinner & Co. in Calcutta for the payment of remittances. The

¹⁴⁸ Letter from JM&Co. to James Henty & Co., 7 September 1875 Letters to India JMA C10/64.

¹⁴⁹ Sinn, *Pacific Crossing*: 146.

¹⁵⁰ Letter from George King & Co. to JM&Co., 11 July 1876 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from JM&Co. to George King & Co., 11 September 1876 *Letters to India* JMA C10/64.

investment of these sugars in the Australian markets was purely for the benefit of the Hong Kong firm with the Australian agents only receiving a commission for their part in disposing of the product.¹⁵¹

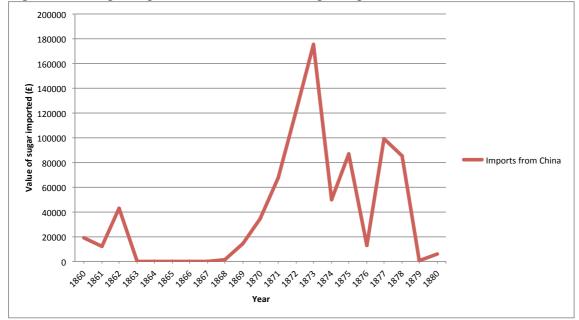


Figure 5.14. Sugar imports from China and Hong Kong to Australia, 1860-1880.¹⁵²

Concluding comments

The importation of tea into Australia existed within a multi-lateral trade arrangement involving merchant houses in Australia, China, England and India. Its complexity was created by the requirement to employ various methods of remittance. Four methods of tea transactions have been investigated in this chapter. The simplest methods were bartering, submitting drafts from Australia and using a London firm to submit drafts on behalf of Australian firms. The more complex method was the joint-account transaction.

¹⁵¹ There is another possible connection worth mentioning in passing. The China Sugar Refinery required coal, most presumably coking coal, to refine the sugar. In 1880, the refinery used 18,000 tons of coal. Thus, there is possibility that coal from Sydney sent to Hong Kong may easily have been for the refinery. See n.14 Shannon R. Brown, and Tim Wright, "Technology, Economics, and Politics in the Modernization of China's Coal-Mining Industry, 1850-1895." *Explorations in Economic History* 18 (1981): 62.

 $^{^{152}}$ Data obtained from various Australian colonial statistical tables. See Appendix 22 for a summary of the data.

For each, the purchase stage of tea was similar. The financial arrangements were quite different. The arrangements regularly involved merchants located in ports of countries other than China or Australia. Thus, it was not uncommon that the financial portion of a transaction included the use of financial instruments such as drafts to allow for further transactions relating to a third or fourth country's products.

The variance towards tri-lateral or multi-lateral arrangements was common practice with Australian merchant houses and a number of China-based Western houses. The importation of tea from China into Australia provided an opportunity for the usage of post-transaction drafts or other remittance methodologies to create finances for the movement of gold, opium, cotton and other goods. It created a multi-lateral trade arrangement that continued throughout the period of the 1860s and 1870s.

To a lesser extent, the Chinese merchants in Australian ports were also involved in the tea trade. Most Chinese merchants initially imported tea and other products for the Chinese workers. When the restrictive immigration policies of the individual colonies created a decline in the Chinese population in Australia, these Chinese merchants turned towards also servicing the European population. Merchants, including Lowe Kong Meng and Louis Ah Mouy are examples of this change. Meng and Ah Mouy also sent gold to Galle regularly to pay for their imports from Hong Kong to Australia. The possibility that a portion of the gold was delivered to India to pay for opium sent to Hong Kong and then to Australia cannot be discounted. Both Meng and Ah Mouy, amongst other merchants, were thus part of the growing multi-lateral trade that included India, China and Australia. They were part of a large exportation of gold out of Australia. That exportation also included smaller Chinese merchant houses in various

ports throughout colonial Australia who traded gold to Hong Kong for various products including tea and opium.

Two of the leading Western firms, located in China, JM&Co. and AH&Co., became part of joint-account exportations of tea to Australia and, in the former's case, ownaccount shipments of sugar. They chose trusted Australian merchant houses and developed close relationships with them, using these houses as commission agents. These trust relationships will be dealt with, more comprehensively, in the following chapter. For JM&Co., remittances from Australia were completed by the continuous freightage of gold to their partner in Calcutta, Jardine Skinner & Co. In doing so, these two merchant houses together with their counterparts in Australia created a triangle of trade. That continued until the exchange between silver and gold became too unrealistic for that methodology of remittance to continue. Otherwise, drafts were either sent or drawn on London, through one of its international banking companies. Thus, the trade relationship that was created extended to England. For the tea trade, this extension verified Australia's place within the global, multilateral trade and financial realms.

CHAPTER 6

TIES AND TRUST

During the 20th century, merchants located in the Chinese ports and in the colonial Australian ports developed networks that were fundamental to their ability to reduce transaction costs which, at the same time, created mutually beneficial relationships that promoted trust. For the 1860s and 1870s, when trade between Chinese and Australian ports was still in an expansion stage, developing networks was vital to the maintenance of good relationships as well as a continuance of trade. In Chapters 3, 4 and 5, I provided an understanding of how the trade of coal, sandalwood and tea, respectively, evolved throughout the two decades that this thesis is bounded by. It was through the business networks and the relationships that these created that assisted in developing the trade relationship between China and colonial Australia.

Socioeconomic historian Wellington K. K. Chan stated that it "would be difficult to imagine a firm operating a business without some form of networking."¹ While Chan was writing about the Chinese business networks of the Pacific Rim, his comment aptly fits a description of all firms involved in trade. Yet, what is a network and how can this concept be explored when analysing the trade between China and colonial Australian companies? There are numerous definitions of a network throughout various sources, from the Australian Oxford Dictionary's consideration of a complex system involving

¹ Wellington K.K. Chan, "Chinese Business Networking and the Pacific Rim: The Family Firm's Roles Past and Present." *Journal of American-East Asian Relations* 1, no. 2 (1992): 171.

an arrangement of intersecting lines² to the business and management understanding of nodes being connected to each other by specific threads.³ Gordon Boyce and Simon Ville extend this further to state that networks are "informed alliances of independent decision-makers (people or firms) that band together to promote mutual interests relying on bonds of trust."⁴

Networks are rarely singular and simple. They tend to be complex and related to various entities. Networks are also bounded by various ties, be they social, religious or kinship.⁵ For business networks, they are made up of cooperative actions between entities. Whether these are individuals or firms, when the interactions between these entities are equitable, they create a reduction of transaction costs.⁶ These economic cooperative networks were common within the trade relationships between firms in China and Australia. The firms were part of two-way transactions, where one exchange was made in the hope for a future return, whether that be a commodity through barter or of monetary value. For both parties in a transaction, there was an element of trust and confidence that the exchange was correct and that neither party required arbitrage by an enforcement institution.⁷

Thus, an essential characteristic of good networks is trust. Within an organisation, trust infuses such states as moral obligations, responsibility, collaboration and confidence

² The Australian Oxford Dictionary. West End, Qld: Herron Publications, 1988: 307.

³ Håkan Håkansson, and David Ford, "How Should Companies Interact in Business Networks?". *Journal* of Business Research 55 (2002): 133.

⁴ Gordon Boyce, and Simon Ville, *The Development of Modern Business*. New York: Palgrave, 2002: 264.

⁵ Simon Ville, "Colonial Enterprise." In *The Cambridge Economic History of Australia*, edited by Simon Ville, and Glenn Withers. 202-21. Melbourne: Cambridge University Press, 2015: 215.

⁶ William G. Ouchi, "Bureaucracies, and Clans." *Administrative Science Quarterly* 25, no. 1 (1980): 130.

⁷ Simon Ville, and Grant Fleming, "From Kinship to Relations Economic? The Development of Pastoral Networks in Australasia." In *Entrepreneurial Networks and Business Culture*, edited by Clara E. Núnez. 115-33. Madrid: International Economic History Conference, 1998: 116; Kenneth J. Arrow, *Information and Economic Behaviour*. Stockholm: Federation of Swedish Industries, 1973: 24.

and, in doing so, helps to deter malfeasance and restrains opportunistic behaviour.⁸ Within the context of business relations, trust assists in reducing transaction costs as members within a strong trust relationship have confidence in the information provided and actions taken by each other.⁹ That is, an element of uncertainty is removed from transactions between involved parties.¹⁰ Within the trade relations between China-based and colonial Australia merchants, and specifically as many Australian merchant houses were only in their infancy of interacting with the large China-based houses, there was a strong reliance on trust.

The theory behind the evaluation of trust relationships and the networks they serve is that presented by Mark Granovetter.¹¹ Granovetter's thesis on triadic closure using strong and weak ties is explored here in relation to the trade relationship. Throughout this chapter I investigate how strong and weak ties and triadic closure can be used to explain the development of trade relationships between China and colonial Australia. Examples relating to transactions and relationships discussed in Chapter 3, 4 and 5 are presented to assist the explanations.

The purpose of this chapter, thus, is to bring together the discussions of the previous chapters of this thesis within the context of communications, networks and trust. Numerous questions are posed and answered. How did communication alter during the 1860s and 1870s and how did that affect the trade and also the relationships of those involved in the trade? What types of transactions took place and how can these be

⁸ Salvador T. Porras, Stewart Clegg, and John Crawford. "Trust as Networking Knowledge: Precedents from Australia." *Asia Pacific Journal of Management* 21, no. 3 (2004): 345-46; Oliver E. Williamson, *The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting*. London: Collier Macmillan Publishers, 1985: 64-65.

⁹ Boyce and Ville, *Development of Modern Business*: 262-63.

¹⁰ Mark Granovetter, "Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91, no. 3 (1985): 489-90, 493-94.

¹¹ Mark Granovetter, "The Strength of Weak Ties." *American Journal of Sociology* 78, no. 6 (1973): 1360-80.

analysed within the context of trust and strong and weak ties? Finally, can the analysis of trust be extended to develop an understanding of hierarchy within the networks?

Ties and Triads

As with all networks and relationships there are favourites, those whom we as people trust, those whom we would assume or, more so, expect to perform duties for us whether they felt it was to their advantage or not and, in return, we would do the same for them. Sociologist Mark Granovetter has been considered a leader in the field of studying these types of relationships.¹² In his seminal 1993 paper, Granovetter created an understating of how networks and relationships are created and maintained through "strong ties" and "weak ties."¹³ Though vague in the sense that there is no distinct boundary between the two, measuring the strength, Granovetter explains, relates to time, emotional intensity, intimacy and reciprocal services.¹⁴ That is, the strength relates to the frequency of interaction, the trust and the type and amount of information shared between two or more actors in a network.¹⁵ Within the trade relationships that existed between the merchants of colonial Australia and those in China, were a small group that fit Granovetter's strong ties while the remainder fitted the category of weak ties.

Granovetter further argued that there are triangles of networks, which can be referred to as a "triadic closure."¹⁶ In Figure 6.1, a triadic closure is presented with the elements A,

¹² Granovetter has written a number of articles and books relating to economic sociology and is currently involved in a two volume analysis of society and economics.

¹³ Granovetter. "The Strength of Weak Ties.

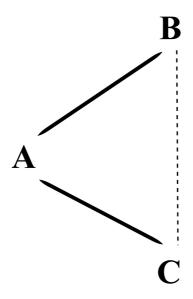
¹⁴ Granovetter. "The Strength of Weak Ties.": 1361.

¹⁵ David Easley, and Jon Kleinberg, *Networks, Crowds, and Markets: Reasoning About a Highly Connected World.* New York: Cambridge eText, 2010: 46-48.

¹⁶ Georg Simmel first put forward the idea of a triad in his 1908 work *Soziologie, Untersuchungen über die Formen der Vergesellschaftung* which was translated in 1950. See: Kurt H. Wolff, ed., *The Sociology of Georg Simmel.* Glencoe, Ill: Free Press, 1950: 135-36. See also: Easley and Kleinberg, *Networks, Crowds and Markets*: 44.

B and C, such that the relationship between A and B is a strong tie (solid line) and between A and C is also a strong tie (solid line). Granovetter advanced that, B and C are, at least, a weak tie (dotted line).¹⁷ That is, at some point, B and C will communicate and exchange, predicated by their relationship with A. The relationship between B and C can evolve into a strong tie and that was a common occurrence with the trade relationships involving firms in China and colonial Australia. This will be examined in more detail shortly.

Figure 6.1. Triadic Closure.

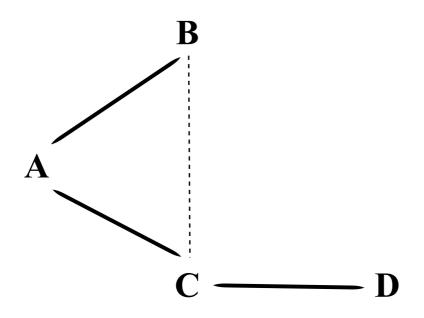


However, these weak ties can include other ties (say, D), that may be strong to, say, C and yet weak or non-existent to B. An example of the extended ties is given in Figure 6.2. The importance of this, and other external connections, is that information could travel from D to B. C would be a relay of the information. There would be no requirement for A to pass on the information. D, thus, becomes a source of useful

¹⁷ Granovetter, "Strength of Weak Ties.": 1362. From this point on, graphical representations will include solid lines to represent strong ties and dashed lines for weak ties.

information that B, and possibly A, did not have without the connection to C.¹⁸ The extra knowledge transfer assists in decreasing transaction costs in a way that was not expected by either A or B.

Figure 6.2. Extended Triadic Closure, including a link to D.



Granovetter and others have continued to provide a discussion of strong and weak ties which continues to the present day.¹⁹ Predominantly, these works have extended the theories around triads to involve large and increasingly complex networks. Yet, within the simplest form of the triad, I have encountered a problem. The nodes are left without any defining name. In my example above, A had strong ties to both B and C which, in turn, created the possibility of a weak tie between B and C. As I will provide examples in this chapter of various networks, it is important to distinguish this node, the A, and, as such, I intend to term it the "dominant node." The two other nodes within the triad

¹⁸ Easley and Kleinberg, Networks, Crowds and Markets: 46.

¹⁹ See, for example: Laura K. Gee, Jason J. Jones, Christopher J. Fariss, Moira Burke, and James H. Fowler, "The Paradox of Weak Ties in 55 Countries." *Journal of Economic Behavior & Organization* 133 (2017): 362-72; John W. Upson, Naga Lakshimi Damaraju, Jonathon R. Anderson, and Jay B. Barney, "Strategic Networks of Discovery and Creation Entrepreneurs." *European Management Review* 35, no. 2 (2017): 198-210.

are also to be termed, for which I label them as "partner nodes". That is, within a triadic closure, a dominant node has two partner nodes and the two partner nodes develop their relationship based on their initial relationships with the dominant node.

In many ways, it is the dominant node that defines the relationship. That firm, or person, is the initiator of the network. That is, when firm A, say in Australia, wants to introduce another Australian firm, firm B, to a China-based, firm C, then firm A, the dominant node, is using its strong ties with both the other Australian firm and the China-based firm to generate the link between the latter two. Without firm A's introduction, that link between firm B and the China-based firm may not have taken place. As will be shown throughout this chapter, the dominant node was not always the China-based firm, but was also, quite commonly, an Australian firm or, in some cases, a London firm.

The works of Granovetter, and those who followed, provide a foundation for the investigation of the various relationships that existed between firms based in China and colonial Australia. As already noted in earlier chapters, these relationships can be complex and include numerous firms from various countries. Triadic closures, thus, allow for a deconstruction of the relationships into their separate elements. It is through an analysis of these elements that a more comprehensive perception of the overall relationship is reached. Thus, the purpose of this chapter is to investigate how social structures, that were developed through and related to strong and weak ties, provide an understanding of transaction analysis between China and Australia during this period of emerging trade of the 1860s and 1870s.

Multiple firms

The interest in trading with China for Australian firms gained momentum throughout the 1860s and into the 1870s. These firms, both established and new, were generally located in the capital cities of the Australian colonies and, bar the rare exception, in ports around the Australian coastline. Throughout the China Treaty Ports, various firms presented themselves as partners for trade relationships and many were highly successful. The most prominent, located in Hong Kong or Shanghai, maintained relationships with large numbers of Australian firms through which they transacted various goods on a regular basis. The fact that over 200 Australian firms were involved in these industries shows that there was both a fascination in trading with China for Australian-based firms and also that Chinese-based firms were keen to exploit trade with these firms. Further, as shall be shown shortly, British firms, with Australian connections, were also involved in extending their reach in to the China-Australia trade.

One China-based firm, JM&Co., was corresponding with approximately 160 different companies throughout Australia during the 1860s and 1870s.²⁰ A breakdown of the number of correspondents per colony, the number of letters per colony, the percentage of all letters per colony and the average number of letters per correspondent per colony is provided in Table 6.1. The data shows that JM&Co. were involved in correspondence, and thus trade, with all colonies over the period from 1860 to 1880. However, it also demonstrates the importance of the two predominant colonies of New South Wales and Victoria where JM&Co. had their most trusted agents. Further, the large correspondence

²⁰ The figure is approximate as the data I have for the period is imperfect, specifically in the earliest years as well as half of 1876. Thus, there may have been more correspondents. Further, with data for an amount of correspondence missing in the earlier years, the figures would show a slight bias against the colonies of New South Wales and Victoria where the earliest trade was taking place. The figures are only for correspondence sent from Australia to JM&Co. in the Chinese treaty ports. There is a strong argument to state that JM&Co. were the most active of all Treaty Port merchants who dealt with merchants in Australia.

with Western Australian firms validates the position and importance of the sandalwood trade for JM&Co.

Colony	Number of	Number of	Percentage of	Letters per
	Correspondents	Letters	all letters	Correspondent
New South Wales	66	1483	54.6	22.5
Queensland	14	56	2.1	4.0
South Australia	7	10	0.4	1.4
Tasmania	4	18	0.7	4.5
Victoria	47	715	26.4	15.2
Western Australia	21	428	15.8	30.6
Total	159	2710	100.0	

Table 6.1. Correspondence from firms based in the various colonies of Australia to Jardine Matheson & Co., 1860-1880.²¹

The distribution of the correspondence for JM&Co. with each colony was not even in any sense. There were a small number of firms that had precedence in transactions over the others and many of the smaller firms were only involved in trade with JM&Co. for a short period of time. Of the 159 different firms, 141 had less than 26 items of communication while five had between 26 and 50, seven between 51 and 100 and six above 100. James Henty & Co. of Melbourne, for example, sent 531 items of correspondence over the two decades, averaging more than 25 items per year. Further, Henty's correspondence total represented just under three-quarters of all correspondence from Victoria. Such was Henty's position as the primary agent for JM&Co., that Henty was an integral part of JM&Co.'s connections with other parts of Australia as well as New Zealand. In NSW, the amount of correspondence was somewhat more distributed between a small collection of firms. There were four firms – Henry Moore (346), Brown & Co. (202), Charles Stokes (158) and R. B. Wallace (99) that represented most of the total.²² Further, the three incarnations of JM&Co.'s primary agents in Sydney - Thacker Daniell & Co., Daniell King & Co. and George King & Co.

²¹ Correspondence: Business Letters: Australasia JMA B6/3 for years from 1860-1880.

²² Only Charles Stokes, of Newcastle, became an agent for JM&Co.

– provided for 337 letters, which over the 18 years of records shows an average of 18.7 letters per year.²³ The only other merchant house that was involved in lengthy correspondence with JM&Co. was J. H. Monger (117) of York, a small town inland of Perth, Western Australia.

A similar distribution of correspondence can be found with the other primary merchant houses in China and their contacts in Australia. For example, Russell & Co.'s Hong Kong office dealt with at least 21 different Australian merchants based in NSW (6), Queensland (2), South Australia (4) and Victoria (9).²⁴ In the earlier years Russell & Co. was providing tea for the merchant houses in Melbourne, Adelaide and Sydney. When the new steam service travelling through the Torres Strait opened in the mid-1870s, Russell & Co. branched out to include Queensland firms.²⁵ Using a selection of correspondence between Augustine Heard & Co. (AH&Co.) and Australian merchant houses, there were letters sent to 45 companies of the same four colonies that Russell & Co. engaged in.²⁶ However, unlike Russell & Co., AH&Co. also dealt with a number of firms in Newcastle, because of AH&Co.'s interest in the coal industry²⁷ The distribution of AH&Co.'s correspondence was NSW (28), Queensland (1), South Australia (5) and

 $^{^{23}}$ The three agent companies during the 1860s and 1870s were: Thacker Daniell & Co. (1860 – 1864); Daniell King & Co. (1864 – 1871); George King & Co. (1871 – 1880).

²⁴ Russell & Co. order book Volume 1, Series I, RA; Russell & Co. order book Volume 3, Series I, RA; Russell & Co. invoices 1877-1881 Volume 5, Series I, RA. The collection is only from 1872 to 1880 and is imperfect.

²⁵ The first reference in the Russell & Co. collection is for an order by Quinlan Gray & Co. of Brisbane. Order from Quinlan Gray & Co. 2 October 1878 *Russell & Co. order book* Volume 1, Series I, RA.

²⁶ Aug. 1860 – June 1862 Letters Sent by A. H. & Co. Hong Kong to Pacific (San Francisco, Manilla, Sydney, etc.) II-C-1 Volume 516 AHA; June 1863 – Oct. 1863 Letters Sent by A. H. & Co. Hong Kong to Pacific (San Francisco, Manilla, Sydney, etc.) II-C-1 Volume 517 AHA; Oct. 1863 – Dec. 1864 Letters Sent by A. H. & Co. Hong Kong to Pacific (San Francisco, Manilla, Sydney, etc.) II-C-1 Volume 518 AHA; Dec. 1864 – Jan. 1866 Letters Sent by A. H. & Co. Hong Kong to Pacific (San Francisco, Manilla, Sydney, etc.) II-C-1 Volume 519 AHA; Feb. 1866 – Feb. 1877 Letters Sent by A. H. & Co. Hong Kong to Pacific (San Francisco, Manilla, Sydney, etc.) II-C-1 Volume 519 AHA; Feb. 1866 – Feb. 1877 Letters Sent by A. H. & Co. Hong Kong to Pacific (San Francisco, Manilla, Sydney, etc.) II-C-1 Volume 520 AHA; May 1869 – Feb. 1871 Letters Sent by A. H. & Co. Hong Kong to Pacific (San Francisco, Manilla, Sydney, etc.) II-C-1 Volume 521 AHA; The collection is imperfect.

²⁷ AH&Co. were keenly interested in the Australian coal industry and imported large amounts of coal through various merchants located in Newcastle and Sydney. See, also, Chapter 3 discussion on coal.

Victoria (12). Neither Russell & Co. nor AH&Co. engaged firms based in either Tasmania or Western Australia as had JM&Co.

The fact that the number of correspondents for Russell & Co. and for AH&Co. were less in total size than that for JM&Co. does not diminish the fact that specific firms, based in the primary colonial Australian cities, gained more attention than others. That is, there are clear patterns of a network of strong ties existing between the companies based in China in connection with a select few based in the colonies of Australia. It was through these strong ties that a trust existed between the firms of colonial Australia and the Treaty Ports beyond those others involved in general transactions. Yet, not all those firms that were involved in extensive correspondence were also agents for the Chinabased companies. Diversification of interests in numerous companies in Australia not only opened up a larger proportion of the market for trade but also spread the risk. While that risk generally related to concerns over the abilities of small firms to complete transactions, as shall be explained later in this chapter, large firms were not exempt from liquidation.

Poor communication and uncertainty

It is not surprising to reveal that the number of correspondents increased as a technological diffusion in the field of transport eventuated. The development of steam as the primary method of direct maritime transport between China and the Australian colonies together with the introduction of telegraphic communication opened, for both China-based and Australian merchants, improved avenues that led to a convergence



Figure 6.3. Packet transfer prior to the introduction of the steam route in 1873.

towards the instantaneous communications of telegraph.²⁸ However, in the years prior to these developments in technology in transport and communications, Australian merchants throughout the colonies were beset by lengthy delays in the turnover of letters and the delivery of reports, commercial documents and other information. During the 1860s and the earliest years of the 1870s, these colonial merchants relied specifically on either wind powered vessels taking a slow service to China and vice-versa or using the contracted steam services delivering mail.²⁹ That meant the mail packets were delivered through a number of stops prior to reaching Galle and then after transhipment, and possible storage awaiting the arrival of the steamer for Australia,

²⁸ In Chapter 2, I demonstrated the effect of the opening of the Torres Strait route in 1873 had on the speed of communication and goods transport.

²⁹ In very rare situations, Australian merchants of Sydney used coal vessels to send mail to China. From China, a copy of the shipping documents, including Bill of Lading and Invoice, were provided to the captain of the tea vessel for delivery to Australia.

taken to Melbourne.³⁰ For mail arriving in Sydney, as is evidenced with the P&O route shown in Figure 6.3, this was a very long way around.

A further difficulty in obtaining a reduction in the delivery time arose owing to the timetables of the steam services. The mail contracts of P&O for the transference of packets between Galle and Melbourne commenced as a branch line extended from Galle in 1859. That service was monthly.³¹ The P&O services from Galle to China were bimonthly while the French-owned Messageries Maritimes provided a monthly service.³² Thus, as these services arrived at Galle on different days there remained a lag between the arrival of the mail in Galle from one origin and its transhipment to its destination. If, for any reason a service was late to arrive at Galle, the mail would be left to wait for the following service to its destination.

The period of time for mail to arrive in Hong Kong from Sydney and then for the Sydney merchant to receive a response, assuming reasonably short turnover, was thus as long as four months at the commencement of the 1860s. For example, on 18 June of that year, Thacker Daniell & Co. sent a letter to JM&Co. which was received on 18 August and replied to on the 24th of that month.³³ The reply from JM&Co. was received and replied to by Thacker Daniell on 19 October and this third letter of the chain arrived in

³⁰ In 1860, some services travelled via Aden. Letter from JM&Co. to Thacker Daniell & Co., 10 February 1860 *Letters to Europe* JMA C11/27. JM&Co. states that a letter sent from Thacker Daniell on 16 November 1859 arrived between 26 January and 10 February 1860.

³¹ Frank Broeze, "Distance Tamed: Steam Navigation to Australia and New Zealand from Its Beginnings to the Outbreak of the Great War." *Journal of Transport History* ser.3:10, no. 1 (1989): 6.

³² Wm. Fred Mayers, N.B. Dennys, and Chas King, *The Treaty Ports of China and Japan*. London: Trübner and Co., 1867: Appendix A: iv, xxiv.

³³ Letter from Thacker Daniell & Co. to JM&Co., 18 June 1860 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from JM&Co. to Thacker Daniell & Co., 24 August 1860 *Letters to Europe* JMA C11/28.

Hong Kong on 12 December and was eventually replied to on 29 December.³⁴ The example here shows that, on average in 1860, the letters took two months to travel and be replied to in each case. By 1865, the speed of the mail deliveries improved by a week or two and this continued into the early 1870s. By 1875, the speed improved further. The introduction of the Torres Strait route for mail and its use by steamers created the reduction. That is, packet transfer in 1875 took less than half the time a similar transfer took in 1860.

The primary problem created by the slowness of correspondence was the uncertainty of the accuracy of information delivered. Merchants searched for ways to counter possible volatility and uncertainty that ruled markets and their corresponding stock levels. With a delay of around two months, information between Australia and China may have been incorrect and out of date upon its arrival. The delay in turnover of mail, thus, created a desire to optimise information transfers. With tea purchases to Australia, for example, two methods were engaged to assist in minimising the problems. Both were examined in Chapter 5. They were the creation of a log of shipments of tea sent to Australia and the monthly market advices appended to correspondence from Australia. Together, these gave the China-based merchant extra information and through that a better opportunity to generate profitable decisions.

Merchants in both Australia and China took advantage of their extended relationships with other merchants in their ports. Granovetter's extended triad, as shown in Figure 6.2, assists in explaining this. If a merchant, D, who has a relationship with merchant C but not with either merchants A or B passes on valuable information to C, that information

³⁴ Letter from Thacker Daniell & Co. to JM&Co., 19 October 1860 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from JM&Co. to Thacker Daniell & Co., 29 December 1860 *Letters to Europe* JMA C11/28.

may then also be transferred to both A and B. That is, say B was JM&Co. and A, James Henty & Co. with C and D two other firms in Victoria. The information from D passed to C may be unknown to either James Henty & Co. or JM&Co. Yet, that information may allow JM&Co. to make informed decisions about tea shipments to either James Henty & Co. or firm C. Thus the connection between firms C and D assist in minimising uncertainty in transactions.

A further concern for mail was its loss due to accidents at sea or possibly the incorrect redirection of the letters. To overcome this problem a simple method of redundancy was installed. That was the creation of a copy of the original letter being transcribed and sent via an alternate vessel. These second letters were termed the "press copy" and were normally written on to a poorer quality paper, generally being tissue paper.³⁵ The usage of a press copy generated confidence in both merchants involved in the information transfer that the message would be successfully transmitted and thus reduced uncertainty.

Technological advancement in communications

The connection through communications between colonial Australia and China in the 1860s as against the 1870s differed significantly, such was the effect of technological advancement of the time. While technological improvements in both communication and maritime transport throughout the world were affecting trade prior to the early 1870s, the Australia to China route, was not part of this early progression. In Chapter 2,

³⁵ Frank B. Evans, Donald F. Harrison, Edwin A. Thompson, and William L. Rofes, "A Basic Glossary for Archivists, Manuscript Curators, and Records Managers." *The American Archivists* 37, no. 3 (1974): 425. Contained within a Letterpress Copybook, these were "copied by transfer of ink through direct contact with the original using moisture and pressure in a copy press." See also: Sonja Titus, Regina Schneller, Gerhard Banik, Enke Huhsmann, and Ulrike Hähner, "The Copying Press Process: History and Technology." *Restaurator. International Journal for the Preservation of Library and Archival Material* 27, no. 2 (2006): 90-102 for a description of the Watt Process of press copying.

I have already noted the effect of steam transport and the opening of the Torres Strait route for mail and trade between China and the eastern colonies of Australia. The addition of the telegraph connection in 1872 brought Australia not only closer to China but also closer to England, the primary trade partner of the colonies.³⁶

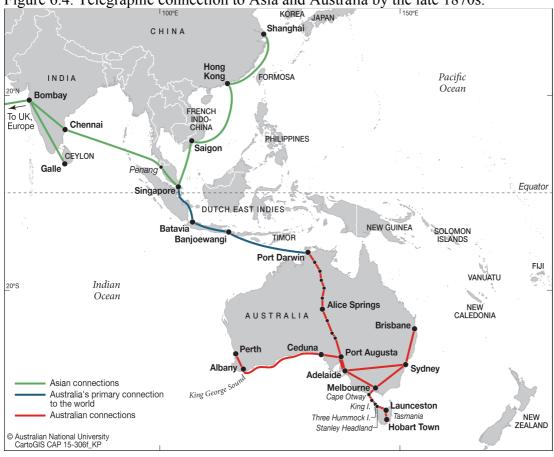


Figure 6.4. Telegraphic connection to Asia and Australia by the late 1870s.

Prior to the completion of the laying of the cable that connected South East Asia to Australia, a type of telegraphic connection was already in existence. The development of global telegraphic communication was progressive and as foreign ports geographically closer to Australia were connected in earlier years, they became intermediaries for faster information transfer. This was the case with Galle and

³⁶ Peter Putnis, "The Early Years of International Telegraphy in Australia: A Critical Assessment." *Media International Australia, Incorporating Culture & Policy* no. 129 (2008): 140.

Singapore.³⁷ As a port where steamers would depart for Australian ports, Galle was also a focal point for information, some of it received by steamer from ports including those in China and also from telegraphic messages sent there from these same foreign ports.³⁸ The use of a combination of telegraph and steamer for the China – Australia communication reduced the speed of information transfer from two months down to approximately two to three weeks, the time for a steamer to journey from Galle to Melbourne.³⁹ Similarly, the opening of the cable to Singapore by 1871 presented opportunities for faster communications and these were taken up by James Henty & Co., who had obtained an agreement with Reuters.⁴⁰

A consequence of the completion of the telegraph connection with Australia in 1872 was that it created a stronger connection with those colonial merchants who were involved in strong ties with China-based merchants.⁴¹ The cost of telegraphic communication was sufficiently exorbitant to prohibit large transfers of information.⁴² The early years of the telegraph were beset with problems. Incorrect transcription from text to the code transmitted was common and, occasionally, messages were lost at some

³⁷ Telegraphic communication was opened to Bombay and Galle in 1870, Singapore and Hong Kong in 1871. Peter Putnis, "Shipping the Latest News across the Pacific in the 1870s: California's News of the World." *American Journalism* 30, no. 2 (2013): 247; Anto A. Huurdeman, *The Worldwide History of Telecommunications*. Hoboken, NJ: John Wiley & Sons, 2003: 136.

³⁸ See, for example, the notes in Letter from JM&Co. to J. Henty & Co., 21 June 1871 *Letters to India* JMA C10/61 regards the possible use of this method to speed up communications.

³⁹ A message sent by telegram from London to Galle and thence by steamer to Melbourne was sent on 12 August 1871 and arrived on 25 August 1871. Letter from J. Henty & Co. to JM&Co., 9 October 1871 *Correspondence: Business Letters: Australasia* JMA B6/3. Putnis. "Shipping the latest News": 246-47. Putnis explains that in 1870 the news of Charles Dickens' death only took 16 days to arrive in Australia through a telegraph message to Galle and then by P&O steamer to Melbourne.

⁴⁰ Letter from J. Henty & Co. to JM&Co., 15 July 1871 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from JM&Co. to J. Henty & Co., 14 September 1871 *Letters to India* JMA C10/61.

⁴¹ Shirley Shepherd, "The Significance of the Overland Telegraph Line, 1872-1901." *Journal of Northern Territory History* 7 (1996): 42. Putnis, "International Telegraphy in Australia.": 145. The matter reached was discussed at the 1873 Inter-colonial conference on telecommunications but, with inter-colonial bickering taking precedence over sensibility, any actions were postponed for nearly two decades.

⁴² See discussion in Chapter 5.

point along the length of transmission.⁴³ Merchants overcame this deficiency by minimising the length of messages transmitted. They also only sent selective information and developed codes. However, this financial restriction meant that regular telegraphic information transfer was more commonly left to those involved in strong ties, relegating the others to retaining the packet method of information transfer. Thus, through the faster information dissemination, those involved in strong ties attained a significant advantage over other merchants, the weak ties. For example, JM&Co. in the 1870s concentrated their telegraphic communications with those they both worked with constantly and those they most trusted.⁴⁴

Complex codes were developed to minimise the length of the telegraphic message. Considering the complexity of the codes and the large size of the dictionary of codes, only those who were involved in constant communication constructed such code dictionaries. Further, each merchant house had their own codes, different to other houses, to hide their information, thus creating both security and privacy in transmission. For example, the following was a coded message that JM&Co. sent to Henty: "Brisbane today sedan 26 2235 657 300 Hamburg shall we ship Ireland 110" which translated as: ""Steamer "Brisbane" left for you today with 26 chests, 2235 half chests 657 boxes congou and 300 boxes scented teas. Gunpowder is low in price, shall we ship? Export of tea to Australia is about eleven million pounds."⁴⁵

Granovetter's triads provide an alternative perspective to information transfer through telegraphic methods. As explained above, the use of telegraph in the 1870s was limited.

⁴³ K. S. Inglis, "The Imperial Connection: Telegraphic Communication between England and Australia, 1872-1902." In *Australia and Britain: Studies in a Changing Relationship*, edited by A. F. Madden, and W. H. Morris-Jones. 20-36. London: Frank Cass, 1980: 24.

⁴⁴ There are no records of telegrams, yet most were recognized in letter correspondence. It is through this that my assumptions are made.

⁴⁵ Letter from JM&Co. to J. Henty & Co., 30 August 1879 Letters to India JMA C10/66.

Those with strong ties gained preference. If information had been passed from JM&Co. to James Henty & Co, there is an expectation that James Henty & Co. would pass that information, or a portion of it, to their strong tie relationships. When James Henty & Co. had a strong tie with a merchant firm in another port, passing the information would not affect the market in Melbourne. Yet, the merchant in the other port may gain an advantage in their market, especially if they dealt directly with James Henty & Co. and not with JM&Co.

The advent of the telegraph did not remove the requirement for packet transfer as formal documents, including Bills of Lading, Invoices, insurance documents and others, were too large to be transmitted by telegraph. The need for privacy and security for these documents also meant they had to be sent by regular mail in packets.⁴⁶ However, along with these were more lengthy letters discussing both the contents of the telegraphic messages as well as other items not worthy of telegraphic communication. Yet, also relevant was the quality of the telegraph line. Together with the problems of transcriptions or loss in sending telegrams there were a number of interruptions to the lines during the remainder of the 1870s.⁴⁷ The fact that telegraph supplanted the packet transfer did not alter the requirement for redundancy and thus two copies of letters were still disseminated.

By the mid-1870s, merchants involved in trade between China and colonial Australia had three choices for methods of information transfer. They could choose short messages using telegraph or packet transfer through either the Galle or Torres Strait

⁴⁶ There appears no real change to the number of letters sent between China and Australia. Taking JM&Co.'s outgoing letters, there was no alteration around the time of the introduction of telegraph to Australia. In fact the number increased by the end of the 1870s with new Australian merchants engaging JM&Co. In 1870 JM&Co. sent 108 letters to Australian merchants while in 1879 they sent 172. *Letters to India* JMA C10/59 – 60 and *Letters to India* JMA C10/65 – 66.

⁴⁷ Putnis, "International Telegraphy in Australia.": 145. Putnis provides data that states interruptions totaled 18 days in 1873, 20 in 1874, 7.5 in 1875, 25 in 1876 and 34 in 1877.

routes. In Figure 6.4, the telegraph from Australia is shown to be connected at a hub in Singapore with messages relayed to East Asia or towards India and then Europe and Great Britain. The two alternate steam routes are presented in Figure 6.5. The technological advancement in the early 1870s, thus, brought Australian merchants closer to their contemporaries in other parts of the world, including to China. This advancement solidified persisting strong ties while it also promoted new relationships.

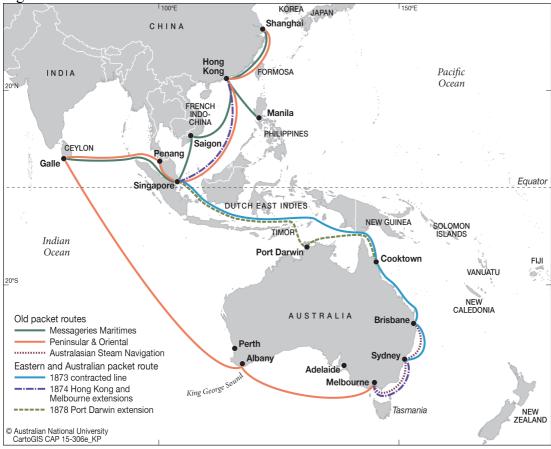


Figure 6.5. Packet transfer between China and Australia after 1873.

Transactions

The improvements in communications and transport between firms based in China and Australia during the 1860s and 1870s furthered the quality and speed of information movement. However, the methods employed to complete transactions hardly varied throughout the two decades, even with the innovation alteration. Whether trade occurred between two individual firms only or whether they included a number of firms, technological enhancement did not alter the overall transaction methodology. It only improved the trade by introducing accuracy and efficiency.

Enhancement of communications also did not alter the trust in the strong ties and an acceptance of dealing with weak ties. Instead it extended the strength of strong ties. There was an exclusivity of preference for the provision of telegraphic communication between strong ties in China and Australia. That translated to more relevant information being passed, by telegraph, between strong ties. Weak ties were serviced by the slower steam-driven mail transfer. Thus transactions between strong ties were processed faster than those between weak ties.

The completion of a transaction requires at least two individual firms. One may be the seller and one a purchaser. In the case of the China – Australia trade, there were normally at least four firms. In one venue were the seller and the shipper or exporter. At the other venue were the foreign commission agents and the buyers. The creation of a strong connection between the exporter and the commission agent was important. In their paper about the 1960s choice of an agent for an exporter, Colin McMillan and Sidney Paulden proposed various options relating to choosing a good commission agent. These include locating commission agents in foreign markets that match their specific needs and devising methods to allow the exporter and commission agent to work together efficiently. To the exporter, this information is obtained through their own strong and weak ties with merchants elsewhere in their port.⁴⁸ One other method was to be introduced by another firm, one that already had a strong tie with a foreign

⁴⁸ Colin McMillan, and Sidney Paulden, "Choosing an Export Agent." *Management Decision* 2, no. 4 (1968): 242-3.

commission agent. In this case, there is a level of trust in the other local firm to correctly advise the exporter. Finally, the reputation of the commission agent to perform their duties at the optimum price and with minimum overheads is equally important in the decision process. As McMillan and Paulden conclude, "(y)ou can usually spot a good agent from the companies he keeps."⁴⁹ Each of these methods were commonplace for Australian merchants in their search for China-based commission agents.

Colonial Australian merchant houses that chose to become involved in the China trade employed these methods. A few contacted a China-based firm directly⁵⁰ while others were introduced by another Australian firm.⁵¹ In a few cases, Australian firms altered their China-based commission agent. When one commission agent went into receivership, as was the case with AH&Co. in 1875, knowledge of the competition in the market allowed the Australian merchant to choose an appropriate alternate commission agent. ⁵² Also, though rare, an Australian exporter changed their commission agent as another had a superior reputation. As discussed in Chapter 4, the case of Padbury Loton & Co., of Perth, was one where that firm chose to move their business from Siemssen & Co. to JM&Co in 1874.⁵³ That is, JM&Co. held a superior reputation when dealing with sandalwood transactions in Shanghai than Siemssen & Co.

⁴⁹ McMillan, and Paulden, "Choosing an Export Agent.": 242.

⁵⁰ For example, Walsh & Co. of Cooktown, Queensland offered their services as an agent in that port and for inter-colonial assistance. Letter from Walsh & Co. to JM&Co., 21 June 1877 *Correspondence: Business Letters: Australasia* JMA B6/3.

⁵¹ Letter from J. Henty & Co. to JM&Co., 15 February 1867 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from JM&Co. to Mr J. H. Barlow Esq., 27 April 1867 *Letters to India* JMA C10/57. Henty's letter to the Shanghai office of JM&Co. introduced Mr J. H. Barlow as a prospective coal exporter.

⁵² Letter from JM&Co. to Messrs Charles Jacob & Son, 3 January 1877 *Letters to India* JMA C10/65. In this case, AH&Co. had suggested that JM&Co. contact Charles Jacob & Son to open a connection.

⁵³ Letter from JM&Co. to Padbury Loton & Co., 6 June 1871 *General Letters from Shanghai* JMA C46/16. The letter from JM&Co. was in reply to a letter from Padbury Loton & Co dated 24 March 1874.

Three methods of transactions are dealt with forthwith, each requiring networks and trust. Examples of each have been employed within the discussions of the previous three chapters. In the first case, are the simple one-to-one, or single, transactions that were very common and where only a weak tie had to exist between the Australian firm and their China-based counterpart. Here one firm is acting for the other to provide a profitable outcome to the trade. In that first case the second firm was purely a commission agent for the first firm. However, there were occurrences where the two firms involved in this single-transaction combined under a joint-account to process the transaction and this is the second case. This meant that all matters relating to the trade were shared between the two firms. The final method of transaction involves multiple parties where two are involved in strong ties and thus creating an intermediary between one of these two and a third or other firm. This, more complex trade, was commonplace throughout the 1860s and 1870s.

Single transactions

The most common type of transaction that occurred between merchants in China and colonial Australia was, what I define as, the "single transaction." The single transaction was a form of bi-lateral trade where a commodity is exported from one port to be sold in another port in exchange for a monetary return. In the context of trade between Chinabased firms and those in colonial Australia, there were two types of single transactions, each with different levels of trust and risk. The first were goods sent by an exporter from one port to a commission agent at another for sale. The second related to the indent from a merchant at one port to a commission agent at another for a good to be sent to the merchant's port. While both appear similar, the amount of trust and risk incurred and to whom varied.

309

The first case of a good being exported to a commission agent for sale, examples include the exportation from NSW of coal, from Western Australia of sandalwood and from Hong Kong of sugar, have been discussed in earlier chapters. The exporter was responsible for the risk on the shipment, achieving either a profit or a loss upon the good's sale in the other port. The commission agent rarely took any risk during the small period of the sale process and, even generally in those cases of storage and sale delays, recouped any loss through charges. However, as was noted in Chapter 4, there were occasions that the commission agent pre-paid the exporter of a loan prior to the sale of the goods. In doing so, the commission agent transferred a portion of the risk to himself. That risk was the loan being fully repaid upon completion of the transaction.⁵⁴

The first case is an example of a one-way trust relationship. The exporter trusted the commission agent to complete the transaction so as to obtain the optimum result. More so, there was an expectation of the commission agent to take an action on the exporter's behalf. As a one-way trust relationship, there was no requirement for a strong tie to exist between the two parties of the transaction. Knowledge that trust would be maintained was sufficient for the exporter.

The second case, relating to the completion of an indent, can be expressed through the transactions in the tea trade, as shown in Chapter 5. The importer, at one port, requested that a commission agent, at another port, purchase the required goods, as per the indent, and transmit the goods to the importer. To the importer, there was the assumption that the commission agent would purchase the goods and deliver them at a minimal cost. The trust for the transaction was either one-way or two-ways. If the importer had provided a draft to cover all costs then the commission agent had little or no risk and

⁵⁴ Letter from JM&Co. to I. Brown & Co., 20 July 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Padbury Loton & Co., 6 June 1874 *General Letters from Shanghai* JMA C46/16.

thus did not require to have any trust in the importer. If, however, the importer was financing the transaction on account, then the commission agent had to trust the importer to settle all accounts. In both cases, the importer trusted the exporter to perform the requisite duties. Further, with the one-way trust relationship, again, only weak ties were required. However, for the two-way trust relationship, a strong tie was present and preferred to provide some guarantee for the payment of account.

The two cases appear to have been defined by the China-based merchant as the predominant party, or dominant node, in the transaction. While there were numerous transactions where the exporter in case one and importer in case two were colonial Australian merchants, there were few occurrences where these were the China-based merchants. Nevertheless, from the previous two chapters, two examples can be highlighted. The export of sugar by JM&Co. to Sydney and Melbourne was an example of the first case and the requests of coal, direct, by shipping companies was an example of the second case. What is noticeable in these two examples is that only strong tie relationships were involved. That is, when Australian firms were the exporters or importers and China-based firms were the commission agents, weak ties existed. Yet, when the roles were reversed, strong ties were required.

Joint-account transactions

The development of joint-account transactions extended the single company transactions to disseminate the risk between at least two firms. These firms were commonly located in different ports and countries.⁵⁵ Joint-account transactions existed between a company in one country that purchased the goods and a company in the

⁵⁵ As noted in Chapter 1, Western firms in China were also involved in joint-account transactions with Chinese firms in China.

second country that sold the goods, with both companies sharing all the costs, profits and the risks. As a method of transmitting tea to Australia, joint-account shipping was a common occurrence where strong ties existed. In Chapter 5, I noted that JM&Co. was involved in tea shipments to both Melbourne and Sydney on joint-account as were AH&Co. with various companies in the same two ports.⁵⁶ Although I have not located any other examples, the opportunities were available for other Treaty Port Western firms to create joint-account shipments of tea with their trusted agents in the Australian ports. Further, there appear no examples of goods being sent to China from the Australian ports on joint-account.

The ability to split the risk on shipments, either by half or at another ratio, gave both the China and Australian-based merchants a broader level of security for their transactions than through a single transaction. It also procured for the two firms a belief that the maximum advantage would be attained through both the purchasing and sale stages. That is, there was a strong element of trust between the two firms. Hence, joint-account transactions generally, if not always, took place where there was a strong tie.

The prime reason behind a joint-account shipment was to share the costs and the risk of the shipment as well as to reduce the transaction costs for those taking part in the exchange of goods. However, the development of a joint-account had a number of other advantages. There was a clear assumption that, as the joint-account shipment was for the benefit of both firms, the procedures employed by each firm were to the gain of all involved. That is, at the purchasing phase of the operation, the China-based firm chose

⁵⁶ JM&Co. was involved in equal risk joint-account tea transactions with James Henty & Co. and their Sydney agents (Thacker Daniell & Co., Daniell King & Co. and George King & Co.) among a few others. AH&Co. sent joint-account shipments of tea to Wilkinson Brothers of Sydney and to Parbury Brothers, also of Sydney. The latter were made at 75% risk to the Australian merchant and 25% to AH&Co. Considering that both connected with AH&Co. were this 75-25 ratio, there is a reasonable assumption to be made that the decision was made by AH&Co.

the optimum time and price to purchase the tea.⁵⁷ In Australia, the sale of the tea was completed at the time considered advantageous to attaining the highest selling price. Instead of immediately placing the tea on the market for auction, normally in competition with other shipments and thus incurring the possibility of a minimal gain or a loss, common practice was for the tea from joint-account shipments to remain in storage for a period of time until the opportune moment appeared.⁵⁸ Only rarely did the China-based merchant suggest a quickening in the pace of the sales, tending more to trust the judgement of the Australian merchant.⁵⁹

The transfer of accurate and timely information was of significant importance to both parties in a joint-account transaction. Any opportunity to seize upon a method of transport for information was taken up. This was in contrast to single transactions where the interest of the commission agent was more to do with obtaining their commission, to have their other costs covered and thus only the information relative to the purchase was relevant. With the joint-account transaction, information related to the market of the importer also guided tea purchases. Exporting tea to an oversupplied market or one where the sale prices were low only resulted in a potential loss following quick sales or a requirement for costly storage in the importer's godowns. Hence for the purchaser of the tea to have a knowledge of the market in China, the information provided of the market in Australia and the known shipments already departed for the various ports was advantageous to profit maximisation.

⁵⁷ Letter from JM&Co. to George King & Co., 29 August 1873 *Letters to India* JMA C10/62. JM&Co. stated that the prices at the time were too high to provide any possible profit and stated that they would await a drop of prices in tea at Foochow.

⁵⁸ Letter from James Henty & Co. to JM&Co., 21 June 1877 *Correspondence: Business Letters: Australasia* JMA B6/3. Henty stated that they were storing the teas owing to the arrival of another shipment which was to be immediately auctioned without reserve and that there was another six months until the new teas were to arrive.

⁵⁹ Letter from JM&Co. to James Henty & Co., 7 September 1875 *Letters to India* JMA C10/64.

The technological advancement in communications between China and Australia in the early 1870s also enhanced the joint-account trade of tea. The adoption of immediate information transfer, through telegraph and the employment of codes, allowed for questions relating to individual purchases on joint-account to be answered almost instantly. As part of the example of a coded message shown above, JM&Co. suggested a purchase of gunpowder tea owing to its low price at that time. Henty, would have viewed the market in Melbourne to adjudicate a further purchase and be able to inform JM&Co. almost instantaneously. Yet, this extra information of JM&Co. was provided to Henty as there was an advantage to JM&Co. through the joint-account transactions. There was no requirement to submit such information to other merchants who were only involved in single transactions. In the case of the single transaction, the additional cost of transmitting this message would only have been recovered if the Australian merchant chose to make the purchase and thus the China-based firm would have to suffer the cost if no purchase was made. Thus the cost of transmitting the message was weighed against the potential commission of other purchases. In a joint-account transaction the transmission cost was defrayed by the profit on the potential shipment and would have always had its cost split between the two parties in that relationship.

The level of trust not only related to the assumed optimum purchases and sales of the tea. Upon the sale of a joint-account tea transaction, the portion of the sale for the China-based firm was in Australia and required transfer. In Chapter 5, I noted that for JM&Co. the remittance of their share of the tea transaction was performed through the shipment of gold to Calcutta.⁶⁰ Trust, therefore, existed between JM&Co. and the Australian firm that the latter would fulfil the final part of the transaction process. Further, this also meant that a strong tie existed between both parties, such was the trust

⁶⁰ Letter from JM&Co. to J. Henty & Co., 25 January 1860 *Letters to Europe* JMA C11/27. In this letter, JM&Co. replies to Henty's acceptance of becoming involved in a joint account proposition put to them.

of JM&Co in the Australia firms. For AH&Co., and their joint-account tea transactions with the Parbury group of firms in Australia, remittances were per drafts sent from Australia to London and thence placed in AH&Co.'s account. The risk, and thus trust, for AH&Co. was with F. Parbury & Co. in London to make sure that the drafts were passed on to AH&Co.'s agent there, Fearon & Co.⁶¹

Inter-relationship transactions.

The use of intermediaries in transactions between China-based merchant houses and firms in Australasia was not uncommon. However, there were two types of intermediaries. The first involved a trusted company based in Australia that dealt with either other companies geographically nearby or those in other countries. The second involved a parent or representative firm, based in London, whereby the transaction was organised through the London house and the initial and final monetary parts of the transaction were processed in London. I have detailed numerous cases of the latter type in the previous three chapters. Yet, in both cases, there was a trust by the China-based firm of the intermediary to complete the transaction, take out their commission and to update accounts and, in the former's case, remit the proceeds to the China-based firm. Further, the above type of transaction redirects a portion of the responsibility and risk within the transaction to the intermediary and thus also minimises the risk involved with the China-based firm dealing with a company it has only a weak tie with.

While JM&Co. dealt with a number of Australian-based merchants, the company also transacted tea to New Zealand. Numerous companies in Wellington, Christchurch and Dunedin were receiving parcels of tea, either directly from China or via either

⁶¹ Letter from F. Parbury. to Augustine Heard & Co., 6 May 1870 FPC.

Melbourne or Sydney.⁶² Extending trade to New Zealand was not an excessive duty for the China-based merchant houses as vessels already travelled from China to some of the ports in New Zealand.⁶³ However, with new firms from New Zealand entering the market and a lack of trust in these owing to a lack of knowledge of the history of these firms and markets, an alternate and less risky proposition was required by the Chinabased firms. For example, in October 1869, JM&Co. broached the topic with their friends in Melbourne, James Henty & Co., about the option of having drafts drawn in New Zealand to be payable in Melbourne.⁶⁴ Henty stated that the coverage of drafts from New Zealand was not usual, but agreed that it could be done.⁶⁵ Thus, JM&Co. was placing some of the risk in transactions with New Zealand on to Henty as they were the firm to obtain the drafts from the New Zealand firms. Henty was then able to transfer the value of the drafts to JM&Co's account. Thus, JM&Co, avoided any direct financial dealings with the New Zealand firm. Instead, James Henty & Co. was responsible. For JM&Co., this allowed for a smoother and more secure monetary movement than through a direct transaction with a New Zealand firm. The value of those drafts were then transferred to Calcutta.⁶⁶

⁶² For example, some of the firms were: Neill & Co., George Gray Russell & Co., Russell Ritchie & Co. and Messrs. Cargill & McLean all of Dunedin, Edward Pearce Esq. and Samuel Ludd & Co. of Wellington and H. Watson & Co. of Christchurch.

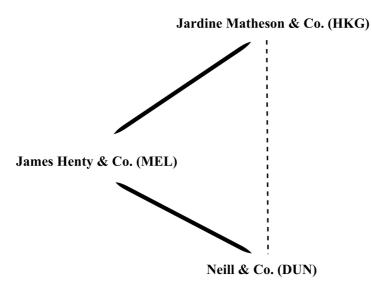
⁶³ The Prices Current circulars included the list of vessels travelling to New Zealand separate from Australia and the amount of tea per vessel and current totals. See *Prices Current* P945 Cartons 31-33 AHA.

⁶⁴ Letter from JM&Co. to J. Henty & Co., 18 October 1869 *Letters to India* JMA C10/59.

⁶⁵ Letter from J. Henty & Co. to JM&Co., 3 January 1870 *Correspondence: Business Letters: Australasia* JMA B6/3.

⁶⁶ "Messrs. Jardine Matheson & Co. in account with James Henty & Co." 1 January 1872 *Current accounts: Australia JM A8/48/1*. In this account was included a transaction involving George Grey Russell & Co. of Dunedin.

Figure 6.6. The connection between Neill & Co. of Dunedin to JM&Co. through James Henty & Co.

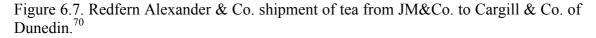


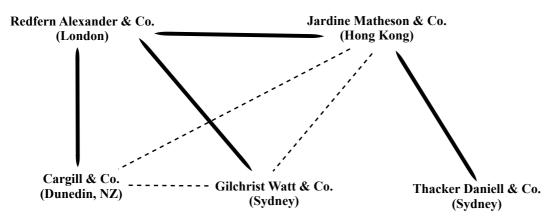
There were connections with New Zealand firms that allowed James Henty & Co. to create other ties, as shown in the following example. One long-standing company, based in Melbourne and Dunedin, New Zealand – McCallum, Neill & Co. – chose, at the end of 1870, to dissolve the two port connection, with McCallum, Neill & Co. remaining as a company based in Melbourne and a new venture, Neill & Co. commencing business in Dunedin.⁶⁷ James Henty & Co. bought out the Dunedin connection of the original firm.⁶⁸ Through that, a strong tie was created between James Henty & Co. and Neill & Co. and that allowed for continued transactions between the two as well as a level of trust by

⁶⁷ "Partnership Dissolved." *The Otago Daily Times* 13 January 1871: 1; "Public Notices." *Age* 3 January 1871: 1. The partnership and connection was dissolved on 31 December 1870.

⁶⁸ Letter from J. Henty & Co. to JM&Co., 2 January 1871 *Correspondence: Business Letters: Australasia* JMA B6/3. The letter was a Notice from J. Henty & Co. to all merchants. There is some concern that what was placed in Henty's letter may not have been the truth. From the following: (a) there is no other documentary evidence owing to a lack of archives; (b) there is no mention of Henty in reference to either company in the Dunedin newspapers for the few years around the assumed takeover; and (c) the notice in the letter to JM&Co. is different to that in the two newspapers (*Otago Daily Times* and *Age*) in that the notice states that only the partnership in Dunedin was dissolved when in fact the connection between the Melbourne and Dunedin companies was dissolved and that, in fact, the original company McCallum, Neill & Co., continued to exist in Melbourne. There is certainly a case to say that Henty misconstrued the truth.

JM&Co. of Neill & Co. knowing that the latter were under the control of Henty. Figure 6.6 shows this connection. Thus when Henty organised an indent for Neill & Co. of 150 tons of tea under the account and risk of Neill & Co., JM&Co. were in the knowledge that the transaction could be processed without risk to themselves. As such, JM&Co. were to reimburse themselves through drafts drawn on Mathieson & Co. in London to be claimed under the protection of Henty.⁶⁹





The connection to New Zealand was also extended to merchant houses based in London that had strong connections to JM&Co. In 1864 Redfern Alexander & Co. extended the inter-relationships between JM&Co. and New Zealand merchants. As discussed in the *Ettrick* example at the beginning of this study, the London-based merchant house contacted JM&Co. to request that they purchase and ship 1,000 packets of tea to the

⁶⁹ Letter from J. Henty & Co. to JM&Co., 22 April 1871 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from JM&Co. to J. Henty & Co., 21 June 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to Messr. Neill & Co., 21 June 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to J. Henty & Co., 17 August 1871 *Letters to India* JMA C10/61.

 $^{^{70}}$ The solid lines show strong ties and the dashed lines show weak ties. I have included the link to Thacker Daniell & Co. as that was part of the discussion in the *Ettrick* example at the beginning of the thesis. The shipment, as stated in the *Ettrick* example, included tea for Thacker Daniell & Co. The diagram in Figure 6.7 includes a line to Thacker Daniell & Co. to show that there was no connection between Thacker Daniell & Co. and the other firms involved in the various triadic closures.

Sydney firm Gilchrist Watt & Co.⁷¹ In Sydney the tea was to be transhipped to the Dunedin firm Cargill & Co.⁷² For JM&Co., their position in the transport of tea was the purchase and the connection with RA&Co. in London. The initial costs that were incurred together with the risk for the shipment from Foochow to Sydney were covered in London by RA&Co.⁷³ However, upon arrival in Sydney, the further costs of freight, transfer of goods, insurance and other items were to be borne by Cargill & Co. who were to reimburse Gilchrist Watt & Co.⁷⁴ This complex transaction saw little risk incurred by JM&Co. because as soon as the tea arrived in Sydney, their part of the Cargill & Co. transaction was completed. The risk was then transferred to Gilchrist Watt & Co. who then separately worked with Cargill & Co.

The example provides a situation where there are a number of triadic closures, as shown in Figure 6.7. A strong tie existed between JM&Co. and RA&Co., the latter holding a strong tie with Gilchrist Watt & Co. and also with Cargill & Co. In doing so, the connection created an initial weak tie between JM&Co. and Cargill & Co. which was added to through the correspondence between the two relating to the tea shipment.⁷⁵ Similarly, strong ties between RA&Co. and JM&Co. created the weak tie between JM&Co. and Gilchrist Watt & Co. Under the assumption that Gilchrist Watt and Co were only working on behalf of Redfern Alexander & Co, then the strong ties for RA&Co. with them and with Cargill & Co. generated the weak tie between Gilchrist

⁷¹ Invoice for 1000 packages tea shipped from Foochow to Sydney, consigned to Gilchrist Watt & Co., transhipped to Cargill & Co. of Dunedin and under the account and risk of Redfern Alexander & Co., London, 11 February 1864. *Invoices of the Hong Kong Office JM A6/14*.

⁷² Letter from JM&Co. to Gilchrist Watt & Co., 11 February 1864 Letters to India JMA C10/56.

⁷³ Invoice for 1000 packages tea shipped from Foochow to Sydney, consigned to Gilchrist Watt & Co., transhipped to Cargill & Co. of Dunedin and under the account and risk of Redfern Alexander & Co., London, 11 February 1864. *Invoices of the Hong Kong Office JM A6/14*.

⁷⁴ Letter from JM&Co. to Gilchrist Watt & Co., 11 February 1864 *Letters to India* JMA C10/56.

⁷⁵ Letter from JM&Co. to Messrs Cargill & Co., 11 February 1864 *Letters to India* JMA C10/56.

Watt & Co. and Cargill & Co. Such was the complexity of dissecting one simple tea transaction.⁷⁶

Problem Solving

Trade and transaction interactions between companies in China and colonial Australia were occasionally beset by problems, some simple and others quite complex. Even with the spread of risk from Hong Kong to Melbourne or Sydney, there were merchant houses in Australia that either caused concerns or suffered problems that affected those who were part of the strong ties mechanism. Owing to the inability of a China-based company to investigate problems first hand, it would contact its trusted partners in Australia to adjudicate the options. The China-based firm provided the Australian agent with full jurisdiction to take the appropriate actions to resolve the problems or to optimally extract either compensation when it was due or reimbursement where the Australian firm had been liquidated. Over the period of the 1860s and 1870s, a number of incidents required Australian-based firms to represent their partners in China. However, distance created problems and commonly the task borne by the Australian firm reaped no rewards.

One such complex incident occurred in 1871 and continued for over a year until a compromise was reached. It related to two mortgages taken out by the owners, brothers C. J. Hoyt and H. Hoyt, on the Dunedin, New Zealand registered steamer *s.s. Albion*. The first mortgage had been taken up by JM&Co. in Hong Kong⁷⁷ and, later, a second

⁷⁶ That complexity did not exist for those involved. Based on experience and mutual knowledge and trust, the merchants would have organised and concluded these transactions without a second thought.

⁷⁷ Letter from J. Henty & Co. to JM&Co., 27 February 1871 Correspondence: Business Letters: Australasia JMA B6/3.

was obtained in Yokohama, Japan to obtain extra cash funds.⁷⁸ The vessel travelled from Japan to Brisbane and from there the second mortgage was immediately delivered to Dunedin at a time prior to the arrival of JM&Co.'s mortgage for registration.⁷⁹ To JM&Co. and others, there was clear evidence that C. J. Hoyt knew about the first mortgage when negotiating the second and thus the question of fraud was put forward by JM&Co. against C. J. Hoyt.⁸⁰

The vessel, at the time, was awaiting sale with a full cargo of coal having arrived the previous year from Newcastle, NSW.⁸¹ In an attempt at obtaining compensation, JM&Co. enlisted the aid of their most trusted agent in Melbourne, James Henty & Co.⁸² To complicate matters, claims were also made by Hong Kong company, William Pastau & Co., sub-mortgagees, Captain Goffrey and the London Chartered Bank of Australia as well as the captain of the *s.s. Albion*, Captain Dunn.⁸³ The matter was then placed before both the Admiralty Court and the Equity Court in Melbourne.⁸⁴ Through Henty, a Bill was placed upon the two owners,⁸⁵ but they successfully removed that through

⁷⁸ Letter from J. Henty & Co. to JM&Co., 22 April 1871 *Correspondence: Business Letters: Australasia* JMA B6/3.

⁷⁹ Letter from JM&Co. to J. Henty & Co., 21 June 1871 *Letters to India* JMA C10/61.

⁸⁰ Letter from JM&Co. to J. Henty & Co., 21 June 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to J. Henty & Co., 20 July 1871 *Letters to India* JMA C10/61.

⁸¹ "Shipping." *Age* 19 September 1870: 2. The *s.s. Albion* was bought by Hoyt Co. from the Otago Steamship Co. One possible reason for there being no sale immediately was that Mr Alexander McKinnon of New Zealand had claimed insolvency on Mr. C. J. Hoyt as McKinnon stated he sold the vessel to Hoyt and the bills for the sale were dishonoured. *Argus* 29 November 1870: 5.

⁸² Letter from JM&Co. to J. Henty & Co., 27 April 1871 *Letters to India* JMA C10/61; Letter from JM&Co. to J. Henty & Co., 20 July 1871 *Letters to India* JMA C10/61.

⁸³ Letter from J. Henty & Co. to JM&Co., 22 April 1871 Correspondence: Business Letters: Australasia JMA B6/3; Letter from J. Henty & Co. to JM&Co., 20 May 1871 Correspondence: Business Letters: Australasia JMA B6/3; Letter from Capt. Dunn to JM&Co., 15 July 1871 Correspondence: Business Letters: Australasia JMA B6/3.

⁸⁴ Letter from J. Henty & Co. to JM&Co., 27 February 1871 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from J. Henty & Co. to JM&Co., 20 May 1871 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from J. Henty & Co. to JM&Co., 17 June 1871 *Correspondence: Business Letters: Australasia* JMA B6/3.

⁸⁵ Letter from J. Henty & Co. to JM&Co., 9 September 1871 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from J. Henty & Co. to JM&Co., 6 November 1871 *Correspondence: Business Letters: Australasia* JMA B6/3. For a full description on the case to this stage, see: "The News of the Day." *Age* 3 October 1871: 2. A demurrer is a pleading in a lawsuit that objects to or challenges a pleading filed by an opposing party. In this case the Bill by Henty was objected to.

demurrer⁸⁶ which left JM&Co. with the concern that they would be unsuccessful and that costs would blow out.⁸⁷ To JM&Co. it was important not to place any excessive supplementary funds into the matter if there was little chance of success and thus left the question of continuance to Henty, trusting that he and his legal team would take the optimum action.⁸⁸

With the threat of a commission to be held in Japan to interview the witnesses, and extra undue expense to all, H. Hoyt and Henty met to negotiate a compromise.⁸⁹ After a year and a half of negotiations, court actions and continuing correspondence between Henty and JM&Co., the settlement meant that JM&Co. received a sum of £500.⁹⁰ That was deemed enough to cover the legal and other costs incurred in Melbourne and left JM&Co. with no recompense for the original mortgage.⁹¹ Throughout the ordeal, JM&Co. backed the decisions made by Henty and, together with advice from London on the matter, found the final "arrangements made, under circumstances, perfectly satisfactory to us."⁹² While JM&Co. was unable to obtain any recompense from the matter, the link between them and Henty was further solidified.

⁸⁶ Letter from J. Henty & Co. to JM&Co., 9 October 1871 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from J. Henty & Co. to JM&Co., 16 October 1871 *Correspondence: Business Letters: Australasia* JMA B6/3; "Law Report." *Argus* 17 October 1871: 6.

⁸⁷ Letter from JM&Co. to J. Henty & Co., 21 June 1871 Letters to India JMA C10/61.

⁸⁸ Letter from JM&Co. to J. Henty & Co., 10 January 1872 Letters to India JMA C10/61.

⁸⁹ Letter from J. Henty & Co. to JM&Co., 29 February 1872 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from JM&Co. to J. Henty & Co., 17 April 1872 *Letters to India* JMA C10/62.

⁹⁰ Letter from J. Henty & Co. to JM&Co., 19 June 1872 *Correspondence: Business Letters: Australasia* JMA B6/3; Letter from J. Henty & Co. to JM&Co., 16 July 1872 *Correspondence: Business Letters: Australasia* JMA B6/3.

⁹¹ Letter from J. Henty & Co. to JM&Co., 19 June 1872 *Correspondence: Business Letters: Australasia* JMA B6/3.

⁹² Letter from JM&Co. to J. Henty & Co., 30 August 1872 *Letters to India* JMA C10/62. Following the settlement with JM&Co. Hoyt was then sued by Dunn in the Vice-Admiralty Court through which Dunn was able to receive approximately £2,700 to cover wages, expenses and interest. "Law Report." *Argus* 24 January 1873: 6.

Another example was the case of the insolvency of the Sydney branch of Wilkinson Brothers in late 1866. This significantly affected the China-based firm AH&Co. financially. Wilkinson Brothers were one of a number of firms in Sydney that suffered at the time owing to the problems associated with the fall of the Overend Gurney bank in England in May 1866.⁹³ Wilkinson Brothers of Sydney chose to place their estate in to the Insolvency Court. In a letter to AH&Co., their reasoning was "owing to the heavy losses and pressures of time."⁹⁴ Wilkinson Brothers' two branches in Sydney and Melbourne also had strong ties to AH&Co. as the two branches had been involved in continuous sales of items to China and the purchase of tea from China on joint account with AH&Co.⁹⁵ When a joint-account shipment did cause problems owing to the insolvency, AH&Co. were only to suffer the loss on their portion, or so it should have been.

The problem related to AH&Co. was due to the handling of a shipment of tea from Foochow to Sydney on the vessel *Luchnow*.⁹⁶ The insolvency occurred prior to the arrival of the *Luchnow*. The Oriental Banking Corporation (OBC) held drafts to the total worth of £16,753 3s 3d in regard to the teas. On the assumption that Wilkinson Brothers

⁹³ For a short description of the crash of 10 May 1866, see: Rhiannon Sowerbutts, "The Demise of Overend Gurney." *Bank of England Quarterly Bulletin* 56, no. 2 (2016): 94-106.

⁹⁴ Letter from Wilkinson Brothers, Sydney to AH&Co., 23 October 1866 Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E I EA-2-3.
⁹⁵ Wilkinson Brothers were involved in trade with AH&Co. from at least 1860. Letter from AH&Co. to

⁹⁵ Wilkinson Brothers were involved in trade with AH&Co. from at least 1860. Letter from AH&Co. to Wilkinson Brothers, 23 August 1860 Aug. 1860 – June 1862 Letters Sent by A. H. & Co. Hong Kong to Pacific (San Francisco, Manilla, Sydney, etc.) II-C-1 Volume 516 AHA; Letter from AH&Co. to Wilkinson Brothers, Sydney, 28 July 1866 Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3. For this shipment, AH&Co. held 25% and Wilkinson Brothers, 75%. Letter from AH&Co. to Wilkinson Brothers, Sydney, Sydney, 31 December 1866 Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3.

⁹⁶ Letter from AH&Co. to Wilkinson Brothers, Sydney, 28 July 1866 Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3. See also: Bill of Lading for 2365 packages of tea, 4 July 1866 Jan. 1866 – Sept. 1866 Hong Kong, Inward and other ports, Outward AHA II B 1 volume 173; Bill of Lading for 2788 packages of tea, 4 July 1866 Jan. 1866 – Sept. 1866 Hong Kong, Inward and other ports, Outward AHA II B 1 volume 173.

would not honour the drafts, the bank chose to store the teas in their own name.⁹⁷ Further, AH&Co. were now being held responsible by OBC for the drafts plus interest and charges.⁹⁸ AH&Co. thus contacted the other primary firm they traded with in Sydney, Parbury Brothers, giving them Power of Attorney and requesting they take over the sale of the teas.⁹⁹ In a letter to Parbury Brothers, AH&Co. stated:

We beg now that you will act in the matter for us as may seem best for our interests, and to enable you to do so, we now enclose a Power of Attorney, duly signed and witnessed. We do so, as we have full confidence in your judgements and discretion, and we feel convinced that you will be more able to do us justice than a banking institution.¹⁰⁰

A supplementary set of letters were sent to the branches of OBC in both Hong Kong and in Sydney. The first was for a letter to be forwarded to Sydney requesting that they took action in the best interests of AH&Co. or, if Parbury Brothers agreed to work on AH&Co's behalf, to pass the tea to them.¹⁰¹ The second was a copy of the Sydney letter, requesting assistance from the Hong Kong branch to stop the Sydney branch from selling the teas at a potential loss.¹⁰²

⁹⁷ Letter from OBC, Hong Kong to AH&Co., 15 December 1866 Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3.

⁹⁸ Letter from OBC, Hong Kong to AH&Co., 9 January 1867 Claim on Wilkinson Bros. of Sydney, N. S. W, for loss on tea per "Luchnow" AHA I E I EA-2-3. There were five drafts, each dated 10 July 1866 on 60 days notice and due 16 November. The amounts were: £4,000, £4,000, £4,000, £3,821.19.5 and £931.3.10 all drawn against the teas per Luchnow. AH also paid for all other charges amounting to £2,622.18.0. Letter from OBC, Hong Kong to AH&Co., 8 June 1867 Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3; Letter from AH&Co. to Parbury Brothers, Sydney 28 June 1867 Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I *E 1 EA-2-3*.

⁹⁹ First Letter from AH&Co. to Parbury Brothers, Sydney 31 December 1866 *Claim on Wilkinson Bros.* of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E I EA-2-3. ¹⁰⁰ Second Letter from AH&Co. to Parbury Brothers, Sydney 31 December 1866 Claim on Wilkinson

Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3.

¹⁰¹ Letter from AH&Co. to OBC, Sydney 31 December 1866 *Claim on Wilkinson Bros. of Sydney, N. S.* W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3.

¹⁰² Letter from AH&Co. to OBC, Hong Kong 31 December 1866 Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E I EA-2-3; Letter from OBC, Hong Kong to AH&Co. 1 January 1867 Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 *EA-2-3*.

The OBC was a financial institution and not a merchant house and thus its decision to sell the teas prior to arrival of the mail generated a loss on the trade and thus also for AH&Co. While OBC defended its decision to sell prior to advice to the contrary,¹⁰³ its decision also eliminated the effect of Parbury Brothers in this part of the trade.¹⁰⁴ A quarter of the loss was acceptable to AH&Co. as that was their portion of the trade. However, they requested of Parbury Brothers to obtain compensation through the estate of Wilkinson Brothers, Sydney.¹⁰⁵ Parbury Brothers eventually advised that the dividend was expected to be small and thus a loss on the trade for AH&Co. had to be conceded.¹⁰⁶

These two examples emphasise the importance of trust and good communications. The ability to rely on a firm in Australia to take the appropriate actions on behalf of the China-based company relieved them of the task. To complete the task, the Australian merchants were provided with complete jurisdiction on behalf of the China-based merchant. That is, although the China-based merchant could influence decisions, though hindered by a delay owing to poor communications, they had sufficient trust in the Australian merchants to act on their behalf and to take options that would attain the optimal solution. The level of trust, thus, also equated to a strong tie between the two merchant houses.

¹⁰³ Letter from OBC, Sydney to AH&Co. 21 February 1867 *Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3*; Letter from Parbury Brothers, Sydney to AH&Co. 20 February 1867 *Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3*. The total deficiency from the drafts less the sales was £1,540.14.8. Letter from OBC, Hong Kong to AH&Co. 8 June 1867 *Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3*.

¹⁰⁴ Parbury Brothers were scathing in their report of OBC's decision to sell at the time, not only owing to the damage to AH& Co. on this lot but also to the overall market itself. Letter from Parbury Brothers, Sydney to AH&Co., 21 March 1867 *Claim on Wilkinson Bros. of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3.*

¹⁰⁵ First Letter from AH&Co. to Parbury Brothers, Sydney 31 December 1866 *Claim on Wilkinson Bros.* of Sydney, N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3.

¹⁰⁶ Letter from Parbury Brothers, Sydney to AH&Co., 11 April 1867 *Claim on Wilkinson Bros. of Sydney,* N. S. W. for loss on tea per "Luchnow" AHA I E 1 EA-2-3. There was no further correspondence and an assumption can be made that very little if any dividend was made available to AH&Co.

The second example, where Parbury Brothers & Co. of Sydney provided a service for AH&Co., is also a case where an original weak tie relationship could transform in to a strong tie. Parbury Brothers were introduced to AH&Co. in 1864 by F. Parbury & Co. of London as an opportunity to add to the Australia tea trade.¹⁰⁷ Even though Parbury Brothers were solely an intermediary in the transactions, the joint-account existing between F. Parbury and AH&Co. evolved into a strong tie. Examples of the evolution of ties can be found elsewhere in the trade between China and Australasia, particularly so with New Zealand firms.

The strength of strong ties

Echoing throughout this chapter has been the importance of the dominant node to the development of new networks as well as to the extension and maturation of old networks. Certain firms in colonial Australia stood out. To a lesser extent than Melbourne, a number of firms in Sydney became dominant and were vital to these trade networks, including Robert Towns & Co., Parbury Brothers, Thacker Daniell & Co. and the iterations of that company that followed. That said, the Melbourne firm James Henty Co., in their dealings with JM&Co., clearly stands above the others as a primary trade partner with China. It was a dominant node or partner node in a number of networks involving companies based in various countries outside of Australia as well as with other firms in the various colonies of Australia. Henty's contribution to the overall trade relationship between colonial Australia and China during the 1860s and 1870s was

¹⁰⁷ Letter from AH&Co. to Lamb Parbury & Co., 23 September 1864 Oct. 1863 – Dec. 1864 Letters Sent by A. H. & Co. Hong Kong to Pacific (San Francisco, Manilla, Sydney, etc.) II-C-1 Volume 518 AHA.

substantial.¹⁰⁸ What is noticeable in this chapter, as elsewhere in this thesis, is the continuous interaction Henty provided others through their trade with JM&Co.

James Henty & Co. were a merchant house, receiving goods from overseas or the colonies of Australia and trading them to others with the intention to make a profit. However, the firm was also a commission agent – attaining a profit through the goods trade of other firms – and as a consequence of this, they attained the position to be a dominant node in some cases and a partner node in others. In correspondence from JM&Co. to a trader in Brisbane, the China-based firm stated that as a commission agent it would be foolish to ignore any business that would lead unnecessarily for them to "have lost a commission without furthering to the smallest extent, the object in view."¹⁰⁹ That certainly applied to Henty as well and whenever the option presented itself – commonly within the course of assisting JM&Co. in a transaction – there was little hesitation on Henty's part to accept a commission on the transaction. When Henty became a commission agent working with JM&Co. is unknown, owing to the sources at hand. Even so, as early as 1861, Henty acted on behalf of JM&Co. to assist with the financial dealings for a transaction involving JM&Co. and T. & H. Carter of Western Australia and, in performing that duty, extracted a commission of one per cent of the total transaction.¹¹⁰

The fact that Henty was a commission agent for some of the transactions involving JM&Co. meant that Henty was also a trusted agent of JM&Co. beyond the other duties in their interactions. At some point, between the company's resurrection in 1851 and

¹⁰⁸ It is impossible without sufficient data to measure the percentage of trade between Henty and China when compared with other merchants. By using correspondence only, Henty was, by far, the most important Australian-based merchant in connection with any China-based firm.

¹⁰⁹ Letter from JM&Co. to Heussler & Co., 2 December 1878 *Letters to India* JMA C10/65.

¹¹⁰ Letter from JM&Co. to J. Henty & Co., 26 May 1862 *Letters to Europe* JMA C11/30. A fuller description of the transaction is provided in Chapter 4.

1861,¹¹¹ Henty had moved from just another merchant house in Melbourne to conduct business with, into a primary merchant house in that port. As I have noted earlier in this chapter, Henty's communication with JM&Co. took up more than two-thirds of all correspondence that emanated from Melbourne to JM&Co.'s premises in China. His position as the leading agent for JM&Co. in that port, thus, placed Henty in a position to be able to provide access to other merchant houses in ports of New Zealand or other colonies. There is little doubt, Henty would have been seen by those other merchant houses as a portal to trading with JM&Co. The other houses understood the power of trust in international trade relationships and were eager to deal through Henty.

In late 1859, James Henty acted as an intermediary on behalf of Melbourne Chinese merchant Lowe Kong Meng in procuring a shipment of opium from Hong Kong. Meng held significant stature within the Melbourne merchant community and thus was trusted by Henty. In this example, JM&Co., who supplied the opium, knew that Henty would be able to cover the cost and Henty was confident that Meng would pay for the goods upon arrival. There was no requirement for a weak tie to exist between Meng and JM&Co.¹¹² Similarly, in 1879, the two related firms, Parbury, Lamb & Co. of Brisbane and Alfred Lamb & Co. of Sydney, for example, both went through Henty with their indents to JM&Co.¹¹⁴ Each firm were also informed by JM&Co. that they had to settle

¹¹¹ Peter Griggs, "Empire of Leaves: Tea Traders in Late Nineteenth-Century and Edwardian Melbourne." *Victorian Historical Journal* 87, no. 1 (2016): 33

¹¹² Letter from JM&Co. to J. Henty & Co., 27 December 1859 *Letters to Europe* JMA C11/27. Lowe Kong Meng had ordered prepared opium. This caused a problem as P&O refused to transport the drug given it was a liquid. The opium was therefore transported later along with a tea shipment.

¹¹³ Letter from JM&Co. to Alfred Lamb & Co., 11 June 1879 Letters to India JMA C10/65. Letter from JM&Co. to Parbury Lamb & Co., 30 August 1879 Letters to India JMA C10/66. Henty were organising the indent and the finances for the transaction for Alfred Lamb & Co., who then extended the indent to cover a shipment by the *s.s. Brisbane* to their Brisbane counterparts, Parbury Lamb & Co. There does not appear to be a connection with F. Parbury & Co. showing in these transactions. Letter from J. Henty & Co. to JM&Co., 16 April 1879 Correspondence: Business Letters: Australasia JMA B6/3; Letter from JM&Co. to James Henty & Co., 12 June 1879 Letters to India JMA C10/65.

¹¹⁴ Letter from JM&Co. to James Henty & Co., 29 August 1879 Letters to India JMA C10/66.

accounts with Henty.¹¹⁵ Yet, unlike Neill & Co. of Dunedin, there is little evidence that the colonial Australia firms had strong ties with Henty. That is, Henty noted the opportunity to provide a service as a commission agent, taking their commission on the transaction even though they would not have seen any of the tea, it being landed straight at Brisbane or Sydney.

One extra advantage that James Henty had achieved over other merchants in Australia was their ability to invest the remittances of JM&Co. in the Australian market. At the end of 1879, two letters from JM&Co. to Australian merchants reveals this difference. JM&Co. explained to Henry Moore that he is to always remit the portion of funds due to JM&Co. as a draft on a London bank.¹¹⁶ However, at the same time, in a letter to Henty, JM&Co. states "in reference to your remark that our instructions seem to limit you in your investment of our funds to Bank Bills we beg to say that if a more advantageous rate can be secured, we shall be glad to receive drafts of any private firm of undoubted standing and respectability."¹¹⁷ That is, JM&Co. had the confidence to allow Henty to invest their funds in drafts of Australian firms that would attain a better rate than the bank bills of London banks at the time.

The position that Henty held within JM&Co.'s overall trade relationship with Australia was superior to others. However, did Henty and JM&Co. reach a position of, what business theorist Lars Lindkvist calls, a knowledge community within a community of

¹¹⁵ Letter from JM&Co. to Alfred Shaw & Co., 30 August 1879 *Letters to India* JMA C10/66; Letter from JM&Co. to Parbury Lamb & Co., 30 August 1879 *Letters to India* JMA C10/66; Letter from JM&Co. to James Henty & Co., 29 August 1879 *Letters to India* JMA C10/66. Additional to the evidence is the implication that Henty was preferred over JM&Co.'s Brisbane agents, Unmack Heussler & Co., in dealing with the two other Brisbane firms.

¹¹⁶ Letter from JM&Co. to H. Moore Esq., 9 October 1879 Letters to India JMA C10/66.

¹¹⁷ Letter from JM&Co. to James Henty & Co., 9 October 1879 Letters to India JMA C10/66.

practice?¹¹⁸ Lindkvist's work relates primarily to individual organisations and the hierarchies and cooperations that exist within. Yet, if the study is extended to the economic cooperation within a trade relationship, there is justification to consider that the communities of practice theory, in this case, extends beyond that of the level of a strong tie. Communities of practice existed within tightly knit groups that were working as one for a lengthy period and there are echoes of that in the relationship between Henty and JM&Co.¹¹⁹ The point presented is that the relationship between Henty and JM&Co. was extremely strong, more than just a strong tie but a close social structure that represented some equality in hierarchy as opposed to the numerous other merchant houses in Australia that were dealing with China-based firms.

The connection between JM&Co. and Henty appears to have accentuated Henty's work as a commission agent. Thus, there is also a case to say that the definition of strong and weak ties can be extended if we are considering trade relationships. Where a very strong tie exists in trading relationships, there is a substantial likelihood that one or both nodes of the tie would be commission agents for the other as part of their normal duties. This is related to the strength of the tie. The stronger the tie, the more trust exists between the two nodes to perform the commission agent activity on behalf of the other. Notwithstanding, working as a commission agent did not preclude the existence of performing import or export activities as well, on their own behalf. The joint-account transactions were a clear example. I do not intend to answer whether being a commission agent or whether being an importer/exporter were the primary method of business, however it is clear that both were utilised by the two firms successfully throughout the 1860s and 1870s.

¹¹⁸ See Lars Lindkvist, "Knowledge Communities and Knowledge Collectivities: A Typology of Knowledge Work in Groups." *Journal of Management Studies* 42, no. 6 (2005): 1189-210.

¹¹⁹ Lindkvist, "Knowledge Communities and Knowledge Collectivities.": 1189.

That relationship also created a hierarchy, such that the dominant firm placed itself in a superior position to its partners within this relationship. As networks are not just made up of single triangles or one-to-one relationships, this hierarchy attains a complexity where certain firms move up as their own relationships improve. In the example of Neill & Co., they altered their position. When they were formed, and through their connection with James Henty & Co., a weak tie with JM&Co. existed. By the end of the 1870s, that weak tie became a strong tie, accessing joint-account transactions with JM&Co. Their position within this hierarchy meant that they also acted for other firms in New Zealand; Cargill Gibb & Co. of Dunedin, is one example.¹²⁰ Thus, the embodiment of strong and weak ties defines a hierarchical approach to the trade relationships between China-based firms and those in colonial Australia.

At the summit of these hierarchical trees are the "agents" of the China-based firms. I have put forward a number of examples in this chapter and there are sure to be many more. Yet, even with the fact that there are many agents, the level of trust and the relationship between the China-based firm and the various Australasian firms will vary. From the work throughout this thesis, the connection between JM&Co. and James Henty & Co. stands out as the most important and one that should not be underestimated. Their connection goes beyond Henty assisting JM&Co. with problems that took place in the Australasian region, to the ability to act as commission agents for each other. The level of trust that was held in Henty by JM&Co. appeared much higher than with their other Australian agents. That is, the relationship between JM&Co. and Henty goes beyond the level of just a strong tie. That relationship became equally beneficial such that the two companies appeared equal in all dealings and, thus, why Lindkvist's theory of communities of trust fits well to describe this relationship.

¹²⁰ Letter from JM&Co. to Neill & Co., 6 September 1879 Letters to India JMA C10/66.

Concluding comments

The trade relationships between merchants in China and colonial Australia were extensive and complex. In the majority of cases, they involved a simple, single transaction relationship, a form of bartering. These relationships occurred where a good was exchanged for another good or a monetary remittance. In these cases, there was a tendency for a one-way level of trust. Some China-based merchants extended these simple relationships to include themselves in the transactions by creating joint-account relationships that spread the risk and trust between the two parties. Finally, there were those involved in inter-relationships where a company would be a dominant partner for two other companies, thus bringing those two in to connection.

It is this third trade relationship that brings in the work of Mark Granovetter on strong and weak ties. Here, the dominant firm, or node within a triangle, uses its strong ties with two other firms to allow them to connect. The dominant firm is thus creating a triadic closure. Throughout the 1860s and 1870s there were numerous examples of triadic closures where dominant firms existed, whether in China, London, Australia or even New Zealand. These ties also graduated from weak ties to strong ties as the trust in the relationship improved.

Through this thesis, the quantity and quality of relationships between China-based merchants with colonial merchants has been examined. Yet, these relationships are more than just the indents, the Bills of Lading and Invoices. They are firms of people with their own elements of rational thinking that created these networks. The various methods of communication were evolving, and developed the ties of trust that allowed

332

for both a stronger relationship but also the likelihood of the minimisation of transaction costs.

CONCLUSION

Trade played a vital role in the development of the relationships between China and the Australian colonies during the 1860s and 1870s. The trade was extensive and involved many actors. For the small group of Western merchant houses in the Treaty Ports of China to the extensive number of Australian firms enticed by trade prospects, there was significant trade. For the Chinese merchants in Australia, who saw business opportunities associated with the gold-related migration boom to Australia, they effected their trade with China via the mechanisms provided for by Westerners, whether that be through communication or transport methodologies. For a number of merchant houses in London and the organisations they represented or were linked to, they created the glue that brought together many a transaction for the China - Australia trade. For those in other ports including Singapore, Calcutta, Galle, Manilla and those in New Zealand, each played their part in creating a complex trade network that facilitated the notionally simple China - Australia trade. And, for the methodology of transportation and communications that were enhanced through advancements in technology in the early 1870s, these improved information transfer and, through that, transaction certainty. This thesis has argued that, when combined, the above elements have shown that, during the 1860s and 1870s, there was a strong and extensive trade relationship between China and Australia.

Economic and business historians, such as Noel Butlin and Sandra Tweedie, have written about Australian trade from the commencement of the British settlement in Australia to the late twentieth century. Their work, where it related to the China – Australia trade relationship decidedly relegates the nineteenth century to near insignificance. Their conclusions have been drawn by a belief that the trade was solely

related to tea imports and, thus, of little relevance to the history of colonial Australia. Their dismissal of any significant trade relationship has been questioned and countered in this thesis. Upon reducing the trade to the transaction level, an alternate picture emerges. This thesis has used the analysis of transactions to propose another perspective to the trade relationship, one involving an increasingly complex set of systems. Those systems catered for the movement of goods between various countries other than China or Australia as well as the transfer of funds, through drafts, between these same countries. The work of this thesis has shown that trade between China and Australia during the 1860s and 1870s has been worthy of analysis, an analysis that reveals a lot more about the relationship between the colonies of Australia and China than just the trade of tea.

This thesis investigated the trade of three primary products – coal, sandalwood and tea. The results have provided an alternate view of the work done in the historiography of the trade between China and Australia. Specifically, it has created a micro-analysis of the trade by dissecting the transactions between the various merchant firms. The analysis in this study, thus, has gone beyond colonial trade statistics to the investigation of the three commodities individually, so as to create a more complete understanding of the way each of the various groups of actors were employed within the trade. The analysis was completed using the correspondence and financial records from various archives of firms based in China, colonial Australia and London. Of particular note is the fact that this thesis has drawn attention to the significant but intricate movement of finances to facilitate the transactions. The exploration of the financial element of the transactions has revealed a variety of remittance methods. Cases existed where the remittances were related to drafts, companion transactions in tea or as payment to firms located in third countries. That is, beyond the general statistical results that a macro-

analysis provides, the remittances from the transactions have shown the way that trade between colonial Australia and China necessarily included the UK and other countries.

The inclusion of England is an important step to understanding Australia's overall trade processes with China during the late nineteenth century. As the centre of finance in the Western world, England, or more specifically, London, provided the base for a large proportion of the transactions that related to the China – Australia trade. Many firms in Australia, as in China, had agencies located in London so that the financial portion of the transaction could be completed there. In other cases, that financial portion also related to the purchase of goods in England for the Australian market. Examples of this connection, already shown, included Matheson & Co. of London as the agents for both JM&Co. and Jardine Skinner & Co. and F. Parbury & Co. as agents for a group of firms under banner of the Parbury family. The ability to access the London financial system bypassed the requirement of firms in China and Australia to transfer drafts or currency between each other, instead referring the financial portion of their trades to London. That also reduced a portion of the complexities of the transactions for the two main firms involved.

The transactions between firms in China and Australia fell into a number of categories. The interpretation in this thesis of the correspondence related to the transactions between merchant houses in China and Australia identified various methods. The two most common methods were the single transaction and the joint-account transaction. The single transaction was either an incidence of goods sent to a commission agent in China or Australia for sale or the request of a shipment of goods from China for the Australian market. The latter option was primarily used for tea shipments. Although the transaction may have been repeated numerous times over the years and between the same merchant houses, each was unique in terms of the conditions and details to its own environment. Variance existed for the time of sale, the competition, the exchange rate and the ability or desire to either sell or obtain the goods.

The single transaction was the most common method of transaction. It was completed where only a small amount of trust was required between the two parties in the transaction. However, it was also, in most cases, not purely a simple bilateral exchange. The connection with London agents was still quite prevalent as was the ability to perform attached companion transactions, including the exchange of remittances for shipments of tea or the ability to draw on prospective sales to be used for either tea purchases or to be delivered as drafts to England for use for the purchase of goods to be sent to Australia from London or another port. The related amount of trust that existed between the two merchant firms involved varied owing to the type of transaction and where the financial portion of the transfer took place. In these single transactions most of the concern over trust was with the China-based merchant firm.

The joint-account transaction was an alternate variant of the transaction that took place between firms such as JM&Co. or AH&Co. in their tea trade with a small and select group of trusted Australia-based merchants. In the joint-account transaction, the merchant firm in China purchased the tea and delivered it to the Australian merchant. The whole transaction process was completed on the basis that all the costs would be divided between the two firms on a percentage basis. For JM&Co., that was through an equal share, while AH&Co. chose only to take on 25 per cent of the costs of the transaction. In Australia and later also in New Zealand, JM&Co. and AH&Co. only provided this variant of the transaction to the firms they had a long and secure relationship with. These included, for JM&Co., James Henty in Melbourne, their primary agents in Sydney together with a few other firms and, for AH&Co., the Wilkinson Brothers firms in Sydney and Melbourne and the Parbury group of firms in the same ports.

The joint-account transactions that included Australian firms created a number of opportunities for the China-based merchant houses. Primarily, it allowed the China firms a method of investing in tea shipments, while not taking all of the risk. It allowed these firms to act beyond that of a commission house. The risk for the China firms was minimised as the Australian firm was not acting as a commission agent in this case, but as a merchant house purchasing and selling goods. This diversification and sharing of the risk created the need to purchase the best quality tea in China at the best price and selling the tea in Australia at the optimum sale price, when considering potential transaction costs related to storage and other requirements so as to counter competition or a poor market. Sharing the risk also altered the trust requirements. Trust increased to levels well beyond that required or existing for single transactions. There was an expectation that each firm would complete their part of the transaction by employing the best options available. As the Australian firms were selling the tea on behalf of both themselves and the China firm, the China firm had to trust that the Australian firm would remit the China firm's portion of the sales. Thus, for the China firms the various Australian firms chosen to partake in the joint-account transactions were those whom they most trusted.

The value of trust-based relationships altered again through the transactions relating to sugar shipments from Hong Kong to either Sydney or Melbourne. The choice by JM&Co. to only ship the sugar to their primary agents in those two ports meant that JM&Co. only trusted those two merchant houses to take care of the shipments on

JM&Co.'s behalf. The sugar shipments also meant that JM&Co. was now acting purely as a merchant, on behalf of the company that JM&Co. had become the primary owners of, the China Sugar Refinery. JM&Co. were shipping the sugar to Australia and using the two Australian firms as commission agents to sell the sugar and then remit the proceedings of the sale to either India or England.

The Calcutta firm Jardine Skinner & Co. was an important partner in the joint-account tea transactions and the single sugar transactions to Australia. They accepted the remittances of JM&Co.'s portion of the transactions in the form of gold bars. The gold was then sold locally in order to purchase opium and cotton to ship to JM&Co. in one of the China ports. Jardine Skinner & Co. were part of a triangle of trade. The movement of gold to India, though, existed within a more complex trade adjustment for Australia's balance of payments. Yet, unlike the requirement to use the Australian gold shipments to assist England with paying for her purchases from India, in this case the gold was part of the trade balance between India and China. That is, this study has shown that there existed an alternate multi-dimensional trade relationship that presented how much more intricate commercial relations were than the common perception of imports and exports, even in the China – Australia trade relationship. Thus, the transfer of gold for JM&Co. and the use of Jardine Skinner & Co. extend the theories of Hamashita and others to place Australia firmly within a multilateral, world economy of the time.

The position that Jardine Skinner & Co. held within the China – Australia trade relationship exemplifies the need to understand the placement of this trade relationship within an existing and complex global multi-lateral financial system. Following the discovery of gold in NSW and Victoria in the 1850s, Australia not only found an important staple to fund its extensive importations, but also provided the UK with

another method of paying for its own debts. The Jardine Skinner & Co. situation extends the system to show where Australia fitted within the China – India trade relationship. Similarly, numerous transactions involving the trade of a commodity to China were then remitted to England, primarily to pay for goods that were to arrive in Australia. The examples discussed in this thesis have shown that trade involving Australia, whether with China or another country, in the post 1850s, was complex and gave Australia an important role to play in other trade relationships.

Australia's place within the global financial systems, when related to the China – Australia trade, had strong British imperial connections. Whether through England, British India or British-controlled Singapore, the trade used various colonial intermediaries to assist in the completion of the transactions. The inclusion of financial institutions based in England, provided significant assistance to the China – Australia trade relationship. Thus, in most circumstances, Australia's trade with China was an extension of British trade. Mountford noted this in his analysis of pre-gold rush Australia. Yet, his choice not to extend this analysis beyond the 1850s is unfortunate. This study has continued Mountford's work to show that the relationship that he put forward for the first half of the nineteenth century was well-cemented by the 1860s and 1870s.

The complexity and significance of the trade relationship between China and Australia during the 1860s and 1870s challenges the validity of the paradigm presented by several historians that the issues in the China – Australia relationship during the second half of the nineteenth century were overwhelmingly dominated by the Chinese presence in Australia. This view has relegated the bilateral trade relations to a minor role. By contrast, this thesis not only questions the relevance of this point of view, but also

opens alternate avenues of interpretation of the relationship. The results of this work further assist in understanding the Chinese relationship between Chinese in Australia and those in China as well as how the Chinese worked with Westerners to complete their trade activities.

Where Chinese merchants fit within the overall China – Australia trade relationship has received attention in this thesis. Their importance in the sandalwood trade in Singapore and in China cannot be denied as Chinese traders controlled the markets, one of which was Shanghai, where both JM&Co. and Siemssen & Co. had to operate. The Chinese traders in Shanghai were also important to the importation of coking coal from the Illawarra region, south of Sydney. The general need for their smelters was, after 1860, appended by the construction of arsenals in Shanghai and nearby regions. The export of gold, recycled metals and other goods by Chinese-Australian merchants to China allowed for the import of numerous Chinese goods to the Australian markets. Primarily, these were goods for Chinese consumption. A few Chinese merchants exported their gold to Galle on P&O vessels. In doing so, they both entered into and thus became part of the global multilateral financial system.

There have been several limitations on the development of the interpretations of the trade-related transactions in this thesis. Mostly, this has been due to the lack of any previous significant investigation in this area of study. The Introduction stated that there is a dearth of historiography relating to the Western trade of Australia with China during the nineteenth century. The brief mentions in books by economic historians and the bare single chapters by Sandra Tweedie and Ben Mountford in their work on the trade between Australia and Asia has shown that these other studies have not taken full account of the intricacies of the trade transactions and, as a consequence, their

interpretations are incomplete. Thus, there was little evidence of what sources were available. The size of the archival material relating to trade between AH&Co., JM&Co. and others with Australian firms was overwhelming. For example, I have copies of approximately 22,000 records from the JM&Co. archives of which I have only partially viewed in developing this thesis. The period available researching in the archives did not allow me to examine each of the records as I obtained them. Once this material was interrogated, they revealed other connections that require future revisits and the development of various theories and questions that I was unable to properly investigate and answer in this thesis.

I stated in the Introduction that only a minute number of Australian firms, that participated in the trade with China during the 1860s and 1870s, have kept records in archives. The archives of JM&Co., AH&Co. and other China-based firms include the correspondence to and from these Australian firms. A partial understanding of how these Australian firms operated can thus be revealed from the correspondence and other material including financial records. The correspondence, for example, has already informed us of those merchant firms involved in some of the relationships between the UK and Australia. While not complete in any way, what a project of this nature would divulge is a more complete grasp of how the UK and Australian firms were run and some of the business operations they were involved in.

One by-product of this research has been the discovery of the part played by Australian firms in the relationship between JM&Co. in China and Jardine Skinner & Co. in Calcutta. Jardine Skinner was an important firm providing for JM&Co. as an exporter of goods to China such as opium and cotton. The extension through the gold shipments from Australia to Jardine Skinner & Co. helps clarify the Jardine Skinner & Co. –

JM&Co. relationship when it came to trade. Analysing the correspondence of each firm's archives, in relation to these gold transfers, would reveal an even stronger picture and add to the current literature on their relationship.

The fact that this thesis delivers a capsule of China – Australia trade history within the time boundaries of 1860 and 1880 also leaves the requirement to investigate what transpired in the period prior to 1860 and following 1880. Mountford delivered an outline of the pre-1850 period trade in his 2016 book. Similarly, Tweedie has provided an extensive analysis post 1901 Federation. Mountford's work, though is only the tip of a rather large iceberg of Australia's trade relationships with China, even for that pre-1850 period. Chapter 1 provided a discussion that related to a number of merchants in Australia who were trading with Western merchant houses in Canton pre-1840 and Hong Kong and the Treaty Ports in the period leading up to 1860. Information exists about the identity of these merchants. But many details about the transactions in which they were involved are not known. Similarly, after 1880 the origin of tea for Australia slowly altered from China to India. The effect of this change on trade relations between Australia and China cannot simply be deciphered through the trade statistics. How it affected the trade relationships between firms requires more investigation of the correspondence between these firms. Significantly, did the relationship between Jardine Skinner & Co. and the Australian firms extend to the export of tea from India to Australia? Further, did the continuance of E&A's steam trade between East Asia and the eastern seaboard of colonial Australia assist in maintaining a semblance of the China tea trade even when the Indian tea trade commenced its dominance?

The development of transactions between Western merchants in China and Australia was hampered by uncertainty of information. Prior to the introduction of telegraph, this was due to the length of time pertinent market advices travelled from port to port. Delays created that uncertainty in the accuracy and timeliness of the information for those who were making decisions about purchases and sales. Throughout this thesis there have been examples of how delays in the transfer of information created judgemental errors in the purchasing or sales of various commodities. The relationship between the period of time information took to be transferred and the methods of overcoming this impediment is an area of study that is worthy of future extended research. The transport time, calculated using shipping data, when compared with the interpretation of market advices by the merchants develops a picture of the problems associated with this uncertainty. The analysis is extended to interpreting the difference between the pre-1872 period, the 1872-1874 period and that after 1874. The initiation of telegraphic connection to Australia in 1872 and regular steam services between China and the eastern colonies of Australia after 1873 must have improved communication and thus reduced uncertainty. At what level the uncertainty was reduced and how the new communication methods were used is of interest.

A number of Australian merchants, both Western and Chinese were involved in the movement of specie and bullion, also called "treasure" in government documents, to Galle and beyond. In Chapter 5, I discussed the usage of gold as a method of payment for that portion belonging to JM&Co. from the sales of tea or sugar. I also alluded to the fact that certain Chinese merchants commonly sent gold to Galle on the P&O steamers and that this was done with regard to payment for goods to be sent from Hong Kong to Australia. The export of gold and, to a lesser extent, silver as commodities of exchange assisted with the reduction of Australia's trade deficit at the time. The study of the flow of such treasure to the region of South Asia is one that is worthwhile for further development. The work of Hamashita and others provides a basis for how treasure

added to the development and maintenance of a multi-lateral global economy. The research of Pope and others on Australian gold only captures the period after 1866. As noted, the largest importation of Australian gold into India took place in 1864. Pope's work also does not discuss who was exporting the gold and, significantly, excludes the Chinese in the research. Where Australian merchants fitted within the multilateral global economy, especially from the point of view of those involved in the gold trade is thus of interest.

There are two directions the research can take in addressing the question where Australian merchants fitted. The first method interrogates the correspondence and related records of the JM&Co. and Jardine Skinner & Co. archives. The records should deliver a more comprehensive description of how the gold arrived and was then used for the payment of goods to be exported to China. This research should also extend the knowledge of the placement of Australian firms within the triangle of trade. Complementing the first method is to analyse the export of the gold to India from Australia by investigating its continuous movement in the region. This method relies on analysing the shipping and other records related to the exportation of the gold from Victoria that are available through the local press of the time. Other archives should provide further evidence of connections, including those of Jardine Skinner & Co. Combined, research along such lines would create a more precise understanding of those firms that exported gold and, hopefully, who they exported to, why and what happened to the gold upon arrival in either Ceylon or India.

The nineteenth century witnessed a growth and a maturity in the relationship between colonial Australia and China. Mountford rightly termed the first half of the nineteenth century, the title of his opening chapter, as "sometimes as a half-way house to China."

By the second half of the century, the relationship changed significantly. Not only was Australia one of the places to which Chinese workers migrated temporarily for the purpose of extracting gold, it was a set of colonies that were involved in developing serious trade relations with China. Exports of staples destined for China as coal and sandalwood meant that the trade relationship went beyond the importation of tea. Instead, it included numerous firms engaged in complex relationships. Yet, more so, the trade relationships moved Australia past a position of just being a half-way house. By the 1850s, and certainly in the 1860s and 1870s, the foundations were created for the strong trade relationship that Australia holds with China at the present time.

BIBLIOGRAPHY

A. Primary Sources

A1. Archives

- Heard Family Business Records, Baker Library Historical Collections, Harvard Business School, Harvard University, Cambridge, MA, USA.
- Carl Smith Collection, Hong Kong Public Records Office, Hong Kong.
- Collection of photos from the Western Australian Historical Society *BA1886/103* State Library of Western Australia, Perth, Australia.
- Eastern and Australian Mail Steam Company *BT 31/1851/7270* The National Archives, London, UK.
- Eastern and Australian Steamship Company Limited *BT 31/2682/14364* The National Archives, London, UK.
- F. Parbury & Co. *Baker Old: RAOU P224* Baker Library, Harvard University, Cambridge, MA, USA.
- G.E. Arundel A Brief Historical Sketch of Australasian Steam Navigation *MLMSS* 6400 / Box 1X Mitchell Library, Sydney, Australia.
- George Shenton, Mrs G. Shenton and Ernest Shenton 4329B/1 State Library of Western Australia, Perth, Australia.
- Jardine Matheson Archive MS JM, Cambridge University Library, Department of Manuscripts and University Archives, Cambridge University, Cambridge, UK.
- Monthly Reports, 1869-1874 *DLMSQ 315* Australian Agricultural Company, Papers, Mitchell Library, Sydney, Australia.
- Monthly Reports, 1869-1874 *DLMSQ 316* Australian Agricultural Company, Papers, Mitchell Library, Sydney, Australia.
- Monthly Reports, 1869-1874 *DLMSQ 317* Australian Agricultural Company, Papers, Mitchell Library, Sydney, Australia.
- Peninsular and Oriental Steam Navigation Records, Caird Library, National Maritime Museum, Greenwich, UK.
- Queensland Mail Service via Torres Straits POST 29/305B Royal Mail Archives, London, UK.

Robert Towns and Company Papers MLMSS 307 Mitchell Library, Sydney, Australia.

Russell and Co./Perkins and Co. Collection, Baker Library Historical Collections, Harvard Business School, Harvard University, Cambridge, MA, USA.

Smith Papers MLMSS 660 Mitchell Library, Sydney, Australia.

A2. Government Records - Australian - Statistical

Blue Book for the Year 1860 Brisbane: W. C. Belbridge, Government Printer, 1861. Blue Book for the Year 1861 Brisbane: W. C. Belbridge, Government Printer, 1862. Blue Book for the Year 1862 Brisbane: W. C. Belbridge, Government Printer, 1863. Blue Book for the Year 1863 Brisbane: W. C. Belbridge, Government Printer, 1864. Blue Book for the Year 1864 Brisbane: W. C. Belbridge, Government Printer, 1865. Blue Book for the Year 1865 Brisbane: James C. Beal, Government Printer, 1866. Blue Book for the Year 1866 Brisbane: James C. Beal, Government Printer, 1867. Blue Book for the Year 1867 Brisbane: James C. Beal, Government Printer, 1868. Blue Book for the Year 1868 Brisbane: James C. Beal, Government Printer, 1869. Blue Book for the Year 1869 Brisbane: James C. Beal, Government Printer, 1870. Blue Book for the Year 1870 Brisbane: James C. Beal, Government Printer, 1871. Blue Book for the Year 1871 Brisbane: James C. Beal, Government Printer, 1872. Blue Book for the Year 1872 Brisbane: James C. Beal, Government Printer, 1873. Blue Book for the Year 1873 Brisbane: James C. Beal, Government Printer, 1874. Blue Book for the Year 1874 Brisbane: James C. Beal, Government Printer, 1875. Blue Book for the Year 1875 Brisbane: James C. Beal, Government Printer, 1876. Blue Book for the Year 1876 Brisbane: James C. Beal, Government Printer, 1877. Blue Book for the Year 1877 Brisbane: James C. Beal, Government Printer, 1878. Blue Book for the Year 1878 Brisbane: James C. Beal, Government Printer, 1879.

Blue Book for the Year 1879 Brisbane: James C. Beal, Government Printer, 1880. Blue Book for the Year 1880 Brisbane: James C. Beal, Government Printer, 1881. Blue book for the year 1860 Perth: Government Printer, 1861. Blue book for the year 1861 Perth: Government Printer, 1862. Blue book for the year 1862 Perth: Government Printer, 1863. Blue book for the year 1863 Perth: Government Printer, 1864. Blue book for the year 1864 Perth: Government Printer, 1865. Blue book for the year 1865 Perth: Government Printer, 1866. Blue book for the year 1866 Perth: Government Printer, 1867. Blue book for the year 1867 Perth: Government Printer, 1868. Blue book for the year 1868 Perth: Government Printer, 1869. Blue book for the year 1869 Perth: Government Printer, 1870. Blue book for the year 1870 Perth: Government Printer, 1871. Blue book for the year 1871 Perth: Government Printer, 1872. Blue book for the year 1872 Perth: Government Printer, 1873. Blue book for the year 1873 Perth: Government Printer, 1874. Blue book for the year 1874 Perth: Government Printer, 1875. Blue book for the year 1875 Perth: Government Printer, 1876. Blue book for the year 1876 Perth: Government Printer, 1877. Blue book for the year 1877 Perth: Government Printer, 1878. Blue book for the year 1878 Perth: Government Printer, 1879. Blue book for the year 1879 Perth: Government Printer, 1880. Blue book for the year 1880 Perth: Government Printer, 1881.

Colony of Western Australia, Year ending 31st December 1845 Perth: Government Printers, 1846.

Statistics for the Colony of Victoria for the Year 1860 Melbourne: John Ferres, Government Printer, 1861.

- Statistics for the Colony of Victoria for the Year 1861 Melbourne: John Ferres, Government Printer, 1862.
- Statistics for the Colony of Victoria for the Year 1862 Melbourne: John Ferres, Government Printer, 1863.
- Statistics for the Colony of Victoria for the Year 1863 Melbourne: John Ferres, Government Printer, 1864.
- Statistics for the Colony of Victoria for the Year 1864 Melbourne: John Ferres, Government Printer, 1865.
- Statistics for the Colony of Victoria for the Year 1865 Melbourne: John Ferres, Government Printer, 1866.
- Statistics for the Colony of Victoria for the Year 1866 Melbourne: John Ferres, Government Printer, 1867.
- Statistics for the Colony of Victoria for the Year 1867 Melbourne: John Ferres, Government Printer, 1868.
- Statistics for the Colony of Victoria for the Year 1868 Melbourne: John Ferres, Government Printer, 1869.
- Statistics for the Colony of Victoria for the Year 1869 Melbourne: John Ferres, Government Printer, 1870.
- Statistics for the Colony of Victoria for the Year 1870 Melbourne: John Ferres, Government Printer, 1871.
- Statistics for the Colony of Victoria for the Year 1871 Melbourne: John Ferres, Government Printer, 1872.
- Statistics for the Colony of Victoria for the Year 1872 Melbourne: John Ferres, Government Printer, 1873.
- Statistics for the Colony of Victoria for the Year 1873 Melbourne: John Ferres, Government Printer, 1874.
- Statistics Register of the Colony of Victoria for the Year 1874 Melbourne: George Skinner, Acting Government Printer, 1875.
- Statistics Register of the Colony of Victoria for the Year 1875 Melbourne: George Skinner, Acting Government Printer, 1876.
- Statistics Register of the Colony of Victoria for the Year 1876 Melbourne: John Ferres, Government Printer, 1877.
- Statistics Register of the Colony of Victoria for the Year 1877 Melbourne: John Ferres, Government Printer, 1878.

- Statistics Register of the Colony of Victoria for the Year 1878 Melbourne: John Ferres, Government Printer, 1879.
- Statistics Register of the Colony of Victoria for the Year 1879 Melbourne: John Ferres, Government Printer, 1880.
- Statistics Register of the Colony of Victoria for the Year 1880 Melbourne: John Ferres, Government Printer, 1881.
- Statistics Register of the Colony of Victoria for the Year 1881 Melbourne: John Ferres, Government Printer, 1882.
- Statistics Register of the Colony of Victoria for the Year 1882 Melbourne: John Ferres, Government Printer, 1883.
- Statistics Register of the Colony of Victoria for the Year 1883 Melbourne: John Ferres, Government Printer, 1884.
- Statistics Register of the Colony of Victoria for the Year 1884 Melbourne: John Ferres, Government Printer, 1885.
- Statistics Register of the Colony of Victoria for the Year 1885 Melbourne: John Ferres, Government Printer, 1886.
- Statistical Register of New South Wales for the Year 1860 Sydney: Thomas Rickards, Government Printer, 1861.
- Statistical Register of New South Wales for the Year 1861 Sydney: Thomas Rickards, Government Printer, 1862.
- Statistical Register of New South Wales for the Year 1862 Sydney: Thomas Rickards, Government Printer, 1863.
- Statistical Register of New South Wales for the Year 1863 Sydney: Thomas Rickards, Government Printer, 1864.
- Statistical Register of New South Wales for the Year 1864 Sydney: Thomas Rickards, Government Printer, 1865.
- Statistical Register of New South Wales for the Year 1865 Sydney: Thomas Rickards, Government Printer, 1866.
- Statistical Register of New South Wales for the Year 1866 Sydney: Thomas Rickards, Government Printer, 1867.
- Statistical Register of New South Wales for the Year 1867 Sydney: Thomas Rickards, Government Printer, 1868.
- Statistical Register of New South Wales for the Year 1868 Sydney: Thomas Rickards, Government Printer, 1869.

- Statistical Register of New South Wales for the Year 1869 Sydney: Thomas Rickards, Government Printer, 1870.
- Statistical Register of New South Wales for the Year 1870 Sydney: Thomas Rickards, Government Printer, 1871.
- Statistical Register of New South Wales for the Year 1871 Sydney: Thomas Rickards, Government Printer, 1872.
- Statistical Register of New South Wales for the Year 1872 Sydney: Thomas Rickards, Government Printer, 1873.
- Statistical Register of New South Wales for the Year 1873 Sydney: Thomas Rickards, Government Printer, 1874.
- Statistical Register of New South Wales for the Year 1874 Sydney: Thomas Rickards, Government Printer, 1875.
- Statistical Register of New South Wales for the Year 1875 Sydney: Thomas Rickards, Government Printer, 1876.
- Statistical Register of New South Wales for the Year 1876 Sydney: Thomas Rickards, Government Printer, 1877.
- Statistical Register of New South Wales for the Year 1877 Sydney: Thomas Rickards, Government Printer, 1878.
- Statistical Register of New South Wales for the Year 1878 Sydney: Thomas Rickards, Government Printer, 1879.
- Statistical Register of New South Wales for the Year 1879 Sydney: Thomas Rickards, Government Printer, 1880.
- Statistical Register of New South Wales for the Year 1880 Sydney: Thomas Rickards, Government Printer, 1881.
- Statistical Register of South Australia for 1860 Adelaide: W. C. Cox, Government Printer, 1861.
- Statistical Register of South Australia for 1861 Adelaide: W. C. Cox, Government Printer, 1862.
- Statistical Register of South Australia for 1862 Adelaide: W. C. Cox, Government Printer, 1863.
- Statistical Register of South Australia for 1863 Adelaide: W. C. Cox, Government Printer, 1864.
- Statistical Register of South Australia for 1864 Adelaide: W. C. Cox, Government Printer, 1865.

- Statistical Register of South Australia for 1865 Adelaide: W. C. Cox, Government Printer, 1866.
- Statistical Register of South Australia for 1866 Adelaide: W. C. Cox, Government Printer, 1867.
- Statistical Register of South Australia for 1867 Adelaide: W. C. Cox, Government Printer, 1868.
- Statistical Register of South Australia for 1868 Adelaide: W. C. Cox, Government Printer, 1869.
- Statistical Register of South Australia for 1869 Adelaide: W. C. Cox, Government Printer, 1870.
- Statistical Register of South Australia for 1870 Adelaide: W. C. Cox, Government Printer, 1871.
- Statistical Register of South Australia for 1871 Adelaide: W. C. Cox, Government Printer, 1872.
- Statistical Register of South Australia for 1872 Adelaide: W. C. Cox, Government Printer, 1873.
- Statistical Register of South Australia for 1873 Adelaide: W. C. Cox, Government Printer, 1874.
- Statistical Register of South Australia for 1874 Adelaide: W. C. Cox, Government Printer, 1875.
- Statistical Register of South Australia for 1875 Adelaide: W. C. Cox, Government Printer, 1876.
- Statistical Register of South Australia for 1876 Adelaide: W. C. Cox, Government Printer, 1877.
- Statistical Register of South Australia for 1877 Adelaide: W. C. Cox, Government Printer, 1878.
- Statistical Register of South Australia for 1878 Adelaide: W. C. Cox, Government Printer, 1879.
- Statistical Register of South Australia for 1879 Adelaide: W. C. Cox, Government Printer, 1880.
- Statistical Register of South Australia for 1880 Adelaide: W. C. Cox, Government Printer, 1881.
- Statistical Register of the Colony of Western Australia for 1896 and previous years Perth: Richard Pether, Government Printer, 1898.

- A3. Government Records Australian Other
- Inward Shipping Reports VPRS 38 Public Records Office Victoria, Melbourne, Australia.
- New South Wales Votes and Proceedings of the Legislative Assembly during the Session ... Sydney: Thomas Rickards, Government Printer (...).
- Queensland Parliamentary Debates Brisbane: W. C. Belbridge, Government Printer (1865).
- Queensland Votes and Proceedings of the Legislative Assembly during the Session 1864 Brisbane: W. C. Belbridge, Government Printer (1864).
- A4. Government Records Foreign
- Australian coal. Copy of Commodore Seymour's report upon experiments made with Australian coal at Sydney, in 1862. House of Commons, no. 159 (1863) London: Harrison and Sons, 1631.
- Australian coal. Return, showing the result of the recent experiments under the direction of the Admiralty, as to the value for naval purposes, of Australian coal. House of Commons, no. 337 (1862) London: Harrison and Sons, 1862.
- Bill for granting certain Powers and Authorities to Australian Company of London for Cultivation and Improvement of Waste Lands in Colony of New South Wales. Bill number: 325, Parliamentary Session: 1824. House of Commons, 18 May 1824.
- *China. Trade Statistics of the Treaty Ports, for the period 1863-1872.* Shanghai: Imperial Maritime Customs Press, 1873.
- *China. No. 12 (1870). Commercial reports from Her Majesty's consuls in China. 1869-70.* House of Commons, no. C.212 (1870) London: Harrison and Sons, 1870.
- China No. 2 (1871). Commercial Reports from Her Majesty's Consuls in China. 1869-70 House of Commons, no. C.317 (1871) London: Harrison and Sons, 1871.
- China. No. 2 (1872). Commercial reports from Her Majesty's consuls in China. 1870. House of Commons no. C.567 (1872) London: Harrison and Sons, 1872.
- China. No. 1 (1875). Commercial reports from Her Majesty's consuls in China. 1873. House of Commons no. C.1130 (1875) London: Harrison and Sons, 1875.
- China. No. 1 (1877). Commercial reports by Her Majesty's consuls in China. 1875-76. House of Commons, no. C.1665 (1877) London: Harrison and Sons, 1877.

- Commercial Reports from Her Majesty's consuls in China, Japan, and Siam 1865. House of Commons, no. 3707 (1866) London: Harrison and Sons, 1866.
- Commercial Reports from Her Majesty's consuls in China, Japan, and Siam 1865-66. House of Commons, no. 3940 (1867) London: Harrison and Sons, 1867.
- Commercial Reports from Her Majesty's consuls in China, Japan, and Siam 1866-68. House of Commons, no. 4079 (1866-68) London: Harrison and Sons, 1868.
- Copy of Captain Ward's report on the Mint at Sydney, presented to the legislature in January 1860. House of Commons, no. 358 (1860) C. Fortescue. Colonial Office, 5 June 1860.
- Customs tariffs (colonies). Return of the changes made in the customs tariffs of Her Majesty's possessions abroad (in continuation of Parliamentary Paper, no. 560, of session 1864). House of Commons, no. 419 (1867) C. B. Adderley. Colonial Office, 2 July 1867.
- First Report from the Select Committee on Steam Communications with India, &c. House of Commons, no. 372 (1851).
- *Fourth Annual Report of the Deputy Master of the Mint. 1871.* House of Commons, no. C.1016 (1874) London: G.E. Eyre and W. Spottiswoode, 1874.

Hong Kong Blue Book for the Year 1850 Hong Kong: Govt. Printer, 1851

Hong Kong Blue Book for the Year 1860 Hong Kong: Govt. Printer, 1861.

Hong Kong Blue Book for the Year 1861 Hong Kong: Govt. Printer, 1862.

Hong Kong Blue Book for the Year 1862 Hong Kong: Govt. Printer, 1863.

Hong Kong Blue Book for the Year 1863 Hong Kong: Govt. Printer, 1864.

Hong Kong Blue Book for the Year 1864 Hong Kong: Govt. Printer, 1865.

Hong Kong Blue Book for the Year 1865 Hong Kong: Govt. Printer, 1866.

Hong Kong Blue Book for the Year 1866 Hong Kong: Govt. Printer, 1867.

Hong Kong Blue Book for the Year 1867 Hong Kong: Govt. Printer, 1868.

Hong Kong Blue Book for the Year 1868 Hong Kong: Govt. Printer, 1869.

Hong Kong Blue Book for the Year 1869 Hong Kong: Govt. Printer, 1870.

Hong Kong Blue Book for the Year 1870 Hong Kong: Govt. Printer, 1871.

Hong Kong Blue Book for the Year 1871 Hong Kong: Govt. Printer, 1872.

Hong Kong Blue Book for the Year 1872 Hong Kong: Govt. Printer, 1873.

Hong Kong Blue Book for the Year 1873 Hong Kong: Govt. Printer, 1874.

Hong Kong Blue Book for the Year 1874 Hong Kong: Govt. Printer, 1875.

Hong Kong Blue Book for the Year 1875 Hong Kong: Govt. Printer, 1876.

Hong Kong Blue Book for the Year 1876 Hong Kong: Govt. Printer, 1877.

Hong Kong Blue Book for the Year 1877 Hong Kong: Govt. Printer, 1878.

Hong Kong Blue Book for the Year 1878 Hong Kong: Govt. Printer, 1879.

Hong Kong Blue Book for the Year 1879 Hong Kong: Govt. Printer, 1880.

Hong Kong Blue Book for the Year 1880 Hong Kong: Govt. Printer, 1881.

- Navy (trial of coal). Return of all experiments made by the Admiralty on coal and patent fuel since the date of the last return, the 9th of March 1876; and, copy of any correspondence having special reference to the relative value of various coals and patent fuels. House of Commons, no. 397 (1877).
- Navy (use of Coal), Copy of all general orders issued by Admiralty to the fleet since 1850, restricting the use of coal in Her Majesty's ships no. 192 (1872).
- Reports from the Foreign Commissioners at the Various Ports in China for the Year 1865. House of Commons, no. 3823 (1867) London: Harrison and Sons, 1867.
- Report from the Select Committee on the Sydney Branch Mint; together with the proceedings of the committee, minutes of evidence, appendix, and index. House of Commons, no. 421 (1862) 17 July 1862.
- Reports received from Her Majesty's secretaries of embassy and legation respecting coal. With an appendix, and reports as to coal production in British colonies. House of Commons, no. 3759 (1867) London: Harrison and Sons, 1867.
- Reports on the Trade at the Ports in China open by Treaty to Foreign Trade, for the Year 1865 Shanghai: Imperial Maritime Customs' Press, 1866.
- Second Annual Report of the Deputy Master of the Mint. 1871 House of Commons, no. C.552 (1872) London: G.E. Eyre and W. Spottiswoode, 1872.
- Statement of the Trade of British India with British Possessions and Foreign Countries for the Five Years 1869-70 to 1873-74. House of Commons, no. C.1373 (1875) London: G.E. Eyre and W. Spottiswoode, 1875.
- Statement of the Trade of British India with British Possessions and Foreign Countries for the Five Years 1870-71 to 1874-75. House of Commons, no. C.1616 (1876) London: G.E. Eyre and W. Spottiswoode, 1876.

- Statement of the Trade of British India with British Possessions and Foreign Countries for the Five Years 1871-72 to 1875-76. House of Commons, no. C.1870 (1877) London: G.E. Eyre and W. Spottiswoode, 1877.
- Statement of the Trade of British India with British Possessions and Foreign Countries for the Five Years 1872-73 to 1876-77. House of Commons, no. C.2026 (1878) London: G.E. Eyre and W. Spottiswoode, 1878.
- Statement of the Trade of British India with British Possessions and Foreign Countries for the Five Years 1873-74 to 1877-78. House of Commons, no. C.2400 (1878-79) London: G.E. Eyre and W. Spottiswoode, 1879.
- Statement of the Trade of British India with British Possessions and Foreign Countries for the Five Years 1874-75 to 1878-79. House of Commons, no. C.2585 (1880) London: G.E. Eyre and W. Spottiswoode, 1880.
- Statement of the Trade of British India with British Possessions and Foreign Countries for the Five Years 1875-76 to 1879-80. House of Commons, no. C.2895 (1881) London: G.E. Eyre and W. Spottiswoode, 1881.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part VII. (1860.) House of Commons, no. 3065 (1862) London: G.E. Eyre and W. Spottiswoode, 1862.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part VIII. (1861.) House of Commons, no.3219 (1863) London: G.E. Eyre and W. Spottiswoode, 1863.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part IX. (1862.) House of Commons, no.3396 (1864) London: G.E. Eyre and W. Spottiswoode, 1864.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part X. (1863.) House of Commons, no.3650 (1866) London: G.E. Eyre and W. Spottiswoode, 1866.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part XI. (For Two Years 1864 and 1865.) House of Commons, no. 3879 (1867) London: G.E. Eyre and W. Spottiswoode, 1867.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part XII. (1866.) House of Commons, no. 4030-I (1867-68) London: G.E. Eyre and W. Spottiswoode, 1868.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part XIII. (1867.) House of Commons, no. 4194-I (1868-69) London: G.E. Eyre and W. Spottiswoode, 1869.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part XIV. (1868-1869-1870.) House of Commons, no. C.1038 (1874) London: G.E. Eyre and W. Spottiswoode, 1875.

- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part XV. (1871-2-3-4-5.) House of Commons, no. C.20329 (1878) London: G.E. Eyre and W. Spottiswoode, 1878.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part XVI. (1876-7-8.) House of Commons, no. C.2867 (1881) London: G.E. Eyre and W. Spottiswoode, 1881.
- Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. Part XVII. (1879-80-81.) House of Commons, no. C.4519 (1884-85) London: G.E. Eyre and W. Spottiswoode, 1885.
- *The Hong Kong Government Gazette* XXVI, no. 12. 18 March 1876. Hong Kong: Noronha & Sons.
- A5. Other Government Documents
- Hart, Robert. "China. Trade Statistics of the Treaty Ports, for the Period 1863-1872." Shanghai: Imperial Maritime Customs Press, 1873. (Compiled for the Austro-Hungarian Universal Exhibition, Vienna, 1873)
- Loneragan, O. W. "Historical Review of Sandalwood (Santalum Spicatum): Research in Western Australia, Research Bulletin No. 4." Como, WA: Department of Conservation and Land Management, 1990.
- "Mineral Resources of Australia" Mineral Branch, Bureau of Mineral Resources, Geology and Geophysics, Record 1983/11, 1983.
- Young, W. "Report on the condition of the Chinese population of Victoria." *Victorian Parliamentary Papers 3*, 1868.

A6. Newspapers

Adelaide Observer (Adelaide, Australia)

Australasian Shipping News (Melbourne, Australia)

Border Watch (Mount Gambier, South Australia, Australia)

Courier Mail (Brisbane, Australia)

Daily News (London, UK)

Empire (Sydney, Australia)

Glasgow Herald (Glasgow, UK)

Goulburn Herald (Goulburn, Australia)

Guardian (Australia)

Inquirer (Perth, Australia)

Launceston Examiner (Launceston, Australia)

Morning Bulletin (Rockhampton, Australia)

Newcastle Chronicle (Newcastle, Australia)

New York Herald (New York, United States of America)

North China Herald (Shanghai, China)

North China Herald and Market Report (Shanghai, China)

North China Herald and Supreme Court and Consular Gazette (Shanghai, China)

Northern Territory Times and Gazette Darwin, Australia)

Portland Guardian and Normanby General Advertiser (Portland, Victoria, Australia)

Port Phillip Gazette and Settler's Journal (Melbourne, Australia)

Queensland Times, Ipswich Herald and General Advertiser (Ipswich, Australia)

South Australian Register (Adelaide, Australia)

Straits Times Overland Journal (Singapore)

Swan River News and Western Australian Chronicle (London)

Sydney Chronicle (Sydney, Australia)

The Age (Melbourne, Australia)

The Argus (Melbourne, Australia)

The Australian News for Home Readers (Melbourne, Victoria)

The Bega Gazette and Eden District or Southern Coast Advertiser (Bega, Australia)

The Brisbane Courier (Brisbane, Australia)

The Cooktown Courier (Cooktown, Australia)

The Cooktown Herald (Cooktown, Australia)

The Cooktown Herald and Palmer River Advocate (Cooktown, Australia) The Courier (Brisbane, Australia) *The Examiner* (London, UK) *The Herald* (Fremantle, Australia) *The Hong Kong Times, Daily Advertiser, and Shipping Gazette* (Hong Kong) The Illustrated Sydney News (Sydney, Australia) *The Inquirer* (Perth, Australia) The Inquirer and Commercial News (Perth, Australia) The Maitland Mercury and Hunter River General Advertiser (Maitland, Australia) The Mercury (Hobart, Australia) The Newcastle Courant (Newcastle, UK) The Otago Daily Times (Dunedin, New Zealand) The Perth Gazette and Independent Journal of Politics and News (Perth, Australia) The Perth Gazette and West Australian Times (Perth, Australia) The Perth Gazette and Western Australian Journal (Perth, Australia) The Queenslander (Brisbane, Australia) The Shipping Gazette and Sydney General Trade List (Sydney, Australia) The Singapore Free Press and Mercantile Advertiser (Singapore) *The Standard* (London, UK) The Sydney Gazette and New South Wales Advertiser (Sydney, Australia) The Sydney Herald (Sydney, Australia) The Sydney Mail (Sydney, Australia) The Sydney Mail and New South Wales Advertiser (Sydney, Australia) The Sydney Monitor (Sydney, Australia) The Sydney Morning Herald (Sydney, Australia) The Telegraph (Brisbane, Australia)

The West Australian (Perth, Australia)

The Western Australian Times (Perth, Australia)

Wagga Wagga Advertiser and Riverina Reporter (Wagga Wagga, New South Wales, Australia)

A7. Pictures

- "Siemssen Co. and Ever Victorious Army Monument" Virtual Shanghai, Image 206 http://www.virtualshanghai.net/Photos/Images?ID=206 accessed 7 July 2016.
- Fagg, M. Santalum Spicatum Australian Plant Image Index, dig.1084. http://www.anbg.gov.au/photo accessed 25 August 2015.

A8. Maps

Sandalwood Forest Products Commission Western Australia. http://www.fpc.wa.gov.au/sandalwood accessed 5 July 2016.

B. Secondary Sources

B1. Books

Lloyd's Register of British and Foreign Shipping from 1st July, 1874, to 30th June, 1875. London: Wyman and sons, 1874.

The Australian Oxford Dictionary. West End, Qld: Herron Publications, 1988.

- Allen, Joseph. *The Navigation Laws of Great Britain, Historically and Practically Considered, with Reference to Commerce and National Defence.* London: Baily Brothers, 1849.
- Andrews, Eric M. Australia and China: The Ambiguous Relationship. Carlton, Vic: Melbourne University Press, 1985.
- Armstrong, John, and Stephanie Jones. Business Documents: Their Origins, Sources and Uses in Historical Research. London: Mansell Publishing Limited, 1987.
- Arrow, Kenneth J. *Information and Economic Behaviour*. Stockholm: Federation of Swedish Industries, 1973.
- Ashworth, William. *A Short History of the International Economy 1850-1950*. London: Longmans, 1961.
- Australian Agricultural Company. *Report to the Half-yearly meeting*. London: J. J. Metcalfe, February, 1863.
- Bach, John. A Maritime History of Australia. Sydney: Pan Books, 1976.

The Australia Station: A History of the Royal Navy in the South West Pacific, 1821-1913. Sydney: New South Wales University Press, 1986.

- Bartley, Nehemiah, and J. J. Knight. Australian Pioneers and Reminiscences : Together with Portraits of Some of the Founders of Australia. Brisbane: Gordon and Gotch, 1896.
- Bassett, Marnie. *The Hentys: An Australian Colonial Tapestry*. London: Cambridge University Press, 1962.
- Basu, Prabir, Cen Kefa, and Louis Jestin. *Boilers and Burners: Design and Theory*. New York: Springer, 2000.
- Battersby, Paul. To the Islands: White Australians and the Malay Archipelago since 1788. Plymouth, UK: Lexington Books, 2007.
- Battye, J. S. Western Australia: A History from Its Discovery to the Inauguration of the Commonwealth. Oxford: Clarendon Press, 1924.

- Becher, Alexander B. Navigation of the Indian Ocean, China and Australian Seas : With an Account of the Winds, Weather and Currents Found Therein Throughout the Year ; According to the Most Approved Authorities, Including Extensive Extracts from the Nautical Magazine. London: J. D. Potter, 1864.
- Blainey, Geoffrey. *The Tyranny of Distance: How Distance Shaped the World.* Melbourne: Sun Books, 1966.

The Rush That Never Ended: A History of Australian Mining. Melbourne: Melbourne University Press, 1969.

- Blake, John H. *Tea Hints for Retailers in Two Parts*. Denver: The Williamson-Haffner Engraving Company, 1903.
- Blake, Robert. Jardine Matheson: Traders of the Far East. London: Weidenfeld & Nicholson, 1999.
- Blundell, J. Wagstaff. *Blundell's Manual of Submarine Telegraph Companies*. London: J. Wagstaff Blundell, 1872.
- Booth, Douglas. *The Field: Truth and Fiction in Sport History*. London: Routledge, 2005.
- Boyce, Gordon, and Simon Ville. *The Development of Modern Business*. New York: Palgrave, 2002.
- Bradley, Harold W. *The American Frontier in Hawaii: The Pioneers 1789-1843*. Stanford, CA: Stanford University Press, 1968.
- Branagan, David Francis. *Geology and Coal Mining in the Hunter Valley 1791-1861*. Newcastle History Monographs. Newcastle, NSW: Newcastle Public Library, 1972.
- Buck, Norman S. *The Development of the Organsation of Anglo-American Trade 1800-1850*. New York: Greenwood Press, 1968.
- Butlin, Noel. Investment in Australian Economic Development 1861-1900. Cambridge, UK: Cambridge University Press, 1964.

The Australian Monetary System 1851 to 1914. Sydney: J. F. Butlin, 1986.

Forming a Colonial Economy, Australia 1810-1850. Cambridge: Cambridge University Press, 1994.

Butlin, S. J. Foundations of the Australian Monetary System 1788-1851. Sydney: Sydney University Press, 1953.

Australia and New Zealand Bank. London: Longmans, 1961.

Campbell, Ian C. A History of the Pacific Islands. Berkeley, CA: University of California Press, 1989.

- Campbell, Persia Crawford. *Chinese Coolie Emigration to Countries within the British Empire*. London: Frank Cass & Co., 1971.
- Chapman, Stanley D. Merchant Enterprise in Britain: From the Industrial Revolution to World War I. Cambridge, UK: Cambridge University Press, 1992.
- Choi, Ching-yan. *Chinese Migration and Settlement in Australia*. Sydney: Sydney University Press, 1975.
- Church, Roy, Alan Hall, and John Kanefsky. *The History of the British Coal Industry*. *Vol.3.*, *1830-1913 : Victorian Pre-Eminence*. Oxford: Clarendon Press, 1986.
- Coghlan, Timothy A. Labour and Industry in Australia: From the First Settlement in 1788 to the Establishment of the Commonwealth in 1901. 4 vols. Vol. 3, London: Oxford University Press, 1918.
- Cohen, Paul A. Discovering History in China: American Historical Writing on the Recent Chinese Past. New York: Columbia University Press, 2010.
- Colwell, Max. Whaling around Australia. Adelaide: Rigby Limited, 1969.
- Connell, Carol Matheson. A Business in Risk: Jardine Matheson and the Hong Kong Trading Industry. Westport, CT: Praeger Publishers, 2004.
- Cronin, Kathryn. *Colonial Casualties : Chinese in Early Victoria*. Carlton, Vic: Melbourne University Press, 1982.
- Davidson, G. F. Trade and Travel in the Far East, or, Recollections of Twenty-One Years Passed in Java, Singapore, Australia, and China. London: Malcolm and Madden, 1846.
- Davidson, James W. The Island of Formosa Past and Present. London: MacMillan & Co., 1903.
- Deakin, Alfred. *The Crisis in Victorian Politics 1879-1881*. Melbourne: Melbourne University Press, 1957.
- Dick, Howard W., and S. A. Kentwell. *Beancaker to Boxboat: Steamship Companies in Chinese Waters*. Canberra: The Nautical Association of Australia Inc., 1988.
- Dick, Howard W., and Peter J. Rimmer. *Cities, Transport and Communications: The Integration of Southeast Asia since 1850.* New York: Palgrave Macmillan, 2003.
- Ding, Chiang Hai. A History of Straits Settlements Foreign Trade: 1870-1915. Singapore: National Museum, Singapore, 1978.
- Dobbs, Stephen. *The Singapore River: A Social History, 1819-2002.* Singapore: Singapore University Press, 2003.
- Earp, Douglas. *Behn, Meyer & Co. Arnold Otto Meyer*. Translated by Heidi Hartmann. 2 vols. Vol. 1. Hamburg: Hans Christians Verlag, 1981.

- Emery, James. *The Discovery of Australia Including the Mandated Territory of New Guinea*. Sydney: Hamlyn Guides, n.d.
- Esposito, Virginia. Rice Bowls and Dinner Plates : Ceramic Artifacts from Chinese Gold Mining Sites in Southeast New South Wales, Mid 19th to Early 20th Century. Oxford: Archaeopress, 2014.
- Fieldhouse, D. K. *Economics and Empire 1830-1914*. Ithica, NY: Cornell University Press, 1973.
- Fitzgerald, John. *Big White Lie: Chinese Australians in White Australia*. Sydney: University of New South Wales Press, 2007.
- Fitzgerald, Ross, Lyndon T. Megarrity, and David Symons. *Made in Queensland: A New History*. St Lucia, Qld: University of Queensland Press, 2009.
- Fitzgerald, Shirley. *Red Tape, Gold Scissors : The Story of Sydney's Chinese*. Sydney: State Library of New South Wales Press, 1997.
- Foley, John C. Reef Pilots: The History of the Queensland Coast and Torres Strait Pilot Service. Sydney: Banks Bros & Street, 1982.
- Gardella, Robert. *Harvesting Mountains: Fujian and the China Tea Trade, 1757-1937.* Berkeley, CA: University of California Press, 1994.
- Gollan, Robin. *The Coalminers of New South Wales: A History of the Union, 1860-1960.* Melbourne: Melbourne University Press, 1963.
- Gottschalk, Louis, ed. *Generalizations in the Writing of History*. Chicago: University of Chicago Press, 1963.
- Greenberg, Michael. *British Trade and the Opening of China 1800-42*. Cambridge, UK: Cambridge University Press, 1969.
- Griffin, Alan R. *The British Coalmining Industry : Retrospect and Prospect*. Buxton: Moorland Publishing Co., 1977.
- Hainsworth, David R. Builders and Adventurers; the Traders and the Emergence of the Colony 1788-1821. Melbourne: Cassell Australia, 1968.
- Halsey, Stephen R. Quest for Power: European Imperialism and the Making of Chinese Statecraft. Cambridge, MA: Harvard University Press, 2015.
- Hamashita, Takeshi, Linda Grove, and Mark Selden, eds. *China, East Asia and the Global Economy: Regional and Historical Perspectives*. New York: Routledge, 2008.
- Hammett, Guy. *Dictionary of International Trade Terms*. Canterbury: Financial World Publishing, 2001.

- Hannah, A. C., and Donald Spence. *The International Sugar Trade*. Cambridge, UK: Woodhead Publishing, 1996.
- Hao, Yen-P'ing. *The Comprador in Nineteenth Century China: Bridge between East and West*. Cambridge: MA: Harvard University Press, 1970.
- Hargraves, A.J. *History of Coal Mining in Australia*. Melbourne: The Australasian Institute of Mining and Metallurgy, Illawarra Branch., 1993.
- Harvey, David. The Condition of Postmodernity: An Enquiry into the Origins of Cultural Change. Oxford: Blackwell, 1990.
- Heaton, Herbert. Economic History of Europe. New York: Harper & Brothers, 1948.
- Hilder, Brett. The Voyage of Torres. St. Lucia, Qld: University of Queensland Press, 1980.
- Holcomb, Janette. Early Merchant Families of Sydney: Speculation and Risk Management on the Fringes of Empire. London: Anthem Press, 2014.
- House, Edward H. The Japanese Expedition to Formosa. Tokyo: Edward H. House, 1875.
- Hughes, Helen. *The Australian Iron and Steel Industry 1848-1962*. Melbourne: Melbourne University Press, 1964.
- Huurdeman, Anto A. *The Worldwide History of Telecommunications*. Hoboken, NJ: John Wiley & Sons, 2003.
- Hyde, Francis E. Far Eastern Trade: 1860-1914. London: Adam & Charles Black, 1973.
- Jevons, W Stanley. *The Coal Question: An Inquiry Concerning the Progress of the Nation and the Probable Exhaustion of Our Coal-Mines*. London: Macmillan & Co., 1865.
- Jones, Geoffrey. Merchants to Multinationals: British Trading Companies in the Nineteenth and Twentieth Centuries. Oxford: Oxford University Press, 2002.

Multinationals and Global Capitalism: From the Nineteenth to the Twenty-First Century. Oxford: Oxford University Press, 2005.

- Jones, Stephanie. Merchants of the Raj: British Managing Agency Houses in Calcutta Yesterday and Today. London: Macmillan Press, 1992.
- Kaye, Stuart B. The Torres Strait. The Hague: Martinus Nijhoff Publishers, 1997.
- Kent, Percy Horace. Railway Enterprise in China: An Account of Its Origin and Development. London: Edward Arnold, 1907.
- Kenwood, A. G., and A. L. Lougheed. *The Growth of the International Economy 1820-*1960. London: George Allen & Unwin, 1971.

- Keswick, Maggie, ed. *The Thistle and the Jade: A Celebration of Jardine, Matheson & Co.* London: Octopus, 1982.
- Kimberly, W. B. *History of West Australia: A Narrative of Her Past Together with Biographies of Her Leading Men.* Melbourne: F. W. Niven & Co., 1897.
- King, A. G. Looking Backward over 100 History-Making Years, to 1842: A Tribute to a *Pioneer*. Sydney: Smith and Darling, 1942.
- Kirch, Patrick V., and Marshall Sahlins. *Anahulu : The Anthropology of History in the Kingdom of Hawaii*. Vol. 1, Chicago: University of Chicago Press, 1992.
- Knapp, G. J., and Heather Sutherland. *Monsoon Traders : Ships, Skippers and Commodities in Eighteenth-Century Makassar.* Leiden: KITLV Press, 2004.
- Koutsoukis, A. J. Western Australia: A Brief History. Melbourne: Longman, 1988.
- Lagrange, Helen, and Jacques Lagrange. Clipper Ships of America and Great Britain, 1833-1869. New York: G. P Putman's sons, 1936.
- Lake, Marilyn, and Henry Reynolds. Drawing the Global Colour Line: White Men's Countries and the Question of Racial Equality. Melbourne: Melbourne University Publishing, 2008.
- LeFevour, Edward. Western Enterprise in Late Ch'ing China: A Selective Survey of Jardine, Matheson & Company's Operations, 1842-1895. Cambridge, MA: Harvard University Press, 1968.
- Lely, J. M. Wharton's Law-Lexicon: Forming an Epitome of the Law of England; and Containing Full Explanations of the Technical Terms and Phrases Thereof, Both Ancient and Modern. Including the Various Legal Terms Used in Commerce Business; Together with a Translation of Latin Law Marims; and Selected Titles from the Civil, Scotch, and Indian Law. 7th ed. Boston: Soule and Bugbee, 1883.
- Liu, Kwang-Ching. Anglo-American Steamship Rivalry in China 1862-1874. Cambridge, MA: Harvard University Press, 1962.
- Lockwood, Stephen C. Augustine Heard and Company, 1858-1862; American Merchants in China. Harvard East Asian Monographs. Cambridge, MA: East Asian Research Center, Harvard University, 1971.
- Lydon, Jane. 'Many Inventions' the Chinese in the Rocks, Sydney, 1890-1930. Clayton, Vic: Monash Publications in History, 1999.
- Macklin, Robert. Dragon & Kangaroo: Australia and China's Shared History from the Goldfields to the Present Day. Sydney: Hachette, 2017.
- Macknight, Charles, C. The Voyage to Marege' : Macassan Trepangers in Northern Australia. Carlton: Melbourne University Press, 1976.

Macleod, Henry D. Indian Currency. London: Longmans, Green & Co., 1898.

- Mair, Victor H., and Erling Hoh. *The True Story of Tea*. London: Thames & Hudson, 2009.
- Major, Richard H. Early Voyages to Terra Australis, Now Called Australia: A Collection of Documents, and Extracts from Early Manuscript Maps, Illustrative of the History of Discovery on the Coasts of That Vast Island, from the Beginning of the Sixteenth Century to the Time of Captain Cook. New York: Burt Franklin, 1963.
- Markus, Andrew. *Fear and Hatred : Purifying Australia and California 1850-1901.* Sydney: Hale & Iremonger, 1979.
- Marriner, Sheila, and Francis Hyde, E. *The Senior John Samuel Swire 1825-98: Management in Far Eastern Shipping Trades*. Liverpool: Liverpool University Press, 1967.
- Marshall, Gordon de L. *Maritime Albany Remembered: Les Douglas Et Al*. Kalamunda, WA: Tangee Pty Ltd, 2001.
- Mauldon, Frank R. E. A Study in Social Economics: The Hunter River Valley, New South Wales. Melbourne: Workers' Educational Association of N.S.W. in conjunction with Robertson & Mullens, 1927
- May, Ernest R., and John King Fairbank. *America's China Trade in Historical Perspective: The Chinese and American Performance.* Cambridge, MA: Harvard University Press, 1986.
- Mayers, Wm. Fred., N.B. Dennys, and Chas King. *The Treaty Ports of China and Japan*. London: Trübner and Co., 1867.

Treaties between the Empire of China and Foreign Powers, Together with Regulations for the Conduct of Foreign Trade. Shanghai: J. Broadhurst Tootal, 1877.

McGowan, Barry. Bungonia to Braidwood : An Historical and Archaeological Account of the Shoalhaven and Mongarlowe Goldfields. Canberra: Barry McGowan, 1996.

Lost Mines Revisited : Historic Mining Communities of the Monaro, Southern Tablelands and South West Slopes Districts of New South Wales. Canberra: Barry McGowan, 1996.

____ Tracking the Dragon : A History of the Chinese in the Riverina. Wagga Wagga, NSW: Museum of the Riverina, Wagga Wagga, 2010.

- McIntyre, Kenneth G. The Secret Discovery of Australia : Portuguese Ventures 200 Years before Captain Cook. Medinde, S.A.: Souvenir Press, 1977.
- McLean, Ian W. *Why Australia Prospered: The Shifting Sources of Economic Growth*. Princeton, NJ: Princeton University Press, 2013.

- Meng, Lowe Kong, Louis Ah Mouy, and Cheok Hong Cheong. *The Chinese Question in Australia, 1878-79.* Melbourne: F. F. Bailliere, 1879.
- Miksic, John. *Singapore and the Silk Road of the Sea, 1300-1800.* Singapore: National University of Singapore Press, 2013.
- Milton, James H., and Roy M. Leach. *Marine Steam Boilers*. London: Butterworths, 1980.
- Mountford, Benjamin. *Britain, China and Colonial Australia*. Oxford: Oxford University Press, 2016.
- Moxham, Roy. *Tea: Addiction, Exploitation and Empire.* New York: Carroll & Graf Publishers, 2003.
- Mullins, Steve. Torres Strait: A History of Colonial Occupation and Cultural Contact, 1864-1897. Rockhampton, Qld: Central Queensland University Press, 1995.
- Munro, J. Forbes. Maritime Enterprise and Empire: Sir William Mackinnon and His Business Network, 1823-93. Woodbridge, Suffolk: The Boydell Press, 2003.
- Murphey, Rhoads. *The Treaty Ports and China's Modernization: What Went Wrong?* Michigan Papers in Chinese Studies. Ann Arbor, MI: The University of Michigan Center for Chinese Studies, 1970.

The Outsiders: The Western Experience in India and China. Ann Arbor: University of Michigan Press, 1977.

- Nairn, John. Walter Padbury: His Life and Times. Perth: North Stirling Press, 1985.
- Newman, Charles E. T. *The Spirit of Wharf House: Campbell Enterprise from Calcutta to Canberra*. Sydney: Angus and Robertson, 1961.
- Nicholson, Ian H. Via Torres Strait: A Maritime History of the Torres Strait Route and the Ship's Post Office at Booby Island. Nambour, Qld: Sunstrip Printers, 1996.
- Nield, Robert. *The China Coast: Trade and the First Treaty Ports*. Hong Kong: Joint Publishing, 2010.
- Olsen, William. Lion of the China Sea: A History of the Eastern and Australian Steamship Company Limited. Sydney: P & O Australia Ltd., 1976.
- Palfreeman, Anthony C. *The Administration of the White Australia Policy*. Melbourne: Melbourne University Press, 1967.
- Parsons, Ronald. A Pioneer Australian Steamship Company : A History of the Hunter's River Steam Navigation Company and the Australian Steam Navigation Company, Including a Fleet List Lobethal, S. A. : Ronald Parsons, 1970.
- Paterson, J. A. *The Gold Fields of Victoria in 1862*. Melbourne: Wilson & Mackinnon, 1862.

Patmore, Greg. Australian Labour History. South Melbourne: Longman Cheshire, 1991.

- Philips, C. H. *The East India Company 1784-1834*. Manchester: Manchester University Press, 1961.
- Pinkstone, Brian, and David Meredith. *Global Connections: A History of Exports and the Australian Economy*. Canberra: Australian Government Publishing Service, 1992.
- Plowman, Peter. Ferry to Tasmania: A Short History. Dural, NSW: Rosenberg Publishing, 2004.

Coast to Coast: The Great Australian Coastal Liners. Dural, NSW: Rosenberg Publishing, 2007.

- Pratt, Linda W., and Charles P. Stone. *Alteration of Native Hawaiian Vegetation : Effects of Humans, Their Activities and Introductions.* Honolulu: University of Hawaii, Cooperative National Park Resources Studies Unit, 1990.
- Price, Charles A. The Great White Walls Are Built : Restrictive Immigration to North America and Australasia, 1836-1888. Canberra: The Australian Institute of International Affairs in association with Australian National University Press, 1974.
- Rapier, Richard C. Remunerative Railways for New Countries; with Some Account of the First Railway in China. London: E. & F. N. Spon, 1878.
- Rodrigue, Jean-Paul, Claude Comtis, and Brian Slack. *The Geography of Transport Systems*. Abingdon, UK: Routledge, 2006.
- Rolls, Eric. *Sojourners: Flowers and the Wide Sea*. St Lucia, Queensland: University of Queensland Press, 1992.
- Rowe, William T. *Hankow: Commerce and Society in a Chinese City, 1796-1889.* Stanford, CA: Stanford University Press, 1984.
- Saberi, Helen. Tea: A Global History. London: Reaktion Books Ltd, 2010.
- Sang, Ye. *The Year the Dragon Came*. St. Lucia, Qld: University of Queensland Press, 1996.
- Schafer, Edward H. *The Golden Peaches of Samarkand: A Study of T'ang Exotics*. Berkeley: University of California Press, 1963.
- Schmitz, Christopher. Output and Employment in the New South Wales Coal Industry, 1805-1923. Melbourne: Australian Reference Publications, 1988.
- Schumpeter, Joseph Alois. Business Cycles : A Theoretical, Historical and Statistical Analysis of the Capitalist Process. New York: McGraw-Hill, 1939.
- Schurman, Donald M. Imperial Defence 1868-1887. London: Frank Cass, 2000.

- Shen, Yuanfang. Dragon Seed in the Antipodes : Chinese-Australian Autobiographies. Melbourne: Melbourne University Press, 2001.
- Shineberg, Dorothy. They Came for Sandalwood: A Study of the Sandalwood Trade in the South-West Pacific 1830-1865. Melbourne: Melbourne University Press, 1967.
- Shirras, G. Findlay. Indian Finance and Banking. London: Macmillan & Co, 1919.
- Simkin, C. G. F. The Traditional Trade of Asia. London: Oxford University Press, 1968.
- Sinclair, W. A. *The Process of Economic Development in Australia*. Melbourne: Cheshire, 1976.
- Sinn, Elizabeth. *Power and Charity: A Chinese Merchant Elite in Colonial Hong Kong.* Hong Kong: Hong Kong University Press, 2003.

Pacific Crossing: California Gold, Chinese Migration, and the Making of Hong Kong. Hong Kong: Hong Kong University Press, 2013.

- Smith, Carl T. Chinese Christians: Elites, Middlemen, and the Church in Hong Kong. Hong Kong: Hong Kong University Press, 1985.
- Smith, W. L. G. Observations on China and the Chinese. New York: Carleton, 1863.
- Steven, Margaret. *Merchant Campbell, 1769-1846: A Study of Colonial Trade.* Melbourne: Oxford University Press, 1965.
- Sugiyama, Shinya. Japan's Industrialisation in the World Economy: 1859-1899: Export, Trade and Overseas Competition. London: Athlone Press, 1988.
- Tart, Margaret. The Life of Quong Tart: Or, How a Foreigner Succeeded in a British Community. Sydney: W. M. Maclardy, 1911.
- Tate, E. Mowbray. *Transpacific Steam: The Story of Steam Navigation from the Pacific Coast of North America to the Far East and the Antipodes, 1867-1941.* London: Cornwall Books, 1986.
- Thompson, Elspeth. *The Chinese Coal Industry: An Economic History*. London: Taylor and Francis, 2003.
- Tolley, Kemp. *Yangtze Patrol : The U.S. Navy in China*. Annapolis, MD: Naval Institute Press, 1984.
- Tomlins, Thomas Edlyne. The Law Dictionary, Explaining the Rise, Progress, and Present State of the British Law: Defining and Interpreting the Terms or Words of Art, and Comprising Also Copious Information on the Subjects of Trade and Government. 4th ed. 2 vols. Vol. 1, London: n.p., 1835.
- Trainor, Luke. British Imperialism and Australian Nationalism: Manipulation, Conflict and Compromise in the Late Nineteenth Century. Cambridge, UK: Cambridge University Press, 1994.

- Travers, Robert. Australian Mandarin: The Life and Times of Quong Tart. Sydney: Kangaroo Press, 1981.
- Trouton, F. H. Handbook and History of the Australasian Steam Navigation Co. Sydney: J.L. Holmes & Co., 1884.
- Turner, J. W. Coal Mining in Newcastle, 1801-1900. Newcastle History Monographs No. 9. Newcastle: Newcastle Region Public Library, 1982.
- Tweedie, Sandra. *Trading Partners: Australia and Asia 1790-1993*. Sydney: University of NSW Press, 1994.
- Wang, Gungwu. China and the Chinese Overseas. Singapore: Times Academic Press, 1991.
- Wilkinson, W. H., and J. S. Paterson. *Reports of Cases Argued and Determined in the Supreme Court of New South Wales*. Vol. 7, Sydney: J. J. Moore, 1869.
- Willard, Myra. *History of the White Australia Policy to 1920.* 2nd ed. Melbourne: Melbourne University Press, 1967.
- Williamson, Oliver E. The Economic Institutions of Capitalism: Firms, Markets, Relational Contracting. London: Collier Macmillan Publishers, 1985.
- Wilton, Janis. Golden Threads: The Chinese in Regional New South Wales, 1850-1950. Armidale, N.S.W.: New England Regional Art Museum in association with Powerhouse Pub., 2004.
- Wolff, Kurt H., ed. The Sociology of Georg Simmel. Glencoe, Ill: Free Press, 1950.
- Wong, John D. Global Trade in the Nineteenth Century: The House of Houqua and the Canton System. Cambridge: Cambridge University Press, 2016.
- Wright, Arnold, ed. Twentieth Century Impressions of Hong Kong. Singapore: Graham Brash, 1908.
- Wu, Shellen X. Empires of Coal: Fueling China's Entry into the Modern World Order, 1860-1920. Stanford, CA: Stanford University Press, 2015.
- Yarwood, Alexander T. Asian Migration to Australia: The Background to Exclusion, 1896-1923. Melbourne: Melbourne University Press, 1964.

B2. Journal Articles

- Aldous, Michael. "Rehabilitating the Intermediary: Brokers and Auctioneers in the Nineteenth-Century Anglo-Indian Trade." *Business History* 59, no. 4 (2017): 525-53.
- Allington, Gerald Peter. "Sailing Rigs and Their Use on Ocean-Going Merchant Steamships, 1820-1910." International Journal of Maritime History XVI, no. 1

(2004): 125-52.

- Anim-Addo, Anyaa. "'The Great Event of the Fortnight': Steamship Rhythms and Colonial Communication." *Mobilities* 9, no. 3 (2014): 369-83.
- Bailis, S. "Contending with Complexity: Responding to William H. Newell's "a Theory of Interdisciplinary Studies"." *Issues in Integrative Studies* 19 (2001): 27-42.
- Bayley, William A. "Bellambi as a Coal Port." *Illawarra Historical Society Bulletin* (June, 1960): 223-24.

"Discovery of Coal in Illawarra: Coal Cliff." *Illawarra Historical Society Bulletin* (September, 1971): 294-95.

- Beale, Edgar. "Events in the History of Coal Cliff and Its Colliery." *Illawarra Historical Society Bulletin* (July, 1959): 192-95.
- Beanland, Denver. "First Herbert Government 1860-1863." *Queensland History Journal* 21, no. 4 (2011): 235-49.
- Becker, Bert. "Coastal Shipping in East Asia in the Late Nineteenth Century." *Journal* of the Royal Asiatic Society Hong Kong Branch 50 (2010): 245-302.
- Blainey, Geoffrey. "Technology in Australian History." *Australian Economic History Review* 4 (1964): 117-37.
- Blair, Sandy, and Nicholas Hall. "Macassan Sea Roads: The Heritage of Intercultural Maritime Routes Connecting Australia to Southeast Asia." *Historic Environment* 25, no. 3 (2013): 44-56.
- Blancou, Jean, and Ian Parsonson. "Historical Perspectives on Long Distance Transport of Animals." *Veterinaria Italiana* 44, no. 1 (2008): 19-30.
- Blue, A. D. "European Navigation on the Yangtse." *Journal of the Hong Kong Branch* of the Royal Asiatic Society 3 (1963): 107-30.
- Bolton, H. C., and N. H. Williams. "Weighing and Assay in the Early Days of the Melbourne Branch of the Royal Mint." *Historical Records of Australian Science* 14 (2002-03): 47-66.
- Bowen, Alister. "The Merchants: Chinese Social Organisation in Colonial Australia." *Australian Historical Studies* 42, no. 1 (2011): 25-44.
- Bowen, Harold G. "Steam in Relation to Marine Engineering." *Journal of the Franklin Institute* 222, no. 6 (1936): 725-35.
- Broeze, Frank. "The View from Inside: Robert Brooks and the British Connection." *The Push* 2 (1978): 1-39.

"British Intercontinental Shipping and Australia, 1813-1850." *Journal of Transport History* n.s.:4, no. 4 (1978): 189-207.

"Western Australia until 1869: The Maritime Perspective: Part 2." *Journal of the Royal Western Australian Historical Society* 8, no. 6 (1982): 103-16.

"Distance Tamed: Steam Navigation to Australia and New Zealand from Its Beginnings to the Outbreak of the Great War." *Journal of Transport History* ser.3:10, no. 1 (1989): 1-21.

_____ "Australia, Asia and the Pacific: The Maritime World of Robert Towns." *Australian Historical Studies* 24, no. 95 (1990): 221-38.

- Brown, Shannon R., and Tim Wright. "Technology, Economics, and Politics in the Modernization of China's Coal-Mining Industry, 1850-1895." *Explorations in economic history* 18 (1981): 60-83.
- Burgh, N. P. "On Modern Screw Propellers Practically Considered." *Journal of the Society of Arts* 17, no. 851 (1869): 274-85.
- Burley, K. H. "The Overseas Trade in New South Wales Coal and the British Shipping Industry, 1860-1914." *The Economic Record* 36, no. 75 (1960): 393-413.

"The Organisation of the Overseas Trade in New South Wales Coal, 1860 to 1914." *The Economic Record* 37, no. 79 (1961): 371-81.

- Butlin, Noel. "The Shape of the Australian Economy, 1861-1900." *The Economic Record* 34, no. 67 (1958): 10-29.
- Carment, David. "Writing the Mining History of Australia's Northern Territory: Past Themes, Current Research and Future Prospects." *Journal of Northern Territory History* 7 (1996): 1-7.
- Cavanagh, A. K. "The Return of the First Fleet Ships." *The Great Circle* 11, no. 2 (1989): 1-16.
- Chan, Wellington K.K. "Chinese Business Networking and the Pacific Rim: The Family Firm's Roles Past and Present." *Journal of American-East Asian Relations* 1, no. 2 (1992): 171-90.
- Chandler, Alfred D. "Comment." *Explorations in Entrepreneurial History* 6, no. 1 (1968): 66-74.
- Chapman, Stanley D. "British-Based Investment Groups before 1914." *The Economic History Review* 38, no. 2 (May, 1985 1985): 230-51.
- Chin, James K. "Junk Trade, Business Networks, and Sojourning Communities: Hokkien Merchants in Early Maritime Asia." *Journal of Chinese Overseas* 6 (2010): 157-215.
- Clark, Michael. "Bound for Callao!' The Pacific Coal Trade 1876 to 1896: Selling Coal or Selling Lives? Part 1." *The Great Circle* 28, no. 1 (2006): 26-45.
- Collins, David. "The First Chemists an Australian Chronicle Part 5." *Chemistry in Australia* 77, no. 7 (2010): 12-16.

- Combes, Edward. "The Industries and Commerce of New South Wales." *Journal of the Society of Arts* 34 (1886): 683-705.
- Connell, Carol Matheson. "Jardine Matheson & Company: The Role of External Organization in a Nineteenth-Century Trading Firm." *Enterprise & Society* 4, no. 1 (2003): 99-138.

"Entrepreneurial Enterprise and 'Image' in the Nineteenth-Century Trading Firm: Shaping the Legal Environment for Business." *Business History* 48, no. 2 (2006): 193-219.

Cottrell, Charlie. "Ship Shape." History Today 57, no. 6 (2007): 5.

- Cremin, Aedeen. "The Growth of an Industrial Valley: Lithgow, New South Wales." *Australian Journal of Historical Archaeology* 7 (1989): 35-42.
- Cushman, Jennifer. "A 'Colonial Casualty': The Chinese Community in Australian Historiography." *Asian Studies Review* 7, no. 3 (1984): 100-13.
- Day, Jenny Huangfu. "From Fire-Wheel Boats to Cities on the Sea: Changing Perceptions of the Steamships in the Late Qing, 1830s-1900s." *Australasian Journal of Victorian Studies* 20, no. 1 (2015): 50-63.
- Diamond, Marion. "Tea and Sympathy: Foundations of the Australia/China Trading Networks ". *Queensland Review* 6, no. 2 (1999): 24-29.
- Dive, Melissa. "Steeped in History: Afternoon Tea at Vaucluse House." In, *Ideas in History* 4, no. 2 (2012). https://epress.lib.uts.edu.au/student-journals/index.php/iih/article/view/1373.
- Douglas, Ngaire, and Norman Douglas. "P and O's Pacific." *Journal of Tourism Studies* 7, no. 2 (1996): 2-14.
- Drosdowsky, Wasyl, and Mark Williams. "The Southern Oscillation in the Australian Region. Part I: Anomalies at the Extremes of the Oscillation." *Journal of Climate* 4 (1991): 619-38.
- Dunne, E F. "Brief History of the Coal Mining Industry in Queensland." *Journal of the Royal Historical Society of Queensland* 4, no. 3 (1950): 313-39.
- Dyster, Barrie. "The Rise of William Fanning and the Ruin of Richard Jones." *Journal* of the Royal Australian Historical Society 67, no. 4 (1982): 366-74.
- Earl, G. W. "Steam Route through the Torres Straits." *The Journal of the Indian* Archipelago and Eastern Asia 5 (1851): 489-97.

"Steam Routes through the Indian Archipelago:- Established, Proposed, and Prospective." *The Journal of the Indian Archipelago and Eastern Asia* 5 (1851): 441-50.

- Edkins, Joseph. "The Bituminous Coal Mines West of Peking." *Journal of the North China Branch of the Royal Asiatic Society* 4, no. 243-50 (1867).
- Evans, Frank B., Donald F. Harrison, Edwin A. Thompson, and William L. Rofes. "A Basic Glossary for Archivists, Manuscript Curators, and Records Managers." *The American Archivists* 37, no. 3 (1974): 415-33.
- Evans, Vaughn. "Our Steam Marine." The Great Circle 15, no. 1 (1993): 36-39.
- Farnfield, D. Jean. "Queensland and the Annexation of the Torres Straits Islands." Australian Journal of International Affairs 27, no. 2 (1973): 215-26.
- Flandreau, Marc, and Kim Oosterlinck. "Was the Emergence of the International Gold Standard Expected? Evidence from Indian Government Securities." *Journal of Monetary Economics* 59, no. 7 (2012): 649-69.
- Flandreau, Marc, and Stefano Ugolini. "Where It All Began: Lending of Last Resort and the Bank of England During the Overend-Gurney Panic of 1866." *Norges Bank's bicentenary project: Working Paper*, no. 3 (2011).
- Fleming, Grant. "Collusion and Price Wars in the Australian Coal Industry During the Late Nineteenth Century." *Business History* 42, no. 3 (2000): 47-70.
- Fletcher, Max E. "The Suez Canal and World Shipping, 1869-1914." *The Journal of Economic History* 18, no. 4 (1958): 556-73.
- "From Coal to Oil in British Shipping." *Journal of Transport History* n.s. 3, no. 1 (1975): 1-19.
- Frost, Alan. "The East India Company and the Choice of Botany Bay." Australian Historical Studies 16, no. 65 (1975): 606-11.
- Frost, Mark Ravinder. "Asia's Maritime Networks and the Colonial Public Sphere, 1840-1920." *New Zealand Journal of Asian Studies* 6, no. 2 (2004): 63-94.

"Emporium in Imperio: Nanyang Networks and the Straits Chinese in Singapore, 1819-1914." *Journal of Southeast Asian History* 36, no. 1 (2005): 29-66.

- Ganter, Regina. "China and the Beginning of Australian History." *The Great Circle* 25, no. 1 (2003): 3-19.
- Gee, Laura K., Jason J. Jones, Christopher J. Fariss, Moira Burke, and James H. Fowler.
 "The Paradox of Weak Ties in 55 Countries." *Journal of Economic Behavior & Organization* 133 (2017): 362-72.
- Geels, Frank W. "Technological Transitions as Evolutionary Reconfiguration Processes: A Multi-Level Perspective and a Case-Study." *Research Policy* 31, no. 8-9 (Dec., 2002 2002): 1257-74.
- Graham, Gerald S. "The Ascendancy of the Sailing Ship 1850-85." *The Economic History Review* New Series, 9, no. 1 (1956): 74-88.

- Graham, Paul, Sally Thorpe, and Lindsay Hogan. "Non-Competitive Market Behaviour in the International Coking Market." *Energy Economics* 21 (1999): 195-212.
- Granovetter, Mark. "The Strength of Weak Ties." *American Journal of Sociology* 78, no. 6 (1973): 1360-80.

_____ "Action and Social Structure: The Problem of Embeddedness." *American Journal of Sociology* 91, no. 3 (1985): 481-510.

Griggs, Peter. "The Decline of Competition: The Emergence of a Duopoly in the Australian Sugar Refinery Sector, 1841-1915." *Australian Geographer* 32, no. 3 (2001): 359-76.

"Black Poison or Beneficial Beverage? Tea Consumption in Colonial Australia." *Journal of Australian Colonial History* 17 (2015): 23-44.

"Empire of Leaves: Tea Traders in Late Nineteenth-Century and Edwardian Melbourne." *Victorian Historical Journal* 87, no. 1 (2016): 29-57.

- Hainsworth, D. R. . "In Search of a Staple: The Sydney Sandalwood Trade 1804-09." *Business Archives and History* 5 (1964-65): 1-20.
- Håkansson, Håkan, and David Ford. "How Should Companies Interact in Business Networks?". *Journal of Business Research* 55 (2002): 133-39.
- Halligan, G. H. "The Ocean Currents around Australia." *Journal of the Proceedings of the Royal Society of New South Wales* 55 (1921): 188-95.
- Hao, Yen-P'ing. "A "New Class" in China's Treaty Ports: The Rise of the Comprador-Merchants." *The Business History Review* 44, no. 4 (1970): 446-59.
- Hardwick, G. A. "A Century of Service: The Eastern & Australian Steam Ship Company Limited." *Journal of the Royal Australian Historical Society* 66, no. 2 (1980): 119-31.
- Harley, Charles K. "British Shipbuilding and Merchant Shipping: 1850–1890." *The Journal of Economic History* 30, no. 1 (1970): 262-66.
- Hayami, Yujiro. "The Peasant in Economic Modernization." American journal of Agricultural Economics 78, no. 5 (1996): 1157-67.
- Higham, Barry. "The Regional Impact of the Sugar Industry of New South Wales, 1870-1912." *Australian Geographical Studies* 6 (1968): 43-58.
- Hutchins, John. "One Hundred and Fifity Years of American Navigation Policy." *The Quarterly Journal of Economics* 53, no. 2 (1939): 238-60.
- Illidge, Peter, Coleman Doyle, and Peter Gesner. "An Assessment of Selected Shipwrecks in Torres Strait and Far North Great Barrier Reef." *Memoirs of the Queensland Museum, Cultural Heritage Society* 3, no. 1 (2004): 347-61.

- Inglis, Christine. "Chinese in Australia." *The International Migration Review* 6, no. 3 (1972): 266-81.
- Inglis, K. S. "The Imperial Connection: Telegraphic Communication between England and Australia, 1872-1902." In Australia and Britain: Studies in a Changing Relationship, edited by A. F. Madden and W. H. Morris-Jones. 20-36. London: Frank Cass, 1980.
- Jackson, R. V. "The Decline of the Wool Clippers." *The Great Circle* 2, no. 2 (1980): 87-98.
- Jones, Stephanie. "British India Steamers and the Trade of the Persian Gulf, 1862-1914." *The Great Circle* 7, no. 1 (1985): 23-44.
- Kaminsky, Arnold P. ""Lombard Street" and India: Currency Problems in the Late Nineteenth Century." *Indian Economic and Social History Review* 17, no. 3 (1980): 307-27.
- Kashay, Jennifer Fish. "Agents of Imperialism: Missionaries and Merchants in Early-Nineteenth-Century Hawaii." *The New England Quarterly* 80, no. 2 (2007): 280-98.
- Kelley, Allen C. "Demographic Change and Economic Growth: Australia 1861-1911." *Explorations in Entrepreneurial History* 5, no. 3 (1968): 207-77.
- Kemble, John H. "The Transpacific Railroads, 1869-1915." *Pacific Historical Review* 18, no. 3 (Aug., 1949 1949): 331-43.
- Kennedy, T L. "The Establishment of Modern Military Industry in China 1860-1868." Bulletin of the Institute of Modern History, Academica Sinica (1974): 779-823.
- Kingsmill, Thos. W. "Notes on Some Outlying Coal-Fields in the South-Eastern Provinces of China." *Journal of the North China Branch of the Royal Asiatic Society* n.s.3 (1866): 94-106.
- Knaap, Gerrit. "Steamers, Freighting Contracts and Dock-Harbours Reflections on the History of the Java Sea, 1830–1930." *Itinerario* 30, no. 1 (2006): 39-58.
- Knauerhase, Ramon. "The Compound Marine Steam Engine: A Study in the Relationship between Technological Change and Economic Development." *The Journal of Economic History* 27, no. 4 (1967): 615-17.

"The Compound Steam Engine and Productivity Changes in the German Merchant Marine Fleet, 1871–1887." *The Journal of Economic History* 28, no. 3 (Sep., 1968 1968): 390-403.

- Kneipp, Pauline. "The Seamen's Strike 1878-1879: Its Relation to the White Australia Policy." *ANU Historical Journal* 1, no. 2 (1965-66): 14-18.
- Knuesel, Ariane. "British Diplomacy and the Telegraph in Nineteenth-Century China." *Diplomacy & Statecraft* 18, no. 3 (2007): 517-37.

- Kumar, A. N. Arun, Geeta Joshi, and H. Y. Moham Ram. "Sandalwood: History, Uses, Present Status and the Future." *Current Science* 103, no. 12 (2012): 1408-16.
- Ledley, R G. "Early Torres Strait and Coast Pilot's Service." Journal of the Royal Historical Society of Queensland 5, no. 5 (1957): 1267-82.
- Lee, Jenny, and Charles Fahey. "A Boom for Whom? Some Developments in the Australian Labour Market, 1870-1891." *Labour History* 50 (May, 1986 1986): 1-27.
- Lee, Pui Tak. "Business Networks and Patterns of Cantonese Compradors and Merchants in Nineteenth Century Hong Kong." *Journal of the Hong Kong Branch of the Royal Asiatic Society* 31 (1991): 1-39.
- Leonard, A. B. "Underwriting British Trade to India and China, 1780-1835." *The Historical Journal* 55, no. 4 (2012): 983-1006.
- Lindkvist, Lars. "Knowledge Communities and Knowledge Collectivities: A Typology of Knowledge Work in Groups." *Journal of Management Studies* 42, no. 6 (2005): 1189-210.
- Liu, Kwang-Ching. "Steamship Enterprise in Nineteenth-Century China." *The Journal* of Asian Studies 18, no. 4 (1959): 435-55.
- Lovett, Robert W. "The Heard Collection and Its Story." *The Business History Review* 35, no. 4 (1961): 567-73.
- Macgregor, Paul "Chinese Political Values in Colonial Victoria: Lowe Kong Meng and the Legacy of the July 1880 Election." *Journal of Chinese Overseas* 9 (2013): 135-75.
- Mackey, J. L. "Another Approach to Interdisciplinary Studies." *Issues in Integrative Studies* 19 (2001): 59-70.
- Mason, Mary G. "Aspects of the Trade between China and America, 1840-1870." Bulletin of the Business Historical Society 10, no. 2 (1936): 24-28.
- Mazzarol, T. W. . "Tradition, Environment and the Indentured Labourer in Early Western Australia." *Studies in Western Australian History* 3 (1978): 30-37.
- McCarty, J. W. . "The Staple Approach in Australian Economic History." *Australian Economic History Review* 4 (1964): 1-22.
- McInnes, Allan. "Dangers and Difficulties of the Torres Strait and the Inner Route." Journal of the Royal Historical Society of Queensland 10, no. 4 (1978-79): 47-73.
- McKeown, Adam. "Conceptualizing Chinese Diasporas, 1842 to 1949." *The Journal of Asian Studies* 58, no. 2 (1999): 306-37.
- McMillan, Colin, and Sidney Paulden. "Choosing an Export Agent." *Management Decision* 2, no. 4 (1968): 241-43.

- Mendonça, Sandro. "The "Sailing Ship Effect": Reassessing History as a Source of Insight on Technical Change." *Research Policy* 42, no. 10 (2013): 1724-38.
- Miller, Francis B. "On Gold Refining by Chlorine Gas." *Transactions of the Royal* Society of New South Wales 3 (1869): 157-67.
- Mohammed, Saif I. Shah, and Jeffrey G. Williamson. "Freight Rates and Productivity Gains in British Tramp Shipping 1869-1950." *Explorations in Economic History* 41 (2004): 173-203.
- Morck, Randall, and Bernard Yeung. "Economics, History, and Causation." *The Business History Review* 85 (Spring, 2011 2011): 39-63.
- Morphet, William, and Jürgen Symanzik. "The Circular Dataimage, a Graph of High-Resolution Circular-Spatial Data." *International Journal of Digital Earth* 3, no. 1 (2010): 47-71.
- Munro, J. Forbes. "Shipping Subsidies and Railway Guarantees: William Mackinnon, Eastern Africa and the Indian Ocean, 1860-93." *The Journal of African History* 28, no. 2 (1987): 209-30.
- Newell, William H. "A Theory of Interdisciplinary Studies." *Issues in Integrative Studies* 19 (2001): 1-25.

"Reply to the Respondents to "a Theory of Interdisciplinary Studies"." *Issues in Integrative Studies* 19 (2001): 137-48.

- North, Douglass. "Ocean Freight Rates and Economic Development 1750-1913." *The Journal of Economic History* 18, no. 4 (1958): 537-55.
- Oddie, G. "The Lower Class Chinese and Merchant Elite in Victoria, 1870-1890." *Australian Historical Studies* 10, no. 37 (1961): 65-70.
- Ouchi, William G. "Bureaucracies, and Clans." *Administrative Science Quarterly* 25, no. 1 (1980): 129-41.
- Pao, Kuang Yung. "The Compradore: His Position in the Foreign Trade of China." *The Economic Journal* 21, no. 84 (1911): 636-41.
- Porras, Salvador T., Stewart Clegg, and John Crawford. "Trust as Networking Knowledge: Precedents from Australia." *Asia Pacific Journal of Management* 21, no. 3 (2004): 345-63.
- Potts, E. Daniel, and Annette Potts. "James Hartwell Williams: First American Consul in Australia." *New England Quarterly* 48, no. 2 (1975): 269-76.
- Putnis, Peter. "The Early Years of International Telegraphy in Australia: A Critical Assessment." *Media International Australia, Incorporating Culture & Policy* no. 129 (2008): 140-48.

____ "Shipping the Latest News across the Pacific in the 1870s: California's News of the World." *American Journalism* 30, no. 2 (2013): 235-59.

- Qing, Han. "Western Steamship Companies and Chinese Seaborne Trade During the Late Qing Dynasty, 1840-1911." *International Journal of Maritime History* 27, no. 3 (2015): 537-59.
- Rauch, James E. "Networks Versus Markets in International Trade." Journal of International Economics 48 (1999): 7-35.
- Rashkow, Ezra D. "Perfumed the Axe That Laid It Low: The Endangerment of Sandalwood in Southern India." *The Indian Economic and Social History Review* 51, no. 1 (2014): 41-70.
- Redlich, Fritz, J. D. Glover, Arthur M. Johnson, George Rogers Taylor, and Richard C. Overton. "Approaches in Business History." *The Business History Review* 36, no. 1 (Spring, 1962 1962): 61-86.
- Rogers, Brian. "Illawarra Coal Shipping: Some Operational Aspects." *Illawarra Historical Society Bulletin* (October, 1985): 60-62.
- Ross, Kaz. "Imagined Futures and Forgotten Pasts: Tasmania's Asian Connections." *Journal of Australian Studies* 41, no. 3 (2017): 296-311.
- Roth, Jane. "The Jardine Matheson Archive." *Journal of Pacific History* 2 (1967): 172-74.
- Rowland, E. C. "Simeon Lord, a Merchant Prince of Botany Bay." *Journal of the Royal Australian Historical Society* 30 (1944): 157-95.
- Saul, Samuel B. "Britain and World Trade, 1870-1914." *The Economic History Review* 7, no. 1 (1954): 49-66.
- Schmitz, Christopher. "The First Hundred and Twenty Years of New South Wales Coal Mining: A Statistical Survey." *Reference Australia* 2 (1988): 1-5.
- Sexton, R. T. "Some Composite-Built Ships Compared." Bulletin of the Australian Institute for Maritime Archaeology 15, no. 2 (1991): 59-80.
- "The 'Surprise': Australia's First Steamship." *AIMA Bulletin* 33 (2009): 48-62.
- Shepherd, Shirley. "The Significance of the Overland Telegraph Line, 1872-1901." Journal of Northern Territory History 7 (1996): 41-46.
- Simon, Herbert A. "A Behavioral Model of Rational Choice." *The Quarterly Journal of Economics* 69, no. 1 (1955): 99-118.
- Sinclair, Keith. "Australasian Inter-Government Negotiations 1865-80: Ocean Mail and Tariffs." *Australian Journal of Politics and History* 16, no. 2 (1970): 151-76.

- Sivramkrishna, Sashi. "India's Failed Transition to a Gold Currency in the 1860s." *Economic & Political Weekly* L, no. 4 (2015): 48-58.
- Sowerbutts, Rhiannon. "The Demise of Overend Gurney." *Bank of England Quarterly Bulletin* 56, no. 2 (2016): 94-106.
- Spencer, Joseph Earle. "Trade and Transshipment in the Yangtze Valley." *Geographical Review* 28, no. 1 (1938): 112-23.
- Steele, G. C. "Composite Tea Clipper *Cutty Sark.*" *Mariner's Mirror* 25, no. 3 (1939): 279-85.
- Stephens, S. E. "The Endeavour River and Cooktown." *Queensland Heritage* 2, no. 2 (1970): 23-30.
- Subasinghe, S. M. C. U. P. "Sandalwood Research: A Global Perspective." *Journal of Tropical Forestry and Environment* 3, no. 1 (2013): 1-8.
- Sun, Yü-t'ang. "The Historical Development and Aggressive Nature of American Imperialist Investment in China (1784-1914)." *Chinese Studies in History* 8, no. 3 (1975): 3-17.
- Sutherland, Heather. "Trepang and Wangkang: The China Trade of Eighteenth-Century Makassar C. 1720s-1840s." *Bijdragen tot de Taal-, Land- en Volkenkunde, Authority and enterprise among the peoples of South Sulawesi* 156, no. 3 (2000): 451-72.
- Talbot, Len. "Wooden Gold: Early Days of the Sandalwood Industry." *Forest Focus* 30 (1983): 21-32.
- Titus, Sonja, Regina Schneller, Gerhard Banik, Enke Huhsmann, and Ulrike Hähner. "The Copying Press Process: History and Technology." *Restaurator. International Journal for the Preservation of Library and Archival Material* 27, no. 2 (2006): 90-102.
- Tonts, Matthew, and John Selwood. "Niche Markets, Regional Diversification and the Reinvention of Western Australia's Sandalwood Industry." *Tijdschrift voor economische en sociale geografie* 94, no. 5 (2003): 564-75.
- Turner, J. W. "J. & A. Brown and the Overseas Trade in New South Wales." *Economic Record* 43, no. 4 (1967): 588-99.
- Upson, John W., Naga Lakshimi Damaraju, Jonathon R. Anderson, and Jay B. Barney. "Strategic Networks of Discovery and Creation Entrepreneurs." *European Management Review* 35, no. 2 (2017): 198-210.
- van der Eng, Pierre. "The Silver Standard and Asia's Integration into the World Economy, 1850-1914." *Review of Asian and Pacific Studies* 18 (1999): 59-85.
- Ville, Simon. "Business Development in Colonial Australia." Australian Economic History Review 38, no. 1 (1998): 16-41.

- Villiers, John. "The Vanishing Sandalwood of Portuguese Timor." *Itinerario* 18, no. 2 (1994): 86-96.
- Walker, Bill. "Western Australia's Coastal Shipping: Government Versus Private Enterprise Part One: 1863-1908." *The Great Circle* 30, no. 1 (2008): 18-40.
- Wang, Hsien-Chun. "Discovering Steam Power in China, 1840s 1860s." *Technology* and Culture 51, no. 1 (2010): 31-54.
- Williams, David M., and John Armstrong. "Changing Voyage Patterns in the Nineteenth Century: The Impact of the Steamship." *International Journal of Maritime History* 22, no. 2 (2010): 151-70.
- Yilmaz, Kaya. "Comparison of Quantitative and Qualitative Research Traditions: Epistemological, Theoretical and Methodological Differences." *European Journal of Education* 48, no. 2 (2013): 311-25.
- Zierer, Clifford M. "Industrial Area of Newcastle, Australia." *Economic Geography* 17, no. 1 (1941): 31-49.

B3. Book Chapters

- Battersby, Paul. "Timetabling Globalization: Technology, Travel and Peripheral Integration." In *The Sage Handbook of Globalization*, edited by Manfred Steger, Paul Battersby and Joseph Siracusa. 347-62. London: SAGE Publications, 2014.
- Blussé, Leonard. "Chinese Shipping to the Nanyang in the Second Half of the Eighteenth Century." In *Chinese Circulations: Capital, Commodities, and Networks in Southeast Asia*, edited by Eric Tagliacosso and Wen-Chin Chang. 221-58. Durham, NC: Duke University Press, 2011.
- Cao, Shaoqing. "From Mutual Aid to Public Interest: Chinese Secret Societies in Australia." Translated by Duncan Campbell. In *After the Rush : Regulation, Participation and Chinese Communities in Australia, 1860-1940*, edited by John Fitzgerald, Sophie Couchman and Paul Macgregor. 133-51. Kingsbury, Vic: Otherland Literary Journal, 2004.
- Casey, R. G. "Australia's Voice in Imperial Affairs." In *Australia's Foreign Policy*, edited by W. G. K. Duncan. 36-68. Sydney: Angus & Robertson Limited, 1938.
- Chan, Henry. "Becoming Chinese but Remaining Australian: The Future of the Down Under Chinese Past." In *The Overseas Chinese in Australasia: History, Settlement and Interactions*, edited by Henry Chan, Ann Curthoys and Nora Chiang. 1-15. Taipei, Taiwan: Interdisciplinary Group for Australian Studies (IGAS), National Taiwan University ; Canberra, ACT : Centre for the Study of the Chinese Southern Diaspora, Australian National University, 2001.
- Clarence-Smith, William. "Cape to Siberia: The Indian Ocean and China Sea Trade in Equids." In *Maritime Empires: British Imperial Maritime Trade in the Nineteenth Century*, edited by David Killingray, Margarette Lincoln and Nigel

Rigby. 48-67. Woodbridge, Suffolk, UK: Boydell Press, Boydell & Brewer, 2004.

- Curthoys, Ann. "Conflict and Consensus." In *White Are Our Enemies? Racism and the Working Class in Australia.*, edited by Ann Curthoys and Andrew Markus, 48-65. Sydney: Hale and Monger, 1978.
- Ergas, Henry, and Jonathan Pincus. "Infrastructure and Colonial Socialism." In *The Cambridge Economic History of Australia*, edited by Simon Ville and Glenn Withers. 222-44. Melbourne: Cambridge University Press, 2015.
- Farnfield, D. J. "Problems of Early Queensland 1859-1870." In Lectures on North Queensland History, edited by B. J. Dalton. 9-18. Townsville: James Cook University, 1974.
- Greenhill, Robert. "Trans-Oceanic Mail Contracts: A Case Study in Nineteenth-Century Privatization and Deregulation." In *Transport Regulation Matters*, edited by James McConville, 55-77. London: Pinter, 1997.
- Hainsworth, David R. "Trade within the Colony." In *Economic Growth of Australia*, 1788-1821, edited by G. J. Abbott and N. B. Nairn. 267-84. Melbourne: Melbourne University Press, 1969.
- He, Sibing. "Russell and Company and the Imperialism of Anglo-American Free Trade." In Narratives of Free Trade: The Commercial Cultures of Early Us-China Relations, edited by Kendall Johnson. 83-98. Hong Kong: Hong Kong University Press, 2012.
- Hillis, William E. "Introduction and Historical Background." In *Natural Products of Woody Plants I*, edited by John W. Rowe, 1-25. Berlin: Springer-Verlag, 1989.
- Hutton, Adrian C. "Geological Setting of Australasian Coal Deposits." In *Australasian Coal Mining Practice*, edited by R. Kininmonth and E. Baafi. 40-84. Carlton, VIC: The Australasian Institute of Mining and Metallurgy, 2009.
- Jack, R. Ian. "The Contribution of Archaeology to the History of the Overseas Chinese." In *Chinese in Australia and New Zealand : A Multidisciplinary Approach*, edited by Jan Ryan. New Delhi: New Age International Publishers, 1995.
- James, John A. "Payment Systems." In *Handbook of Cliometrics*, edited by Claude Diebolt and Michael Haupert. 353-73. London: Springer-Verlag, 2016
- Keller, Wolfgang, Ben Li, and Carol H. Shiue. "The Evolution of Domestic Trade Flows When Foreign Trade Is Liberalized: Evidence from the Chinese Maritime Customs Service." In *Institutions and Comparative Economic Development*, edited by Masahiko Aoki, Timur Kuran and Gérard Roland. 152-72. Basingstoke: Palgrave Macmillan, 2012.
- Kirkman, Noreen. "From Minority to Majority: Chinese on the Palmer River Gold-Field, 1873-1876." In *Race Relations in North Queensland*, edited by Henry Reynolds. Townsville: James Cook University, 1993.

- Lloyd, Christopher. "Analytical Frameworks of Australia's Economic History." In *The Cambridge Economic History of Australia*, edited by Simon Ville and Glenn Withers. 52-69. Melbourne: Cambridge University Press, 2015.
- Markus, Andrew. "Government Control of Chinese Migration to Australia, 1855-1975." In *The Overseas Chinese in Australasia: History, Settlement and Interactions*, edited by Henry Chan, Ann Curthoys and Nora Chiang. 69-81. Taipei, Taiwan: Interdisciplinary Group for Australian Studies (IGAS), National Taiwan University ; Canberra, ACT : Centre for the Study of the Chinese Southern Diaspora, Australian National University, 2001.
- McGhee, Roger. "The Long Boom, 1860-1890." In *Essays in Economic History of Australia*, edited by James Griffin. 135-85. Hong Kong: Jacaranda Press, 1976.
- McKeown, Adam. "Introduction: The Continuing Reformulation of Chinese Australians." In *After the Rush : Regulation, Participation and Chinese Communities in Australia, 1860-1940*, edited by John Fitzgerald, Sophie Couchman and Paul Macgregor. 1-9. Kingsbury, Vic: Otherland Literary Journal, 2004.
- McNeill, John. "From Magellan to Miti: Pacific Rim Economies and Pacific Island Ecologies: Since 1521." In *Studies in the Economic History of the Pacific Rim*, edited by Sally M. Miller, A.J.H Latham and Dennis O. Flynn. 72-93.
- Madsen, Jakob B. "Australian Economic Growth and Its Drivers since European Settlement." In *The Cambridge Economic History of Australia*, edited by Simon Ville and Glenn Withers. 29-51. Melbourne: Cambridge University Press, 2015.
- Osterhammel, Jürgen. "British Business in China, 1860s-1950s." In *British Business in Asia since 1860*, edited by Geoffrey Jones and Richard P. T. Davenport-Hines. 189-216. Cambridge: Cambridge University Press, 1989.
- Pope, Andrew. "Precious Metals Flow in the Indian Ocean in the Colonial Period: Australian Gold to India, 1866-1914." In *Evolution of the World Economy, Precious Metals and India*, edited by John McGuire, Patrick Bertola and Peter Reeves. 155-78. Oxford: Oxford University Press, 2001.
- Ramsey, Guy. "The Chinese Diaspora in Torres Strait: Cross-Cultural Connections and Contentions on Thursday Island." In *Navigating Boundaries: The Asian Diaspora in Torres Strait*, edited by Anna Shnukal, Guy Ramsay and Yuriko Nagata. 53-79. Canberra: Pandanus Books, 2004.
- Reid, Alan. "The Steel Frame." In *The Thistle and the Jade: A Celebration of 150 Years* of Jardine Matheson & Co., edited by Maggie Keswick. 11-49: Hong Kong, 1982.
- Sahlins, Marshall. "The Political Economy of Grandeur in Hawaii from 1810 to 1830." In *Culture through Time: Anthropological Approaches*, edited by Emiko Ohnuki-Tierney. 26-56. Stanford, CA: Stanford University Press, 1990.

- Sanich, Barbara. "History through the Lens of Food." In *Eat History, Food and Drink in Australia and Beyond*, edited by Sofia Eriksson, Madeleine Hastie and Tom Roberts. 1-18. Newcastle, UK: Cambridge Scholars Publishing, 2013.
- Shann, E. O. G. "Economic and Political Development 1860-1885." In *Australia: The Cambridge History of the British Empire, Volume Vii, Part I*, edited by Ernest Scott. 296-323. Cambridge: Cambridge University Press, 1988.
- Shineberg, Dorothy. "Towns, Robert (1794-1873)." In Australian Dictionary of Biography Vol. 6, edited by Geoffrey Serle and Russel Ward. 294-96. Melbourne: Melbourne University Press, 1976.
- Struna, Nancy. "Historical Research in Physical Activity." In Research Methods in Physical Activity, edited by Jerry Thomas and Jack Nelson. 251-75. Champaign, IL: Human Kinetics, 1996.
- Sugiyama, Shinya. "Marketing and Competition in China, 1895-1932: The Taikoo Sugar Refinery." In *Commercial Networks in Modern Asia*, edited by Shinya Sugiyama and Linda Grove. 140-58. Richmond, UK: Curzon, 2001.
- Ville, Simon. "Colonial Enterprise." In *The Cambridge Economic History of Australia*, edited by Simon Ville and Glenn Withers. 202-21. Melbourne: Cambridge University Press, 2015.
- Ville, Simon, and Grant Fleming. "From Kinship to Relations Economic? The Development of Pastoral Networks in Australasia." In *Entrepreneurial Networks* and Business Culture, edited by Clara E. Núnez. 115-33. Madrid: International Economic History Conference, 1998.

B4. Theses

- Atchinson, J. F. "Port Stephens and Goonoo Goonoo a Review of the Early Period of the Australian Agricultural Company." PhD. Australian National University, 1973.
- Atkinson, Anne. "Chinese Labour and Capital in Western Australia, 1847-1947." PhD. Murdoch University, 1991.
- Cuncliffe, Sydney. "British Imperialism and Tea Culture in Asia and North America, 1650-1950." Masters. University of Victoria, 2014.
- Gray, Steven. "Imperial Coaling: Steam-Power, the Royal Navy and British Imperial Coaling Stations Circa. 1870-1914." PhD. University of Warwick, 2014.
- Knight, Jessica. "'A Poisonous Cup?' Afternoon Tea in Australian Society, 1870-1914." Honours, University of Sydney, 2011.
- Lee, Henry. "The Development of Coal Trade in the Wollongong District of New South Wales, with Particular Reference to Government and Business, 1849-1889." PhD. University of Wollongong, 1993.

- Ormston, Robert. "The Rise and Fall of a Frontier Mining Town: Cooktown 1873-85." PhD. University of Queensland, 1996.
- Rains, Kevin. "Intersections: The Overseas Chinese Social Landscape of Cooktown, 1873-1935." PhD. University of Queensland, 2005.
- Rice, Anita B. "The Pacific in American Economic Policy. 1860-1880." Masters. University of Kansas, 1921.
- **B5.** Conference Presentations
- Griffiths, Phil. "The Heroic Shameful Role of Labour: Mythology in the Making of White Australia." In *Legacies 09 Conference*. Toowoomba, Queensland, 2009.
- Statham, Pamela. "The Sandalwood Industry in Australia: A History." In Symposium on Sandalwood in the Pacific. Honolulu, Hawai'i, 1990.
- B6. Working Papers, Discussion Papers and Bulletins
- Statham, Pamela. "The Australian Sandalwood Trade Small but Significant." 1-36. Canberra: Department of Economic History, Australian National University, 1987.
- McWilliam, Andrew. "Haumeni, Not Many: Renewed Plunder and Mismanagement in the Timorese Sandalwood Industry." 1-21. Canberra: Resource Management in Asia-Pacific Program, Australian National University, 2001.
- B7. Electronic Documents and e-Books
- Clark, Donald. "Jewelry Metals 101: Gold, Silver, and Platinum." In, (2017). https://www.gemsociety.org/article/fundametals-jewelery-metals-overview/. (cited 5 October 2017).
- Easley, David, and Jon Kleinberg. Networks, Crowds, and Markets : Reasoning About a Highly Connected World. New York: Cambridge eText, 2010.
- Lea-Scarlett, E. J. "Mei Quong Tart (1850-1903)." Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au.virtual.anu.edu.au/biography/mei-quong-tart-4181/text6719, published first in hardcopy 1974, accessed online 2 October 2017.
- Macgregor, Paul. "Lowe Kong Meng and Chinese Engagement in the International Trade of Colonial Victoria." *Provenance*, no. 11 (2012). <u>https://www.prov.vic.gov.au/explore-collection/provenance-journal/provenance-2012/lowe-kong-meng-and-chinese-engagement</u>. (cited 4 April 2014).

- Perdue, Peter C. "Is Pu-Er in Zomia? Tea Cultivation and the State in China." *Agrarian Studies Colloquium, Yale University* (2008). http://agrarianstudies.macmillan.yale.edu/sites/default/files/files/colloqpapers/07 perdue.pdf. (cited 5 October 2017).
- Shineberg, Dorothy. "Jones, Richard (1786–1852)." Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au.virtual.anu.edu.au/biography/jones-richard-2280/text2931, published first in hardcopy 1967, accessed online 26 August 2017.
- Walsh, G. P. "Lamb, John (1790-1862)." Australian Dictionary of Biography, National Centre of Biography, Australian National University, <u>http://adb.anu.edu.au/biography/lamb-john-2321/text3017</u>, published first in hardcopy 1967, accessed online 23 September 2017.
- Yong, Chin Fatt, "Ah Mouy, Louis (1826-1918).")." Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au.virtual.anu.edu.au/biography/ah-mouy-louis-2872/text4099, published first in hardcopy 1969, accessed online 2 October 2017.
 - "Lowe Kong Meng (1831-1888)." Australian Dictionary of Biography, National Centre of Biography, Australian National University, http://adb.anu.edu.au.virtual.anu.edu.au/biography/lowe-kong-meng-4043/text6431, published first in hardcopy 1974, accessed online 2 October 2017.
- B8. Music
- "The Billy of Tea." *Native Companion Songster*. Vol. 3, Brisbane: R. S. Hews & Co., 1889.

Paterson, Banjo, and Christina Macpherson. "Waltzing Matilda." 1895.

C. Electronic Resources

http://www.flotilla-australia.com/eanda.htm

Western Name	Pinyin
Canton	Guangzhou (廣州)
Chefoo	Yantai (烟台)
Chenkiang	Zhenjiang (镇江)
Hankow	Hankou (汉口) [now part of Wuhan]
Hoikow	Haikou (海口)
Kiukiang	Jiujiang (九江)
Nanking	Nanjing (南京)
Newchang	Yingkou (菅口)
Ningpo	Ningbo (宁波)
Peking	Beijing (北京)
Swatow	Shantou (汕头)
Takao	Kaohsuing (高雄)
Tamsui	Tamsui (淡水) [now part of Taipei]
Taiwan-fu	Tainan (臺南)
Tientsin	Tianjin (天津)

Chinese port names using Chinese Postal Map Romanization

Australian merchant houses with correspondence with Jardine Matheson & Co., 1860-1880

Abbreviations:

- ADL Adelaide, South Australia
- BRI Brisbane, Queensland
- BUN Bunbury, Queensland
- CAR Cairns, Queensland
- CKT Cooktown, Queensland
- CLA Clair, South Australia
- DGG Dungog, New South Wales
- FRE Fremantle, Western Australia
- GEE Geelong, Victoria
- GLD Geraldton, Western Australia
- HOB Hobart, Tasmania
- IPS Ipswich, Queensland
- LCT Launceston, Tasmania
- MAR Marlborough, Queensland
- MEL Melbourne, Victoria
- NEW Newcastle, New South Wales
- PER Perth, Western Australia
- POR Portland, Victoria
- RKC Rockhampton, Queensland
- SYD Sydney, New South Waled
- TWN Townsville, Queensland
- YRK York, Western Australia

Australian Firm	Port	Colony	No. Letters
Antonio Rodriguez	ADL	SA	1
Harold Bros	ADL	SA	1
HP Hansenberg	ADL	SA	1
Jas Derwent	ADL	SA	1
WC Harrison & Co	ADL	SA	4
Wm Morgant	ADL	SA	1
Alfred Shaw & Co	BRI	QLD	3
Parbury Lamb & CO	BRI	QLD	3
Parry Crake	BRI	QLD	1
Unmack Heussler & Co	BRI	QLD	29
William D Box	BRI	QLD	1
David Eedle	BUN	QLD	3
Wm Spencer	BUN	QLD	1
CJ Scott & Co	CAR	QLD	2
Walsh & Co	CKT	QLD	2
JWD Bain	CLA	SA	1
E Camden	DGG	NSW	1
Annele Brig	FRE	WA	1
Bickley	FRE	WA	16
Geo Sanderson	FRE	WA	1
J&W Bateman	FRE	WA	2
JH Carter	FRE	WA	46
John M Arthurs	FRE	WA	1
Marmion	FRE	WA	49
Pearse H Ouston	FRE	WA	6
Rockingham Mining	FRE	WA	2
Thos. Marks	FRE	WA	1
Walter Bateman	FRE	WA	12
James Sinclair	GEE	WA	2
Scott & Gale	GLD	WA	18
Crowther & Co	GLD	WA	5
Brown & Co	HOB	TAS	1
Macfarlane Bros	HOB	TAS	9
Weinholf Walker	IPS	QLD	5
Geo. Byworth	LCT	TAS	2
S Tulloch	LCT	TAS	6
C Ruck Keene	MAR	QLD	1
AJ Chambers	MEL	VIC	1
Alcock & Co	MEL	VIC	2
Alfred Wrolby & Co	MEL	VIC	1
Bright Bros	MEL	VIC	1
C Watt & Co	MEL	VIC	2
Crowther Scott & Co	MEL	VIC	1
Cuthbertson & Co	MEL	VIC	1
Dalgety Blakcwood & Co	MEL	VIC	1
Downie Murphy	MEL	VIC	21
Duncan Consie	MEL	VIC	1
GW Cole	MEL	VIC	18
J Balfour & Co	MEL	VIC	1
J Robertson	MEL	VIC	1
James Henty	MEL	VIC	531

Australian Firm	Port	Colony	No. Letters
Jas Insight	MEL	VIC	1
Jas Lawrence	MEL	VIC	29
Jas McEwan & Co	MEL	VIC	1
JE Beaves & Co	MEL	VIC	1
Jennings	MEL	VIC	1
JH Clough & Co	MEL	VIC	10
JH Thomas	MEL	VIC	1
JH White & Co	MEL	VIC	3
JJ Marshall	MEL	VIC	2
John McArthur	MEL	VIC	3
Josiah Dummelow	MEL	VIC	1
JW Jackson	MEL	VIC	1
Mclean Rigg & Co	MEL	VIC	10
Minmi Colliery	MEL	VIC	5
Poms Rutherford & Co	MEL	VIC	1
Prost Kholer	MEL	VIC	8
R. Rae	MEL	VIC	1
Robert Harper & Co	MEL	VIC	19
Robertson Errand	MEL	VIC	2
Rolfe & Co	MEL	VIC	2
S deBeer & Co	MEL	VIC	1
Smith	MEL	VIC	1
	MEL	VIC	9
Spence Bros			
Thos E Angel	MEL	VIC	1 5
Thos. H. Barlow	MEL	VIC	
W Clifford	MEL	VIC	1
William Turner	MEL	VIC	1
Wiseman Bros	MEL	VIC	2
WM Guiness	MEL	VIC	4
Wm. Rigg	MEL	VIC	1
Woolley Stephens	MEL	VIC	1
Aus Agric Co	NEW	NSW	20
Bingle & Co	NEW	NSW	80
Bingle White & Co	NEW	NSW	53
Chas Robertson	NEW	NSW	1
Chas Stokes	NEW	NSW	158
J & A Brown	NEW	NSW	4
JB Ellis	NEW	NSW	3
John Reid	NEW	NSW	2
Joseph Ward & Co	NEW	NSW	9
Laidley Ireland & Co	NEW	NSW	1
Lane & Co	NEW	NSW	1
McLelland	NEW	NSW	1
Prost Kohler	NEW	NSW	3
Rob B Wallace	NEW	NSW	99
Shepheard Hart & Co	NEW	NSW	3
Wallsend Coal	NEW	NSW	2
Bollason	PER	WA	2
Chas Shenton	PER	WA	85
Glyde & Son	PER	WA	21
Henry Saw	PER	WA	24
non y Sun	1 1/1	7 Y Z L	4T

Australian Firm	Port	Colony	No. Letters
P. Mason	PER	WA	17
Padbury Loton & Co	PER	WA	1
WA Coop Soc	PER	WA	1
Henty Learnmonth	POR	VIC	1
Brown & Risen	RKC	QLD	1
GS Curtis	RKC	QLD	2
Alex Campbell	SYD	NSW	1
Alfred Lamb & Co	SYD	NSW	13
Beilby & Scott	SYD	NSW	3
Brown & Co	SYD	NSW	202
Bulli Mining Co	SYD	NSW	2
Cohen Harris & Co	SYD	NSW	3
Collishaw Bros	SYD	NSW	2
Daniell King & Co	SYD	NSW	99
ES Chester & Co	SYD	NSW	4
Fergusson Webb	SYD	NSW	4
Francis Macaulb	SYD	NSW	1
Fred J Davies	SYD	NSW	1
FW Jackson	SYD	NSW	1
G Ferguson	SYD	NSW	8
Geo S Beaver	SYD	NSW	1
George King & Co	SYD	NSW	161
Gilchrist Watt & Co	SYD	NSW	3
Henry Chas Mitchell	SYD	NSW	1
Henry Fisher Wen	SYD	NSW	2
Henry Moore	SYD	NSW	346
J & A Brown	SYD	NSW	1
J Banks	SYD	NSW	1
J Snorbert	SYD	NSW	1
JA Macqueen	SYD	NSW	1
James Longridge	SYD	NSW	1
Jas H Bates	SYD	NSW	1
Jas M Bogie	SYD	NSW	1
JE Manning	SYD	NSW	5
JG Hanks	SYD	NSW	1
JG Sawkins	SYD	NSW	1
JL Nicholls	SYD	NSW	1
John Cuthbert	SYD	NSW	5
John M Pyne	SYD	NSW	1
John P Clark	SYD	NSW	1
K de Piotrosski	SYD	NSW	1
L. Nicholson	SYD	NSW	3
Leuder & Co	SYD	NSW	4
Montifore Joseph & Co	SYD	NSW	1
Mueller	SYD	NSW	4
Nicholls Bros	SYD	NSW	44
Rabone Feez & Co	SYD	NSW	3
Robert J King	SYD	NSW	15
Scot. Aus. Mining	SYD	NSW	4
TG Sawkins	SYD	NSW	1
Thacker Daniell	SYD	NSW	77

Australian Firm	Port	Colony	No. Letters
Thos. Drayson	SYD	NSW	1
Willis Lloyd & Co	SYD	NSW	2
WL Brockman	SYD	NSW	1
Wm Leipold	SYD	NSW	1
Becke Master & Co	TWN	QLD	2
JH Monger	YRK	WA	117

Australian merchant houses with correspondence with Augustine Heard & Co., 1860-1880.

Abbreviations:

- ADL Adelaide, South Australia
- BRI Brisbane, Queensland
- GAW Gawler, South Australia
- MEL Melbourne, Victoria
- NEW Newcastle, New South Wales
- SYD Sydney, New South Waled

Australian Firm	Port	Colony	No. Letters
Capt Askins	ADL	SA	1
Elder Smith & Co	ADL	SA	4
Samuel White Esq	ADL	SA	2
Wm Morgan & Co	ADL	SA	2
Stewart & Hammant	BRI	QLD	6
W Duffield & Co	GAW	SA	24
Bank NSW	MEL	VIC	1
Capt Hansen	MEL	VIC	1
Capt WA Magill	MEL	VIC	11
EL Montefiore Esq	MEL	VIC	1
Francis & McPherson	MEL	VIC	1
G Parbury Esq	MEL	VIC	23
Jas C. Robertson & Co	MEL	VIC	1
Lorimer Marwood & Rome	MEL	VIC	26
Melbourne, Newcastle & Minmi Colliery	MEL	VIC	2
Newell & Co.	MEL	VIC	2
NS Anderson & Co	MEL	VIC	1
Parbury Bros	MEL	VIC	23
Paterson Ray Palmer & Co	MEL	VIC	4
Rolfe & Co	MEL	VIC	12
Union Bank of Australia	MEL	VIC	1
Wilkinson Bros	MEL	VIC	61
<unknown> Coal Mining Co</unknown>	NEW	NSW	1
Bingle & Co	NEW	NSW	5
Chas F Stokes & Co	NEW	NSW	30
Co-op Mining Co	NEW	NSW	1
Laidley Ireland & Co	NEW	NSW	5
Prost Kholer & Co	NEW	NSW	1
R. H. Grierson Esq	NEW	NSW	3
Robert B. Wallace Esq	NEW	NSW	17

Australian Firm	Port	Colony	No. Letters
Bank NSW	SYD	NSW	1
Beilby & Scott	SYD	NSW	66
C. Fearon Esq	SYD	NSW	1
Capt Grand	SYD	NSW	1
CSR Co	SYD	NSW	2
Edwin J. Beilby & Co	SYD	NSW	2
Fanning Griffiths & Co	SYD	NSW	16
Frederick ? Esq	SYD	NSW	1
Gilchrist Hailer & Co	SYD	NSW	1
Jas Murimant/Marriman Esq	SYD	NSW	3
Laidley Ireland & Co	SYD	NSW	11
Lamb Parbury & Co	SYD	NSW	5
Lambton Minmi Colliery Agency	SYD	NSW	1
Lorimer Marwood & Rome	SYD	NSW	13
Mitchell & Co	SYD	NSW	5
Oriental Banking Corp	SYD	NSW	1
Parbury Bros	SYD	NSW	110
R Towns & Co	SYD	NSW	14
Samuel Priz Esq	SYD	NSW	1
Tomago Coal Mining Co	SYD	NSW	4
Veal d'Aram	SYD	NSW	1
WH Eldred Esq	SYD	NSW	51
Wilkingson Bros	SYD	NSW	93
Unknown	SYD	NSW	4

Coal Exports from New South Wales, 1863-1880.¹

Table 1. List of all ports importing coal from either Sydney or Newcastle, New South Wales, 1863-1880.

Region Australasia	Country or Port New Guinea New Zealand
Pacific	Fiji
	Guam
	Honolulu
	New Caledonia
	South Sea Islands
South America	Arica
	Callao
	Guayaquil
	lquique
	La Plata
	Valparaiso
Central America	Mexico
	Panama
North America	Astoria
	Boston
	Kodiak
	Portland, MA
	San Francisco
North Asia (Russia)	Petropavlovsk
East Asia	Cebu
	Fuzhou
	Hong Kong
	llo llo
	Macao
	Manilla
	Nagasaki
	Ningpo
	Shanghai
	Xiamen
	Yantai
	Yokohama
South East Asia	Bangkok

¹ Statistical Register of New South Wales for the Year ... (1863-80) Sydney: Thomas Rickards, Government Printer, (1864-81).

South Asia and Indian Ocean	Batavia Hanoi Java Kupang Makassar Maluku Islands Mawlamyine Padang Pathein Penang Saigon Siam Singapore Sumatra Timor Yangon Bombay Bourbon Calcutta Colombo/Ceylon Galle Kakinada Karachi Madras Mauritius Negapatam Nicobar Islands Thoothukudi
Other Asia	Aden Basra
Africa	Cape of Good Hope
	Maputo Bay Port Natal

				Average
		Total Tonnage	Years with	Tonnage
Region	Country	1863-80	shipments	per year
Australasia	New Guinea	370	2	185
	New Zealand	2038844	18	113269
Pacific	Fiji	5062	6	844
	Guam	25828	11	2348
	Honolulu	35464	9	3940
	New Caledonia	65324	18	3629
	South Sea Island	47614	18	2645
South	Argentina	502	1	502
America	Chile	51244	17	3014
	Ecuador	1464	2	732
	Peru	22100	13	1700
Central	Mexico	1400	1	1400
America	Panama	3875	3	1292
North	United States	1381705	18	76761
America				
North Asia	Russia	120930	18	6718
East Asia	China ²	1575190	18	87511
	Japan	131192	14	9371
	Macao	410	1	410
	Philippines	162514	13	12501
South East	Netherlands			
Asia	East Indies	252758	18	14042
	Malaysia	586	1	586
	Burma	16896	8	2112
	Singapore	182802	16	11425
	Siam	5322	8	665
	Timor	897	3	299
	Indo China	19236	8	2405
South Asia	India	263167	18	14620
	Pakistan	1522	2	761
	Ceylon	113180	18	6288
West Asia	Iraq	1030	1	1030
	Yemen	2060	1	2060
Indian	Mauritius	100608	18	5589
Ocean	Nicobar Islands	160	1	160
Africa	Mozambique	188	1	188
	South Africa	2667	3	889

Table 2. Summary by region and countries importing coal from New South Wales, 1863-1880.

² China includes Hong Kong.

Coal mining firms involved in the overseas export trade to China, 1860-1880, with the year they commenced exports.¹

Hunter Valley/Newcastle Region	
Australian Agricultural Company	1831
J. & A. Brown	1850
Co-operative Company	1861
Wallsend	1861
Waratah	1863
Lambton	1864
Greta	1867
New Lambton	1868
Newcastle Coal Company	1877
Australasian Coal Company	1877
Ferndale Colliery	1878
Illawarra Region	
Bellambi Coal Company	1857
Bulli Coal Company	1863

¹ Schmitz. *Output and Employment*: 38, 39, 41, 42, 49, 52, 61, 73, 79, 97, 117, 119, 162, 163.

Shipping from New South Wales to China, 1860-1880.

- 1. Number of vessels departing Newcastle for Chinese ports.
- 2. Number of vessels departing Sydney for Chinese ports.
- 3. Tonnage of coal cargo in vessels departing from Newcastle for Chinese ports.
- 4. Tonnage of coal cargo in vessels departing from Newcastle for Chinese ports.

Abbreviations:

- AMY Amoy
- CHE Chefoo
- FZH Foochow
- HKG Hong Kong
- SHA Shanghai
- NPO Ningpo
- SWA Swatow
- TTN Tientsin
- CHN Other China not designated

Dest.	AMY	CHE	FZH	HKG	SHA	NPO	SWA	TTN	CHN	Total
1860				14	2				2	18
1861				6	4				1	11
1862				14	27					41
1863			1	2	23					26
1864			1	13	19				1	34
1865			1	5	4					10
1866				21	24	1			1	47
1867			4	20	22	1				47
1868		1	10	42	48	2				103
1869	2	5	4	38	35	1				85
1870		4	1	45	20					70
1871		2		39	9					50
1872	3	5	2	59	12					81
1873	4	3		79	24					110
1874	5	3	2	47	16					73
1875	3	3	2	68	6					82
1876	1	1		47	7					56
1877	2	6		77	19				2	106
1878	2	4		77	8		2	1		94
1879	3	4		37	4		2		1	51
1880			1	53	9		1			64

Dest.	AMY	CHE	FZH	HKG	SHA	NPO	SWA	TTN	CHN	Total
1860				19	8				1	28
1861				18	9					27
1862				16	56					72
1863			1	14	31					46
1864			5	19	32					56
1865			5	16	32	3				56
1866			2	26	50					78
1867			3	20	36	6				65
1868		1	2	29	38	2				72
1869	1	1	1	31	28	1				63
1870			2	24	16					42
1871	2		3	39	22					66
1872	3		2	30	25					60
1873	2	1	2	23	27					55
1874	3		3	26	34				1	67
1875		2	2	37	24					65
1876	1			27	24					52
1877	1		1	24	36					62
1878	1		2	29	18					50
1879	1		3	21	31					56
1880		1	1	31	18					51

2. Number of vessels departing S	Sydney for Chinese ports.
----------------------------------	---------------------------

3. Tonnage of coal cargo in vessels departing from Newcastle for Chinese ports.

Dest.	AMY	CHE	FZH	HKG	SHA	NPO	SWA	TTN	CHN	Total
1860				6751	730				1600	9081
1861				2950	1173				362	4485
1862				9704	16843					26547
1863			0	1030	15323					16353
1864			355	6318	10150				300	17123
1865			300	2883	1411					4594
1866				12325	12637	195			565	25722
1867			1483	11431	13842	372				27128
1868		400	3160	23475	31861	840				59736
1869	1158	2594	1635	21342	28352	360				55441
1870		1540	300	26085	14771					42696
1871		945		22972	5787					29704
1872	1253	2459	542	48450	11284					63988
1873	1975	1385		52728	22749					78837
1874	2097	1535	831	37710	13583					55756
1875	978	1643	677	56057	3690					63045
1876	944	422		30523	4923					36812
1877	713	2644		69590	14404				1542	88893
1878	883	1925		71707	6368		1050	525		82458
1879	1388	2090		34884	3547		977		630	43516
1880			420	47798	4620		317			53155

Dest.	AMY	CHE	FZH	HKG	SHA	NPO	SWA	TTN	CHN	Total
1860				12049	2469			1000		15518
1861				4609	5493					10102
1862				6282	31928					38210
1863			123	8646	21932				0	30701
1864			490	9862	18389					28741
1865			1195	6563	22288	1114				31160
1866			542	15188	32539	87				48356
1867			1236	8719	23657	2498				36110
1868		300	850	14638	30608	870				47266
1869	450	322	400	15766	18128	550				35616
1870			840	11740	11432					24012
1871	1847		955	19335	14455					36592
1872	1315		420	13787	19545					35067
1873	260		900	10389	23610					35159
1874	1415		1250	13887	29079				430	46061
1875		885	850	21839	22854					46428
1876	400			20601	18852					39853
1877	800		600	13807	31104					46311
1878	748	0	955	10781	17317					29801
1879	480		1770	3798	27774					33822
1880		500	550	5974	12918					19942

4 T C	1 .	1 1		C1 ·
4 Lonnage of cos	al cargo in ve	ssels denarting ti	rom Newcastle for	Chinese norts
	ai cuigo in ve	boold deputting in		chillese ports.

Shipping between Hong Kong and the ports of Australia and New Zealand, 1860-1880.¹

A. Shipping inwards to Hong Kong from Australia
and New Zealand

	Inwards		
Year	with cargoes	in ballast	Total
1860	45	4	49
1861	25	18	43
1862	40	25	65
1863	24	10	34
1864	48	8	56
1865	26	9	35
1866	53	1	54
1867	51	0	51
1868	80	0	80
1869	87	1	88
1870	77	0	77
1871	94	0	94
1872	96	1	97
1873	86	0	86
1874	89	1	90
1875	114	2	116
1876	113	0	113
1877	118	0	118
1878	103	1	104
1879	71	1	72
1880	80	0	80

¹ Hong Kong Blue Book for the Year ... (1860-80) Hong Kong: Govt. Printer, (1861-81).

B. Shipping outwards from Hong Kong to Australia and New Zealand

		Outwards		
Y	lear	with cargoes	in ballast	Total
1	860	11	0	11
1	861	24	0	24
1	862	15	0	15
1	863	16	0	16
1	864	14	0	14
1	865	12	0	12
1	866	12	0	12
1	867	7	1	8
1	868	16	0	16
1	869	18	0	18
1	870	13	0	13
1	871	37	0	37
1	872	16	2	18
1	873	29	1	30
1	874	22	0	22
1	875	36	0	36
1	876	38	0	38
1	877	43	0	43
1	878	35	0	35
1	879	28	0	28
1	880	28	0	28

Year	Coal	Gold	Other	Total
1863	40,813	50,960	9,867	101,640
1864	36,185	47,834	18,904	102,923
1865	31,294	55,500	22,438	109,232
1866	59,581	23,071	34,803	117,455
1867	50,305	18,951	24,100	93,356
1868	66,148	17,601	17,821	101,570
1869	56,215	14,008	21,401	91,624
1870	38,935	600	29,632	69,167
1871	36,844	44,457	18,162	99,463
1872	54,572	67,829	19,375	141,776
1873	86,442	53,022	40,377	179,841
1874	86,437	58,082	75,175	219,694
1875	105,681	55,127	46,520	207,328
1876	72,720	61,633	35,734	170,087
1877	103,894	69,319	31,680	204,893
1878	84,302	60,210	35,402	179,914
1879	57,006	59,720	2,117	118,843
1880	45,017	71,822	1,166	118,005

New South Wales exports to China, 1863-1880 (£)

Admiralty, 19 June 1862.		R L M A R K S.	This is good coal; the evaporative power being rather above the average ; but the quantity of clinker and ash is rather above the average.	The water evaporated per Jb. of coal is below the average of north country coal, and then the of evaportion per hour is equal to the average of north country coal. The clinker and abh are large and apread, and stick to the bars, and their per-centage is high.	This coal is about equal to the average of north country coal in evapora- tive power, and the per-centage of ash is rather above that of north country coal.	The rate of evaporation is below that of north country coal. A large quantity of clinker and ash ; the clinker forms quickly, causing much trouble in stoking.	Very good in every respect.	Very inferior coal; the rate of evaporation being very low, and the quantity of ash being great.	Very inferior coal ; the evaporative power being very low, and the trial giving a large quantity of ash.	Good coal, about equal to the average of north country coal. The per- centage of ash is rather high.	Good coal, about equal to the average of north country coal. The per- centage of elinker and ash is rather high.	This coal is rather below the average, and the quantity of clinker and ash is great.	The evaporative power of this coal is very high, but the quantity of clinker and ash is great.	Δ
Dockyard, 1 May		Description of Smoke.	Dark brown, large quantity.	ditto - ditto -	Dark brown, moderate quantity.	ditto - ditto -	ditto - ditto -	Light brown, small quantity.	Dark grey, large quantity.	Dark brown, large quantity.	ditto - ditto -	ditto - ditto -	ditto - ditto -	
olwich]	of	Clinker and Ash.	7-14	10.42	69.2	9.92	16.9	12-54	12.20	8-2-1	7.02	10.38	11-35	5.
L.—Wo	er Centage	.dsA.	5-79	5.59	11-9	6-52	4.30	61-11	19.11	12-9	10.5	6.95	8.60	4
COA		Clinker.	1.35	4.83	1.18	3-33	1-21	1-03	0.20	1-53	2.01	3.43	2.75	÷
ΝVΙ	: Feet evaporated Iour .	Calculated at the constant Tempera- ture 100°.	47.74	47-21	49-43	46-55	52.8	39-35	36-81	47.52	46-59	49.54	11.15	47.
LAL	Cubic of Water of per 1	Calculated at the Temperature of the Feed Water.	45.6	45-14	47-26	4.1.68	50-63	37-77	35.38	45-7	\$8.FF	47:69	49-15	•
UST	of Water ed to 1 lb. consumed.	Calculated at the constant l'empera- ture 100º.	8:54	7-82	8.08	F5-8	8-57	8-25	8-73	8-22	8-50	1-39	8-95	8-25
1	Pounds of Coal c	Calculated at the Temperature of the Feed Water.	8-16	1-48	1-74	16-2	8.53	7-92	66.8	16-2	8.19	7-12	8.61	•
2	Doto of	the the Trial.	1862: April 16	" 17	" 19	, 22	" 23	, 24	,, 25	, 26	,, 28	,, 29	,, 30	
TRIA		on Cases.	1 to 8	62 to 73	8 to 13	9 to 17	1 to 8	1 to 8	1 to 8	1 to 9	1 to 8	4 to 7	74 to 76	- , ,
		Distingualing Mark on Cases.	E E E -	. LA .	M "	, ,	. W.E .		, MK ,	- VI "	" AAC F -	W "		AVERAGE OF NORTH COUNTRY COAL -
		Number of Triel.	1 Australian Agricultural Company.	 2 Тотадо Гра1 Соправу 	3 Four Mile Creek Coal Com- pany.	4 Coal and Copper Company -	5 Wallsend Coal Company -	6 Bellambi Coal Company -	7 Mount Keira Coal Company	8 Minui Coal Company -	9 Australian Agricultural Company.	10 Tonngo Coal Company -	11 Ditto	AVERAGE OF NO
	OF AUSTRALIAN COALWoolwich Dockyard, 1 May 1802.	[ALS OF AUSTRALIAN COALWoolwich Dockyard, 1 May 1802. Pounds of Water Pounds of Water Point of Coal consumed. Port Ifour.	TRIALSOFAUSTRALIAN COALWoolwich Dockyard, 1 May 1802. TRIALSOFAUSTRALIAN COALWoolwich Dockyard, 1 May 1802. Distinguating Mark Reader of Water Distinguating Mark Numbers Distributing Mark Numbe	TRIALS OF AUSTRALIAN COAL-Woolwich Dockyard, 1 May Description of Coal Trick. Distingunhing Mark Numbers Paunde of Water Cublic Feet Ter Cantage of of Coal consumed. Description of Coal Trick. Distingunhing Mark Numbers Date of coal consumed. Of Water eraported Ter Cantage of of Coal consumed. Description of Coal Trick. Description of Coal Trick. Distingunhing Mark Numbers Date of coal consumed. Trick. Trick. Trick. Description of Coal Trick. Description of Coal Trick. Distingunhing Mark Numbers Date of coal consumed. Distingunhing Mark Description of Coal Trick. Description of Coal Trick. Distingunhing Mark Numbers Date of Coal consumed. Distributed Description of Coal Trick. Description of Coal Trick. Distributed Distributed Distributed Distributed Description of Coal Trick. Distributed Description of Coal Trick. Distributed Distributed Distributed Distributed Description of Coal Trick. Distributed Description of Coal Trick. Trikl. Trikl. Distributed Distributed Distributed Description of Coal Trick. Distributed Distributed Distributed Distributed Distributed Distributed	TRIALS OF AUSTRALIAN COALWoolwich Dockyard, 1 May Description of Caal Trici. Distingualing Mark Numbers Paunds of Water Cubic Free propagated to 11b, of Mater capionated per flour. Per Cantage of per flour. Description of an Cases. Description of Caal Trici. Distingualing Mark Numbers Date of on the detection detection of Caal constanted. Per Cantage of per flour. Description of cances. Australian Agricultural Easter area Trial. date of cases. Easter cases. Trial. date of called area Description of called area Description of called area Australian Agricultural Easter area Trial. date of called area Cases. Trial. date of called area Date of called area Description of called area Australian Agricultural Easter area Trial. e date of called area Australian Agricultural Easter area 1 to 8 April 16 8:16 8:34 45:06 47:14 1:35 7:14 Date brown, Imree quantity. Tomago Caal Company n n 10 8:34 45:06 47:14 47:21 47:21 47:21 41:22 1:4	TRIALS OF AUSTRALIAN COALWoolwich Dockyard, 1 May Description of Cal Tricit. Distingunting Mark Numbers Date of Cal constanted. Pounde of Water corporated to 11b. Of Water corporated to 12b. Of Mater corporated to 12b. Description of Cal Tricit. Description of Cal Tricit. Description of Cal Tricit. Distingunting Mark Date of Cal constanted. Pounde of Cal constanted. Prove Cal constanted. Per Cantage of Cal constanted. Description of Cal	TRIALS OF AUSTRALIAN COAL-Woolwich Dockyard, 1 May Description of Cash Trick. Distingunting Mark Numbers Date of Cash consumed. Pounde of Water regionsted Distingunting mark Description of Cash Trick. Description of Cash Trick. Distingunting Mark Numbers Date of Cash consumed. Pounde of Water regionsted Per flow. Description of Cash Trick. Distingunting Mark Numbers Date of Cash consumed. Pounde of Cash consumed. <td>TRIALS OF AUSTRALIAN COALWoolwich Dockyard, 1 May Description of Coal Tricel. Distinguahing Mark Numbers Date of Coal consumed. Per Hour. Per Hour. Description of Coal Tricel. Description of Coal Tricel. Distinguahing Mark on the description of Coal consumed. Per Hour. Per Hour. Description of Coal Tricel. Australian Agricultured Example Trial. description of Coal Tricel. Distinguahing Mark on the description of Coal Consumed. Per Hour. Description of Coal Tricel. Australian Agricultured Example Labor Coales Trial. description of Coal Tricel. Description of Coal consumed. Per Hour. Description of Coal Coales Australian Agricultured Example Labor description of Coal coales description of Coales</td> <td>TRIALS OF AUSTRALIAN COAL.—Woolwich Dockyard, 1 May Description of Caal Trici. Distingunhing Mark Numbers Part of the structure of cash of the structure of on the structure of on the structure of on the structure of the structure of the structure of on the structure of the structure of on the structure of the st</td> <td>TRIALS OF AUSTRALIAN COAL-Woolwich Dockyard, 1 May Description of Cal Tried. Distinguating Mark Numbers Distinguation of Water Construction of Coal Tried. Description of Coa</td> <td>TRIALS OF AUSTRALIAN COAL-Woolwich Dockyard, 1 MayDescription of Cal Triad.Distinguistic factorCollected factorNumberNumberDate of constanted on the<b< td=""><td>TRIAIS OF AUSTRAIAN COAL-Woolwich Dockyard, 1 May Deription of Cal Trial. Distinguishing Mark Deription of Cal Trial. Distinguishing Mark Deription of Cal Trial. Distinguishing Mark on Cane. Trial. Trian. Trian. Trian. Trian. Trian. Trian. Trian. Trian. Tria</td><td>TRIAIS OF AUSTRAIS OF AUSTRAIIAN COAL-Woolwich Dookyard, 1 May be related to 11 have a set of coal constant of Mater and a material of Call constant of Material and a ma</td><td>TRIALS OF AUSTRALIAN COAL-Worlwich Dockyntr, 1 May beneficiated with a proton or evolution of the proton of the</td></b<></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></br></td>	TRIALS OF AUSTRALIAN COALWoolwich Dockyard, 1 May Description of Coal Tricel. Distinguahing Mark Numbers Date of Coal consumed. Per Hour. Per Hour. Description of Coal Tricel. Description of Coal Tricel. Distinguahing Mark on the description of Coal consumed. Per Hour. Per Hour. Description of Coal Tricel. Australian Agricultured Example Trial. description of Coal Tricel. Distinguahing Mark on the description of Coal Consumed. Per Hour. Description of Coal Tricel. Australian Agricultured Example Labor Coales Trial. description of Coal Tricel. Description of Coal consumed. Per Hour. Description of Coal Coales Australian Agricultured Example Labor description of Coal coales description of Coales	TRIALS OF AUSTRALIAN COAL.—Woolwich Dockyard, 1 May Description of Caal Trici. Distingunhing Mark Numbers Part of the structure of cash of the structure of on the structure of on the structure of on the structure of the structure of the structure of on the structure of the structure of on the structure of the st	TRIALS OF AUSTRALIAN COAL-Woolwich Dockyard, 1 May Description of Cal Tried. Distinguating Mark Numbers Distinguation of Water Construction of Coal Tried. Description of Coa	TRIALS OF AUSTRALIAN COAL-Woolwich Dockyard, 1 MayDescription of Cal Triad.Distinguistic factorCollected factorNumberNumberDate of constanted on the 	TRIAIS OF AUSTRAIAN COAL-Woolwich Dockyard, 1 May Deription of Cal Trial. Distinguishing Mark Deription of Cal Trial. Distinguishing Mark Deription of Cal Trial. Distinguishing Mark on Cane. Trial. Trian. Trian. Trian. Trian. Trian. Trian. Trian. Trian. Tria	TRIAIS OF AUSTRAIS OF AUSTRAIIAN COAL-Woolwich Dookyard, 1 May be related to 11 have a set of coal constant of Mater and a material of Call constant of Material and a ma	TRIALS OF AUSTRALIAN COAL-Worlwich Dockyntr, 1 May beneficiated with a proton or evolution of the proton of the

Trials of Australia Coal – 1 May 1862¹

AUSTRALIAN COAL.

Appendix 9

¹ Australian coal. Return, showing the result of the recent experiments under the direction of the Admiralty, as to the value for naval purposes, of Australian coal House of Commons, no. 337 (1862): 1.

Origin	1865	1866	1867	1868	1869	1870
Great Britain	51,325	60,705	40,987	59,881	41,607	17,210
America	11,217	10,879	7,362	7,797	11,720	5,705
Australia	28,689	51,861	34,706	58,340	48,717	27,730
Japan		9,373	22,523	15,344	11,041	23,009
Formosa		6,190	6,005	17,613	12,965	5,759
Russia				1,811	375	600
Total	91,231	139,088	111,583	160,786	126,425	80,013

Imports of Foreign Coals to Shanghai, in tons, for the period 1865 to 1870.¹

¹ China. No. 2 (1872). Commercial reports from Her Majesty's consuls in China. 1870. House of Commons no. C.567 (1872): 6.

Freight Rates from New South Wales to China, 1865-1874

Freight rates for coal shipments from Sydney and Newcastle to the ports of Hong Kong and Shanghai from May 1865 to March 1874¹

Notes:

1. The date is given in MM-DD

2. Where only one figure was provided, I have given that as both the low and high value.

3. Blank spaces mean that either no charter was completed in the month or that the charter rate was not given. Some of these were home charters or similar.

4. All values are in shillings per ton of coal shipped.

¹ Obtained from *Empire* newspaper's monthly "Freight Rates and Charters" column

Maar	Data		in s. / ton		
Year	Date	HKG(low)	HKG (high)	SHA (low)	SHA (high)
1865	05-20			23	3.
	06-21				
	09-21			28	2
	10-21			29	2
	11-21	23	23	29	3
	12-21	22.5	22.5	28	3
1866	01-20	21	21	31	3
	02-19	21	21	30	3
	03-21	21	22.5	30	3
	04-21	22.5	24	32	3
	05-23	21	24.6	30	3
	06-23			30	3
	07-23			30	3
	08.23	22	22.5	33	33.
	08.23	22	22.5	30	33.
		22	22		
	10-23	23	23	28.5	28.
	11-23	•	•	22.5	22.
	12-23	20	20	30	3
1867	01-23			30	3
	02-21	20	20		
	03-23			32	3
	04-23	23	23	35	3
	05-23	23	23	35	35.2
	06-23	23	23	36	3
	07-23	23	23	40	4
	08-23			40.5	4
	09-23	25	25	42	4
	10-23				
	11-23				
	12-23	28	28	45	Z
1868	02-01	33	33	46	4
	02-29	25	30	42	4
	03-27	25	25	42	Z
	04-22	32	32	12	
	05-20	52	52	42	4
	06-17	32	32	45	48
		34	34	45	
	07-15				47
	08-12	29	36	44	4
	09-09	31	32	42	4
	10-09			38	4
	11-06			35	3
	12-04				
1869	01-29				
	02-26	15	20	28	2

Table 1. From	Sydney to	Hong Kong	(HKG) and	Shanghai (SHA)
	5 5	0 0		\mathcal{L}

				in s. / ton		
	Year	Date	HKG(low)	HKG (high)	SHA (low)	SHA (high)
_		04-21			26	26
		05-19	15	17	25	25
		06-16	15	15		
		07-14	10	10	20	20
		08-11				
		09-08	15	15		
		10-08				
		11-05			18	18
		12-03	10	12		
		12-31				
	1870	01-28	11	11		
		02-25	10	10	20	21
		03-25	9	10		
		05-18	11	11	20	20
		06-15	11	12	21	21
		07-13	12	12	20	20
		08-10			15.5	15.5
		09-07				
		10-07				
		11-04	16	16	21	21
		12-02	17	17		
		12-30				
	1871	01-27	20	23.5	27	32
		02-24			32	32.5
		03-24	23	23.5		
		04-19	24.5	24.5		
		06-14			32	32
		07-12	26	28	30	31
		08-09			30.5	30.5
		09-06	24.5	25	31	33.5
		10-06	24.25	27	35	40
		11-03				
		12-01				
		12-29	34	35		
	1872	02-26			42	44
		04-20	39	39	42	43
		05-18				
		06-18			42	42
		07-13			42	42
		08-10			40	43
		09-07	39	40	40	45
		10-07	38	38	38	44
		11-04			34	34
		12-02	37.5	37.5	43.5	43.5
		12-30			42	42
	1873	02-24			43	44

			in s. / ton		
Year	Date	HKG(low)	HKG (high)	SHA (low)	SHA (high)
	04-19			40	40
	05-17			36	40
	06-14			33.5	33.5
	07-12	30	30	35	35
	08-09	30	30	31	35
	09-06	20	20	30	30
	10-06			32	32
	11-03	24	24	32	33
	12-01	30	30		
	12-29				
1874	02-14	25	25		
	03-14			30	30

14010 2. 110111	in			in s. / ton		
Year	Date	HKG(low)		SHA (low)	SHA (high)	
1865	05-20			•••••	•••••••••••••••••••••••••••••••••••••••	
	06-21					
	09-21					
	10-21					
	11-21					
	12-21					
1866	01-20					
	02-19	22.5	22.5	34	34	
	03-21					
	04-21					
	05-23	24.5	24.5			
	06-23			33	34	
	07-23					
	08.23	25	26.5			
	09-22					
	10-23	24	24			
	11-23					
	12-23			32	32	
1867	01-23	25	25			
	02-21			34	34	
	03-23					
	04-23			37	37	
	05-23	30	30	39	39	
	06-23	28	28	42	43	
	07-23	30	31	45	45	
	08-23	33	33	44	47	
	09-23			47	47	
	10-23	30	30	48	48	
	11-23	35	35	50	50	
1000	12-23	35	35	50	50	
1868	02-01	20	26 г	50	50	
	02-29	30	36.5	47	47	
	03-27	36	36	47	47	
	04-22	36 36	36	16	47	
	05-20		37	46 48	47	
	06-17 07-15	36.5 37	37	48 49	49 50	
	07-15 08-12	37	37 37.5	49 49	50 50	
	08-12	37	37.5	49 49	49	
	09-09 10-09	30 30	36	45	45	
	11-06	20	20	40	42	
	11-00	20	20	40	42	
1869	01-29	23	23	37	38	
1005	02-26	25	23	34	35	
	03-26	20	20	34	34	
		20	20	57	5.	

Table 2. From Newcastle to Hong Kong (HKG) and Shanghai (SHA)

	. .		in s. / ton		
Year	Date	HKG(low)	HKG (high)	SHA (low)	SHA (high)
	04-21	17.5	20	32	37.5
	05-19	20	22.5	22	
	06-16	23	23	32	40
	07-14	21	25	31	31
	08-11			24	24
	09-08			10	10
	10-08	475	10	18	19
	11-05	17.5	19		
	12-03				
4070	12-31	10	10	22	25
1870	01-28	18	18	23	25
	02-25	15	15	4 5	245
	03-25	17	17.5	15	24.5
	04-20	16	17	24	24
	05-18	16	16	24	24
	06-15	16	16.5	22	25
	07-13	16	16	24	24
	08-10	17.5	18	23	23
	09-07	20	20		
	10-07	21	21		
	11-04	20	20		
	12-02	20	20		
_	12-30	20	26	29	29
1871	01-27	23	23	25	25
	02-24	25	28		
	03-24	27.5	28	36	36
	04-19	24.5	24.5	36	36
	06-14	28	28	34	34
	07-12	30	30		
	08-09				
	09-06				
	10-06	27.5	30		
	11-03	30	31		
	12-01	31	31	40	42.5
	12-29	37.5	37.5		
1872	02-26	36	40	46	47
	04-20	37	42		
	05-18	40	44		
	06-18	42	44.5		
	07-13	39	44	45	47.5
	08-10	40	44	45	47.5
	09-07	38.5	40		
	10-07	35	40		
	11-04				
	12-02				
	12-30	30	40		

			in s. / ton		
Year	Date	HKG(low)	HKG (high)	SHA (low)	SHA (high)
1873	02-24	30	37		
	04-19	40	44	44	44
	05-17	41	44		
	06-14	34	34	38	39
	07-12	30	32.5	38	39
	08-09	30	37	40	45
	09-06				
	10-06	27	27	30	30
	11-03				
	12-01	30	30		
	12-29				
1874	02-14	25	25		
	03-14				

Shipping from Western Australia to China, 1845-1880

List of vessels departing from Western Australian ports with sandalwood from 1845 to 1880.¹ The data below is a summary of the shipping data as obtained from the shipping lists in the various Western Australian newspapers and other relevant sources. The list is in variance to that provided in the *Blue Books* of Western Australia. A complete list of all vessels departing from Western Australia with sandalwood is available from the author. There were no shipments of sandalwood made from Western Australia in either 1854 or 1855. Shipments made from Fremantle to Champion Bay (Geraldton, Western Australia), then continued to another port that is unknown. Shipments made to Guam were sent to other ports, some of which have been provided in the footnotes below. Ship's captains stated Guam to the Customs to hide where their vessel was heading.

Year	Port	No. of
		vessels
1845	Calcutta	1
	Singapore	2
1846	Colombo	1
	Hong Kong	1
	Singapore	3
1847	China	1
	Hong Kong	2
	Singapore	4
1848	Batavia	1
	Hong Kong	2
	Lombok	1
	Madras	1
	Mauritius	1
	Singapore	12
1849	Adelaide	1
	Batavia	2
	China	1
	Shanghai	1
Year	Port	No. of

¹ Obtained from Western Australian newspapers, *Australasian Shipping News* and the correspondence from the Jardine Matheson & Co. Archives, Cambridge, UK.

		vessels
	Singapore	6
1850	Batavia	2
	Canton	1
	Singapore	2
1851	Calcutta	1
	Singapore	7
1852	Mauritius	1
	Singapore	1
1853	01	
1854		
1855	Singapore	1
1856	Singapore	5
1857	Batavia	1
	Singapore	5
1858	Singapore	9
1859	London	1
	Singapore	7
1860	Champion Bay	1
	Singapore	8
1861	Batavia	1
1001	Hong Kong	1
	Madras	1
	Singapore	7
	Sydney	2
1862	Calcutta	- 1
1002	China	1
	Hong Kong	1
	Shanghai	2
	Singapore	8
	Sydney	2
1863	Hong Kong	8 2 2
	Shanghai	3
	Singapore	10
	Sydney	1
1864	Batavia	1
	Calcutta	2
	Champion Bay	1
	Hong Kong	5
	Madras	1
	Singapore	6
1865	Batavia	3
	Madras	3 2 3 5 3 1
	Shanghai	3
	Singapore	5
1866	Batavia	3
	Bombay	1
	China	1
	London	2
	Melbourne	1
	Shanghai	2
Year	Port	No. of

		vessels
	Singapore	9
	Sydney	1
1867	Batavia	1
	China	1
	London	1
	Madras	2
	Melbourne	1
	Shanghai	2
	Singapore	4
	Sydney	2
1868	Batavia	1
1000	Hong Kong	2
	London	23
		5 1
	Shanghai	
	Singapore	7
10.00	Sydney	1
1869	Adelaide	1
	Bombay	3
	Guam	1
	Hong Kong	1
	Mauritius	1
	Shanghai	9
	Singapore	7
1870	Bombay	1
	Calcutta	2
	Hong Kong	2 2
	London	3
	Melbourne	1
	Shanghai	4
	Singapore	16
1871	Batavia	3
10/1	Calcutta	3
	China	1
	Guam ²	2
	London	1
	Madras	1
	Shanghai	2
1053	Singapore	10
1872	Batavia	1
	Calcutta	1
	Guam	1
	London	2
	Shanghai	3
	Singapore	18
1873	Calcutta	1
	Guam ³	1
	London	1
Year	Port	No. of

² One vessel went to Shanghai. ³ Went to Shanghai.

		vessels
	Shanghai	7
	Singapore	17
1874	London	3
	Shanghai	10
	Singapore	14
1875	Batavia	2
	Guam ⁴	1
	London	1
	Shanghai	7
	Singapore	19
1876	Guam ⁵	1
	London	2
	Shanghai	10
	Singapore	12
1877	Batavia	1
	Calcutta	1
	Hong Kong	3
	London	1
	Shanghai	4
1050	Singapore	10
1878	Calcutta	2 5
	Hong Kong	5
	London	1
	Shanghai	7
1050	Singapore	5
1879	Calcutta	1
	Hong Kong	4
	Shanghai	7 9
1880	Singapore Guam ⁶	9
1990		3 4
	Hong Kong	4 7
	Shanghai	14
	Singapore	14

⁴ Went to Shanghai.
⁵ Went to Singapore.
⁶ All three vessels went to Singapore

Distribution of Sandalwood Exports to China by Month, 1860-1880.

Number of vessels departing Western Australian ports for ports in China for each month of 1860-1880.

Month	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
1860												
1861							2					
1862		1		2	1					1		
1863					1	1				1	1	1
1864				1	1						1	1
1865				1				1			1	
1866					1			1				1
1867						1		2				
1868			1	1		1						
1869		1	4	1	2	1						1
1870		1	2	1	1	1						
1871					2	1						1
1872				1			1		1			1
1873			2	1	1		1	1				1
1874	3						3	1			2	1
1875			1		1	1	1	2	2			
1876	1		3	1	1		1	2			1	
1877	1		1	2	1					1		1
1878	1	1	1	1	1	2		1	1	2	1	
1879	1	1	2		1	1	1	1	1			1
1880	2	1	2	2	1	1		2				

List of Vessels involved in regular trade between Western Australian ports and Singapore or Batavia, 1860-1880.¹

Vessel	Years
Guyon	1860 - 1864
New Perseverance	1860 - 1866
Sea Ripple	1867 - 1878
Eliza Branche	1868 - 1876
Bungaree	1869 - 1876
Rose	1869 - 1875
Laughing Wave	1868 - 1879
Amur	1870 - 1876
Macquarie	1872 - 1876
Spinaway	1876 - 1878

¹ Information obtained from Western Australian newspapers.

Shipping from China to Western Australia, 1860-1880

Year	Vessel(s)	Owner (Agent)
1860		
1861	Laughing Water ²	(C. A. Manning)
1862	Kestrel ³	(T. & H. Carter)
1863	Sabrina ⁴	
1864		
1865		
1866	Bridgetown	Padbury & Co.
1867	Kestrel	T. & H. Carter
1868	Eliza Blanche	W. Owston
1869	Kestrel	T. & H. Carter
1870	Rose	(W. D. Moore)
1871	Laughing Wave	J. & W. Bateman
	Rose	(W. D. Moore)
1872	Laughing Wave	J. & W. Bateman
1873	Laughing Wave	J. & W. Bateman
1874	Laughing Wave	J. & W. Bateman
1875	Laughing Wave	J. & W. Bateman
1876	Spinaway	J. & W. Bateman
1877	Spinaway	J. & W. Bateman
1878		
1879	Mary Smith	W. S. G. Pearse & W. Owston
	Iris	J. & W. Bateman
1880	Janet	(W. D. Moore)
	Iris	J. & W. Bateman

List of Vessels Arriving In Fremantle from Chinese Ports, 1860 to 1880.¹

¹ Information obtained from Western Australian newspapers.

² The Laughing Water stopped in Fremantle to land 2000 bags of gram. and thence departed for Melbourne. ³ There is a strong assumption that the *Kestrel* was purchased by T. & H. Carter as it was used by that

company on numerous trips to Sydney and the Far East. ⁴ The *Sabrina* stopped in Fremantle solely to obtain water and provisions for its continuing journey to

Sydney.

Sandalwood Imports to Shanghai, 1870-1874

Letter from Jardine Matheson & Co., Shanghai to J. H. Monger Esq., dated 29 October 1874 (JM C46/17)

Dear Sir,

Replying to the remarks in your favour of the 28th July regarding the apparent disparity between our market for sandalwood and that of Singapore, considering that most of the sandalwood is brought up at that port for transhipment to China, we have you carefully into the matter and have as said at the conclusion that the wood can be bought in Singapore and HongKong by native dealers at a price which leaves a profit on the shipments thence to this market. This is borne out by the fact of large shipments constantly coming from the South (principally HongKong we doubt transhipments from Singapore) and likewise by the quotations in market reports from these two places. The total quantity of sandalwood imported to Shanghai this year to date has been

From	Australia	Piculs	43,156
دد	HongKong	دد	18,444
دد	Singapore	دد	2,327
دد	Amoy	دد	19
دد	Canton	"	163
دد	Bangkok	"	374
دد	Bombay	دد	202
		Piculs	66,685

The Singapore market report give the following quotations during the distant months viz:

January 1874	\$3.70	a	\$3.85
May "	\$3.90	ā	\$3.95
August "	\$3.50	a	\$3.80
October "	\$3.35	a	\$3.40

while the prices in HongKong during the last six months have ranged from \$4.35 @ \$5.70. The latest Singapore quotations in our possession is \$3.35 @ \$3.40 which would show a profit on shipment to HongKong to sell at \$3.70 @ \$4.00.

This would lay down in Shanghai @ Taels 3.40, and admitting a slight inferiority in the wood would show a fair profit to native merchants.

		tions of Sa				
Piculs	1870	<u>1871</u>	<u>1872</u>	1873	1874	to 28 th October
		35.523				
	of the at	ove was a	received t	from Hon	<u>gKong</u>	
	8.380	14.451	30.471	29.706	18.444	
	<u>f</u>	rom Sing	apore			
		650	5.749		2.327	,

In view of the above statistics it becomes a question for your consideration whether it would not be more to your advantage to ship more wood here direct and accept a lower price for it as it is very evident when values reach \Im 3.75 and upwards

here, the wood from the south can compete with it on favourable terms. The price you receive for your wood at Singapore, we cannot make to be at the most more than \$3.80.

With reference to the wood we have stated above as coming from HongKong to our port we cannot be certain that it is at all Australian wood, but we presume it is as the value of sandalwood from India and other eastern countries is a value far higher than this is sold for.

In reply to our enquiries at various outports in China as to importations of sandalwood, we have not yet received sufficient advices to enable us to give you a reliable report.

We are &c.

Letter from Jardine Matheson & Co., Shanghai to J. H. Monger Esq., dated 26 November 1874 (JM C46/18)

Dear Sir,

. . .

. . .

We may mention that since we last addressed you 2,653 piculs of sandalwood have arrived from HongKong.

We remain &c.

London Banks and Firms connected to Australian Firms

- Asiatic and America Co. Charles F. Stokes & Co. (Newcastle)
- Bank of Australasia Brown & Co. (Sydney) J. Henty & Co. (Melbourne)
- Bank of South Australia T. & H. Carter & Co. (Fremantle)

Brown & Co. Brown & Co. (Sydney)

Dalgety Du Cruz & Co. Messr W. E. Marmion Esq. (Fremantle) Messr J. H. Monger Esq. (York)

F. Parbury & Co. Parbury Brothers (Melbourne)

Henry Willis & Lloyd Willis Lloyd & Co (Sydney)

- J. McDonald & Co J. & W. Bateman and Co. (Perth) G. Glyde & Son (Perth) Padbury Loton & Co. (Perth) Messr H. Saw Esq. (Perth) Messrs Scott & Gale (Geraldton)
- John Lacey Esq. T. & H. Carter & Co. (Fremantle)

Manning & Co. Messr G. Shenton Esq.

- Oriental Banking Corporation Messr H. Moore Esq. (Sydney)
- Redfern Alexander & Co. Messrs Macfarlane Bros. & Co. (Hobart Town) Henty Learnmonth & Co. (Portland, Vic)
- William Felgate & Co. Messr G. Shenton Esq.

Seasonal exports of tea from Chinese ports to Australia for the tea export seasons of 1861/62-1875/76.

Season	Tea Shipped	Note
1861/62	9,266,220	1
1862/63	7,932,560	1
1863/64	9,351,065	1
1864/65	10,091,338	1
1865/66	10,341,654	2
1866/67	10,595,614	3
1867/68	11,807,000	4
1868/69	16,115,507	5
1869/70	12,970,807	6
1870/71	11,359,408	7
1871/72	11,679,912	8
1872/73	15,403,987	9
1873/74	13,655,445	10
1874/75	13,582,961	11
1875/76	14,374,226	12

Notes:¹

11 June 1865: 3.
 11 June 1866: 3.
 11 June 1867: 3.
 11 June 1868: 3.
 11 June 1869: 3.
 8 June 1870: 3.
 8 June 1871: 3.
 7 June 1872: 3.
 6 June 1873: 3.
 10. 5 June 1874: 3.
 11. 4 June 1875: 3.
 2 June 1876: 2.

Robert Gardella, using a UK source provides quite different figures for the export of tea from Fuzhou alone to Australia.² Gardella shows the following:

¹ Prices Current AH P945 Cartons 31-33.

² Gardella, Robert. *Harvesting Mountains: Fujian and the China Tea Trade, 1757-1937.* Berkeley, CA: University of California Press, 1994: 61. Gardella uses the source: Great Britain, Parliament. *Sessional Papers, House of Commons*, vol. 68 (1867), pp. 648, 654.

	Tea Shipped
1861/62	8.904,944
1862/63	2,352,405
1863/64	8,037,750
1864/65	9,127,246
1865/66	9,735,272

Gardella's figures illustrate the common discrepancies between figures that hampers the ability of historians to attain any correct analysis of the data when dealing with imports to and exports from China. Further, Gardella does not state specifically, though there is an assumption that he uses seasons instead of calendar years. The most distressing item is that for the 1862/63 season where more than $5\frac{1}{2}$ million pounds of tea appears unaccounted for. The House of Commons papers would have been provided by the Customs agents in the various ports while the amounts presented in the Prices Current circulars would have been those provided by the merchants themselves, primarily for insurance purposes.

Australian Imports from China and Exports to China, including Tea Imports separately, 1860-1880.¹

|--|

Year	All imports	All exports	Tea imports	Differential
1860	439172	0	395228	439172
1861	298075	112519	278578	185556
1862	449715	66245	363946	383470
1863	346887	101640	310098	245247
1864	169114	102923	152806	66191
1865	408173	109232	383292	298941
1866	432924	117455	425606	315469
1867	235900	93356	231533	142544
1868	437753	101570	410269	336183
1869	458660	92124	401875	366536
1870	324220	69372	247462	254848
1871	407600	100412	312360	307188
1872	391836	143462	277160	248374
1873	498831	181541	313807	317290
1874	451076	219694	315710	231382
1875	443929	207328	319794	236601
1876	442016	170087	301018	271929
1877	551513	204893	347476	346620
1878	490153	179914	302483	310239
1879	558175	147315	422261	410860
1880	586582	152421	412972	434161

¹ Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. (Parts VII to XVII)

B. Victoria

Year	All imports	All exports	Tea imports	Differential
1860	619493	418442	457178	201051
1861	887224	343685	576106	543539
1862	888946	329777	517846	559169
1863	501324	282447	344086	218877
1864	633041	183347	409441	449694
1865	468820	138672	410019	330148
1866	490492	68731	417782	421761
1867	515581	101481	453273	414100
1868	777411	80002	595240	697409
1869	562496	90729	481084	471767
1870	563011	54023	483412	508988
1871	599056	39583	476816	559473
1872	597918	28439	465530	569479
1873	893815	30519	728508	863296
1874	557125	24286	459538	532839
1875	839239	18567	734174	820672
1876	639676	5094	565546	634582
1877	595393	4947	491855	590446
1878	542863	352	428413	542511
1879	510146	932	384203	509214
1880	586341	1348	476994	584993

C. South Australia

Year	All imports	All exports	Tea imports	Differential
1860	40104	0	38004	40104
1861	72948	0	66408	72948
1862	101726	2755	82073	98971
1863	45984	0	45207	45984
1864	76804	10450	76598	66354
1865	54049	185	53036	53864
1866	26576	3500	26547	23076
1867	56650	2602	55641	54048
1868	67334	0	67331	67334
1869	89846	790	89498	89056
1870	41404	0	41404	41404
1871	57331	0	47830	57331
1872	53855	470	53788	53385
1873	90014	354	87094	89660
1874	114511	15	113572	114496
1875	111312	49	108196	111263
1876	111820	0	108954	111820
1877	70622	24	69926	70598
1878	113176	0	110538	113176
1879	87003	4506	85287	82497
1880	49413	818	48086	48595

D. Western Australia

Year	All imports	All exports	Tea imports	Differential
1860	0	0	0	0
1861	2000	3551	0	-1551
1862	7424	10517	5000	-3093
1863	0	11417	0	-11417
1864	0	15551	0	-15551
1865	0	5245	0	-5245
1866	11148	8212	11077	2936
1867	0	8771	0	-8771
1868	14245	21348	13475	-7103
1869	13187	22842	11397	-9655
1870	11734	28757	11264	-17023
1871	6777	7234	6627	-457
1872	9499	7564	9348	1935
1873	12185	33309	12184	-21124
1874	11462	36134	11342	-24672
1875	13525	32537	13409	-19012
1876	12279	25166	12113	-12887
1877	15850	14909	15795	941
1878	74	29346	21	-29272
1879	21763	23222	21527	-1459
1880	10637	32331	10446	-21694

E. Tasmania

Year	All imports	All exports	Tea imports	Differential
1860	13464	0	13440	13464
1861	503	0	3	503
1862	10151	0	2500	10151
1863	0	0	0	0
1864	0	0	0	0
1865	0	0	0	0
1866	0	0	0	0
1867	6410	0	6410	6410
1868	3602	0	3602	3602
1869	4820	0	4600	4820
1870	0	0	0	0
1871	0	0	0	0
1872	0	0	0	0
1873	0	0	0	0
1874	0	0	0	0
1875	0	0	0	0
1876	0	0	0	0
1877	0	0	0	0
1878	0	0	0	0
1879	0	0	0	0
1880	0	0	0	0

F. Queensland

Year	All imports	All exports	Tea imports	Differential
1860	0	0	0	0
1861	0	450	0	-450
1862	3	0	0	3
1863	0	0	0	0
1864	0	0	0	0
1865	0	13	0	-13
1866	0	0	0	0
1867	0	0	0	0
1868	0	1	0	-1
1869	0	0	0	0
1870	0	0	0	0
1871	0	0	0	0
1872	0	0	0	0
1873	9928	0	0	9928
1874	34328	0	34011	34328
1875	79041	103605	38841	-24564
1876	82965	211500	42237	-128535
1877	101618	212852	35386	-111234
1878	72098	170626	31986	-98528
1879	85590	124443	20609	-38853
1880	128576	120493	54068	8083

G. All Colonies combined

Year	All imports	All exports	Tea imports	Differential
1860	1112233	418442	903850	693791
1861	1260750	460205	921095	800545
1862	1457965	409294	971365	1048671
1863	894195	395504	699391	498691
1864	878959	312271	638845	566688
1865	931042	253347	846347	677695
1866	961140	197898	881012	763242
1867	814541	206210	746857	608331
1868	1300345	202921	1089917	1097424
1869	1129009	206485	988454	922524
1870	940369	152152	783542	788217
1871	1070764	147229	843633	923535
1872	1053108	179935	805826	873173
1873	1504773	245723	1141593	1259050
1874	1168502	280129	934173	888373
1875	1487046	362086	1214414	1124960
1876	1288756	411847	1029868	876909
1877	1334996	437625	960438	897371
1878	1218364	380238	873441	838126
1879	1262677	300418	933887	962259
1880	1361549	307411	1002566	1054138

Notes:

1. The Western Australia data for tea from China is an estimate. The data in both the Statistical Tables and the Blue Books only provide the amount of tea in lbs. and the total value for all tea imported. Thus, using the formula:

<u>China tea import</u> x Total Value All tea Imported

the approximate value of the tea imported from China has been calculated.

2. From 1867 to 1875 (Parts XIII to XV) the *Statistical Tables* contain no individual import data for Victoria. This was obtained from the *Statistics for the Colony of Victoria for the Year* 1867 – 1875.

3. For 1864-65 (Part XI) the *Statistical Tables* include Hong Kong into the grouping "Other British Possessions" for the New South Wales data. The correct data was obtained from the *Statistical Register of New South Wales for the Year* 1864 – 1865.

4. For 1863 (Part X) the *Statistical Tables* do not include correct data for South Australia. The correct data was obtained from *Statistical Register of South Australia for* 1863.

5. From 1876 the *Statistical Tables* include a separate country for Formosa. I have included this as part of China.

Example of Invoice for tea from China

Invoice from Jardine Matheson & Co. to James Henty & Co. for 7875 packages tea per *Thomas Brown*, dated 13 July 1871.¹

24 N 200 213 416 41 56 704 00 3 CLULL 26 1 0 600 000 SACOT 600 68.54 150.82 52. 26 52 10 00. 03.50 26-75.00 20 59.6 14 6.0 2× 24 22 22 00 10 5 3726 2701 2041 2405 3280 2640 0/0 1084 22 18 1000 002' 60 20 2074 0 0

¹ Invoice for 7875 packages of tea per *Thomas Brown* for James Henty & Co., JMA A6/21.

100 200 200 000 200 200 200 000 204 204 20 204 204 20 100 / 50 / 60 200 200 315 100 200 200 28 \$18 99 363 600 283 G/Y 500 150 250 100 850 50 1815 Jackages Doyes de Or Sala Bours Clusto Jacko. Chesto Jacka. Boyles Jucks. 44 14 72007200 when to be gr. Cong her ane for Cher Char So lecong any ton ton Hover Fred 14258 alun huma Chine ang Church herry Hing Churry 111 93 Thorest Freed 30 ... hat had a to parter prevarte 6 2259. JA 70.12 13.50 108.91 39.11 L+ LL 41.40 \$5.08 75 00 0 420 L. Huille \$ 1269282 107 6 30 21/ 32% (3) the ch 231 211 20 282002/0 00 86620 2298 -2861 72 2808 82 105597 1332 28 2325 -1242 -438 75 1780 65 141010 - 573 -

65 5 Schars . Brocore" To Thelbourne \$ 2362.50 uno ha 472.50 5202 124 363.46 Brokerage Juspice 3 % 2180.78 Commisse 363.46 Fire Susurau 12.69 581530 chroffa u Forchow Curry. \$ 785.08 98.11. 88379 laro \$19392 Helix Tuno 8.39690 Acc 30600 C.J.O \$49000 c uce ou 42146

Notes:

1. The header details the general information about the shipment. Of importance is that the account and risk is through a joint account (J/A) with the shipper (JM&Co.).

2. On the top of the left margin is a pictogram. Each merchant firm had a pictogram allocated to it, normally with the initials of the company included. These pictograms also, sometimes included added information to assist with defining the ownership of the consignment. Here the pictogram includes the letters JH Co. for James Henty & Co.

3. The remainder of the left margin included the numbers of each parcel of tea. Generally, the tea would come from a single batch as provided by the Chinese merchant. However, sometimes there were a number of different batches and as in this example, a few of the lots were spread over up to four sources of tea. There is no evidence that the individual packages were labelled with the number as shown in the left margin, but that may have also been the case. Certainly, it was not uncommon for Australian merchants to state that they preferred packages from numbers X and Y of the shipment from a certain vessel. A minor note here that, in correspondence, the vessels name is used to differentiate shipments. If there are more than two sources of the tea from that merchant the amount of packages for each type are included as the lower side of what appears a fraction.

4. In the main section of the Invoice are six columns. The first is the number of packages from that tea merchant. The second is the type of package. These may be packets, chests, ¹/₂ chests or boxes. The third column divulges the type of tea and here all packages are of the Congou type except for Numbers 33 and 34 which are for Scented Orange Pekoe. Next are the names of the various Chinese tea merchants. The second last column provides the weight of each package in piculs and the final column displays the selling cost in Taels per picul. The right side margin is, thus, the total in Taels for each purchase.

5. A summary of the complete order is provided at the end of the page with the total number of packages, piculs of tea and the cost in Taels. That value is then converted to dollars at a rate of 0.720 Taels per dollar. Thus, the total of \$52,338.90 became \$72,692.82. This amount was carried forward to the second page of the Invoice.

6. The second page contained the specific commission charges incurred by Jardine Matheson & Co. in processing the purchase. These were:

(a) Marking papers Rattanning shipping &c.

The marking papers are the labels for each of the packages. The Rattaning is the use of the rattan to bind the package – I would assume more common with chests and boxes than with packs. The shipping would take up the largest portion of the cost of the group of items. Considering that there was no other mention of the loading of tea on to the *Thomas Brown*, an assumption can be made that the loading cost was incorporated into the shipping cost.

(b) Godown rent.

The godown was a storage place. JM&Co.'s Fuzhou agent would have used the company's godown to house the tea prior to delivery to the *Thomas Brown*.

(c) Brokerage inspecting.

1860533129428801861928672424241862112136751904	41 32 66
	32 66
1862 1121367 51004	66
112130/ 31904	
1863 2073728 68815	•
1864 (4099383) {8.8 r	n}
1865 3444743 98750	32
1866 1400899 63728	94
1867 (769234) {4.39 r	n}
1868 (326229) {4.60 r	n}
1869 (260286) {4.99 r	n}
1870 417999 56904	00
1871 213220 27825	74
1872 308107 35737	78
1873 366473 26223	71
1874 174520 16488	07
1875 50376 20892	36
1876 28166 18363	81
1877 28028 14437	12
1878 21422 15789	27
1879 28937 14630	50
1880 8041 20503	93

India Gold imports from Australia, 1860-1880.¹

Notes:

1. All data is for year ending 31 March (for years up to 1865) and (30 April) for years thereafter.

2. The data for years ending 1860 to 1869 were obtained from the Statistical Tables.

The Statistical Tables relating to 1871 and thereafter do not include data for India.

¹ Statistical Tables relating to the Colonial and Other Possessions of the United Kingdom. (Parts VII to XIV); Statement of the Trade of British India (1869-70 thru 1879-80); G. Findlay Shirras. Indian Finance and Banking. London: Macmillan & Co, 1919: 452.

3. The data for years 1870 to 1880 were obtained from the various *Statement of the Trade for British India*.

4. The Australian data for years 1864 and 1867 to 1869 (those in brackets) are estimates, though relatively accurate. They resemble the total specie import from Australia made up of gold plus silver. Australia exported very little, if any silver throughout the period, perhaps up to £50,000 worth. Thus, these figures have remained as is for the graph in Figure 5.9. The total gold imported is not included here as the amount of silver imported was significantly more than gold and I am unable to separate these two for the years in question.

5. The Total gold import data for years 1864 and 1867 to 1869 (those in parentheses) are obtained from Table 8 of the book Indian Finance and Banking. The other data in the table only approximately matches that from the *Statistical Tables* and from the *Statement of the Trade* providing another example of the variance of figures presented through the numerous sources and returning to the question of which is correct.

6. It should be noted that in the early 1860s, Australia was a primary, if not the primary exporter of gold to India. China was the other primary exporter throughout most of the two decades.

7. It should be noted that throughout the period the figures provided here differ substantially from the export figures from the Australian Colonies to India. That would lead to the conclusion that a significant amount of the gold was sent via Ceylon and then either continued to India or transhipped to an Indian port. These vessels would have stated to the Customs officials in Australia that they were heading to Ceylon. The Peninsular and Orient vessels that carried the mail also commonly carried the gold to Ceylon and India. JM&Co.'s representatives in Australia all used P&O vessels to transport their gold to JS&Co. of Calcutta. Those vessels went to Galle, Ceylon and the gold would have been transhipped to Calcutta from there.

Sugar Imports from China and Hong Kong to Australia, 1860-1880.

Value of imports of sugar from Hong Kong and China to ports in Australia (£).

Year	Value (£)
1860	19032
1861	12424
1862	42642
1863	0
1864	0
1865	0
1866	0
1867	144
1868	1335
1869	14817
1870	34786
1871	67978
1872	122047
1873	175177
1874	50226
1875	86524
1876	12856
1877	99049
1878	85158
1879	304
1880	6097