

China's Debut at the Universal Exhibition in Vienna in 1873 and the Forgotten *Port Catalogues*

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Abstract

In 1870, China was invited to attend the Universal Exhibition in Vienna, to be held 1873. The responsibility for organising China's participation fell, eventually, into the hands of Robert Hart, Inspector General of Chinese Maritime Customs Service. Although this was China's first official participation in this type of international exhibitions, its history has received little attention. An important outcome from this experience was the production of *Port Catalogues of the Chinese Maritime Customs' Collection at the Austro-Hungarian Universal Exhibition, Vienna, 1873*. This volume, a collection of reports from fourteen treaty ports, has important scholarly value, and yet it has been generally ignored. In examining its creation in the context of broader colonial information networks, this article seeks to outline the significance of this publication, and the ways in which it illustrates the development and propagation of a knowledge base across a wide array of areas, from natural resource-driven manufacturing to economic botany.

Keywords: Chinese Maritime Customs Service, economic botany, Edward C. M. Bowra, Robert Hart, universal exhibition



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Introduction

One day in May 1873, Julius Rodenberg (1831-1914), a German Jewish writer, found himself standing in front of the tall gateway to the Chinese pavilion situated in the Prater, a large green space by the Danube in Vienna. In the profound gloom of an international stock market crash, later known in Europe as the Panic of 1873, and in defiance of an ongoing cholera outbreak, Rodenberg joined a total of 7.2 million people to attend the Austro-Hungarian Empire's first universal exhibition, the fifth international fair on this scale since the first was held in London in 1851.¹ The gateway of the Chinese pavilion was decorated in rich colours, unusual shapes and mysterious iconography. Struck by the scene in front of him, Rodenberg tried to record as much as he could: carved dragons, gold-painted posts, yellow silk hangings, flags, and red plaques with golden Chinese writing. He cast his gaze on a green icon containing two black dots, describing it as the "eye of the world".² This "eye of the world" was the Daoist symbol *yin* and *yang*. The Chinese characters Rodenberg saw consisted of the phrases: "The Great Qing" ([*Da Qing guo*] 大清國) and "Recruiting people with good skills from all corners, treating those from far away with kindness" (*lai bai gong ye rou yuan ren ye* 來百工也柔遠人也)³(see Figure 1).

If Rodenberg's description, while capturing the visual impact of the gate of the Chinese pavilion, nevertheless seems rather lacking in detail, this report from a correspondent of *The London and China Telegraph* certainly makes up for it:

The entrance to the Chinese Court, which runs at a right angle to one of the great central radii from the Rotunda, is, characteristically enough, denoted by a gigantic Chinese gateway, with a central gate and a smaller portal on either side of the square and solid type employed usually as memorial arches [...] Above the gate and beside its pillars is a handsome drapery of yellow cloth, festooned and looped in the centre, and surmounted by a green flag with the yellow cross, the familiar ensign of the Imperial Customs. Entering at the centre gate, the first objects that strike one's eye are two huge pyramids of magnificent copper enamels, flanked by handsome cases filled with silks, satins, and gauzes of every conceivable shade

¹ Julius Rodenberg, *Wiener Sommertage: Herausgegeben und mit einem Nach wort von Peter Payer* (Wien, Austria: Czernin Verlag, 2009), 344, 346. "In that early summer, cholera killed almost 3,000 people in Vienna."

² Rodenberg, *Wiener Sommertage: Herausgegeben und mit einem Nach wort von Peter Payer*, 75-76.

³ The citation is from *Zhongyong* ([Doctrine of the Mean] 中庸), one of the Four Books of Confucian philosophy.



Figure 1. “Eye of the world”: the gate of the Chinese pavilion in Vienna, Museum of Applied Arts, Vienna.

and hue, and patterns from the brightest and most brilliant scarlets, blues and greens, to the burnt umbers, the faded greens, and the burnt-brick sad coloured half tones which society and fashion now mostly affect and admire.⁴

The unnamed writer approved of the eye-catching effect created by the varying shades and patterns of those expensive silk fabrics, arranged and carefully displayed behind the gate to welcome visitors. Besides these, the author recognised the flag of the Chinese Maritime Customs Service (CMCS hereafter) erected on the top of the gate, something that demonstrated knowledge of Chinese affairs on the part of the writer. Indeed, the role of the CMCS has considerable significance with respect to China's participation in this exhibition, and this is the focus of this article.

⁴ From a Correspondent, “The Vienna Exhibition – The China Courts,” *The London and China Telegraph*, 21 August, 1873, 550.

More than thirty countries took part. Prominent Western countries, notably Britain, Germany, France, Belgium, Switzerland and Austria-Hungary, took up most of the exhibition space, while the sections devoted to Russia, Greece, Turkey, Egypt and Central Africa, Tunis, Persia, Romania, Siam, Japan and China were smaller. On a surface level, these universal exhibitions had a very public purpose in showcasing the technological, industrial, and cultural prowess of the host country and the other participating countries to the millions of visitors who attended.⁵ But behind the scenes, the main function of such events from their initiation in 1851 was to oil the wheels of international commerce. In order to persuade China and Japan to take part, a special effort was made by Heinrich Freiherr von Calice, the Austrian Minister at both Beijing and Edo.⁶ Although there had previously been some form of participation by Japanese and Chinese organisations and individuals, 1873 was the first exhibition officially attended by both countries.⁷

Japan made a committed and centralised effort to maximise the opportunity. With the invitation being received only two years after the coup d'état that brought about the Meiji Restoration, the Meiji government formally linked attendance with its Westernisation programme: Japan hoped to “leave Asia” and embrace the wider world through activities such as this.⁸ The government made specific budget provision to cover all kinds of expenditure, such as the collection of items for display, rental costs for halls and outside space for the creation of Japanese-style gardens, and for travel and shipping.⁹ The exhibition would not only provide a great platform to show off Japanese tradition, culture and industrial capability, but would also serve as a golden opportunity for learning more about Western arts and technologies. On the advice of Gottfried Wagener (1831-92), a German chemist who contributed greatly to the development of the Japanese glass and pottery industries

⁵ Jürgen Osterhammel, *The Transformation of the World: A Global History of the Nineteenth Century* (Princeton, NJ: Princeton University Press, 2014), 14-15.

⁶ “The Vienna Exhibition, The China and Japan Galleries-First Notice” Supplement to *The London and China Telegraph*, 12 May 1873. China had previously been invited to participate in the Universal Exhibition in London in 1851. The Qing government declined that invitation, and the reason given was somewhat cryptic: “Since the excellence of a product depends upon the individual talent and genius of its creator [...] it would be inappropriate for any government to attempt to persuade people to enter such a competition.” see Michael Leapman, *The World for a Shilling: How the Great Exhibition of 1851 Shaped a Nation* (London, UK: Headline Books, 2001), 84.

⁷ Songdi Wu, “A Historic Research into China's Participation in Early World Expos – Focusing on the Publication of Maritime Customs of Old China” (走向世界：中國參加早期世界博覽會的歷史研究——以中國舊海關出版物為中心), *Shilin*, no. 2 (2009): 42-51.

⁸ Olive Checkland, *Japan and Britain after 1859: Creating Cultural Bridges* (London, UK: Routledge, 2003), 27.

⁹ Heinrich Freiherr von Calice delivered the invitation in person on 20 March 1871. Yoshio Tanaka and Narinobu Hirayama, *Ōoku Hakurankai Sandōkiyō* ([The summary on participation in the Austria exhibition] 澳國博覽會參同紀要) (Tokyo, Japan: Moriyama Syunyo, 1897). For the date on which the invitation was received, 7-8; for related budget see Section One, Chapter 19 “Accounting,” 65-68.

during the Meiji period, Japan decided to place a particular focus on the beauty of its traditional arts, crafts and culture.¹⁰ The government invested significant funds, budgeted at 508,000 Yen, though expenditure eventually exceeded 600,000 Yen.¹¹ In preparation, an exhibition entitled the Yushima Seidō Exposition was held at Taiseiden Hall in Tokyo, prior to having the contents shipped abroad.¹² A 60-70 person delegation, including officials, translators, landscape gardeners, builders, tea and silk merchants, potters and six foreign advisers, was sent. Besides this official delegation, another group, mainly artisans and technicians, was also sent to observe the industrial displays of other countries and to study craft techniques in Austria.¹³ One long-term impact of Japanese participation was that their craft industry used the opportunity to build what would become lasting relationships within Europe. Japan also steadily built up the knowledge required to create their own domestic exhibitions, which they would later hold (on a somewhat different scale) in their homeland as well as in colonial possessions such as Taiwan.

In stark contrast to Japan, the Qing government's approach towards the 1873 Universal Exhibition was one of relative indifference. In consequence, the model developed for this first participation, with organisation left in the hands of the CMCS, persisted for more than three decades. A substantial body of scholarship has examined the history of international exhibitions in the late Qing period. While some scholars have paid close attention to art and visual display, in order to draw out the difference between Chinese and Western tastes,¹⁴ many have stressed the role played

¹⁰ Moyra Clare Pollard, *Master Potter of Meiji Japan: Makuzu Kōzan (1842-1916) and his Workshop* (Oxford, UK: Oxford University Press, 2002), 24; Checkland, *Japan and Britain After 1859*, 18.

¹¹ Checkland, *Japan and Britain After 1859*, 17. For actual spending details see *Ōkoku Hakurankai Sandōkiyō*, "Accounting," 68.

¹² Tomoyuki Nishikawa, "Wīn no japonisumu (Zenpen) 1873 nen wīn bankoku hakurankai" ([Japonism in Vienna (part one) Vienna World Exposition 1873)] ウィーンのジャポニスム (前編) 1873年ウィーン万国博覧会, in *Gengo bunka ronshu* [Studies in languages and cultures] 27, no. 2 (2006): 181.

¹³ *Ōkoku Hakurankai Sandōkiyō*, 1-10; see Section Three of the publication for further details on learning craft techniques in Austria. The government also published (Report on the Austrian World Exhibition [*Ōkoku hakurankai hōkokusho*] 澳國博覽會報告書) in 1875. This publication has multiple sections, presenting findings on parliamentary systems, education, railways, museums, military provision, transportation, trade, silk and other textiles, agriculture, customs, legal systems and so on. Many of the case studies were based on travel within the Austro-Hungarian Empire, as well as to France, Britain and Germany. See also Shaoli Lü, *Exhibiting Taiwan: Power, Space and Image Representation of Japanese Colonial Rule* (展示臺灣：權力、空間與殖民統治的形象表述) (Taipei, Taiwan: Maitian Chubanshe, 2005), 78-81.

¹⁴ Jennifer Pitman, "China's Presence at the Centennial Exhibition, Philadelphia, 1876," *Studies in the Decorative Arts* 10, no. 1 (2002): 35-73. Cheng-hua Wang, "Representing China: A Study of Late Qing Participation in the St. Louis Exposition of 1904" (呈現「中國」：晚清參與1904年美國聖路易萬國博覽會之研究), in *zhong you Hua: Jindai Zhongguo de Shijue Biaoshu yu Wenhua Goutu*, ed. Max Ko-wu Huang (Taipei, Taiwan: Zhongyang yanjiuyuan Jindaishi yanjiusuo, 2003), 421-475.

by the CMCS in exhibitions in the period. Among those who examined the role of CMCS in the world exhibitions, some have been positive towards the contributions made by this organisation, others have expressed a view that the displays organised by the CMCS either ignored the interests of Chinese merchants or damaged China's image.¹⁵ The latter view, prevalent in the early years of the twentieth century, was associated with a growing desire in certain quarters at the time for delegations and exhibition materials to be organised and controlled by native Chinese, reflecting the rise of nationalism.¹⁶ On the whole, very little attention has previously been given to the 1873 exhibition, and while the port catalogues prepared by the CMCS for presentation in Vienna have also had little attention paid to them.¹⁷

Building on this existing scholarship, this article seeks to explore different aspects and reaches somewhat different conclusions. Since the methods and model set up by the CMCS in attending the Vienna Exhibition were to become the template for participation in future exhibitions, it is necessary to examine how this was organised, especially in the absence of an allocated budget from the central government. The article will explore this aspect by using under-studied materials, notably the handwritten correspondence of the CMCS staff directly involved in organising the collections and attending the event. As noted above, another key source is the collection of port catalogues prepared for the exhibition.

Information collected from fourteen treaty ports was compiled into a volume entitled *Port Catalogues of the Chinese Maritime Customs' Collection at the Austro-Hungarian Universal Exhibition, Vienna, 1873: to Illustrate the International Exchange of Products (Port Catalogues*

¹⁵ Qinghua Zhan, "Foreign Staff of Chinese Maritime Customs and the World Exhibitions in Late Qing Period" (晚清海關洋員與世界博覽會), in *Shanghai haiguan xueyuan xuebao*, no. 3 (2010): 78-87; Feng-Yuan Hsu, "The China's Image Presented in the Universal Exhibitions by the Chinese Maritime Customs Service in the Late Qing Period" (晚清海關在國際博覽會展示的中國形象), in *Quanjie shiye xia de Zhongguo waijiaoshi lun*, ed. Zhou Huimin (Taipei, Taiwan: Zhengda chubanshe, 2016), 1-22; Maocui Song, "Modern Chinese Maritime Customs Service and the Universal Exhibition in Vienna" (近代中國海關與維也納世界博覽會), *Gui hai lun cong*, Supplementary issue (2004): 133-134.

¹⁶ Feng-Yuan Hsu, "The Decline of the Power of the Chinese Maritime Customs Service: A Case Study of 1905 Liège Exposition" (從1905年黎業斯博覽會考察中國海關權力的轉移), *Jindai Zhongguo*, no. 163 (2005): 132-157; Hyungju Hur, "Staging Modern Statehood: World Exhibitions and the Rhetoric of Publishing in Late Qing China, 1851-1910," 5-7, 2012, *IDEALS*, <http://hdl.handle.net/2142/31036>; Hui-fen Shen, "Being Involved in the World: Chinese Maritime Customs and the 1873 Vienna World Fair" (走向世界——晚清中國海關與1873年維也納世界博覽會), *Fujian shifan daxue xuebao*, no. 4 (2004): 111.

¹⁷ Shen Hui-fen's article mentioned in footnote 16 did take note of *Port Catalogues of the Chinese Maritime Customs' Collection at the Austro-Hungarian Universal Exhibition, Vienna, 1873*, but by large, most scholarship has ignored this volume.

hereafter).¹⁸ In addition to this, a volume covering commodities passing through the fourteen treaty ports over a ten-year period was produced, entitled *Trade Statistics of the Chinese Treaty Ports for the Period 1863-1872: Compiled for the Austro-Hungarian Exhibition to Illustrate International Exchange of Products*. This volume was prepared by the Statistical Department of the CMCS and the work involved in its creation was extensive. This statistical volume provided the basic prototype for the CMCS's renowned Decennial Reports, published from 1882 onwards, which still hold enormous value for scholarship today. This article will not address the statistical volume further; rather, a key aim will be to offer an evaluation of the significance of the *Port Catalogues* in providing a rich seam of codified information on commodities and manufactured goods – multilingual and with detailed definitions – designed to accelerate China's trading position with the world. The article will examine the *Port Catalogues* from two aspects. The first will be to show the attempt made by the CMCS in promoting Chinese resources and potential market and trade information. The second will be to place the *Port Catalogues* in the context of broader colonial information networks, to view this volume in the tradition of the complexity of commercial guides, featuring the growth of a knowledge base across a wide array of areas from manufacturing to natural resource-driven topics such as economic botany.

Bridging the Gap: The Role of the CMCS

Before discussing the exhibition itself, it is necessary to present some context. Soon after the conclusion of the Second Opium War in 1860, an organisation called the Zongli Yamen was established. This ministry managed most of China's engagement in foreign-related matters throughout the rest of the nineteenth century until it was renamed *Waiwubu* in 1901, as part of several governmental changes that followed the Boxer Uprising.

Although the Zongli Yamen was set up to manage foreign affairs, the Qing court continued to resist adopting the trappings of a modern diplomatic system, such as the granting of access to foreign representatives or establishing embassies abroad. Peaceful relations continued to be difficult to achieve: the year 1870 saw the notorious Tianjin Massacre. Tensions between local Chinese and Western missionaries and other foreigners had built up after the Opium Wars and reached a peak in the Tianjin area during the summer. Churches were burnt and foreigners attacked, some killed.

¹⁸ The final printed version has an Index, which was drawn up by A. E. Hippisley. Hart to Edward C. Bowra, 14 May, 1874, "Sir Robert Hart Papers, 1865-1910," Houghton Library (Harvard University), MS Chinese 4.

The Qing government came under considerable pressure to engage in crisis control, with a focus on repairing relationships with European countries.

In his article on China's participation in world exhibitions from 1866 to 1911, Chao Yu-chih provided a highly-detailed tabulated list with accompanying analysis, incorporating details of eighty international fairs to which China was invited.¹⁹ In relation to the Vienna Exhibition, Chao wrote that the Qing Government's response to the Austrians' invitation was not only belated, but also rejected with excuses made.²⁰ This article takes a different view, and argues that given the backdrop of Tianjin Massacre, the Zongli Yamen responded rather promptly.

The invitation was issued on 21st October 1870 (Tongzhi reign 9th year, 9th month 27th day), and von Calice made two specific requests. First, he asked the Zongli Yamen to render support by informing the respective Superintendent-Ministers of Trade for the Northern Ports and Southern Ports (南北通商大臣) and the Superintendents of Customs (海關監督) about the fair, and request them to encourage Chinese merchants to take part. Secondly, he asked the Zongli Yamen to allow a tariff exemption for all goods shipped to the exhibition by individual merchants.²¹ This tariff exemption had been previously granted for merchants, either Chinese or foreign, who sent their collections to the 1867 Universal Exhibition in Paris.

Only five days after receiving this invitation, the Zongli Yamen replied to von Calice that the Yamen would carry out what had been requested.²² On the following day, 27th October 1870, the Zongli Yamen instructed the Superintendent-Ministers of Trade for the Northern Ports and Southern Ports to pass on this information to Chinese merchants, and encourage them to take part.²³ It should be noted that in his request, it is clear that von Calice did not specify formation of a centrally-controlled committee to organise China's participation, nor did he suggest that the Qing government

¹⁹ Yu-chih Chao, "China Jointed Great Exhibitions of All Nations During the Late Ch'ing Dynasty, 1866-1911" (躍上國際舞臺：清季中國參加萬國博覽會之研究 (1866-1911)), *National Taiwan University Historical Inquiry*, no. 25 (1997): 287-344.

²⁰ Chao, "China Jointed Great Exhibitions," 296.

²¹ Austro-Hungarian Empire to Zongli Yamen, "The Austro-Hungarian Empire Invited China to Participate in the Vienna Exhibition, and Requested Zongli Yamen to Inform the Superintendent-Ministers of Trade for the Northern Ports and Southern Ports" (奧國照請中國赴奧京各國各項物件公會請轉知南北通商大臣由), 21 October, 1870, Archives of Institute of Modern History, Academia Sinica, Taipei (AMH hereafter) 01-27-004-01-001.

²² Zongli Yamen to Austro-Hungarian Empire, "The Superintendent-Ministers of Trade for the Northern Ports and Southern Ports Have been Informed about the Universal Exhibition" (各國物件公會已行知南北洋大臣查照由), 26 October, 1870, AMH 01-27-004-01-002.

²³ Zongli Yamen to Kuiyu (魁玉) and Chenglin (成林), "The World Exhibiton to be Held by Austro-Hungarian Empire and Inform Merchants" (奧國設立各國物件公會請轉飭商民由), 27 October, 1870, AMH 01-27-004-01-003.

should take part officially by sending a delegation. It should be noted that objectively speaking, the Zongli Yamen's response was both timely and obliging, going along with all of the specific terms of von Calice's request.

Stanley F. Wright, a former employee of the CMCS who became its historian, wrote in *Hart and the Chinese Customs*, published in 1950: "[The] Vienna Exhibition may be taken as typical of all the international exhibitions in which China took part from 1867 to 1905."²⁴ This text has caused confusion, as it seems to suggest the CMCS had been actively involved in organising collections for the 1867 Universal Exhibition in Paris on the Qing government's behalf. In fact, all the Zongli Yamen did for the Paris exhibition was to agree to France's request for tariff exemption for all goods shipped to the exhibition by individual merchants.²⁵ This gesture was maintained by the Qing government in respect of all future overseas exhibitions.

The Zongli Yamen also kept Robert Hart (1835-1911), the Inspector General (IG) of the CMCS, in the loop regarding tariff exemptions for goods shipped for this purpose.²⁶ The CMCS was a Chinese organisation established in 1854, which had the job of collecting tariffs of trade at treaty ports. Its high-ranking officers were foreign, with the majority being British. Given its unique make-up, the CMCS worked very closely with the Zongli Yamen, and Hart's advice was often required. As time went on, until there were only six months left before the February 1873 deadline for shipping exhibits, it became clear that the Zongli Yamen's approach had not resulted in much progress, not least because the scale of organisation required for such an event went well beyond the experience of the local officials and individual merchants.²⁷ Von Calice was aware of this situation and was concerned. He now sought an intervention from the Zongli Yamen to apply pressure on officials, writing a long letter offering advice on how to organise collections and encourage merchants to

²⁴ Stanley F. Wright, *Hart and the Chinese Customs* (Belfast, Northern Ireland: WM. Mullan & Son Ltd., 1950), 401.

²⁵ Zongli Yamen to Inspector General of CMCS, "Permit issued by the Inspector General for the waiving of tariff charges for merchants shipping their goods to the Universal Exhibition in Paris, the Inspector General should inform the Superintendent-Ministers of Trade for the Northern Ports and Southern Ports" (法開聚珍會各商攜貨出口請予免稅應以美稅司執照為憑希轉飭照辦並令申報總稅司轉詳通商大臣由), 28 August, 1866, AMH 01-27-009-01-004. At this time Hart was back in Britain, and this IG Circular was issued by Acting IG G. H. Fitz-Roy, see IG Circular No.13 of 1866, 22 September 1866, *Inspector General's Circulars*, First Series, 1861-1875 (Shanghai, China: Statistical Department of the Inspectorate General, 1879), 99.

²⁶ Zongli Yamen to Hart, "On the Universal Exhibition of the Austro-Hungarian Empire" (奧設各國物件公會請查照由), 13 March, 1871, AMH 01-27-004-01-005.

²⁷ Hart designated Shanghai as the hub for collections of northern ports, and Hong Kong as the hub for the southern ports. The due day was 1 February 1873. IG Circular 4 of 1872, 3 August, 1872, *Inspector General's Circulars* (First Series), 389. Regarding the way Zongli Yamen involved see also Zongli Yamen to von Calice, "Informed merchants to actively take part in the Universal Exhibition" (公會事已咨行各省曉諭商民踴躍赴會由), 12 August, 1872, AMH 01-27-004-01-012.

take part. He also restated how much the Emperor of Austria-Hungary and the leaders of other Western countries would be pleased to have China's participation.²⁸ On reading this, Hart assumed responsibility for organising the collections, in order to save the Qing government from being embarrassed on the international stage or to prevent the Qing government from changing its mind and deciding not to attend after all.²⁹

Hart studied the basic principles and rules of the Exhibition's programme, and most of his instructions to his subordinates were aimed at shaping efforts to meet its expectations:

To show the international exchange of products, a representation of the commerce and trade of the world will be formed. For this purpose, samples and specimens of the articles of trade and commerce of all the important harbours and sea-ports are to be exhibited. On each sample will be marked its origin, its destination, its price and value, the quantity of import and export, &c.; along with these will be shown statistical and graphic tables, the movement of the navigation and commerce of each sea-port during the last ten years.³⁰

Hart decided to make an ambitious attempt to bring together just such a collection. His instruction stated that samples collected from each port were to be grouped into four categories:

A.— Specimens of Imports from Asiatic, and African ports, and from Australia and the South Pacific Islands;

B.— Specimens of Native Produce and Native Manufactures exported, (i.e. sent to other than

²⁸ Von Calice to Zongli Yamen, "Regarding requesting China to continue to support the Universal Exhibition at Vienna and enclose exhibition programme" (奧京各國公會之事仍請相助並封送公會章程由), 28 July, 1872, AMH 01-27-004-01-006; see also von Calice to Zongli Yamen, "Ask China to send people to participate in the Universal Exhibition, enclosed lists of native products of Chinese provinces and six copies for the exhibition programme" (各國物品公會仍請中國派員前往並附中國各省貨單暨公會章程六本以便分行各處由), 2 August, 1872, AMH 01-27-004-01-008. Von Calice also provided a list of desirable items from some provinces. For example, Puer tea from Yunnan province, herbal medicine and musk from Sichuan province. Von Calice even issued a reminder that musk should be wrapped properly to prevent the scent from leaking.

²⁹ Hart wrote: "I do not know to what extent intending exhibitors have come forward, but I fear, that, on the Chinese side, apathy, and, on the foreign, the difficulty of doing everything considerable, will have severally tended to make a creditable display impossible. In order that China may not be wholly unrepresented on so interesting an occasion..." IG Circular 4 of 1872, 3 August, 1872, *Inspector General's Circulars* (First Series), 388.

³⁰ Article VII of "Universal Exhibition 1873 in Vienna. Programme," in *Port Catalogues of the Chinese Maritime Customs' Collection at the Austro-Hungarian Universal Exhibition, Vienna, 1873: to Illustrate the International Exchange of Products* (Shanghai, China: the Imperial Maritime Customs Press, 1873), x. (Hereafter *Port Catalogues*).

- Chinese ports);
- C.– Specimens of Native Produce shipped for Chinese ports;
- D.– Detached and Miscellaneous Specimens for Articles used in, or peculiar to the locality.³¹

Hart saw this as an opportunity to build physical collections, and issued instructions to ports to prepare three sets of items: one set for the Vienna Exhibition, one for the use of the Customs House at the treaty ports, and a third for a museum which he had in mind to set up in Beijing in connection with the Inspectorate General of CMCS. Hart assigned responsibilities for organising collections at each port to local Customs Commissioners and their Senior Examiners. The reward for the Examiners' efforts would be one to three months' pay.³²

Hart's intention to build a museum of commerce in China reflected a broader phenomenon of knowledge building within colonial information networks in the nineteenth century.³³ Within the orbit of such information networks, the CMCS played an important role. For example, some of its staff had collected flora for the Royal Botanic Gardens, Kew.³⁴ Although the museum ultimately failed to materialise, the collection exercise carried out by the CMCS for the Vienna Exhibition provided a golden opportunity for Customs staff to build their knowledge on Chinese native products across multiple categories, from minerals and manufactured goods to animals and plants. This is evident in the *Port Catalogues*, explored in the next section.

The fourteen treaty ports which took part in the exhibition were Canton, Shantou, Xiamen, Fuzhou, Danshui, Gaoxiong, Ningbo, Hankou, Zhenjiang, Jiujiang, Shanghai, Yantai, Tianjin and Niuzhuang. Customs Commissioners at these treaty ports were required to make the exhibition known to the general public, and encourage merchants, native and foreign, to participate. Edward C. M. Bowra (1841-1874), a Briton who was Acting Commissioner at Canton at the time, was appointed to the position of Commissioner for the Austro-Hungarian Universal Exhibition, with responsibility for overseeing preparations.³⁵ In her work on Bowra's contributions to this exhibition, Christina

³¹ IG Circular 5 of 1872, 23 September, 1872, *Inspector General's Circulars* (First Series), 391.

³² IG Circular 4 of 1872, 3 August, 1872, *Inspector General's Circulars* (First Series), 388-389.

³³ Li-Chuan Tai, "A British Museum in Early Nineteenth-Century Macau and Its Historical Significance: Natural History Information Network Flows among Britain, India, and China" (十九世紀初澳門不列顛博物館的歷史意義——兼論英、印、中自然史資訊流通網絡的運作), *Bulletin of the Institute of History and Philology* 91, no. 3 (September 2020): 519-577.

³⁴ Fa-Ti Fan, *British Naturalists in Qing China: Science, Empire and Cultural Encounter* (Cambridge, MA: Harvard University Press, 2004), 78-79.

³⁵ Hart to Zongli Yamen, "Appointed Bowra, the Customs Commissioner at Canton, to organise matters for the Vienna exhibition therefore an Acting Commissioner for the same port was appointed" (派粵海關稅司包臘赴各

Baird provided a detailed assessment of the collections of arts and luxury products presented. She particularly focused on the collections of Bowra, Archdeacon John Henry Gray, Henry Charles Joseph Kopsch (Customs Commissioner of Jiujiang port) and Hu *daotai*, who was the Circuit Intendant at Shanghai. Among the collections of these individuals, silk, lacquerware and porcelain received particularly close attention.³⁶ We will return to the content of these collections later in this article, while the intention for the moment is to illuminate how they were brought together in the face of various obstacles.

On being given the job, Bowra was detached from his regular position at Canton and spent four months touring the ports and supervising the assembly, packing and recording of the exhibits.³⁷ Bowra had joined the Service in 1863 at the age of 22 and had experience of diplomatic assignments, having accompanied the Binchun delegation to Europe in 1866, acting as a translator as well as Hart's eyes and ears during the trip.³⁸ Binchun (1804-1871) was a Manchu official appointed by the Qing administration to travel to Europe as part of an evaluation as to whether the government should take a more proactive approach in building relationships with the West. Hart had hoped that the visit would result in a reversal of policy, leading to the formal establishment of ambassadorial-level relations.³⁹ As part of the trip, the group visited the Art and Industrial Art Exhibition in Stockholm in 1866 (see Figure 2).

While Bowra was on his tour of inspection in the different treaty ports, he came across a significant problem in a widespread lack of interest in participation, across both foreign and Chinese merchants. This certainly explained why the Zongli Yamen's original approach – leaving the organisation in the hands of merchants and local officials – had not worked. In a meeting which was also attended by Charles Hannen, Customs Commissioner at Tianjin, he invited several foreign merchants whom he hoped he might persuade to participate. The group included two German merchants, one Danish auctioneer, a Superintendent of the Road Engine Company (nationality

口料理奧會事並札調格得立署粵海關稅司等由), 10 October, 1872, AMH 01-27-004-01-023.

³⁶ Christina Baird, "Chapter 4: Edward C. Bowra and the Chinese Submission," in *Showcase Britain: Britain at the Vienna World Exhibition 1873* (Bern, Switzerland: Peter Lang, 2016), 63-82.

³⁷ Bowra went through most of the fourteen treaty ports to gather collections, except the two in Taiwan. He also went to Hong Kong. For some parts of the tour he was accompanied by local Chinese officials. For example, on 16 December he was accompanied by Hu Tao-tai of Hangzhou to purchase some silk for the exhibition. See Cecil A. V. Bowra, "Memorials of the Bowra Family: Part II - Edward Charles MacIntosh Bowra, His Life in China and Elsewhere," unpublished and written in 1928, 25-26; "Bowra Papers," SOAS Library, Archives & Special Collections PPMS 69.

³⁸ "Career of E. C. Bowra," "Bowra Papers," SOAS Library, Archives & Special Collections PPMS 69.

³⁹ Jenny Huangfu Day, *Qing Travelers to the Far West: Diplomacy and the Information Order in Late Imperial China* (Cambridge, UK: Cambridge University Press, 2018), 31-33.



Figure 2. Binchun delegation at the Art and Industrial Art Exhibition in Stockholm, 1866, Binchun is seated at the centre. The person standing on the right in the photograph could possibly be Prince Oscar, later King Oscar II. Bowra is on the right. Image courtesy of Tita & Gerry Hayward and Special Collections, University of Bristol Library (www.hpcbristol.net).

unknown) and a British merchant. The mood was “apathetic”. Both Germans refused to offer any samples for the exhibition, and the representative from the Road Engine Company offered nothing but a “lengthy suggestion”. The British attendee was only willing to offer some sugar samples and straw braid.⁴⁰ The situation was no brighter in the local Chinese community, as Hannen wrote: “No native merchant has as yet either offered a specimen or a suggestion, neither have I been applied to for further information.”⁴¹

Friedrich Hirth, PhD, a Third Class Clerk who had been given the responsibility of assisting H. O. Brown, the Acting Deputy Customs Commissioner at Canton, on the matter of the exhibition, reported similar stories. Hirth, a German-American who had joined the CMCS at the age of 25 in 1870, demonstrated a clear commitment to his task. Not only did he report regularly on progress, elaborating at length on how he had arranged specimens, but he also compiled a comprehensive

⁴⁰ Hannen to Hart, 4 September, 1872, Second Historical Archives of China in Nanjing (SHAC hereafter) 679 (2) 1929.

⁴¹ Hannen to Hart, 4 September, 1872, Second Historical Archives of China in Nanjing (SHAC hereafter) 679 (2) 1929.

report for the *Port Catalogues*. As Zhan Qinghua has pointed out, a notable number of foreign employees of the CMCS had made significant contributions to the knowledge exchange between China and the West. Hirth was one of them.⁴² During his service in the CMCS, Hirth further pursued his Chinese studies and wrote a two-volume Chinese textbook for the internal use of the organisation. He left the Service in 1897 and joined Columbia University in 1905. He authored numerous books relating to Chinese culture and history.⁴³ In examining the *Port Catalogues*, the article will engage with his report further.

After talking to local merchants in Canton, Hirth noted:

Chinese merchants do not seem to be averse to presenting samples of a low value, to oblige the Customs, but they are scarcely willing to spend more than a trifle for the support of a generally useful international undertaking. I am afraid, therefore, that excepting the very small number of those presented by foreign houses, all objects of an intrinsic value will have to be purchased.⁴⁴

He went on to observe that, if the focus continued to be on soliciting contributions, the collecting process would drag on for a lengthy period, whereas with a complete list in hand it would take only a few days if acquired through purchase.

The purchasing approach was applied only to categories A, B and C; and, in the process, the problem of a budget shortfall was soon exposed.⁴⁵ For category D, the Customs had to find another way. In November 1872, besides reminding Bowra to keep within the budget, Hart wrote that the purpose of the Customs' collection was to illustrate the international exchange of products, and he thought A, B and C specimens were quite sufficient to meet this objective. The reason he wanted the D objects to go was simply to set off the tame look of the "statistical basis of life".⁴⁶ Hart clearly

⁴² Qinghua Zhan, *A Globalisational Perspective of Foreign Staffs in the Chinese Maritime Customs Service and Transcultural Communication between East and West, 1854-1950* (全球化視野：中國海關洋員與中西文化傳播，1854-1950年) (Beijing, China: Zhongguo Haiguan Chubanshe, 2008), Chapter 8.

⁴³ Friedrich Hirth, *Hsin-kuan wên-chien-lu: Text Book of Documentary Chinese, with a Vocabulary, for the Special Use of the Chinese Customs Service* (新關文件錄) (Shanghai, China: Statistical Department of the Inspectorate General of Customs, 1885).

⁴⁴ Report from Friedrich Hirth, enclosure no.1 in the dispatch no. 120 of 1872 from Brown to Hart, October 1872, SHAC 679 (2) 264.

⁴⁵ Given tight budgets, only one or two samples of some expensive articles were able to be purchased. Dispatch from H. O. Brown to Hart, 6 January, 1873. SHAC 679 (2) 264.

⁴⁶ Hart to Bowra, 23 November, 1872, "Sir Robert Hart Papers, 1865-1910," Houghton Library (Harvard University), MS Chinese 4.

saw category D as useful to soften the harder, more statistical approach represented by the other categories, and to add colour in order to meet the expectations of the exhibition-going public. But he was very reluctant to pay for this. Several days later, Hart brought this topic up again, writing:

As regards the Exhibition, you must remember that we are not attempting to make any “display”. It is a matter of no moment how “sorry” a figure we cut beside Japan. Ours is simply a contribution towards one of the really good ends of the Exhibition, viz. to illustrate the international exchange of commodities. To do this, classes A, B and C suffice; my main object in adding a class D was to make a place for such contributions as others might desire us to take charge of. It is a pity that the merchants do not attempt anything, but we cannot be expected to perform their share in such an undertaking.⁴⁷

Nevertheless, the matter still remained to be resolved. The Customs offered merchants free shipping to Europe, where items presented would be offered for sale. Unsold items would be returned to the owners in China, or if the owners wished, collections could be passed on to their agents in Europe for sale after the exhibition's close. To accommodate this change, category D was expanded to D, E and F, so the Customs Commissioners would know how to manage items after the end of the exhibition.⁴⁸ Both foreign and Chinese merchants responded to the offers. For example, there were 145 items categorised as “Object of fine arts, exhibited by armatures and owners of collections – Curios exhibited by Hoo Tao-tai [Hu *daotai*]”. These individual objects were for sale, with price labels attached. Merchants in Canton and Hong Kong also sent their silk, teas, lacquered furniture, porcelains, bronze, lanterns and other collectable items to be sold.⁴⁹

The Customs also sought assistance from local dignitaries and officials. For example, the large collection belonging to Archdeacon Gray, a friend of Bowra and his wife,⁵⁰ was entrusted to the Customs.⁵¹ Gray estimated the value of his collection at \$6,000, although the Customs insured

⁴⁷ Hart to Bowra, 5 December 1872, “Sir Robert Hart Papers, 1865-1910,” Houghton Library (Harvard University), MS Chinese 4.

⁴⁸ The newly added category E was for items to be sold on behalf of their owners in Europe or returned to them in China; while category F was for items to be surrendered to the owner's agent in Europe. IG Circular 13 of 1872, 17 December, 1872, *Inspector General's Circulars* (First Series), 425.

⁴⁹ “Catalogue of the Conton Collection,” *Port Catalogues*, 477, 478, 480.

⁵⁰ “My father records that he gave the Archdeacon the communion table for his new church, and my mother presented the altar-cloth.” See “Memorials of the Bowra Family: Part II,” 26, “Bowra Papers,” SOAS Library, Archives & Special Collections PPMS 69.

⁵¹ The collection of Archdeacon Gray included artefacts in bronze, porcelain, stoneware, pewter, marble, copper,

it for \$10,500. The collection was to be handed to an agent in Europe after the exhibition.⁵² The Viceroy of Guangdong and Guangxi lent eight complete uniforms and sixteen flags representing the eight Manchu armies. In order to display the ensemble at its best, Brown commissioned heads, arms and feet of papier-mâché.⁵³ The Customs in some ports also presented their own collections.⁵⁴ In Shantou, for example, models illustrating the manufacturing process of grasscloth, paper and sugar were assembled. Also from this port, a set of pewter teapots, food containers and lamps was sent, along with a set of lacquered furniture and four groups of clay figures representing theatrical scenes.⁵⁵ From their own in-house collections, Canton Customs decided to include some bamboo-related handicrafts and models of all walks of life.⁵⁶ Xiamen Customs curated a shrine of the Goddess Mazu to represent the importance of this divine figure for native people in the area. To properly reflect the significance of this figure in the religious practice of people in Xiamen and Fujian province, a section of elaborate text was provided in the catalogue.⁵⁷

Some collections came from the Customs Commissioners themselves. Kopsch, for example, provided his collection of rare porcelains, made as wedding presents for Emperor Tongzhi by the order of the Porcelain Superintendent in 1872.⁵⁸ Bowra himself was an enthusiastic collector, and he lent models of a triumphal arch and a grave to the Fuzhou Customs. Both items were made of soapstone.⁵⁹ His own collections made up a substantial part of the display for Canton port, with the contents to be passed on to an agent afterwards. His collections included porcelain, lacquered furniture, models of boats, wood-carved ornaments, coconut-shell ware and fans.⁶⁰

bamboo carvings, varied fine ornaments in sandalwood, ivory, mother of pearl, horns, soap stone, etc. Other items selected to represent Chinese culture in daily life included pen sets, inkstands, screens, a tobacco set, opium pipes, and jewellery. "Catalogue of the Conton Collection," *Port Catalogues*, 479.

⁵² John Henry Gray to Brown, 6 February 1873. This evaluation was for insurance purpose. This is Enclosure 2 of Brown to Hart, 31 March, 1873, where Brown mentioned the actual insured value. SHAC 679 (2) 264.

⁵³ Brown to Hart, Dispatch no. 6 in 1873, 6 January, 1873. SHAC 679 (2) 264.

⁵⁴ It was believed that the collections of the Customs at the Exhibitions would be presented to the National Museum at Vienna after the end of the event. "The Vienna Exhibition," *The London and China Telegraph*, 24 November, 1873, 781. By so doing, the exhibition itself promoted the concept of "mobility of the museum". For further details on "mobility of the museum" see Caroline Cornish, Felix Driver and Mark Nesbitt, "Chapter 4: Kew's Mobile Museum: Economic Botany in Circulation," *Mobile Museums: Collections in Circulation* (London, UK: UCL Press, 2021), 96-120.

⁵⁵ "Catalogue of the Swatow Collection," *Port Catalogues*, 418.

⁵⁶ "Catalogue of the Canton Collection," *Port Catalogues*, 476-477.

⁵⁷ The text was cited from Xiamen Customs Commissioner George Hughes, *Amoy and the Surrounding Districts* (Hong Kong, China: De Souza & Co., 1872), 62-63.

⁵⁸ "Catalogue of the Kiukiang Collection," *Port Catalogues*, 102. See also C. Baird's work mentioned above.

⁵⁹ "Catalogue of the Foochow Collection," *Port Catalogues*, 350. Assuming these were just models.

⁶⁰ "Catalogue of the Canton Collection," *Port Catalogues*, 480-482. Bowra's fan collection was rather spectacular,

It should be noted that, within the exhibition's Chinese pavilion, in addition to the items organised by the Customs, there was a sub-area holding collections arranged by Baron von Overbeck, the Austrian Consul at Hong Kong. The involvement of von Overbeck had been arranged by von Calice, and the collections were made up of items from Chinese merchants and other sources (see Figure 3). Instead of going through the Customs, von Overbeck used his Viennese agent to manage the collection.⁶¹



Figure 3. Von Overbeck collection at the Vienna Exhibition. The display was arranged by von Overbeck's assistant and agent (ÖNB/Wien 63.710-STE).

and was well arranged in the exhibition. A correspondent of *The London and China Telegraph* wrote this: "Passing on through the Court I came upon a trophy made of fans; ingeniously displayed in the shape of a peacock's tail, and including every variety of fan ever used or seen, I should imagine, in the Celestial Empire, from the Argus pheasant or ostrich feather monster down to the Formosan palm-leaf and the elaborately-carved ivory-bladed fans of Canton." See "The Vienna Exhibition," *The London and China Telegraph*, 21 August, 1873, 550.

⁶¹ "The Vienna Exhibition, The China and Japan Galleries – First Notice," Supplement to *The London and China Telegraph*, 12 May, 1873, 1.

Concerning attendance at the event itself, CMCS Commissioners Charles Hannen, Edward Bangs Drew, Gustave Detring, William Cartwright and Bowra were appointed by Hart to form the “Imperial Maritime Customs’ Commission”. As a native German speaker, Detring was assigned to reach Trieste first, with the task of receiving the collections and forwarding them to Vienna.⁶²

Hart was concerned about the visual impression that the delegation would make and gave instructions to James Duncan Campbell, his London-based secretary, about the style of uniform for the five commissioners. According to Hart’s brief, the uniform should be: “1. very neat; 2. very serviceable; 3. not too gaudy; 4. not too expensive.” The uniform was to be made of good cloth and accompanied by neat buttons and a characteristic cap, noting that “on the top of the cap there ought to be an arrangement for wearing a button, such as Chinese official hats have”.⁶³

To the music of the Austrian national anthem, the opening ceremony of the exhibition began at noon on 1 May. Around 20,000 people gathered in the Rotunda, and representatives of the Austrian royal family as well as those of Prussia, Denmark, Britain and other countries were present.⁶⁴ With a casket containing the catalogues of the exhibition close to hand, the Emperor of Austria, Franz Joseph I, declared the Universal Exhibition of the year 1873 to be opened.⁶⁵ The opening was somewhat dampened by cold and rainy weather, and many halls were still not ready.⁶⁶ Nevertheless, this exhibition had at least one thing to boast in comparison with previous such events: it had succeeded in having both Japan and China in official attendance for the first time (see Figure 4, Figure 5).

⁶² Bowra to Detring, 21 January, 1873, “Bowra Papers,” SOAS Library, Archives & Special Collections PPMS 69.

During these five months, not everyone from the Customs stayed with the venue all the time. The housing costs in Vienna during this period were apparently very high for all, so they decided to take turns. They also coordinated with the assistants sent by von Calice to look after von Overbeck’s collection. Bowra during this time travelled back and forth between England and Vienna, and other commissioners did the same.

⁶³ Hart to Campbell, letter 48, 7 March, 1873, *The I. G. in Peking: Letters of Robert Hart, Chinese Maritime Customs, 1868-1907*, ed. John King Fairbank and Katherine F. Bruner, 2 volumes (Cambridge, MA: Harvard University Press, 1975), 96-98.

⁶⁴ “Opening of the Vienna Exhibition,” *Daily News*, 2 May, 1873.

⁶⁵ “The Vienna Exhibition,” via Reuter’s Telegrams, *The Times*, 2 May, 1873, 10.

⁶⁶ Cecil A. V Bowra, “Memorials of the Bowra Family: Part II,” 31; “Bowra Papers,” SOAS Library, Archives & Special Collections PPMS 69.



Figure 4. Porcelain work and lanterns from the Chinese collections at Vienna, Museum of Applied Arts, Vienna.



Figure 5. Miscellany from the Chinese collections at Vienna, Museum of Applied Arts, Vienna.

The *Port Catalogues* in the Tradition of the Making of Commodity Lists

Rodenberg adopted a slow pace as he wandered through the galleries in the Chinese pavilion. Although not perhaps as expansive and or as richly endowed as that of Japan, he noted that he was presented with good information alongside some stimulating exhibits, which allowed him to formulate an understanding and appreciation of China.⁶⁷ He was fascinated by cultural themes such as the sets of models of traditional theatrical scenes. He also noted a selection of bird cages and speculated as to whether Chinese people had a particular interest in bird-keeping.⁶⁸ He was particularly attracted to paintings portraying an inspection tour by the Chinese emperor, accompanied by grandly dressed guards, and to poetry written in sophisticated calligraphy.⁶⁹ Rodenberg's eye then turned to a large book: the *Port Catalogues*.⁷⁰ He was impressed by the information it contained on the specimens and raw materials presented by the fourteen ports. When approaching the Taiwan station, his sense of smell was assaulted by camphor. He thought this scent was a Chinese classic, and he joked that the 23,000 to 30,000 centners (roughly 1,150 to 1,500 tonnes) produced annually by Taiwan would be enough to kill all the pests in the world.⁷¹

The individuals involved in compiling the *Port Catalogues* would have been pleased to know that attendees like Rodenberg were attentive to the information provided on the goods and raw materials exhibited. The availability of such a detailed listing of what China produced and purchased was seen as extremely valuable for the "scientific world", however visually unappealing they might be in the galleries of the exhibition itself.⁷² An unnamed "special correspondent" of *The Times* who, like the correspondent of the *London and China Telegraph* clearly had existing knowledge on China and the Customs Service, wrote:

Their manuscript catalogue is in reality a series of elaborate notes illustrating the different objects. I venture to say that many persons fairly conversant with Chinese matters will learn a good deal by perusing it that will surprise them. It would appear that China makes large

⁶⁷ Rodenberg, *Wiener Sommertage*, 91.

⁶⁸ Rodenberg, *Wiener Sommertage*, 93.

⁶⁹ Rodenberg, *Wiener Sommertage*, 109.

⁷⁰ Rodenberg, *Wiener Sommertage*, 91-92.

⁷¹ Rodenberg, *Wiener Sommertage*, 93.

⁷² "The Vienna Exhibition," *The London and China Telegraph*, 21 August, 1873, 551.

imports of articles we regard as her staple productions, and *vice versa*.⁷³

He noted, for example, that readers might be surprised at the substantial volumes of teas of all qualities imported from Japan, despite China's status as a large domestic producer.

Compared to catalogues for later large international exhibitions before 1905 in which China also took part, the *Port Catalogues* was the most comprehensive and detailed. It was unprecedented in its ambition, providing detailed descriptions of many commodities, both popular and less well-known. To appreciate the significant contribution made by the *Port Catalogues*, it is necessary to put the volume in a broader context related to the making of commodity lists from the late eighteenth century onwards, when trade with the West started to grow in the years before the Opium Wars. This section will argue that the making of this volume should be placed in a wider tradition of printed publications dating from the early nineteenth century, intended for the promotion of trade.

Existing studies have already determined that the main commodities exported from China to Britain, France, Sweden and the Netherlands in the second half of the eighteenth century were tea, silk and assorted fabrics, in particular a fabric known as Nanking cloth.⁷⁴ According to a study by Po-ching Yu on the trade of the East India Company at Canton, the dominant commodities for export between 1,800 and 1,833 remained constant.⁷⁵ As for imported goods to China, there was a small selection, dominated by wool and metals from Britain and raw cotton, sandalwood and pepper from India.⁷⁶ While the variety of commodities was expanding slowly, one imported item which was noticeably growing in volume was opium.⁷⁷

The import and export lists were greatly expanded in a document entitled "Chinese re-arrangement of the preceding tariff, under classes of goods" in 1843, attached to the Treaty of the Bogue.⁷⁸ The Treaty of the Bogue was supplementary to the Treaty of Nanjing, drawn up specifically

⁷³ "The Vienna Exhibition," *The Times*, 3 July, 1873, 5.

⁷⁴ *The Canton-Macao Dagregisters, 1764*. Cynthia Viallé and Paul Arthur Van Dyke (Macao, China: Instituto Cultural do Governo da R.A.E. de Macau, 2009), 14-22; for the Nanking cloth, see Weidong Guo, "Silk Road Sequel: The Exportation of Nanjing Fabric (絲綢之路續篇：'南京布'的外銷)," *Zhejiang daxue xuebao* 47, no. 3 (2017): 5-19.

⁷⁵ Po-Ching Yu, *Management and Commercial Competition – Trade between the British East India Company and China, 1786-1816* (經營管理與商業競爭力——1786-1816 年間英國東印度公司對華貿易) (Taipei, Taiwan: Eculture Co., Ltd., 2017), 143-147.

⁷⁶ Yu, *Management and Commercial Competition*, 139-142.

⁷⁷ Michael Greenberg, *British Trade and The Opening of China, 1800-42* (Cambridge, UK: Cambridge University Press, 1951), 112-113.

⁷⁸ Editorial Board of Treaties, Conventions, etc., between China and Foreign States, ed., "Supplementary Treaty of Hoomun Chai," in *Treaties, Conventions, etc., between China and Foreign States* (中外舊約章大全), 3 volumes

for tariff purposes. It contained the most comprehensive import and export tariff lists available at that time, covering a much wider range of commodities than anything previously assembled. The tariff lists were rapidly adopted by the United States, France, Sweden and Norway in their respective treaties, signed between 1844 and 1847. The lists were further expanded in the 1858 Treaty of Tianjin (ratified in 1860) with Britain and France, and this expansion was subsequently adopted by Germany, Denmark and other countries, including the Empire of Austria-Hungary in 1869 and Japan in 1871.

An important accompaniment to the expansion of trade was a growing need for knowledge and information related to commodities and trading practices. Prior to 1840, periodical titles such as *Canton Register and Prices Current*, *The Canton Press Price Current* and the *Chinese Courier*, alongside several others, played a role in providing trade-related information.⁷⁹ In 1832, *A Companion to the Anglochinese Kalendar* was printed by the East India Company. This publication was presented as a handbook of general knowledge about China, incorporating details about the Chinese royal family and the structure of the Chinese government including provincial administrations, as well as details of currency exchanges, names of hong merchants and linguists at Canton, rates of agency commission in China, Canton port charges, remarks on Canton duties, shipping information and so on.⁸⁰ Inspired by the high demand for and success of the *Companion*, a new publication entitled the *Chinese Commercial Guide* was created to replace it in 1834.⁸¹ The *Chinese Commercial Guide*, having John Robert Morrison (1814-1843) as its compiler, modified the content and style to accommodate a greater amount of commercial information. This included details of edicts intended to regulate trade between China and India, information on duties and other charges on goods in China, and details of regulations and legal provisions on commerce, currency exchange and related topics.

In 1844, a second edition of the *Chinese Commercial Guide* was published. Although the new edition still named Morrison as the compiler, Samuel Wells Williams (1812-1884) performed the actual work. Williams, a sinologist, diplomat and missionary from the United States, had a long

(Beijing, China: China Customs Press, 2004), i, 84-117.

⁷⁹ Greenberg, *British Trade and The Opening of China*, 227. Also gratitude to Dr Po-Ching Yu for providing the materials for *The Canton Press Price Current*.

⁸⁰ See "Contents" of *A Companion to the Anglochinese Kalendar* (Macao, China: Honourable East India Company's Press, G. J. Steyn and Brothers, 1832), vi.

⁸¹ John Robert Morrison, "Preface," *A Chinese Commercial Guide, Consisting of a Collection of Details Respecting Foreign Trade in China* (Canton, China: Albion Press, 1834), v. Morrison translated the Treaty of Nanjing, and also tried to translate the Treaty of the Bogue. However, before he completed the task, he fell ill and died.

term interest in commodities and specimens for trade. He joined the *Chinese Repository* in October 1833 as printer and associate editor; he later became the editor of the journal, in 1847.⁸² But a few months before he formally joined the journal, it had already published his work, a substantial list-based entry entitled 'Articles of Import and Export'.⁸³ When updating the content for the 1844 edition of the *Chinese Commercial Guide*, Williams decided to incorporate his own article from the *Chinese Repository*, at the same time adding more material in order to reflect the 1843 'Chinese re-arrangement of the preceding tariff, under classes of goods' of the Treaty of the Bogue.⁸⁴

Two more editions of the *Chinese Commercial Guide* were published in 1848 and 1856, but the fifth edition in 1863 represented a significant improvement, through incorporation of the Treaty of Tianjin (1858), Treaty of Beijing (1860) and the expanded tariff lists for imports and exports which accompanied the treaties. This volume was notably larger than previous editions, and Williams, as the compiler, noted that the increasing volume and distribution of foreign trade required tremendous extra effort in the collection and collation of information.⁸⁵

In short, from the early nineteenth century, there had been a well-established enterprise within the Western community in China, with contributors including merchants, diplomats and linguists, in the provision of trade information. Demand for this information reflected the rapid expansion of trade in the period, particularly after the Second Opium War. On the one hand, the *Port Catalogues* can be seen within this print tradition, reflecting the ongoing development of trade; but on the other hand, the volume has its own innovations and can be marked out as unique when compared to the commercial guides mentioned above.

Originally, Hart requested each port to arrange the list in an order which coincided with the Chinese version of the tariff. But on this point, Hart received a strong push back from Bowra.

⁸² Elizabeth L. Malcolm, "The *Chinese Repository* and Western Literature on China 1800 to 1850," *Modern Asian Studies* 7, no. 2 (1973): 166.

⁸³ Samuel Wells Williams, "Articles of Import and Export," *The Chinese Repository* II, no. 10 (1833): 447-472. At the time of initial publication, the name of the author was not given, but from the *General Index of Subjects Contained in the Twenty Volumes of the Chinese Repository*, published in 1851 in Canton, the author was identified. In order to put this description together, Williams consulted John Crawford's *History of the Indian Archipelago*, William Milburn's *Oriental Commerce*, John R. MacCulloch's *A Dictionary of Commerce and Commercial Navigation*, and Robert Hopper's *Medical Dictionary*. He also noted that he had obtained considerable aid from merchants in Canton.

⁸⁴ Samuel Wells Williams (R. Morrison as honoured editor), *Chinese Commercial Guide* (Macao, China: Author, 1844), 100-144. In this volume, Williams also included Robert Thom's tables of import and export trade. Thom had previously acted as Morrison's assistant in translating the Treaty of Nanjing and the Treaty of the Bogue. For matter related to translation see Wensheng Qu, "Translations of Early Sino-British Treaties and the Masked Western Legal Concepts," *Semiotica*, no. 216 (2017): 170.

⁸⁵ Samuel Wells Williams, *Chinese Commercial Guide* (Hong Kong, China: A. Shortrede & Co., 1863), viii.

In a long letter to Hart, Bowra passionately expressed his concerns with the Chinese method of classification, arguing that to appear comprehensible to European eyes, some adjustment was necessary.⁸⁶ He wrote:

If we follow the classification of the Chinese Tariff, alum will be classified with oil, tea with aniseed and musk; tobacco with sugar [...] *Such hap-hazard grouping, while it does not serve to represent or illustrate any phase or feature of Chinese civilization, will [be seen] in Europe as a convincing proof of Chinese ignorance, self-sufficiency, and complacent disregard of scientific accuracy and method. It is popularly believed in Europe that everything Chinese is necessarily bizarre and grotesque, and the classification of the Tariff is assuredly, more likely to confirm than combat this impression.* I would therefore suggest that the proposed grouping be set aside in favour of some such system as that indicated in the “Program” of the Exhibition, which combines scientific method with the utmost perspicuity and convenience for general reference. Thus, the entire collection would be divided into twenty-six groups, each retaining the general heading of the “Program” [...] by the adoption of which the Chinese collection will be in harmony with the contributions of other nations without losing any single characteristics of its own.⁸⁷

Hart wasted no time in accepting Bowra's view, and attached Bowra's letter, though omitting the italicised text above, in his IG Circular to the Customs commissioners at the treaty ports. The whole of the *Port Catalogues* was therefore arranged according to the classifications provided in the programme of the Exhibition.⁸⁸

The twenty-six classifications were as in Table 1 (though it should be noted that none of the ports in China covered all the classifications).⁸⁹

The report of the commodity collection from each port was also required to specify the

⁸⁶ The “Chinese classification” of the tariff referred to by Bowra above was the tariff lists for imports and exports used since 1843, which, as previously noted, was arranged according to China's own classification of products. For example, Class One of the Exports was “Exported Oilman's Stores (Oil, Wax, Alum, Sulphur, etc.)”. This category included alum, aniseed oil, and cassia oil. Class Two of the Exports was “Exported Spices, Tea, etc”. This category had tea, star aniseed and musk. Bowra pointed out that this kind of arrangement would appear very strange to Europeans. “Supplementary Treaty of Hoomun Chai,” in *Treaties, Conventions, etc.*, 97.

⁸⁷ Bowra to Hart, 5 September, 1872. SHAC 679 (2) 247.

⁸⁸ IG. Circular 8 of 1872, 7 October, 1872, including Enclosure 1, *Inspector General's Circulars* (First Series), 395-397.

⁸⁹ “Universal Exhibition 1873 in Vienna. Programme,” *Port Catalogues*, ix-x.

Table 1. The Twenty-six Classifications Adopted for the *Port Catalogues*

1. Mining, Quarrying and Metallurgy	2. Agriculture, Horticulture and Forestry
3. Chemical Industry	4. Articles of Food as products of Industry
5. Textile Industry and Clothing	6. Leather and India-rubber Industry
7. Metal Industry	8. Wood Industry
9. Stone, Earthenware and Glass Industry	10. Small Ware and Fancy goods
11. Paper Industry and Stationery	12. Graphic Arts and Industrial Drawing
13. Machinery and Means of Transport	14. Philosophical Instruments, Surgical Instruments
15. Musical Instruments	16. The Art of War
17. The Navy	18. Civil Engineering, Public Works and Architecture
19. The private Dwelling House, its inner arrangement and decoration	20. The Farmhouse, its arrangements, furniture and utensils
21. National Domestic Industry	22. Representation of the Influence of Museums of Fine Arts applied to Industry
23. Art applied to Religion	24. Objects of Fine Arts of the past, exhibited by Amateurs and Owners of Collections
25. Fine Arts of the present time	26. Education, Teaching and Instruction

following details:⁹⁰

- (1) The name of the article in English;
- (2) The name of the article in the Chinese of the locality;
- (3) The origin, nature, or method of preparation of the article;
- (4) The name of the place at which the article is produced;
- (5) The name of the place at which the article is consumed;
- (6) The use made of the article;
- (7) The value of the article in Haikwan Taels or in Dollars; and
- (8) The quantity imported or exported in 1871.

Within these twenty-six categories, “agriculture, horticulture and forestry”, “chemical industry”, “articles of food as products of industry” and “textile industry and clothing” were the four largest groups, with “agriculture, horticulture and forestry” by far the most extensive category. But altogether, most resources for these four categories and several others within the twenty-six categories, such as the wood and paper industry, were flora-related materials. This is an important feature of the *Port Catalogues*, reflecting demand for information relating to economic botany, a

⁹⁰ IG Circular 5 of 1872, 23 September, 1872, *Inspector General's Circulars* (First Series), 391.

discipline then flourishing within colonial knowledge networks.⁹¹ Although it is far beyond the scope of this article to address all the flora specimens mentioned in the *Port Catalogues*, the final section of the article will make use of several examples to demonstrate how the volume played its role in incorporating trade information with economic botanical knowledge.

The Port Catalogues, Economic Botany, and Trade Information

Economic botany brings together human activities with the science associated with plants. It can refer to plant use, distribution, cultivation, horticulture, economic production and the process of marketing and sale.⁹² As a modern discipline, economic botany benefited not only from new taxonomies developed in the eighteenth century, but through the expansion in mobility of both people and materials in the nineteenth century. The work done for the *Port Catalogues* mirrors this trend in the formation of knowledge, and the examples presented in this section aim to shed some light on this perspective. But what these examples will also show is an active production of hybrid knowledge, mixing existing local knowledge of Chinese flora with the modern epistemology of economic botany.

Among the reports from the fourteen ports, the one submitted by Shanghai Customs was the longest, with more than 2,000 entries. Hirth's report for Canton, though much shorter, was rigorous in providing rich information for many listed items. For example, in the entry for matting (地蓆, Fuss-Matten, Binsen-Matten in German; Tee-tsek in Cantonese), Hirth wrote a lengthy text on the process used to make a 40-yard mat (a roll) in mass-manufactured production. The information started with some scientific botanical knowledge about the plant used – reeds (*Arundo mitis*) – which grew in both saltwater flats and sweet water. Hirth went on to outline the process of manufacture: what dyes were used, what kind of chemicals were used to soften the grass, processes for flattening, weaving, framing, drying, and pressing, trimming and wrapping and so on. He then supplied readers with critical economic information: about 90 per cent of mats (equivalent to 110,000 rolls) exported from Canton were shipped to New York.⁹³ From New York, the mats were distributed to other areas.

From this text, it is clear that Hirth had some significant interest in the discipline of botany, which he demonstrated further when discussing galangal (良薑, Galangawurzel in German, a type of

⁹¹ Caroline Cornish, "Curating Science in an Age of Empire: Kew's Museum of Economic Botany" (PhD thesis, Royal Holloway, University of London, 2013).

⁹² G. E. Wickens, "What Is Economic Botany?" *Economic Botany* 44, no. 1 (1990): 14-15.

⁹³ "Catalogue of the Canton Collection," *Port Catalogues*, 444-445.

“mild ginger”). For this specimen, Hirth explained that the plant largely grew in Canton and Hainan provinces in southern China. He added: “The galangal of the China trade (*Radix Galangæ minoris*) is the dried root of a species of *Alpinia*, only lately discovered and described by Henry Fletcher Hance as *Alpinia officinarum*.”⁹⁴ He also referenced two publications by Hance and Daniel Hanbury in *The Journal of the Linnean Society, Botany*. Extracting information from Hanbury's work, Hirth nourished the readers with additional information, as follows: “In Russia one of its principal uses is stated to be the flavouring of a liquor called “nastoyka”; it is said to be much sold as a popular medicine and spice in Livonia, Esthonia, and in Central Russia, and to be taken with tea by the Tartars.”⁹⁵ Using statistics collected by the CMCS, Hirth explained that most of the galangal shipped to Russia went through Hankou, a treaty port in the middle section of the Yangtze River; whereas that shipped through Canton and Hong Kong went primarily to the USA, Britain and continental Europe.

Teas also received a considerable amount of attention. Hirth listed fourteen kinds of tea, while being particularly interested in Congou tea (工夫茶, Congo or Congou in German, a type of black tea), Scented Caper (珠蘭, Oolong tea mixed with *chloranthus inconspicuus*), and Yuqian (雨前, Young Hyson or Utsin in German; green tea, younger leaves over shallow pan-roasted by stirring over a brisk wood fire).⁹⁶ For the last three of these varieties, Hirth provided relatively shorter texts; these were alongside a much longer description of the production of Congou tea. Hirth indicated in his document that the text concerning Congou tea was quoted from an article entitled ‘The Manufacture of Tea’ in the *Chinese Recorder and Missionary Journal*, but in fact the descriptions for the other teas also came from the same source.⁹⁷

There were more than 300 commodities in classes A to C. The way Hirth obtained and presented information in the three examples above provides insight into how the compilers of all fourteen catalogues operated in putting together their respective documents. Some catalogues had only a single compiler; some had several co-authors. While many compilers had acquired knowledge of specific commodities through their work in the CMCS, others demonstrated knowledge acquired in other ways, ranging from academic interest (the Goddess Mazu was the focus of detailed study by Xiamen Customs Commissioner George Hughes) to expertise acquired as collectors (Jiujiang

⁹⁴ “Catalogue of the Canton Collection,” *Port Catalogues*, 436.

⁹⁵ “Catalogue of the Canton Collection,” *Port Catalogues*, 437; Daniel Hanbury, “Historical Notes on the *Radix Galangæ* of Pharmacy,” *Journal of the Linnean Society, Botany* 13, no. 65 (1871): 24.

⁹⁶ “Catalogue of the Canton Collection,” *Port Catalogues*, 428-433.

⁹⁷ A.W.G.R., “The Manufacture of Tea,” *The Chinese Recorder and Missionary Journal* 4, no. 5 (1871): 114-116.

Customs Commissioner Kopsch on porcelains, Bowra on many collectable items) or as amateur naturalists.

Despite this considerable quantity of personally held knowledge, it was still a substantial task to put together information across such a wide variety of specimens and commodities, requiring research across multiple existing publications. Among a list of seventeen materials referenced by Hirth for classes A to C, there was Williams' fifth edition of the *Chinese Commercial Guide*, *The Chinese Repository*, and *Chinese Recorder and Missionary Journal*. Hirth's reference list supports the observation made above regarding the development of knowledge: information on commodities in China was expanded and transformed through further development of tariff lists from existing treaties, based on input from merchants, linguists, naturalists, diplomats, missionaries, a variety of print sources, and of course CMCS personnel, both from official and unofficial activities.

However, relying on pre-existing available sources or publications could lead to the propagation of earlier mistakes. In his study on British naturalists' work in China in the nineteenth century, Fa-Ti Fan pointed out that many sinologist-naturalists recognised that the Chinese already possessed a massive quantity of literature about flora, fauna, minerals and other natural specimens. But how to manage this wealth of information, and convert terms in Chinese to Western classifications and taxonomy, presented a great challenge.⁹⁸ In the case of the *Port Catalogues*, mistakes in the descriptions of items could be easily made for at least two reasons: a relatively small pool of source materials together with the relatively immature status of this transformation activity between Chinese classification systems and Western botany. The topic of how Chinese flora and modern Western botany were brought together from the nineteenth century onwards is a large subject in itself, and this article does not attempt to drill further into it. But since the *Port Catalogues* was intended to play a substantial part in the knowledge chain for Chinese commodities and specimens on the global stage, it is important to make a further assessment of their quality, to further illuminate the nature of knowledge production. The discussion below will focus on the relationship between the *Port Catalogues* and Frederick Porter Smith's *Contributions towards the Materia Medica and Natural History of China*.

Contributions towards the Materia Medica and Natural History of China was published in 1871. Smith was a Methodist medical missionary, who while writing this volume was stationed in Hankou, one of the main hubs for the export of Chinese herbs, particularly herbs from Sichuan province. In his preface, Smith acknowledged he was intellectually indebted to Hanbury Hance, S. W.

⁹⁸ Fan, *British Naturalists in Qing China: Science, Empire and Cultural Encounter*, 100-111.

Williams and Emil Bretschneider.⁹⁹ He dedicated the book to Hart.

When producing their respective port catalogues, not every compiler provided information on the sources referenced. But among those who did, Porter Smith's volume was referenced by the authors of the reports from Tianjin, Chefoo and Canton. Interestingly, the quality of the report from Hankou on flora was rather basic. Apart from providing name, place of origin, export quantity and price for a long list of Chinese herbal medicines, not much additional description was offered. Nor did the list provide any connecting link to Smith's work. Nine years after the *Port Catalogues* was published, Emil Bretschneider (1833-1901), a Baltic-German physician, sinologist and botanist who developed his career mainly in the Russian Empire, pointed out how mistakes had been made in several of its reports, referencing Smith's *Materia Medica*. He wrote:

The Port Catalogues of the Chinese Customs' Collection at the Exhibition, Vienna, 1873, published by order of Mr. Hart, make a very valuable volume, especially with respect to Chinese drugs and vegetable products, the correct Chinese names being given as well as the places of origin noticed. It will form a basis for future researchers. However, in my opinion the collectors of these articles for the Exhibition in different ports have considerably diminished the value of their compilations by their attempts to identify the Chinese names of natural objects, for these identifications have for the most part been borrowed from Dr P. Smith.¹⁰⁰

Bretschneider then provided several examples to demonstrate how attempts to translate names of Chinese flora to fit with Western scientific taxonomy could cause confusion. Two of the examples Bretschneider gave were "red dates" ([*hongzao*] 紅棗) and "black dates" ([*heizao*] 黑棗), popular commodities for Chinese cooking and medicine, exported in large quantities at the time through Tianjin. The designation "dates" was given in the 1858 Treaty of Tianjin, in order to provide a convenient analogue for people living in the West. However, the *Port Catalogues'* report from Tianjin stated that *hongzao* was "the common date", leading (according to Bretschneider) to the impression that there were many palm trees growing in northern China. As for *heizao*, following Porter Smith's *Materia Medica*, the same Tianjin report said this was "a species of *Zizyphus* or

⁹⁹ Frederick Porter Smith, "Preface," *Contributions towards the Materia Medica and Natural History of China* (Shanghai, China: American Presbyterian Mission Press, 1871), v.

¹⁰⁰ Emil Bretschneider, "Notes on Some Botanical Questions Connected with the Export Trade of China" (privately published, 1880), 2.

Jujube, and not allied to the palm date”.¹⁰¹ Bretschneider pointed out that the *heizao* discussed here was grown in Beijing mountain areas and actually belonged to *Diospyros Lotus*, which was more close to *shizi* (柿子).¹⁰² For Bretschneider, from a botanical point of view, it would have been better to provide less information than wrong information. Based on this principle, he thought the reports from Hankou and Ningbo were actually very good because they contained “the Chinese names of all the drugs, etc., collected at those places, but the collectors honestly confess that their botanical names cannot be ascertained”.¹⁰³

Before ending this section, it is also necessary to reflect further on the impact created by China's displays and the *Port Catalogues*. Following the conclusion of the event, Bowra received a request from the Royal British Commission for the Vienna Universal Exhibition to furnish the British Parliament and the British public with further trade information on China, based on the specimen collections arranged for the exhibition.¹⁰⁴ Bowra's report, entitled “Chinese Manufactures Suited to English Markets”, observed that apart from a few lavish commodities, such as silk embroidery and porcelain, the majority of the samples of international exchange were “not very attractive to the general public”, although they formed the basis of the wider collection.¹⁰⁵ Despite the report's title, Bowra gave his evaluation on British manufacturing exports to China, as well as the other way round. Though the report is only twenty-five pages in length, Bowra was able, with his considerable insider knowledge, to identify gaps in trade going beyond the more obvious observations. For example, he pointed out that, if local production methods could be improved, then Chinese indigo, particularly that from Taiwan, would have much potential to compete with Indian indigo.¹⁰⁶

¹⁰¹ “Catalogue of the Tientsin Collection,” *Port Catalogues*, 30; Bretschneider, “Notes on Some Botanical Questions”.

¹⁰² Bretschneider, “Notes on Some Botanical Questions Connected with the Export Trade of China,” 3.

¹⁰³ Bretschneider, “Notes on Some Botanical Questions Connected with the Export Trade of China,” 2. See also Fa-Ti Fan, *British Naturalists in Qing China: Science, Empire and Cultural Encounter*, 103.

¹⁰⁴ Royal British Commission for Vienna Universal Exhibition to Bowra, February 6, 1874, “Bowra Papers,” SOAS Library, Archives & Special Collections PPMS 69.

¹⁰⁵ Edward C. Bowra, “Report on the Objects of Chinese Manufactures Suited to English Markets Exhibited at the Vienna Exhibition,” “Chinese Manufactures Suited to English Markets,” *Reports on the Vienna Universal Exhibition of 1873: presented to both Houses of Parliament by Command of Her Majesty IV* (London, UK: George E. Eyre and William Spottiswoode, 1874), iv, 701. “Bowra Papers,” SOAS Library, Archives & Special Collections PPMS 69. Not long after completing this report, on 13th October 1874, Bowra died suddenly due to heart problems, see James Duncan Campbell to Hart, 13 October, 1874, in *Archives of China's Imperial Maritime Customs Confidential Correspondence Between Robert Hart and James Duncan Campbell, 1874-1907*, ed. Xiafei Chen, 4 volumes (Beijing, China: Foreign Languages Press, 1990), 74. In “Memorials of the Bowra Family: Part II” (p. 47) Cecil A. V Bowra mistakenly wrote that his father passed away on 15th October.

¹⁰⁶ Bowra, “Report on the Objects of Chinese,” 717.

Indeed, Bowra's report does point out something missing from the *Port Catalogues* – the identification of commercial gaps which might be exploited in one direction or another. It is clear that, even with the provision of such an extensive volume as the *Port Catalogues*, it was still difficult for people to navigate this matter. Kopsch's piece provided an exception to this, however. In his report on Jiujiang port, Kopsch provided a short section of "Notes", offering his view on potential trade opportunities. He noted, for example, that Europeans had little knowledge about the strength of grasscloth made from a variety of fibres in China. He reckoned there would be a good profit to be made if such fibres were taken back to Europe and manufactured into clothes to sell back to China. Another example related to fibre was paper. Kopsch wrote:

Although it is said that Europe is indebted to the Chinese for the art of making paper-hangings, it would be difficult to find worse specimens of paper-printing than those from the great paper-manufacturing district, yet they are considered good by natives.¹⁰⁷

While Chinese pith paper made the best artificial flowers, the quality of wallpaper sold in northern China was far inferior to that produced in Europe. Kopsch pointed out that, with the right kind of patterns suitable for local taste, the European-made wallpaper could overtake native production.

Both Bowra and Kopsch attempted to share their observations on how best to utilise raw materials from China, and how to address perceived gaps in the Chinese market. Their views reflected the fact that fully three decades after the First Opium War, the Chinese market remained largely unfamiliar to the West. Although CMCS had published works about individual specimens, such as silk, jute, opium and tea, it was not until 1923 that it published a comprehensive volume entitled *Principal Articles of Chinese Commerce*. The content of this volume was divided into "fibres", "oils, fats, and waxes", "gums and resins", "dyes, colours, pigments, paints and tans", "metals" and "miscellaneous products".¹⁰⁸ Representing a major step forward for the knowledge chain that incorporated the *Port Catalogues* as a previous major milestone, *Principal Articles of Chinese Commerce* subsequently ran to second and third editions in 1930 and 1941 respectively.

¹⁰⁷ Henry Kopsch, "Catalogue of the Kiukiang Collection, Notes," *Port Catalogues*, 103.

¹⁰⁸ Ernest Watson, *The Principal Articles of Chinese Commerce* (Shanghai, China: Statistical Department of the Inspectorate General of Customs, 1923).

Conclusion

The exhibition organisers issued 20,000 awards, across a wide variety of categories, including Diplomas of Honour, Medals for Progress, Medals of Merit, Medals for Art, Medals for Taste, Diplomas of Merit, and Medals for Co-operation. China received four Medals for Progress, twenty-eight Medals of Merit and eight Diplomas of Merit. Hart was personally acknowledged for his supervision of the collection and his contribution to the trade and commerce of the world: the *Port Catalogues* volume won the organisers' highest accolade, with Hart accepting one of only five Diplomas of Honour issued at the end of the closing ceremony.¹⁰⁹ The Chinese Maritime Customs sponsored a large classical concert as part of the promotion of the event, which was highly successful and attracted more than 1,400 guests.¹¹⁰

This article has uncovered the story behind China's first official participation in a world exhibition. It revealed that while the Zongli Yamen made a prompt response after receiving the Austrians' invitation, lack of participation from merchants over an extended period led to Hart eventually taking over the work of organising China's presence. The article also examined the methods and approaches employed in organising China's attendance, and the difficulties encountered during the process. As the CMCS was to continue to take charge in organising collections for other large exhibitions until 1905, the experience gained in attending the Vienna Exhibition proved to have a lasting impact.

The article also examined the *Port Catalogues*, not only from its intention and structure to fit the official programme of the Exhibition but also from the perspective of a chain of knowledge which can be traced back to commodity and tariff lists from the late eighteenth century which continued to grow in vogue in the nineteenth century, due to colonial expansion and accompanying scientific enquiry. The article demonstrated that the *Port Catalogues* was a substantial volume, providing commodity information about economic botany, a subject which was then receiving considerable attention in the context of colonial information networks. *The Port Catalogues*, without doubt, offers rich information on global trade networks and material culture for the nineteenth century, though it also propagated mistakes from sources it referenced.

¹⁰⁹ "Award of the International Jury," *The London and China Telegraph*, 27 October, 1873, 718.

¹¹⁰ Charles Drage, *Servants of the Dragon Throne* (London, UK: Peter Dawnay Ltd., 1966), 199.

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重返1873年維也納：中國官方首次參與世界博覽會以及被遺忘的《港口目錄》

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摘要

1870年中國受邀參加三年後在維也納舉行的世界博覽會。組織參展的責任最終落在海關總稅務司赫德的身上。雖然這是中國第一次以官方身分參與這類大型的國際賽事，這段歷史並沒有獲得太多的研究。這個參會經驗中的一項重要成果是海關編撰一冊《中國海關為1873年奧匈帝國在維也納舉辦之世界博覽會所收集的港口目錄》。該冊雖彙整14個條約港口報告，有很高的學術價值，但它仍然廣被忽視。本文企圖從殖民訊息網絡的脈絡下，勾勒出這本出版物的學術意義，並強調此《港口目錄》對於廣泛知識累積和傳播的貢獻，例如從高度依賴原始資源的加工生產到相關的經濟植物學。

關鍵詞：中國海關、經濟植物學、包臘、赫德、世界博覽會

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