PRODUCTION, REPRODUCTION, AND RECEPTION OF CAO ZAIKUI'S CATALOGUE OF BRONZE COLLECTION IN NINETEENTH CENTURY CHINA

By

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Ancient bronze ritual vessels played an important role in demonstrating the moral, intellectual, and political legitimacy and prestige of the dynasties: families as well as individuals. Cataloging bronze collection, then, was essential to the Chinese courts, individual literati, officials, and collectors. My study explored the making, reproducing and reception of bronze catalogues during the nineteenth century, when drastic technological changes took place in Chinese printing culture, with the development of local block printing and the introduction of foreign photo-mechanic reproduction. My study focused on the life cycle of a work made by a scholar-collector named Cao Zaikui (1782-c.1852). Cao Zaikui's work was at the same time a catalogue, a compilation of rubbings, and a work of art. My study examined the seemingly natural categories in modern art history and embraces the intersections among them. My study highlighted the crucial moments when the catalogue was produced, reproduced, and redefined. Also examined were the issues of authorship, authenticity, imitation, and representation. My study constitutes an important case to the study of Chinese "antiquarianism" in late imperial China.

CHAPTER 1
INTRODUCTION

An eighteenth century Chinese literatus named Cao Zaikui 曹載奎 (1782-c.1852) made a catalogue, to record sixty ancient bronze vessels selected from his collection (Figure 1-1). Despite the advanced printing technology in China, Cao never mass-produced his catalogue through printing. Instead, he painstakingly ordered the texts and images to be cut onto stone slabs, and presented his catalogue through the compilation of rubbings made from those stones. After the author's death in the 1840s, neither his collection, nor the stone slabs, once placed in his villa, survived the social turmoil. Based on the limited number of rubbings held in private hands, later scholars came up with different methods to reproduce this catalogue. A woodblock-printed version first came out and was mass-produced four decades after the author's death, then the photocopied version was produced another four decades later. Scholars even produced new stone replicas to replace the original. Two surviving copies of the catalogues, made during Cao's lifetime, could still be seen at Academia Sinica, Taipei; and at Hong Kong University. The replicated stones are now in the Museum of Stelae, Changshu, a city not far from the author's birthplace.

The triple ambivalence of Cao Zaikui's black catalogue made it both an uncomfortable and an exciting object to be studied. As a "catalogue," a specific type of book; as a group of "rubbings", a medium used in China to reproduce, as well as setting calligraphic and painting models; as a work of art, within which antiquities were represented through both texts and images; the catalogue made by Cao Zaikui occupies the intersection of three directions central to the study of Chinese antiquarianism. My study examined the life cycle of the catalogue; how it was produced, reproduced, and redefined; and how it reflected and affected the 19th-century

Chinese antiquarianism. My study encompassed art historical issues such as authorship, authenticity, representation and reception, hoping to provide an important case to the study of Chinese "antiquarianism" in late imperial China.

Literature Review

Chinese "antiquarianism" refers to research on ancient bronze objects and inscribed stones from the pre-imperial period (roughly 1600-221 BCE), also known as the Three Dynasties (Xia, Shang and Zhou).[1] Since the Three Dynasties were believed to be ruled by sage kings, whose people lived in harmony, their study is considered crucial: it constitutes a branch of classical study. As important ritual objects used in ceremonial and burial contexts, bronzes of the Three Dynasties, especially those with inscriptions, offered concrete sources to understand ancient culture. Starting from the Song dynasty, those objects were collected, displayed, rubbed, catalogued, studied, replicated and forged, by emperors, scholars and dealers.

The overlapping categories of catalogue, rubbings and art revealed in Cao's catalogue have been neglected by art history, though they have usually been studied in pairs. The traditional approach to bronze catalogues was mainly to clarify their date, author and editions, especially the study on Kaogu tu and Bogutu, the two most extraordinary accomplishments of Song antiquarianism.[2] It was not until the 1960s that an art historical approach was added to the study of catalogues. Viewing bronze catalogues as works of art, Robert Poor[3] focused on the aesthetic quality of the Song catalogues, suggesting that they represented "only the most salient

[1] Shana J. Brown, "Pastimes: Scholars, Art Dealers, and the Making of Modern Chinese Historiography, 1870-1928", (Phd. diss., University of California, Berkeley, 2003), p.1.
[2] Rong Geng 容庚 (1894-1983), in his Shangzhou yiqi tongkao 商周彝器通考 (A General Study of Shang and Zhou Vessels), offered a complete commentary and history of bronze catalogues compiled from the Song dynasty to the early Republican era. See Rong, Geng 容庚, Shangzhou yiqi tongkao 商周彝器通考 (A General Study of Shang and Zhou Vessels) (Beijing: Hafo Yanjing Xueshe 哈佛燕京學社, 1941).
[3] Robert Poor, "Notes on the Sung Dynasty Archaeological Catalogues," Archives of the Chinese Art Society of America, no.19 (1965): 33-44.

of the typological and decorative features". This art historical approach was revisited after the 2000 exhibition of Song dynasty art in the National Palace Museum, Taipei.[4] Chen Fangmei[5] explored how the representation of ancient bronzes influenced, or was influenced by, the production of archaistic bronzes. A technical direction had been developed in recent years, thanks to the contribution of Wang Cheng-hua.[6] Wang explored how the photo-mechanic reproducing technique revolutionized the making of bronze catalogues, especially focusing on the shifted representation and reception of bronzes, as well as the emergence of the concept of heritage preservation.

Considerations of rubbings as works of art also had developed in the past two decades. Traditionally, rubbings were treated more as "calligraphic model," or "paleographical sources", than as works of art. The former was rubbed from stelae set as models, in order to duplicate the calligraphy written by famous hands; the latter was made by tamping the inscription on ancient bronzes, so that the characters, always written in ancient style, could be decoded and

[4] Chang Lin-sheng, "Li Gonglin yu Beisong guqiwuxue de faren (The Origin of Antiquarian Study and the Case of Li Gonglin)," in Qianxinian songdai wenwu dazhan 千禧年宋代文物大展 (Art and Culture of the Sung Dynasty: China at the Inception of the Second Millennium), ed. by National Palace Museum (Taipei: National Palace Museum, 2000), 19-49.

[5] Chen's study is more cultural historical rather than art historical. She summarized the Northern Song scholars' antiquarian interests, their applications in catalogue compiling, and also the ritual reformation carried on by the imperial court. See Chen Fang-mei, Qingtongqi yu songdai wenhua shi 青銅器與宋代文化史 (Bronze and Cultural History of Song) (Taipei: National Taiwan University Press, 2016). This newly published book was an assemblage of her research papers written in the past two decades. Following Chen Fang-mei, Hsu Ya-hwei 許雅惠 combined the study of excavated sources with transmitted heirlooms. Using excavated materials dated to the Southern Song, Hsu analyzed how the circulation of the Southern Song imperial catalogue affected the making of archaistic ritual objects. See Hsu Ya-hwei, "Reshaping Chinese Material Culture: The Revival of Antiquity in the Era of Print, 960-1279," (Phd diss., Yale University, 2010).

[6] Also discussed was how the new technique transferred the discipline of jinshi 金石 (bronze and stone) to a pre-modern discipline qiwu 器物 (antiquity). See Wang Cheng-hua, "Luo Zhenyu de shoucang yu chuban: qiwu, qiwuxue zai minguo chunian de chengli 羅振玉的收藏與出版：器物、器物學在民國初年的成立," meishushi yanjiu jikan, no. 31 (2011): 277-312. Also see Wang Cheng-hua, "New Printing Technology and Heritage Preservation: Collotype Reproduction of Antiquities in Modern China, circa 1908-1917," in The Role of Japan in Modern Chinese Art, edited by Joshua A. Fogel (Berkeley and Los Angeles: University of California Press, 2012), pp. 273-308. Following Wang's idea, Liu Yuzhen 劉宇珍 explores how photography triggered a transformation of traditional collecting culture into the building of the discourse of "Chinese art". Liu Yuzhen, "zhaoxiang fuzhi niandai li de zhongguo mesh: shenzhou guoguangji de fuzhi taidu yu wenhua biaoshu," meishushi yanjiujikan, no.135 (2013): 184-254+258.

transliterated. For a long time, the value of rubbings lay in their indexical quality: the ability of faithfully reproducing the sign-bearing objects. Treating rubbing as a form of art, Kenneth Starr[7] went beyond traditional scholarship focused on textual contents of what rubbing reproduced, by exploring the history, technique and aesthetic quality of rubbings. Wu Hung's study of rubbing answers to the semiotic turn in art history, by exploring its materiality, and its relationship with block printing and photography.[8] Bai Qianshen[9] was dedicated to the study of composite rubbing (quanxing tuo 全形拓), a type of rubbing which could present objects with three-dimensionality; and how they were aesthetically valued, used both in paintings and catalogues.

The cultural historical approach brings us to catalogue and rubbing, two fields especially vexed in the late Qing. Whenever an inscribed bronze vessel is obtained, rubbings must be made so that the inscription—always hidden inside the body of a vessel—can be revealed. But when it comes to making bronze catalogues, the Song scholars could only hand-copy the characters from rubbings to their catalogues. Thomas Lawton[10] was the pioneer scholar who pointed out the inclusion of real rubbings physically in catalogues during the Qing, which reflected and affected the growing trend toward evidential study, an approach using ancient inscription on bronzes and

[7] See Kenneth Starr, The Black tigers: a grammar of Chinese rubbings (Seattle: University of Washington Press, 2008). Also see Thomas Lawton, "Rubbings of Chinese Bronzes," The Bulletin of the Museum of Far Eastern Antiquities, no.67 (1995).

[8] Wu Hung, "On Rubbings: Their Materiality and Historicity," in Writing and Materiality in China: Essays In Honor of Patrick Hanan, edited by Judith T. Zeitlin & Lydia H. Liu (Boston: Harvard University Press, 2003), 29-72.

[9] Bai Qianshen has used the case of Wu Dacheng to discuss the early stages of the making of composite rubbings, as well as its social and academic background. Bai Qianshen, "Composite Rubbings in Nineteenth-Century China: The Case of Wu Dacheng (1835-1902) and His Friends," in Reinventing the Past: Archaism and Antiquarianism in Chinese Art and Visual Culture, edited by Wu Hung (Chicago: University of Chicago Press, 2010). Following the exhibition held by the Zhejiang Provincial Museum, a biographical study of Liu Zhou 六舟, a master of rubbing making, had been made by Sang Shen 桑椹 and Wang Yifeng 王屹峰. See Zhejiang Provincial Museum, Liuzhou: yiwei jinshiseng de yishushijie 六舟：一位金石僧的藝術世界. xileng yinshe. 2014. Also see Wang Yifeng 王屹峰, Guzhuan huagong: Liu Zhou yu shijiu shiji de xueshu he yishu 古磚花供：六舟與 19 世紀的學術與藝術. 2018.

[10] However, due to the lack of accessibility to rare books, Lawton mistakenly believed that the mid-Qing scholars started to include rubbings physically in their catalogues, which were actually the "traced" facsimiles of rubbings. Thomas Lawton, "Rubbings of Chinese Bronzes," 8.

stones to correct errors in transmitted texts: not only had real rubbings of inscriptions been included, composite rubbings of the vessel shape also appeared in bronze catalogues. The introduction of photolithography allowed rubbings to be mass-produced faithfully, which enhanced the connection between rubbings and catalogues. Lawton pointed out that Duan Fang 端方 (1861-1911), a late Qing scholar-official, was the first to use this technique.[11] Huang Jui-wen 黃睿文,[12] in her unpublished master's thesis, explored how the rubbings of the surface decor of bronze vessels were included in catalogues after the 1930s; and how this broadened interest, from text to image, reflected the influence of Western scholarship.

What's lacking in previous scholarship is a study that exceeds single paradigm of catalogue or rubbing or art. My study therefore embraces the intersections among these three. Cao Zaikui's catalogue is simultaneously a catalogue of ancient bronzes, a compilation of rubbing, and–insofar as it was a "space" set aside for contemplation of a collective representation of objects–also an art work. My study also directs our attention away from the study of editions, as well as the issue of when and by whom the catalogue was made. Rather, it focused on a cascade of formative moments in history: moments when the catalogue was made, remade, and redefined. These crucial moments are also put back in their context, the antiquarian culture in nineteenth century China that facilitated the convention of catalogue making and evidential scholarship.

[11] Lawton, A Time of Transition: Two Collectors of Chinese Art (Kansans City: Spencer Museum of Art, University of Kansas, 1991).
[12] Huang Jui-wen, "Minchu qingtongqi tulu fuzhi guannian de zhuanbian: yi Rong Geng wuyingdian yiqi tulu wei zhongxin 民初青銅器圖錄觀念的轉變：以容庚武英殿彝器圖錄為中心 (Reproducing Images of Ancient Bronzes in the Early 20th Century: Rong Geng's Catalogue of Ritual Bronze Objects in the Wuying Palace)," (Master's Thesis, Taipei: National Taiwan Normal University).

History of Bronze Catalogue

Before introducing the methodology of this study, a brief history of bronze catalogues is needed. Catalogue compiling had a long history in China, starting in the Song dynasty (960-1279), when the population increased, the economy thrived, and technologies advanced. However, the dynasty was under constant internal and external threat. Starting from the eleventh century, facing intellectual threat from the growing influence of Buddhism and Daoism, Confucian scholars started to collect and study bronze vessels of the Three Dynasties, hoping to use their inscriptions to advocate Confucian ideology.[13] The kaogu tu 考古圖 (Investigation of Antiquities Illustrated, preface written in 1092) made by Lü Dalin 呂大臨 (1040-1092, courtesy name Yushu 與叔) exemplified the methodology and highest standards of Song scholarship.[14] Each bronze object is given a name, provenance, a line drawing, and a facsimile of the rubbing made from the vessels, as well as its transliteration, followed by a colophon recording its place of discovery and measurements.

This individual attempt was soon imitated by the imperial effort. Bronzes of the Three Dynasties played an important role in demonstrating the moral and political legitimacy of the government. During the end of the Northern Song, when the empire was facing bureaucratic corruption, economic deficiency and military threat from its northern border, emperor Huizong

[13] The first Song catalogue, no longer extant, is thought to be The Illustration of Pre-Qin Ancient Vessels (xianqin guqi tu 先秦古器圖) by Liu Chang 劉敞 (1019-1068, courtesy name Yuanfu), who we think engraved an image of the vessel shape and a facsimile of the characters onto stone slabs in 1063. While Liu Chang went out of his study room to collect objects from all over the country, Ouyang Xiu 歐陽修's (1007-1072) did not. Best known as a major player in the Qingli 慶歷 Reforms of the 1040s, Ouyang was also a big fan of antiquities. But, unlike Liu, Ouyang didn't own real objects. Rather, he collected only rubbings—made by other people from original objects—and emphasized only the inscribed texts on those rubbings.

[14] Other than including objects from 37 private collections, Lü also had access to state collections from bige 秘閣 (the Palace Archive), taichang 太常 (the Court of Grand Sacrifice), and neicang 內藏 (the Palace Storehouse). Kaogutu included 211 objects. The Song version of kaogutu had lost. Today the earliest version we are able to see was made during Emperor Wanli's reign (1572-1620) in Ming dynasty.

徽宗 (r.1100-1125) fervently collected, catalogued and remade the ancient bronzes. Through these attempts, Huizong represented himself as a sage emperor. Like the sage kings from the Three Dynasties, he too possessed ancient ritual objects and knowledge.[15] Chongxiu Xuanhe Bogutulu 重修宣和博古圖錄 (Revised Xuanhe Illustrated Catalogue of Profoundly Learned Antiquity, henceforth "Bogu tu") was the catalogue compiled by Huizong's court, which recorded the imperial collection of 839 objects in a format similar to that of kaogu tu (Figure 1-2).[16] After the Jurchen people captured the Song capital Bianliang in the north, the court re-located in Hangzhou in the South; this transition marks the end of the Northern Song and the beginning of the Southern Song. Emperor Gaozong 高宗 (r.1162-1187) of Southern Song, to solicit his rulership, ordered craftsmen to reproduce the ritual vessels in the Northern Song imperial collection that had been lost during the war. The catalogue made by Gaozong's court was based exclusively on Bogu tu, which served as a "guide book" to reproduce the ritual vessels.[17]

[15] Huizong's collecting behavior is very politically oriented. Wang Cheng-hua, in a thorough study of the political aims of Huizong's collecting activities, especially focused on his making, collecting, and displaying of auspicious images. See Wang Cheng-hua, Listening to Playing of Zither: Hui-Tsung's Academic Painting and Its Network of Signification," National Taiwan University Journal of Art History, vol. 5, 1998.

[16] Emperor Huizong's collection of ancient ritual vessels resulted from the ritual reform implemented in 1107. The authorship and date of the compilation of Bogutu are still under discussion. Bogutu was a work of multiple hands; known leading authors include Dong You 董逌 (fl. 1100-1130), Wang Fu 王黼 (1079-1126) and Huang Bosi 黃伯思 (1079-1118). In 1113, an imperial decree showed that Emperor Huizong was commissioned to record the imperial collection titled Xuanhedian Bogutu 宣和殿博古圖 (Illustrated Catalogue of Profoundly Learned Antiquity from the Xuanhe Hall). Later Bogutu was made to include the newly acquired objects and to make up for the lack of substantial research in the previous compilation. Information of Huizong's compilation of catalogues can be seen in the following major sources: Cai Tao 蔡絛's Tieweishan congtan 鉄圍山叢談, Dong You's guangchuan shuba 廣川書跋 and Huang Bosi's Dongguan yulun 東觀餘論. Emperor Huizong not only made bronze objects into catalogues, he also compiled individual catalogues for painting and calligraphy: xuanhe huapu and xuanhe shupu. Patricia Ebrey thoroughly researched Huizong's imperial collection and catalogues. See Ebrey, Accumulating Culture: The Collection of Emperor Huizong (Seattle: University of Washington Press, 2008), especially "Collecting and Cataloguing Paintings", pp. 254-274.

[17] The catalogue, Shaoxing zhizao liqitu 紹興製造禮器圖 (Illustration of the Making of Ritual Vessels in the Shaoxing Era), had already lost. However, the text in the catalogue was recorded in zhongxing lishu 中興禮書 edited by Xu Song 徐松. During the Southern Song dynasty, the catalogue was largely duplicated and dispersed all over the country.

After the Song dynasty, though ancient bronzes remained sought-after, they transformed from ritual objects to playthings, frequently used as flower vases, incense burners, and even scroll holders. The situation changed in the second half of the eighteenth century, when a revival of jinshi scholarship occurred in China. Emperor Qianlong of the Qing dynasty engaged enthusiastically in collecting, and compiled four volumes of bronze catalogues using the conventional format of Koagu tu and Bogu tu. He ambitiously recorded 4,115 objects that outnumbered the Northern Song imperial collection.[18] Through collecting and cataloguing of ancient bronzes, this Manchu emperor projected his own image as a sage king and man of letters, who was able to rule a multiethnic empire. However, because he lacked the knowledge of ancient bronzes, a high proportion of the imperial collection recorded in his catalogues was proven to be fake.[19]

It was the mid-Qing scholars who began to challenge the Song dynasty jinshi scholarship. During the same time when Emperor Qianlong was compiling his catalogues, many scholar-officials became passionate collectors and resourceful epigraphers. This was partly because of strict Manchu censorship, mainly prompted by the rise of evidential study (kaozheng 考證) in the Qianlong and Jiaqing 嘉慶 (r.1796-1820) era. Believing that the transmitted texts were covered by thick veil of Song and Ming metaphysical and cosmological scholarships, mid-Qing scholars turned their focus to ancient bronzes and stelae, in search for pristine sources from pre-Han dynasties.[20]

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[18] The four catalogues Emperor Qianlong compiled included the Xiqing gujian 西清古鑑(Ancient Mirror of Western Clarity), Ningshou jiangu 寧壽鑑古 (Reflections on Antiquity from the Palace of Tranquil Longevity), Xiqing xujian jiabian 乾隆續鑑甲編 (Supplement A) and Xiqing xujian yibian 乾隆續鑑乙編 (Supplement B). Xiqing gujian was the only catalogue printed (in 1755) during Qianlong's reign.

[19] For a thorough study of dating and provenance of the vessels recorded in the four catalogues of Qianlong, see Liu Yu, qianlong sijian zongli biao 乾隆四鑑綜理表 (Beijing: Zhonghua shuju, 1989).

[20] Benjamin Elman, From Philosophy to Philology: Intellectual and Social Aspects of Change in Late Imperial China (Cambridge: Harvard University Asia Center), pp.27.

The problem of Song catalogues revealed itself in two aspects in the mid Qing: while Song scholarship was dedicated exclusively to the inscriptions, the reproduction of them lacked accuracy. The first change occurred in the late 18th century, when Qian Dian 錢坫 (1741-1806) included "traced" inscriptions in his catalogues, to replace the traditional "imitated" ones.[21] Cao Zaikui was the first scholar who recorded the position of the inscriptions, adding physicality and materiality to the writings.

In the early twentieth century, the major change in bronze catalogues was prompted by the introduction of photo-mechanic reproducing technique. Duan Fang was the first scholar who used the technique of photolithography in producing his bronze catalogue; he juxtaposed the line drawing of the vessel shapes with the photographed rubbings.[22] In later decades, photographs of the vessel were also included in the bronze catalogue. For example, the photograph of a water-pouring vessel, once recorded by Cao Zaikui (Figure 1-3), was re-catalogued by Rong Geng 容庚 (1894-1983), a famous republican scholar. In his catalogue, the photograph of the vessel, in replace of the traditional line-drawn image, was juxtaposed with its rubbing, preserving the formatting idiom of the Song antiquarian catalogue (Figure 1-4).

Cao's catalogue was situated in a transitional period, when evidential scholarship was popularized in the mid-Qing. No longer merely focusing on inscriptions, Cao's catalogue demonstrated a broadened scholarly interest in precise details of the objects, other than the texts

[21] Qian Dian, Shiliu changletang guqi kuanshi kao 十六長樂堂古器款識考 (Research on Inscriptions on Ancient Objects in the Hall of Sixteen Eternal Happinesses), 1796, Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 2. For the change in Qian's catalogue, see Rong Geng, "Qingdai jijin shuji shuping 清代吉金書籍述評 (An Analysis of Bronze Catalogues in the Qing Dynasty)," in Ronggeng wenji 容庚文集 (A Collection of Scholarship by Rong Geng), edited by Zeng Xiantong 曾憲通 (Guangzhou: Zhongshan University Press, 2004), pp.110-111.

[22] Duan Fang, Taozhai jijinlu 陶齋吉金錄 (Auspicious Bronzes in the Tao Studio), 1908, reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

themselves; such as how the text is in relation to the vessel, and how the vessel is decorated with pictorial motifs. This meant that the bronze vessels were no longer being treated as textual sources. By tracing the collecting history of Cao's bronzes, and by exploring how these artifacts were redefined in other scholars' catalogues, a brief history of the technical development of the nineteenth century bronze catalogues could be pictured.

Three Generations of Scholars

The late eighteenth century saw a grand revival of antiquarian study, research on bronze vessels and inscribed stones from the pre-imperial period. That study covered three generations of scholars from the late-Qing, to the early republican era (1920s). In the high Qing, individual scholars' antiquarian study was highly politically oriented. Using philological analysis to strip away medieval corruptions of Confucian texts, they aimed to construct new ideological platforms that could challenge the ruling Qing orthodoxy. [23] On the contrary, it was the lack of political engagement that marked change starting from the early nineteenth century. Antiquarians began to view intellectual work as an escape from politics; their scholarship was less ideologically and more historically oriented.

The major scholar-collectors of the first generation came from two geographical areas: Jiangnan (in the South), and Shandong (in the North). Their scholarships were marked with an increased level of preciseness, while they focused only on the inscriptions on the ancient vessels. Ruan Yuan 阮元 (1764-1849) was a central figure of the Jiangnan circle. Having passed the metropolitan examination and having been appointed to the Imperial Hanlin Academy, he held a number of prominent official position under the Jiaqing and Daoguang 道光 (r.1782-1850)

[23] Scholars grounded political argument on competing versions of the Classics. See Benjamin Elman, From Philosophy to Philology.

emperors. In Hangzhou, he founded an academic school, Gujing jingshe 詁經精社 (Academy for Studying the Classics), whose members were later regarded as "the Yangzhou School of Learning" (Yangzhou xuepai 揚州學派).[24] His catalogue, Jiguzhai zhongding yiqi kuanshi (Inscriptions on the bronzes in the Studio of Accumulating the Past) recorded only inscriptions collected by himself and his friends, including Qian Dian, Zhang Tingji, who belonged to the Jiangnan circle and was also close to Cao Zaikui, the protagonist of my study.

The first Shandong collector to rival Cao, was Liu Xihai 劉喜海 (courtesy name Yanting 燕廷, 1793-1852). Liu came from a prominent family. After passing the provincial examination, he was appointed to various official posts. Liu was the other scholar who made a catalogue through rubbing, including inscriptions from thirty-five vessels he collected. Liu also compiled a catalogue aimed to be printed rather than rubbed. His catalogue, Chang'an huogubian 長安獲古編 (Compilation of Antiquities Acquired from Chang'an), including texts and illustrations, was never finished during Liu's lifetime. Its manuscript later passed to Chen Jieqi 陳介祺 (1813-1884), a younger scholar belonging to the Shandong circle, leading us to the second generation of scholars.

The second generation of scholars emerged after the Taiping rebellion, when major Jiangnan collections, including those of Ruan Yuan, Zhang Tingji 張廷濟 (1768-1848), and Cai Zaikui, had dispersed and become available for purchase on the market. This generation faced pressures created by foreign imperialism, increasing economic change, and the rapid decline of imperial authority. Partly because of awareness of western technology and connoisseurship, scholarship in this period showed a growing interest in "minor details" other than inscriptions,

[24] Considering "concrete learning" (shixue 實學) to be the top priority, the school taught not only the Classics, but also astronomy, geometry and mathematics.

such as shape, surface decor, and materiality, the casting technique of the ancient bronzes. Wu Yun 吳雲 (1811-1883) and Wu Dacheng 吳大澂 (1835-1902) in the south, Chen Jieqi in the north, and Duan Fang in the court, were the major scholar-collectors in this period. An increased pursuit of realism was shown in their illustrations of the vessel shape. Wu Dacheng and Chen Jieqi had frequently discussed techniques for depicting the vessel shape through the exchange of letters. Duanfang, an officer who had actually traveled to the west and had personally experienced the advanced technologies, added in his illustrations with a western perspectivity. A group of bronzes was portrayed with a single vanishing point and increased three-dimensionality (Figure 1-5).

The fall of the imperial Qing marks the end of the 2000-year imperial rule in China. Early Republican scholars, most of whom had been trained in a classical way, were essential in bridging the gap between the late Qing paleography and the emerging form of historical narrative that was favored by the New Culture generation. Scholarship of this generation is marked by the syncretism of late-Qing and Western analytical methodologies; the aim of their catalogue compiling was no longer solely for studying the past, but also for preserving the past. Their active role in the modern publishing presses was another factor worth-noting. Luo Zhenyu 羅振玉 and Wang Guowei 王國維 were two of the most important men-of-letters in this transitional period. Receiving both traditional and Western education, they actively shaped and reconstructed the idea of "antiquity," through their collecting, publishing behavior and educational influence.[25] Essential to my study is their promoting of "heritage preservation" through photographing the antiquities. Antiquities in this period were no longer "hidden" in private collections: they gained

[25] For the study of Luo and Wang, see an anthology of conference papers, Yang Chia-Ling and Rodderick Whitfield ed., Lost Generation: Luo Zhenyu, Qing Loyalist and the Formation of Modern Chinese Culture, 2012.

a much higher level of "publicity" through publications. Emergence of these new ideas of heritage preservation and national identity also affected the reproduction of Cao Zaikui's black catalogue. A republican scholar, Chen Naiqian, who photocopied and republished Cao's catalogue, belonged exactly to this transitional generation.

Methodology and Chapter Structure

My study explored the antiquarianism in late Qing and early Republican China, including the collecting culture, antiquarian scholarship, and the behavior of catalogue compiling, by focusing on the case of the catalogue made by Cao Zaikui. My study directs our attention away from the study of editions, as well as the issue of when and by whom it was made. Rather, my study focused on a cascade of formative moments in history: moments when the catalogue was made, remade, redefined.

My methodology was borrowed from Lisa Pon's research on a Renaissance printed icon, Folì's Madonna of the Fire. Pon based her research on a single object that was anonymous, undatable, and made by print. She explored how the image was transferred from a private realm to a public religious space, how it was moved outside the church into the city, and how it was later broadly circulated.[26] My study also explored the life cycle of a single object: Cao Zaikui's catalogue. My study started with the producing of Cao's catalogue, an act initiated by Cao himself, where the author carefully controlled the content, format, medium and readership. My study continued with the reproducing of the catalogue after Cao's death, and ends with the redefining of the contents of the catalogue, when Cao's collections were dispersed through diverse methods in other catalogues. By exploring the life cycle of Cao's catalogue, my study

[26] Lisa Pon, A Printed Icon in Early Modern Italy: Forlì's Madonna of the Fire (London: Cambridge University Press, 2015).

revealed an image of the antiquarian culture shared by literati in the late Qing and early Republican era.

Figure 1-1 Shang dynasty Feng you wine container. Cao Zaikui, Huaimi shanfang jijintu 懷米山房吉金圖 Vol.2, 1839, collected by Hong Kong University Library.

Figure 1-2 The recording of the bell of Marquis Qi with inscription. In Wang Fu (1079-1126), Bogutu, 22.11a-b. Reprinted in 1636. National Library of China.

Figure 1-3 Yi water vessel. Cao Zaikui, Huaimi shanfang jijintu 懷米山房吉金圖 Vol.2, 1839, collected by Hong Kong University Library.

Figure 1-4 Yi water vessel. Rong Geng ed., Liu Tizhi collected, Shanzhai yiqi tulu 善齋彝器圖錄 (The Illustrations of Vessels Collected in the Studio of Benevolence), 1936, Fig.96. Beijing: Hafo yanking xueshe.

Figure 1-5 An altar of bronze vessels. Duanfang, Taozhai jijinlu 陶齋吉金錄 (The Auspicious Bronzes in the Tao Studio), 1908. 1, 1 a-b. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

CHAPTER 2
MAKING A CATALOGUE

Of all the Qing dynasty (1644-1911) scholars who produced important bronze catalogues, Cao Zaikui (1782-c.1852) is perhaps the most enigmatic. He thwarts our curiosity about his life and personality: only scraps of biography are left. From these bits and pieces of information, we know that as a scholar from the prosperous Jiangnan area in southeast China, he dedicated his life to art collecting and epigraphical study; yet his lack of official position or political participation made it difficult for history to preserve him. His reputation was narrow in his own time; and after his bronze collection was dispersed, it seems there was no information about him. However, his bronze catalogue made his name and perpetuated his scholarship.

To discuss the process by which Cao Zaikui made his bronze catalogue, information was gathered from from memoirs and the postscripts included in the catalogue. In general, the process of catalogue making in the Qing dynasty included three-stages: building the collection, making the catalogue, and editing the catalogue. Cao's collection: what was he collecting? Why collect? Where and how did he display the artifacts? Discussion then proceeds to the actual procedure for compiling the catalogue: a procedure that requires multiple hands and multiple minds. We might also ask how familiar this procedure of discrete areas of contribution was to the mechanics of producing pictorial catalogues in the period more generally. The process of making a catalogue, furthermore, did not terminate at the time when the compilation initiated by the author was completed: there is an awaiting process of editing, of readerly intervention—an ongoing dialogue between the author and intended viewers, between production and reception—where the author selectively included feedbacks, commentaries and annotations by the readers into his catalogue.

Collecting Objects

The little information we know about Cao Zaikui can be told quickly. He was born in 1782 and died not long after 1852, a transitional period between the High Qing (1683-1839) and Late Qing (1840-1912). His courtesy name is Qiufang 秋舫, meaning "autumn houseboat." He probably lived all his seventy years in a prosperous city in southeast China, famous for its embroidered silk and gardens. He and his family occupied a large garden near the jishui 汲水 bridge outside the Pan Gate (pan men 盤門), in the southwestern corner of the city. Toward the end of Cao's life, Suzhou and surrounding regions were devastated by the war between the Taiping army and Qing imperial troops in the early 1850s. No official sources recorded Cao's life. The sources we could rely on mainly came from fragment information such as scholarly correspondence, diaries, personal essays, and art catalogues.

Late Qing scholar-collectors typically only recorded their bronze and stone collections—the epigraphical materials—in their catalogues. However, what was "recordable" differed from that was "collectable." A scholar's collections are often not limited to those recordable artifacts: in addition to those "serious" antiquities such as ancient bronzes and stones, paintings, calligraphies, all sorts of other well-made decorations or ornamentations could also be considered collectable. Cao Zaikui was just the type of scholar-collector who collected both the "serious" antiquities and other "play things" that were considered mere decorative. Differing from art dealers, Cao rarely sold his artifacts, but instead kept them together, evidently for his own enjoyment.

Cao Zaikui's bronze collection was highly valued during his time. Although he only included sixty objects into his catalogue—The Illustration of Bronzes in Huai Mi Mountain

House (huai mi shan fang jijin tu 懷米山房吉金圖, henceforth, "Huaimi")—the bronzes he had collected might outnumbered that.[1] Although the size of his collection couldn't be compared with the Qing imperial collection, it was a remarkable collection among private collectors, considering that only a few Qing dynasty scholar-collectors ever owned as many as one hundred ancient bronzes.[2]

To evaluate the quality of Cao's collection, we need to consider how the collection was viewed by contemporary Qing scholars, and how the collection would be re-evaluated nowadays, with far more related bronze vessels available for comparison from scientifically controlled archaeological excavations. Because of their quality and authenticity, the objects Cao included in Huaimi were highly treasured among scholars in Cao's circle. "The richness of Cao's collection made him the best collector in Suzhou area," said Liu Xiaohua 劉曉華, a scholar whose postscript was included in Cao's catalogue.[3] With an impressively valued quality, even long after Cao's death, his artifacts were still sought by later generations of scholars. Chen Jieqi 陳介祺 (1813-1884), reputedly the dynasty's greatest private collector, was one who fervently gathered information about Cao's objects, hoping that he himself could possess some of them.[4]

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[1] Xu Kang 徐康 (1814-?) recorded that Cao's bronze collection included seventy-five pieces: "Sir Cao Qiufang (Zaikui) collected seventy-five pieces of Shang and Zhou bronze objects, including bells, tripods, et cetera. He made illustrations of them by stone carving, in order to circulate (the knowledge). 曹秋舫丈所藏商周鐘鼎彝器有七十五種，刻吉金圖石刻以行世。" See Xu Kang, Qianchen mengying lu 前塵夢影錄(Records of Dreams and Shadows in the Past), late nineteenth century, vol.1, pp.12.

[2] Emperor Qianlong of Qing collected 4,115 bronzes. Individual collectors such as Ruan Yuan 阮元 (1764-1849) possessed seventy-four bronzes. Chen Jieqi 陳介祺, the dynasty's greatest private collector, managed to acquire around 380 bronzes.

[3] The full text of Liu said: "It is extremely difficult to possess objects made in the three dynasties (Xia, Shang and Zhou). The richness of Cao's collection made him the best collector in the Suzhou area. Some of his objects were incomplete, but fortunately he was able to find the the missing parts after years of searching. 夫三古彝器，人間至不易得。今秋舫收藏之富，甲於吳下，乃至一二殘佚輾轉數歲，竟得補足。" See Cao Zaikui, Huaimi shanfang jijintu, 1839, collected in Academia Sinica, Taipei.

[4] In a letter written to Wu Yun in the twelfth year of the Tongzhi era (1873), Chen Jieqi asked for information about the current owners of objects that once belonged to several well-known collectors, Cao Zaikui was among them:

Treasuring "quality" over "quantity" in the evaluation of a collection, showcased a shifted view starting from the mid-Qing: it was better to collect fewer objects, as long as they were authentic; than to collect more objects that included fakes or forgeries. This variated concern of collecting behavior reflected development of techniques in making forgeries in the late Qing. One method frequently used by forgers was to add inscriptions on the authentic antiquities: either to elongate the already existing ones, or to add writings on the non-inscribed vessels.[5] Many scholars expressed anxiety about the growing market for forgery, especially authentic vessels with forged inscriptions.[6] Chen Jieqi specifically stated that, in order to study ancient writings, scholar-collectors need first to be successful connoisseurs, able to distinguish real from fake; otherwise, subsequent research would be futile.[7] Cao's collection was highly valued because of its high quality.

"Are there any objects remaining in the south that once belonged to Zhang Shuwei, Ye Mengyu, Xia Songru, Yao Liuyu, Wu Kangfu, Zhu Xiao'ou, Han Luqing, Yan Meicen, Wen Houshan, or huai mi shan fang (Cao Zaikui)? Or if you know any information of the new collector who possesses objects once owned by the aforementioned names, please tell me in detail. 南中舊收藏家張叔未、葉夢漁、夏松如、姚六榆、吳康甫、朱筱漚、韓履卿、嚴眉岑、文後山、懷米山房、尚有存者否，新藏家知其人者，均乞一一示及。" See Chen Jieqi, letter written to Wu Yun in the twelfth year of Tongzhi era (1873), in Fuzhai chidu.

[5] Since scholars were mainly seeking inscriptions on the objects, vessels with longer inscriptions sold for higher prices.

[6] Among them, Wu Yun 吳雲 (1811-1883), a native Zhejiang scholar, worried that it was already hard to distinguish forgeries from the real at his time: it might be even harder for future generations. Wu Yun said: "Recently, forgers have become surprisingly expert in making forgeries. In Shanghai, a group of people specifically sought to purchase non-inscribed objects. They worked together and spared no effort in forging inscriptions. Those forgeries were far better than replicas made during the Xuanhe 宣和 era (1119-1125). This is because the non-inscribed objects were authentic antiquities themselves, and the later characters inscribed on them were delicately made. For a contemporary viewer, it is already hard to distinguish authentic from fake. I'm afraid that decades or a hundred years later, even a man with huge eyes could not distinguish them. 近日偽作者，愈出愈奇，滬上已專有此一種人廣收無字舊器，合數人之力，閉戶覃精，偽舖成文，比之宣和仿古，實能遠勝。蓋器本原舊，文又工緻，目前已不易識，數十百年後，恐巨眼者亦不能辨矣。" See Wu Yun, liangleixuan chidu 兩壘軒尺牘, juan 8, pp.33a.

[7] Chen Jieqi said: "The major concern of collecting should be eliminating the fake. This is the way to seek ancient writings. [One should] not collect as Mr. Ye (Ye Zhishen 葉志詵) did. Although he collected many objects, [if they were all fakes], what was the use of them? 收藏必以無偽為求古文字之要，不可如葉氏，雖多亦奚以為也。" Chen Jieqi, letter written to Wu Dacheng in the third year of Guangxu era (1877), in Fuzhai chidu.

Several vessels in Cao's bronze collection proved highly important in the study of etymology, Classics, paleography, and phonology, triggering discussions that lasted for centuries. Some vessels from the collection were used to prove larger historical concepts, or were compared with excavated objects. For example, one highly debated vessel is a Zhou dynasty Xiaofu gui 效父簋 tureen (Figure 2-1), recorded in the first volume of Cao's catalogue, where the author misdated it as a Shang dynasty vessel. Guo Moruo 郭沫若, from an ethnographic approach, believed that a special pictograph inscribed at the end of the leftmost column was an ethical symbol in the Central Plain of China.[8] Cai Yunzhang 蔡運章 explained the same pictograph as one of the hexagram's name (gua ming 卦名) from the Book of Changes (I Ching 易經).[9] Tang Lan 唐蘭 re-dated the vessel to the early Zhou, based on the explanation of the problem of "Kang Gong 康宮 (The Temple of Kang)".[10]

Although Cao's collection was regarded highly, with related bronze vessels available for comparison from scientifically controlled archaeological excavations, we are now able to tell that later forgeries were included. Two ding vessels Cao had dated Zhou and believed to be made by the Duke of Lu 魯 were actually forgeries made during the late Ming or early Qing (Figure 2-2). This type of ding vessel, with flattened legs carved with dragon decor, was frequently forged during the seventeenth and eighteenth century and was believed to be made by King Wen 文 of

[8] Guo Moruo, "gudai wenzi zhi bianzheng de fazhan 古代文字之辯證的發展 (A Dialectical Development of Ancient Script)," kaogu xuebao 考古學報, 1972 (01):1-13.
[9] Cai Yunzhang, shangzhou shishu yigua shili 商周筮数易卦释例 (Examples of Shang and Zhou Hexagrams), kaogu xuebao, 2004 (02):131-156.
[10] Tang believed that "Kang" is a posthumous title of the King; thus the vessel must be made after King Kang, during the reign of King Zhao of the Western Zhou. See Tang Lan, Xizhou tongqi duandai zhong de kanggong wenti 西周銅器斷代中的康宮問題 (The Problem in Dating the Western Zhou Bronzes Based on the Problem of the Temple of Kang), kaogu xuebao 考古學報, 1962 (01): 15-48.

Zhou. Another similar example is a Qing dynasty ding, in the National Palace Museum, Taipei (Figure 2-3).[11] This ding in the imperial collection had an added wooden lid, which showcased a popular taste in the court. The Jia Li hu water container 嘉禮壺, Cao dated Zhou (Figure 2-4) was actually made during the Zhenghe 鄭和 period (1111-1118) of Song, when an effort of ritual reformation was carried on.[12]

Other than bronzes, also collected by Cao were painting, calligraphy, jades, porcelains, furnitures, and decorative stones. Particularly proud of his collection of Zhu Yunming 祝允明 (1460-1526) calligraphy, Cao named one of the pavilions in his villa sanzhu wulu 三祝吾廬 (Three Wishes to My Thatched Cottage), playing with pun between the surname of the calligrapher, "Zhu," and the Chinese pronunciation of "wishes."[13] He collected literati paintings that he dated from Tang to Ming, including works by the most revered "old masters."[14] As a lover of decorative stones, Cao was regarded by his friend as the reincarnation of Mi Fu 米芾

[11] Hsu Ya-hwei, xinjiu yu yasu: wanming de gutongqi jianshang 新舊與雅俗: 晚明的古銅器鑒賞, gugong wenwu yuekan 2017 (9): 34-46.

[12] For more information on archaistic ritual vessels made in the Zhenghe Period, see Chen Fang-mei, "Songdai jinxue de xingqi yu song fanggu tongqi 宋代金學的興起與宋仿古銅器 (Ancient Bronzes and the Making Archaistic of Bronze in the Song Dynasty)," in qingtong yu songdai wenhuashi 青銅與宋代文化史 (Taipei: National Taiwan University Press, 2016), pp.1-50.

[13] Qi Xueqiu 齊學裘 recorded in his jianwen suibi: "Cao has a pavilion named 'The Three Wishes (zhu) to My Tatch' (san zhu wu lu). He had collected three of Zhu Jingzhao (Zhu Yunming) works written in the style of regular script, and based on this collection he named his pavilion. 有「三祝吾廬」，向藏祝京兆楷書三種，因此名堂。" See Qi, Jianwen suibi, pp.12.

[14] Qi Xueqiu, a scholar activated in the Daoguang era, recorded in his memoir a poem he wrote to describe Cao's painting collection: "Dedicate stones in unusual types, three hundred paintings were also collected. Lofty hills with continuous range, those were by General Li; Green the mountain and white the cloud, those were by Zhao Ronglu. [Also collected were paintings by] Wang Zhi the ink-splasher and Ni the dry stroke painter; Fan Kuan who painted in thick brushes, and Lu, who painted with meticulous details… Summer in the watery village by Zhao Danian, Autumn mountains with reddish trees by Huang He. 玲瓏怪石且勿論，圖畫天開三百幅。重巒疊嶂李將軍，青山白雲趙榮祿。潑墨王治惜墨倪。粗筆范寬工筆陸 ... 水村清夏似大年，紅樹秋山即黃鶴." The artists mentioned included General Li (Li Sixun 李思訓, 651-718) and Wang Zhi from Tang; Zhao Danian (Zhao Lingrang 趙令穰) and Fan Kuan from Song; Zhao Ronglu (Zhao Mengfu 趙孟頫, 1254-1322); Ni (Ni Zan 倪瓚, 1301-1374) and Huang He (Wang Meng 王蒙, 1308-1385) from Yuan; and Lu (Lu Zhi 陸治, 1496-1576) from Ming. See Qi Xueqiu, Jianwen suibi, pp.12-13.

(1051-1107), a Northern Song scholar-painter, calligrapher, and art critic, whose theories highly influenced the discourse of art.[15] Cao decorated his house with stone rocks and incised marbles.[16] With similar interest toward stone as Mi Fu, Cao named his villa huai mi shan fang, the mountain house where the memory of Mi could be recollected. Cao's collection also included "the four treasures of a study" (wenfang sibao 文房四寶): brush, ink, paper, and ink-stones, that were essential to literatis' works.[17] One fascinating episode also reveals Cao Zaikui as a connoisseur of ink-stones. Because of his excellent judgement on ink-stones, he participated in

[15] Cao Zaikui and Mi Fu were both lovers of stones. Mi Fu was famous for his treatment of stones not as mortal entities but as respectable friends. Qi Xueqiu said: "Cao is a healthy old man who, throughout his life, befriends stones. He disdained friendship based on material interests. He must be the reincarnation of Crazy Mi (Mi Fu)! I wish I could build a thatch beside his house! 平生友石壽而康，堪笑世間交酒肉。米顛畢竟是前身，我慾編茅傍君築." Qi Xueqiu, jianwen suibi, juan 6, pp.13. In Xu Kang's 徐康 (1814- ?) Records of Dreams and Shadows in the Past (qian chen meng ying lu 前塵夢影錄, henceforth "qianchen"), a collection of Xu's notes on art and antiquities, the author said that Cao Zaikui spent a great amount of money in purchasing Ruan Yuan's 阮元 (1764-1849)'s. Ruan Yuan was the most famous scholar in Cao's time, and also a lover of stone: "During the Daoguang era, Ruan Wenda Gong (Ruan Yuan) was a viceroys (zong du 總督) of Liang-Guang 兩廣 and Yun-Gui 雲貴. Meanwhile, E Tengyi 額騰伊 (courtesy name Shennong 莘農) was the governor (xunfu 巡撫) of Guizhou 貴州, who selected the largest amount of stones (for Ruan Yuan). After Ruan's retirement, he built a pavilion and placed his stone, calligraphy and painting collections in the treasure cabinets. The largest stone object was a screen sized five chi (167 cm), which was decorated all over with images of ivy and vines. It was a great masterpiece. Ruan's stone collections were sometimes stolen by his servants. Some of those objects were purchased by Cao at a high price. It was said that Cao purchased four stones depicting seasonal landscapes, that once belonged to Ruan. Their size was approximately eight cun (26.4 cm) to one chi (33.3 cm). 道光年間阮文達公督滇黔，伊莘農為雲撫，采石最多。阮公歸田後，築石書畫廔以庋之，最巨者為五尺屏，綠蘿藤蔓滿幅，洵巨才也。間有僕輩竊出者，曹秋舫丈重金購之，聞有四石，約尺有咫." See Xu Kang, qianchen mengying lu, vol.2, pp.22.

[16] Qi Xueqiu said: "Stone rockeries are placed around his chamber: there are seventy-two of them. Curved marbles are hanging on the walls, with all sorts of decorated motifs such as mountains and figures, birds and beasts, insects and fishes. 軒館之旁皆插石峯，其有七十二峯。所挂壁間者無非大理石，山水人物、鳥獸蟲魚，無不備具." See Qi, Jianwen suibi, pp.12.

[17] Qi Xueqiu said: "Ancient ceramics and jades were placed in between (the marbles). High pastoral trees and green bamboos, hidden grasses and simple orchids, as well as tables, beds, and teapots: all of them delicately made. 古磁古玉陳設其間。高梧翠竹，幽草素蘭，几榻茗壺，無不精妙." See Qi Xueqiu, Jianwen suibi, pp.12. Lu Xinyuan 陸心源 said: "(Cao) was keen on antiquities; he was skilled in connoisseurship. He loved all sorts of objects including ceramics, bronzes, jades and stones. 性嗜古，鑑別頗精。瓷銅玉石無所不好." See Lu Xinyuan, jinshixue bulu 金石學錄補, the Complete Library in Four Sections (xuxiu siku quanshu): Hitory (zi bu), vol. 901, Shanghai: Shanghai guji chubanshe.

reproducing the The History of Inkstones in Duan River (duanxi yanshi 端溪硯史), responsible for re-carving the woodblocks.[18]

Objects as Texts

Collecting is a universal behavior: people collect to build or keep social status, to fulfill sensual pleasure, and as a moral pursuit. For Qing dynasty scholars, "to study the past" became the main purpose for collecting. Collecting antiquities had already begun in China, as early as the Shang dynasty. Several Shang dynasty tombs had yielded objects passed down from the Neolithic period.[19] However, it was not until the Song dynasty that a systematic behavior of collecting antiquities from the remote past began.[20] Late Qing antiquarians focused on ancient artifacts by treating them as sources for historical and paleographical study. The Confucian ideology that Song scholars were eager to promote through collecting transferred in Qing dynasty to "evidential scholarship." As Benjamin Elman suggested, scholars' turning away from moral cultivation to "precise scholarship" was a key element in the Qing dynasty, as a response

[18] Xu Kang said: "The work started from November (in the thirteenth year of Dao Guang era). The excavation of stones began in January during the next year, and the hill was blocked because of the rising water. Wu Shihua (Wu Lanxiu) was an eye-witness to this incidence; he composed guanxi yanshi, which contained three volumes (juan). My old friend Wang Hezhou was an official in Yue for a long time; he has profound knowledge of the quality of the raw stones from each mine. Cao Zaikui was good at judging stones, thus he helped to re-carve Wu's book. （道光十三年）十一月開工，次年正月取石，三月水長封陂。吳石華目擊其事，著《端溪硯史》三卷。老友王鶴舟宦粵久，頗知各阬石質。曹秋舫目力亦佳，因翻刻硯史." See Xu Kang, Qianchen mengying lu, vol.1, pp.15.

[19] Jessica Rawson, Reviving Ancient Ornament and the Presence of the Past: Examples from Shang and Zhou Bronze Vessels, in Wu Hung ed., Reinventing the Past: Archaism and Antiquarianism in Chinese Art and Visual Culture, 2010 (Chicago: University of Chicago), pp. 47-76.

[20] Before the Song dynasty, ancient vessels were excavated occasionally; they were viewed as mysterious incidents within a complex omen system. Bronze vessels had been used exclusively in the ritual ceremonies in Xia, Shang and Zhou; they were considered "heavy" objects that represented the legitimacy of a dynasty. The ancient Chinese people believed the one who owned the heavy objects was the one who got heaven's mandate and the right to rule. Thus, the occasional excavation of ancient bronze objects was frequently linked with the destiny of an empire. For the myth of "nine-tripods," see Wu Hung, Monumentality in Early Chinese Art and Architecture, Stanford: Stanford University Press, 1996, pp. 1-15. In the Han dynasty, even when bronze vessels were expanded to be made into utensils, the discovery of a pre-Qin vessel was still considered as an auspicious omen. An example was the engraving in Wu Liang Shrine. See Wu Hung, The Wuliang Shrine: The Ideology of Early Chinese Pictorial Art, especially Chapter 3, Stanford: Stanford University Press, 1992, pp. 73-107.

to the collapse of Ming dynasty.[21] Rather than aesthetic fulfillment, inscriptions on the ancient vessels were what the collector cared about most. That is, ancient artifacts were collected by scholars as texts were: as textual sources to be read and studied.[22]

Collecting behaviors, according to the late Qing collectors, were divided into serious collecting and amateur collecting. Amateur collecting was always referred to as "wanwu 玩物", meaning "playing with objects." Chen Jieqi was well aware of this type of functional, decorative-oriented collecting behavior, and denied its claim to equal status with serious epigraphical scholarship. He believed that if collecting antiquities was not for studying inscriptions but for wanwu, then collecting ancient bronzes would be no different from collecting jewelry. In a letter written to Wu Yun[23], he said

> The lovers of antiquities in our age, should have real temperament and real spirit that are similar to the ancient people; otherwise this love would be considered as indulging in physical pursuit without spiritual aims. If a collector only sought to collect as many antiquities as possible and compete with each other, the act of collecting would be no difference between playing with jewelries. Thus, if one decides to collect antiquities, he should focus on their inscriptions, especially those information that could help people understanding the truth from the past. 我輩好古，皆有真性情真精神與古人相契，方非玩物喪志。誇多鬥靡，與玩珠玉無異。故必重在文字，尤重有真知有思古獲心之喻也。

For Chen and other late Qing scholars, only by carefully studying the inscriptions on the artifacts could a collector be qualified as a serious one. Wu Yun blamed several merchant-collectors who fervently collected antiquities only to show their taste and enhance their social

[21] See Benjamin Elman, From Philosophy to Philology: Intellectual and Social Aspects of Change in Late Imperial China, pp.23-24.
[22] Shana Julia Brown, "Pastimes: Scholars, Art Dealers, and the Making of Modern Chinese Historiography, 1970-1928" (Phd diss., University of California, Berkeley, 2003), 57.
[23] Chen Jieqi, letter to Wuyun in the twelfth year of Tongzhi era (1873), in Fuzhai chidu.

status. In a letter written to Pan Zuyin 潘祖蔭[24], he said

> Mr. Gu and Mr. Cai are both young [merchants] who followed the trend. At a time they were interested in antiquities and collected them in large amounts. Recently, their interests changed and were quickly replaced by others staff. 顧、蔡二君皆少年喜事，一時高興，廣收古玩 … 近則情隨事遷，意興已替矣。

In Wu's perspective, compared with scholar-collectors, merchant-collectors were less resourceful and less serious, since they collected in order to show off. In contrasts, scholars collected to study. Although merchants attained the economic power to purchase large amounts of objects, they were not sophisticated enough to interpret their own collection: their connoisseurship was poor and their interest soon diminished.

For a serious collector, collecting objects was meant to study the past, based directly on the artifacts and writings by ancient people. The ancient objects would be compared with transmitted texts, and could mend deficiencies in those texts. The newly excavated objects could also be compared with transmitted heirlooms that were uncertain in provenance and date. Thus, inscriptions on ancient bronze vessels were highly treasured by mid and late Qing scholars. Cao Zaikui's catalogue included sixty objects, and all of his objects were inscribed.

Objects as Ornaments

In this part I am going to explore the liminality of the objects—the ambiguous stage as either text or ornament— collected by scholars in the mid and late Qing. Ancient objects served as textual material for scholarly research, and ornaments to decorate and display. When the objects were recorded in catalogues and interpreted from historical or paleographical approaches,

[24] Wu Yun, liangleixuan chidu, juan 8, 19b.

they transferred their function from objects to texts; when they were placed on wooden bases and displayed in pavilions, they transformed from objects to ornaments. After a scholar built up his collection, where to place and how to display them would be important questions. Artefacts collected by Cao were not haphazardly scattered in the storage room. Rather, they were displayed inside his villa, each on an individually made wooden stand. The bronzes and their stands were then placed on wooden cabinets, a type of treasure cabinet (duobao ge 多寶閣) frequently seen in Chinese indoor decoration. The multiple functionality of antiquities is demonstrated through Cao's collecting behavior.

Surviving documentation of a scholar's memoir suggests that there were at least four pavilions inside Cao's villa. The pavilions were connected by a central garden, where decorative and monumental stone rockeries were placed. The four pavilions were named the Pavilion of Virtuous Thinking (huaide tang 懷德堂), the Thatch of Three Wishes (san zhu wu lu 三祝吾盧), the Nest of Bronzes and Stones (jinshi wo 金石窩), and the Study Chamber (xuanguan 軒館). Cao's artifacts were displayed or stored in those pavilions.

It is also important to remember that Cao's artifacts were displayed on wooden stands, though the stands are lost today. Qing collectors viewed the wooden stands as integral parts of the objects' character.[25] Adding stands would effect in the elevation of the objects, making the objects more prominent. The delicate craftsmanship of Cao's wooden stands was well known among scholars. When Cao's bronzes were dispersed after his death, they were sold in the

[25] Jan Stuart had argued, pedestals, or stands, are active agents in construing the meaning and perception of the object; it is an art form in their own right. Jan highly suggested that objects, no matter bronzes, jades, porcelains, or even just rocks, needed to be viewed together with their stands. See Jan Stuart, "Practices of Display: The Significance of Stands for Chinese Art Objects", in Silbergeld et al., eds., Bridges to Heaven: Essays on East Asian Art in Honor of Professor Wen C. Fong (Princeton: Princeton University Press, 2011), 693-712.

antique markets together with the stands.[26]

The stands owned by Cao was so delicately made that they were themselves collectable objects. When Wu Yun (a scholar-collector in the next generation) purchased a yi water vessel made by the Duke of Qi (Qihou yi 齊侯匜) and recorded it in his catalogue (Figure 2-5), he specifically praised the craftsmanship of Cao's stands.[27] A yi vessel is now in the Shanghai Museum (Figure 2-6), while the stand was lost. Wu believed Cao's stands were the best to be found in Suzhou, and it took workers several years to finish them.[28]

The wooden stands Cao ordered to be made for each individual antique bronze showcased an aesthetic preference in the mid and late Qing. The act of fitting antique bronzes with custom-made wooden bases and lids started first in the court during the Qianlong era. Later on, this taste was popularized among scholars. The use of stands is captured by two rare scrolls dated to 1728, now in the Sir Percival David Collection at the British Museum (Figure 2-7). These scrolls illustrated selected examples of antiquities collected by the Yongzheng emperor of the Qing dynasty, most of which sit on stands, ranged from the elegantly simple to the ornate. Authentic or not, the objects are treated alike. Assigning each vessel a unique wooden base created in a singular aesthetic system. The collecting of objects has now been discussed. We

[26] Xu Kang recorded in qianchen: "In the Geng Shen year, the mobs from Yue (the Taiping armies) invaded Suzhou. Zhang (Zhang Yunyan 張雲巖) run away from his hometown so that all the objects (he bought from Cao Zaikui) left behind were taken by others. Those objects were then sold in the market together with their extremely delicate stances and boxes. 至庚申，粵寇陷吳，張棄家遠避，所藏諸器俱為人攫取，至蠡市求售，其鑲座裝匣極精美。" See Xu Kang, qianchen mengying lu, pp.12.

[27] The vessel is now collected in the Shanghai Museum.

[28] Wu Yun recorded in his catalogue: "In an earlier time, I saw a base made of rosewood, inscribed with characters stating: "This yi water vessel of Duke of Qi, was collected in Huai mi Mountain House". At that time when he was still alive, Cao cared very much about the mounting of his object. He carefully selected reputable craftsmen and it took years to finish the work. Cao's stands were the best that could be found in Suzhou! 先，余於舊肆中見一紫檀座子，刻「齊侯匜，懷米山房收藏」數字。曹氏當季講究裝潢。競選名匠，大約非數季不能藏工，吳中推為第一." See Wu Yun, liang lei xuan yiqi tushi, juan 7, 22.

know that Cao Zaikui was a serious scholar-collector, not politically motivated, but famous and highly acknowledged for his scholarship and bronze collection. His interest in collecting was not merely research oriented. Treating artifacts as both texts and ornaments, he collected all sorts of inscribed or uninscribed artifacts, for study and display. Next we examine the making of the catalogue.

Making the Catalogue: A Collaborative Effort

Distribution of labor was common in the process of catalogue making: a given piece of a catalogue is typically attributed to multiple hands and minds. The collaborative effort of catalogue making is significant. We might also ask how familiar this procedure of discrete areas of contribution was to the mechanics of producing catalogues in the Qing dynasty more generally. The collaborative effort of catalogue making is twofold, including collective study and cooperative craftsmanship.

Studying the Objects

In the late Qing dynasty, although antiquities were collected in individual scholars' private villas, those collections were not entirely private. When an important vessel was purchased by a scholar-collector, it would always trigger a discussion among the literati, through the exchange of rubbings. Rubbings also granted private collections a certain level of publicity. Rubbings allowed comparative study of vessels, necessary for precise scholarship. Through rubbings, scholars could collaboratively discuss and decipher inscriptions on the antiquities. Together, they translated enigmatic ancient scripts; together, they unpacked the meaning of ancient writings by comparing them with transmitted texts. Scholarly discussion of Huanzi

Mengjiang hu 洹子孟姜壺 vessels (recorded in Cao Zaikui's catalogue as "Qihou lei 齊侯罍") is a good example of how the study of antique bronzes was a collaborative enterprise in the mid and late Qing. My study explored the idea that studying the inscriptions on ancient bronzes necessitated close cooperation between a scholar and rubbing makers, and frequent intellectual exchange among different scholars.

Two Huanzi Mengjiang hu vessels were discovered in the mid Qing. One was collected by Ruan Yuan, and the other by Cao Zaikui.[29] For their historical and paleographical value, the two hu vessels were highly treasured among the literati since both were inscribed with more than a hundred characters. The vessel once collected by Ruan Yuan, inscribed with 168 characters, is now in the National Museum of China, Beijing.[30] The other vessel collected by Cao was inscribed with 143 characters, and is now in the Shanghai Museum (Figure 2-8). After Cao's and Ruan's death, their collections dispersed. Wu Yun gained possession of the two vessels in the Xianfeng 咸豐 era (1850-61), and he proudly named his studio "the Studio of two lei vessels" (Liang lei xuan 兩壘軒), misinterpreting one of the inscribed character lei, as the name of the vessel type.

[29] The dating of the two Huanzi Mengjiang hu is still in dispute. The majority opinion was the mid and late Spring and Autumn period. The assumption is that the vessels were made to memorize the death of Mengjiang 孟姜, the wife of Chen Huanzi 陳桓子 (Wuyu 無宇). Since Chen Huanzi was contemporaneous with the Duke Zhuang 莊 of Qi, and the Duke Jing 景 of Qi, the vessels were possibly made in the late Spring and Autumn period and were linked closely with a historical incident: the "usurpation of Qi by Tian (Tian shi dai Qi 田氏代齊)". Li Xueqin 李學勤, a modern scholar, suggested a different view by studying not only the inscription, but also its shape and surface décor. Li, based on the position of the central bulge and the surface pattern of wavy bands, believed the vessel was made for Mrs. Jiang 姜, the wife of Duke Huan 桓 of Qi, the daughter of Duke Xiang 襄 of Qi. Thus, the vessel would be more possibly dated to the early Spring and Autumn period. Li Xueqin, "Qihou hu de niandai yu shishi (Dating and Historical Context of the Qihou hu)," Zhonghua wenshi luncong 28, 2006, 1-6.

[30] The vessel was inscribed with 168 characters in total, but only 135 of them could be seen nowadays. Ruan got the vessel from Song Baochun 宋葆淳 (1748-?) in the eighteenth year of Jiaqing era (1813). For Ruan Yuan's purchasing of Huanzi Mengjiang hu, see Gao Mingyi 高明一, Jigu huanfa: Ruan Yuan dui jinshixue de tuidong yu xiangguan yingxiang 積古煥發：阮元對金石學的推動及相關影響, Phd Diss., 2010, National Taiwan University, pp.176-181.

To study the inscriptions, scholars needed to cooperate with rubbing makers, since in many cases, highly-qualify rubbings would be difficult to obtain, especially those written inscriptions hidden deep inside the vessel, as the case of Huanzi Mengjiang hu. Several Qing dynasty rubbing makers developed close personal relationships with scholars, because of their extraordinary skill. The Buddhist monk Da Shou 達受 (1791-1858), also known as Liu Zhou 六舟, was one such rubbing maker. He had a close relationship with Ruan Yuan, and helped Ruan make the rubbings of the Huanzi Mengjiang hu vessel. Ruan was so satisfied with Liu Zhou's work, he named him "the epigraphical monk (jinshi seng 金石僧)".[31] In contrast, trusting a less-skilled rubbing maker is risky: one severe consequence is damage to the vessel. Pan Zuyin 潘祖蔭 (1830-1890), a Beijing-based scholar-official, also a renown collector, had suffered from the lost of a treasured vessel, because of the unreliable skill of the rubbing maker he hired.[32]

Not only did scholars need to cooperate with well-trained rubbing makers, they also needed to establish close intellectual connection with each other, so that ideas could be exchanged to decipher the ancient scripts. Cao Zaikui and Ruan Yuan, for example, eagerly exchanged rubbings and letters; through these endeavors, the writings on the two hu vessels could be closely examined and compared. In a letter sent from Ruan to Cao during summer 1840, Ruan was pleased that the inscriptions on each vessel could compensate for missing characters on the other. In the letter, Ruan attached the rubbings made from his own vessel, expecting to

[31] Sang Shen, Liu Zhou yu zaoqi quanxing ta 六舟與早期全形拓, in Liu Zhou: yiwei jinshiseng de yishu shijie, pp. 11-12. For a biographical study of Liu Zhou's life and art works, see Wang Yifeng, Guzhuan huagong: Liu Zhou yu shijiu shoji de xueshu he yishu, Zhejiang mesh chubanshe.

[32] Pan stated in a letter to Wu Dacheng: "Today a bronze jue vessel was broken when it was being rubbed. What a pity! 今日銅爵已拓壞，碰損拓銅器，真可惜也。" In Bai Qianshen, Wu Dacheng he tade tagong (Wu Dacheng and His Rubbing Makers), 2013, pp.47-48.

receive additional rubbings from Cao in exchange.[33] This letter was later included in Cao's catalogue in the format of a postscript[34] (ba 跋)(Figure 2-9):

> Attached are a piece of rubbing of the lei vessel, and a box containing my work Yanjingshi ji (Collection from the Yanjing Studio), both sent from Yangzhou. After writing you a colophon longer than twenty columns, for such an old men I felt surprisingly energetic (rather than exhausted). This was really strange. To Mr. Qiu Fang, I, Yuan bowed my head. Hopefully, one or two pieces of rubbings of the lei vessel could be sent (to me) from your respectable studio. 附寄去揚州壘拓本一副、揅經集一匣。跋廿餘行，老耄精神，詎舛甚多矣。秋舫先生 元頓首。尊府壘拓本希便寄一二副。

From the letter written by Ruan Yuan, we can see how the ancient bronzes were discussed among scholars, through the exchanging of rubbings and catalogues. The large amount of rubbings, being exchanged was pointed out by Bai Qianshen 白謙慎. Sometimes, more than a hundred rubbings could be attached to a single letter. For example, Pan Zuyin's note in 1889 said[35]:

> I received letters from Wu Dacheng, inside which there are 40 pieces of rubbings in high quality made by Mr. Chen. In return, I will send back 61 pieces, including rubbings of ancient objects, Buddhist sculptures, tiles and potteries, and Han stone relief paintings. 得窓齋信, 内陳子（陳佩綱）良拓四十紙, 答以古器、造像、瓦陶、漢畫像六十一紙。

Requesting rubbings from each other became one of the most frequently mentioned topics in scholars' letters. Rubbings in the late Qing could be sent or exchanged as gifts, or purchased as

[33] Collections from the Yanjing Studio is a personal work published by Ruan Yuan, including his writings on the Classics. Inscriptions on antique bronzes and stones were used as sources in explaining Confucian concepts such as ren, xing, and yili. Also included in the work were descriptions of his family, friends and life activities. The bibliography of Ruan Yuan was discussed in Chapter Nine of Wei's book, see the previous note. For Ruan's contribution to evidential study, see Ming-yi Kao 高明一, 2010, Ruan Yuan's (1765-1849) Promotion of Epigraphy and Its Impact 積古煥發：阮元對「金史學」的推動與相關影響 (Doctoral dissertation), Taipei: National Taiwan University.

[34] Postscript written by Ruan Yuan in Cao Zaikui, Huaimi shantung jijin tu, Taipei: Academia Sinica.

[35] Bai Qianshen, Wu Dacheng he tade tagong, Beijing: Dolphin Books, 2013, pp.31-49.

merchandise.[36]

Discussion of the hu vessel, moreover, was not limited to intellectual exchange between Ruan and Cao, the owners of the vessels. Other famous scholars also participated in deciphering the inscription. In 1838, a copy of the rubbing, made by Liu Zhou and ordered by Ruan Yuan, was mailed to Xu Wenqu 徐問渠, who also participated in the study. Wu Yun said "the famous scholars inside the country had all participated in the explanation of the inscription."[37] Whenever an important vessel was purchased by a collector, the event created a "Facebook" effect and prompted a heated discussion among lovers of antiquities.

Making a Catalogue

The structure of a bronze catalogue is remarkably consistent, following the tradition established in the Song dynasty. The standard format of a Song catalogue is shown in the Bogu tu compiled during Emperor Huizong's reign (see Introduction), which provided a lasting blueprint for the visual representation of antiquity. After the title of the catalogue and the table of contents, a series of woodblock-printed pictures of objects appeared, accompanied on the next page by various textual materials (Figure 2-10). Illustrations of each object were placed alone on the page; the only text included is the object's title, introducing the general date and its vessel type. On the next page is a brief summary of the artifact's physical measurements and a

[36] For a thorough analysis of how rubbings were exchanged during the late Qing, see Bai Qianshen, tuopian liutong yu wanqing de yishu he xueshu 拓本流通與晚清的藝術和學術 (Circulation of Rubbings and the Late-Qing Art and Scholarship), meishushi yanjiu jikan 42 (2017): 2-157.

[37] Wu Yun said in his catalogue: "The famous scholars inside the country had all participated in the explanation of the inscription, such as Xu Yinlin (Xu Han 許瀚), Gong Dingan (Gong Zizhen 龔自珍), Wu Zibi (Wu Shifen 吳式芬), Zhu Jiaotang (Zhu Weibi 朱為弼), Zhang Shuwei (Zhang Tingji 張廷濟), He Zizhen (He Shaoji 何紹基). 一時海內知名之士如許印林、龔定庵、吳子苾、朱椒堂、張叔未、何子貞諸公各有釋文。" See Wu Yun, Liangleixuan yiqi tushi, juan 5, pp. 21.

transcription, either in imitation of the ancient bird script, or in modern standard script.

Technically, making a catalogue requires a cooperation of labour: a close cooperation among several craftsmen, who specialized in different areas. The process involved at least five workers other than Cao himself. In the preface of huaimi[38], Cao mentioned several artisans' names were mentioned by Cao (Figure 2-11):

> I asked my friend Wang Shixiang to copy the inscriptions, Kong Youlian to reduce the illustrations, and Wu Songquan to make the stones. 屬王友石香摩其文，孔友蓮薾縮其圖，吳友松泉壽之石。

One skilled rubbing maker first needed to make rubbings of the inscriptions on each vessel, before the characters could be hand traced. Wang Shixiang was the craftsman who typically traced the inscriptions. Other individual workers were relied upon to insert their contribution according to their specialties. One illustrator carefully measured the vessel, to create line drawings in an exacting symmetry and verisimilitude. After that, with the prepared writings and drawings, another artisan, Kong Lianxiang, was responsible for the reducing the image size, to make them fit nicely inside the frames of the prepared stone slabs. Finally, a stone carver, Wu Songquan, incised the texts and images onto the given surfaces. Only after all the aforementioned endeavors, the rubbing maker mentioned previously, finally made rubbings from the prepared stones. These rubbings were compiled into the format of album-like catalogues. Indeed, the collaborative effort of catalogue making was common in Cao's time. For example, Wu Yun's catalogue was illustrated by Wang Taiji 汪泰基, and traced by Wu Zaixi 吳載熙.[39]

[38] Postscript written by Cao Zaikui in his catalogue. See Cao Zaikui, huaimi shanfang jijin tu, Taipei: Academia Sinica.
[39] Rong Geng, "qingdai jijin shuji shuping (An Analysis of the Catalogue of Bronze Collections in the Qing Dynasty)," in Ronggeng wenji 容庚文集 (A Collection of Scholarship by Rong Geng), p.114.

A single process mentioned above might take a worker more than a whole-day's dedicated efforts. For example, when making line-drawings, the first issue is related to imitation and representation: how will the illustration follow the traditional Song dynasty style yet showcase their new focus. The recording of a Shang Dynasty you once collected and recorded by Cao (Figure 2-12), now in the Freer/Sackler Gallery (Figure 2-13) (S1987.47a-b), demonstrated how its style derived from the Song dynasty tradition.[40] The handles of the vessel are intentionally enlarged and turned toward the viewers in order to be highlighted, a tradition frequently seen in the Song dynasty representations (Figure 2-14). Meanwhile, a greater pursuit for verisimilitude that was lacking in the Song catalogues could be seen in Cao's illustrations. The complex details on both the body and the lid were painstakingly drawn. The figure/ground distinction of the surface decor—the animal ornaments placed on the evenly covered spiral meanders—was well shown in Cao's catalogue, which demonstrated a direct observation of the real object.

To actually make a line drawing, careful measurement of the vessel shape and a painstaking observation of the surface pattern are both required. Wu Dacheng, a famous scholar-collector, also a rubbing maker and illustrator himself, wrote in a letter to Wang Yirong 王懿榮[41], that he could only make one illustration per day with high quality:

> Drawing vessels is truly exhausting. When free, I can draw one vessel per day. That is where my energy goes.

[40] The Freer you belonged to a matured stylistic phase. Horizontal strips and jutting vertical ridges subdivide the vessel and lid into registers and metopes. Compared with the earlier you vessels, the body of this Freer you is lower and with a more profound bulge; the lid is higher with a solid knob.
[41] Wu Dacheng, Wu Kezhai Dacheng chidu. Cited from Bai Qianshen, "Composite Rubbings in Nineteenth-Century China: The Case of Wu Dacheng (1835-1902) and His Friends," in Reinventing the Past, ed. by Wu Hung, 305-306.

In another letter[42] to Chen Jieqi, Wu complained that Pan Zuyin always asked for more than one favor per day:

> Sinong (Pan Zuyin) asked me to make a line drawing of a jue vessel. [During the same day,] He also asked me to transcribe the Yu ding inscription. [That's not enough,] He then asked me to go to his place to clean the patina on one of his you vessels. That's several requests within a single day! I don't have such a muscled wrist. 司農既命繪爵，又屬寫盂鼎釋文，又欲招往剔卣，一日數差，兄實無此健腕。

As shown in Wu's letters, a high-quality line drawing would take a worker a whole day to complete. It would be reasonable to assume that it took a worker two full months without rest, to complete Cao's job.

How to make an illustration resemble "exactly" the original objects in both form and size? Before the introduction of photography, illustrators could only depend on simple or complex rulers. Horizontal and vertical baselines are first drawn to mark the picture plane. Then, the height and width of the vessel, as well as each individual component, must be measured and marked on the baselines.[43] A symmetrical skeleton is established by drawing one half of the design first. After all the straight lines are finished, to enhance the voluminous feeling of the vessels, each horizontal line is curved to a similar degree (Figure 2-15).[44] Other measuring tools were also invented to assist the drawing process. Tools such as protractors, compasses, were introduced to the Qing court by Western missionaries during the Kangxi 康熙 reign (1661-1722).[45] The tools were later produced directly by the Qing court, and could have also been used by individual scholars. In drawing illustrations, the measuring process also requires great

[42] Ibid.
[43] Here, the "width" of a vessel means the diameter of its widest part.
[44] Liao Caihui, juexue waichuan: yi puzi zuohua de quanxing tuo jiyi, gujin lunheng, 2009, pp.158.
[45] For the introduction of scientific equipment to Emperor Kangxi's court, see Guo Fuxiang, "xiyang yiqi yu qingdai gongting de kexue shijie 西洋儀器與清代宮廷的科學世界 (Western Equipments and the Scientific World in Qing Court)," pp.165-191.

carefulness. To achieve visual coherency, the artisan responsible for reducing the size needed to follow the standard "building rule" (yingzao chi 營造尺) regulated by the Ministry of Works (gong bu 工部).[46]

At the same time an illustrator is working on the line-drawings, another worker can trace the inscriptions on the vessels. Before that, rubbings must be made, so the inscriptions can be clearly shown on pieces of flat paper. Making a rubbing basically requires laying, tamping and inking the paper. Before a piece of paper is to be laid on a stone, it needs to be moistened by a type of liquid (usually clear water, sometimes baiji 白芨 glue) so the paper can better apply to the surface. After the paper is tamped into tight contact with the surface—always with the aid of brushes or pads—and is suitably dry, an artisan can apply the ink. This is usually done with a dabber shaped like an "inverted mushroom," with the rounded head as the dabbing surface and the stem as the handle. The head of the dabber usually contains more than three layers. It should be compact, not spongy; so the ink does not deposit in the incised line.[47]

When it comes to making rubbings of bronzes, the procedure before inking is of great importance: removing dust and corrosion. This work must be done by a specialist. An unskilled worker may misinterpret the characters, and the result cannot be rectified. Chen Jieqi emphasized the dangers of trusting careless, unskilled workers to do the work. Even skillful workmanship and painstaking attention by experts such as Wu Dacheng[48]

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[46] Cao Zaikui had recorded in his catalogue, that the measurement of each vessel strictly followed the rules: "The illustrations were made following the standard building rules made by the Ministry of Works; each vessel were also measured and recorded by its size and weight in official standards. Compared with the previous catalogues that only contained rubbings, my catalogue aimed to minimize mistakes (in measuring size and weight). 尊乾隆年工部營造尺度其大小，尊官庫平權其輕重，並標注於上，視昔之僅據傳拓者或少遺誤." In Cao, Huaimi, Academia Sinica, Taipei.

[47] Kenneth Starr, Black Tigers: A Grammar of Chinese Rubbings, pp.43-56.

[48] Chen Jieyi, Chuangu bielu 傳古別錄, p1.

, are sometimes not enough:

> Another example. I have collected the Zhongji li-vessel. The left side of the graph "ji" was covered by red corrosion. Wu Dacheng misinterpreted the radical of the character "ji" as "ru." I tried to remove the corrosion by applying the liquid made from sumac trees to the spot, but it did not work. Eventually, a dealer removed the corrosion, but he damaged the graph by overcleaning, and the strokes of the graph were thicker than in the original. 又余所藏仲姬鬲姬字之左旁臣亦為紅鏽所掩。吳大澂誤釋為汝。余用山櫨敷數次不能去，卒由估人剔出，惟略傷於肥耳。

Wu Dacheng, already a well-known and resourceful scholar, made mistakes when he was removing corrosion. A less-skillful worker, unequipped with necessary skill and knowledge might to far worse.

After the rubbings were made, then the inscriptions on them could be traced onto another paper. Before tracing the inscription, there were still other steps. For example, what kind of paper should be chosen, to make the tracing look perfect, meanwhile minimizing the damage left on the rubbings? One type of paper produced in southernmost China was highly recommended. In a letter written from Wu Dacheng[49] to Chen Jieyi, Wu shared his satisfied experience of tracing:

> The "bamboo paper" made in the eastern Yue (nowadays, Guangdong) was very good. One can make a tracing copy without great effort, and it will not damage the original rubbings. 粵東竹紙至佳，鉤摩不費力，不損拓本。

With growing demand for highly-qualified rubbings, the choice of paper must have been discussed by mid and late Qing scholars.

Before the stones were carved, Cao Zaikui also had to decide how the textual information would be arranged. The format of Cao's catalogue showed a growing interest in the "minor

[49] Wu Dacheng, Wu Kezhai Dacheng chidu, in Wu Dacheng shuxin sizhong, pp. 27.

details" of the objects other than their inscriptions. Let's again use the example of the Shang dynasty you vessel (Figure 2-12). Textual notes are translated as follows:

A: Shang Dynasty Fuding you

B: The height of the vessel is eight cun and two fen, including the lid.[50]

The bulge is four cun and five fen in diameter, five cun and five fen in width.

The foot is three cun and nine fen in diameter, four cun and nine fen in width.

The depth is five cun and two fen.

The weight is eighty-four liang. The inscription is inside the vessel.

C: Facsimile of the vessel's inscription on the lid

Facsimile of the vessel's inscription on the body

D: Lid: Zi character with an upright shape. Fuding.

Body: The transcription is the same [as the lid].

Basically, each vessel was recorded with an image and several groups of texts. The texts included the name of the vessel, and also a detailed description of the object's height, width, depth, weight, and especially the position of the inscription. Cao was the first scholar to record the position of the inscription; the attempt demonstrated a growing attention to the relationship between the inscription and vessels: the physicality of texts.

In carving stones, the craftsman did not serve merely as a "copier." Instead, when transferring the written signs onto stones, the carver actively involved his own personal taste and style. Wu Songquan was the carver of Cao's catalogue. The style of the carving was important, especially in Cao's case, since his catalogue was not only going to be viewed in the format of rubbings; the original stones were themselves collectable and aesthetically appealing,

[50] Cun and fen are Chinese terms for measurement. One cun equals 3.7 cm and 10 fen.

constituting part of the viewing experience. Scholars in the mid and late Qing realm had been carefully supervising the carving style. Wu Dacheng[51] wrote to Chen Jieqi, complaining the rigidity of a carving by Mr. Xing:

> Yesterday I asked my worker Mr. Xing to carve a page in experiment, as attached to this letter. It seems that the carvings are too angular and too rigid.昨屬邢工試刻一葉，先寄呈鑒。似刀法鋒棱太露尚落呆板。

From an aesthetic point of viewpoint, scholars expected the result of a carving to be flexible as that of a drawing, with soft, broad, velvety lines. Since in many cases, the carver's results were unsatisfactory, a scholar usually ordered a few samples to be made first. This was included in another letter by Wu Dacheng[52]:

> I ordered my workers to experiment on two sample pages. One is negative and the other positive. [I] will compare the advantages and drawbacks, and then order to carve the rest of them in large quantity. 擬令工人試刻二葉，一款一識，較其優拙，再為廣刻。

Wu was comparing the effects of different types of carvings (whether the characters reveal themselves better in positive or negative carvings) so he ordered two samples to be made before one style was finally chosen. Negotiations possibly existed also between Cao Zaikui and Wu Songquan, before the final carvings of stones.

Although the making of a catalogue requires craftsmen working collaboratively, when we consider the authorship, we still refer to Cao as sole author of the catalogue: not the illustrator, the tracer, nor the carver. Basically, the authorship of a bronze catalogue in the Qing dynasty was linked closely with ownership. A catalogue was always attributed to the owner of the objects, who was more importantly the scholar who initiate the related study.

[51] Wu Dacheng, Wu Kezhai Dacheng chidu, pp.18.
[52] Ibid, p.27.

Editing the Catalogue

After the stone was carved, the final process of rubbing-making, or print-making, was regarded as a mechanical reproduction. In fact, the Qing dynasty books or catalogues are often highly variable and untidy objects. The variability first comes from the multiple steps of production, resulting from a constant involvement of readerly intervention. Viewers of a catalogue were not passively receiving the information, but actively engaging in the production, and prompted the author to proceed to the next step: editing the blocks. This editing process may have following the prototypes established for calligraphy and painting, where the additional comments were considered as a specific literary genre, the colophon.[53] Much more revealing is what happened when the image reached the viewer. When a catalogue left the hand of its original author, it was up to the later viewer to give the texts/images a new context and meaning: the result is sometimes a creative devotion, the modification, in which the catalogue was transformed in the hands of the viewer. My study highlights and redefines the viewing experience itself that enabled an interactive play between viewer and the given text/image. As Hamburger said in the discussion of early Renaissance prints: "In these objects, the work of art becomes a work in progress, one whose reception literally obscures its production in the form of layer upon layer of cloth and devotional jewelry."[54]

The process of making a catalogue did not end when the blocks were carved and the rubbings/prints were made. After the earlier editions of rubbings were circulated among a small group of readers, or the coteries, Cao added into his catalogue lines written by those selected readers. These later added-in lines were frequently called "paratextual materials," including

[53] Lothar Ledderose, Aesthetic Appropriation of Ancient Calligraphy in Modern China, in Chinese Art: Modern Expression, ed. by Maxwell K. Hearn and Judith G. Smith (NYC: The Metropolitan Museum of Art, 2002), 227.
[54] Jeffery F. Hamburger, The Visual and the Visionary: Art and Female Spirituality in Late Medieval Germany (New York: Zone Books, 1998), 23-25.

preface (xu 序), postscripts (ba 跋), endorsements (tici 題詞) and comments (ping 評). The paratextual materials came from different versions of Cao's catalogues, made during his lifetime, directly sanctioned by the author himself. Major sources were two assemblages of rubbings, now held at Academia Sinica in Taipei (henceforth, "the Taipei version"),[55] and the Hong Kong University (henceforth, "the HKU version").[56] Both claimed to be made in the nineteenth year of the Daoguang era (1839) by the author himself, the HKU version revealed an earlier stage of the production process.[57]

After the HKU version—an early stage of catalogue making—was compiled, it was probably circulated among a selected group of readers. Their feedback was important and some of their feedback was selected by Cao to be added to the stone blocks, to make another edition of the catalogue. The Taipei version, made after re-editing several times, is the last version we have. By comparing the opening entry of the two versions of catalogues, we can see that while the left page in the HKU version was blank (Figure 2-16), two postscripts were added in the Taipei version (Figure 2-17). This phenomenon of "readerly intervention," appeared in catalogue making, and also in book publishing throughout the Qing dynasty.[58]

[55] Accession number A 993.3 457.
[56] Fung Ping Shan Library Special Collections Counter Chinese Rare books, 杜 432.304 421.
[57] Later copies of the original catalogue could be seen from a version circulated after the Republican era, made by photocopying the original catalogue by Cao. This version was mass-produced by Chen Naiqian 陳乃乾 in 1922 (henceforth, the Chen Naiqian version). Other than the existing rubbings that are accessible, we can also rely on certain textual descriptions of the catalogue. Rong Geng recorded his viewing of the original rubbing (henceforth, "the Rong Geng version"), which was the version Cao mailed to Chen Jieqi, and later mailed from Chen to Wu Shifen 吳式芬 (1796-1856). From a close comparison, we could conclude that the Rong Geng version was similar to the HKU version, representing the early stage, before the major groups of comments were included. The Chen Naiqian version was basically the same as the Taipei version, representing the later stage where the paratextual information were added.
[58] For example, Suyoung Son, in her discussion that explores the printing culture in the late imperial China, suggests that the publishing practice of literati was an open and flexible process. Additions and changes were constantly incorporated into the text during the very process of printing. Examples of Zhang Chao 張潮 (1650-ca.1707) and Wang Zhuo 王晫 (1636-ca.1707) were used in the discussion. See Suyoung Son, Writing for Print: Publishing and the Making of Textual Authority in Late Imperial China. pp.17-19.

What kinds of "feedback" did Cao choose to include in his catalogue? Some commentaries were added as commemoration of close friendship shared among several literati; others were meant to guarantee the authenticity and reliability of Cao's collection. One of the above-mentioned postscripts added in the Taipei version was written by Bei Yong 貝墉 (courtesy name Dingfu 定甫, 1780-1846), to record that he had the opportunity to view the stone slabs in Cao's villa, by penetrating into Cao's personal realm.[59] A similar commemoration of friendship and viewing experience was shown on the right-side page of both versions, which recorded the moment when Wang Zaixi 王載熙 and Zheng Goji 鄭國基 viewed the stone slabs.[60]

While certain postscripts were meant to memorialize the moments of the viewing experience, most of the comments the author selectively added in were meant to help certificate the authenticity and quality of his collection. When comments were made to acknowledge the quality and historical value of Cao's artefacts, Cao eagerly included them in his catalogue. Those comments signified that his collection, together with the catalogue, was acknowledged by the academic circle.

When the authenticity of certain vessels was questioned, such scholarly acknowledgment is especially important. One of Cao's collection, the Pengsheng gui 倗生簋 tureen (recorded by Cao as "Ge Bo gui 格伯簋), wasn considered problematic, since more than one similar gui

[59] The postscript states: "Bei Yong (courtesy name Dingfu), had viewed (the stone slabs) in the Jiwang day, of the Yang month, in Gengzi year (Oct 16th, 1840). 庚子陽月既望，定甫貝墉曾觀." Cao Zaikui, huaimi, Academia Sinica, Taipei.

[60] It is also worth noting that the postscript of Wang and Zheng viewing the stones was added with the images of two personal seals in the Taipei version. Cao added the two seals on his stones probably to pursue a visual coherence, since each postscript in his catalogue is followed by one or more seals. The upper seal bears three characters, probably Wang's courtesy name; the middle character is undecipherable. The lower seal bears three characters "Zheng Zhupo 鄭竹坡", the courtesy name of Zheng Guoji.

vessels made by a nobility named Pengsheng appeared in Cao's time.[61] Cao eagerly added positive comments to his catalogue, to claim that his Pengsheng gui was the authentic one. Ye Zhishen's postscript on the left page in the Taipei version (Figure 2-17) is a commentary on the Pengsheng gui.[62] The postscript basically states that although Ye had seen more than one vessel—similarly shaped, made by the same patron, and each of their inscriptions slightly differed—this phenomenon itself does not necessarily mean that they are all forgeries. Cao's vessel, with the inscription written in an archaic style, could not have been a fake.[63]

Cao was so eager to persuade his readers that his gui vessel was authentic, that in certain cases he didn't care about whether the commentaries he selected were logically persuasive. Another commentary written by Zhu Shanqi 朱善旂, focusing on the Pengsheng gui, was added to the catalogue. The commentary only appeared in the Taipei version (Figure 2-18), but was not included in the HKU version (Figure 2-19). Zhu's[64] commentary states:

> The rubbings of the Ge Bo dun [gui] tureen circulated in Beijing for a while. One has a colophon, stating: this was collected by Qian Xianzhi (i.e. Qian Dian). [The inscription on Qian's vessel] is shorter [than Cao's] by sixteen graphs. I doubt that the vessel collected by Qian is a fake. In the winter of the Jihai year (1839), I passed over Huai Mi Mountain House. It was the time when my benevolent brother Cao just obtained his vessel. He took the vessel out and showed it to me.

[61] The inscription on the vessel recorded the behavior of goods exchanging between the Count of Ge and Pengsheng. The vessel was actually made by Pengsheng to commemorate lands granted by the Count of Ge, not by the latter himself.
[62] Normally, this type of commentary focusing on a specific object should have been added to the entry page of the vessel, but since the postscript is too long to be added on the stone where the Pengsheng gui was recorded, Cao added the comment at the end of his catalogue.
[63] Ye's commentary: "This vessel is round in the upper part and rectangular in the lower; it is a dun vessel instead of a gui. It was made by the count of Ge, and more than one vessel [made by him] was passed down. It could be demonstrated through the inscriptions (on different vessels), where both gui and dun are mentioned. Last year, I saw a lid of the dun vessel in a circular shape, and it was purchased by a Western merchant. Compared with Cao's vessel, the inscription on the vessel I saw previously is shorter by sixteen characters. Since it was reasonable for Ge Bo to make more than one vessel, it would be acceptable that some inscriptions are longer while others are shorter. The style of the writing (on Cao's vessel) is archaic; it could not be a later forgery. 此器上圓下方，是敦器，非簋也，格伯所造，傳世者不止一器，且銘文中明言簋、敦可證。余年前於都中見敦蓋正作圓形，為西賈所得，較簋文正少十六字，格伯所造既非一器，文有繁簡，亦事之常，書勢古茂，非後人所能偽作."
[64] Cao Zaikui, huaimi, Academia Sinica, Taipei.

> The vessel is pretty heavy. The base and the body were made through a single casting mold. The writings are archaic: the vessel is authentic. It could not be a fake. 都下向有格伯敦搨本，有題其上云，此即錢獻之所藏，少十六字，疑為偽。己亥冬過懷米山房，秋舫仁兄正新得此器，出以示旂。器甚厚重，下有方座與簋同範鑄成，字古、器真，□非贋品。

Zhu had compared Cao's gui vessel with the rubbings of Qian Dian's vessel. Zhu believed Qian Dian had collected a fake, since its inscription is shorter. Zhu's comments show his lack of knowledge of the provenance of Cao's vessel. In fact, the Pengsheng gui Cao collected was exactly the one previously owned by Qian. In believing Qian's vessel was fake, Zhu has unexamined assumptions: (1) he assumed Cao and Qian owned different vessels; (2) he assumed that similar vessels ordered by the same nobility should have been inscribed with exactly the same inscription. Both these assumptions are problematic. Now we know that four Pengsheng gui vessels existed at Cao's time. The one passed from Qian to Cao is now held in the Palace Museum of Beijing, containing an inscription with 66 characters (Figure 2-20). The other three vessels all have 77 characters, including two iteration marks (chong wen 重文).[65] Only the vessel owned by first Qian Dian and then Cao Zaikui has shorter inscriptions. Despite Zhu's questionable judgment, Cao still added his commentary in his catalogue. He did this to prove that his collection was acknowledged by other literati.

In fact, in other places of the Taipei version, Cao included Ruan Yuan's commentary[66] that directly contradicts the commentary by Zhu. As mentioned above, both Ruan and Cao had collected a hu water container. Believing that both of the two containers were authentic, Ruan

[65] One of the gui vessels belonged to Zhu Yanfu 朱彥甫; one belonged to Ruan Yuan. Zhu's vessel lost its provenance information and couldn't be found now, while Ruan's vessel is also held in the Palace museum of Beijing. The last Pengsheng gui vessel was collected separately. The lid had passed from Duo Zhiyou to Pan Zuyin; the body, from Fang Tieshan to Liu Xihai, then to Luo Zhenyu. The Shanghai Museum now holds both the lid and the body of the vessel.

[66] Cao Zaikui, huaimi, Academia Sinica, Taipei.

explained why different inscriptions could appear on vessels made by the same patron. Ruan believed that the process of making inscriptions required the cooperation of five craftsmen. The differences were caused by the changing of hands in the production process.

> In the remote past, making a vessel required one man to compose the inscription, one man to write down the inscription using a brush, one man to transfer the inscription on a woodblock through carving in intaglio, one man to attach wax on it (the inscription is now in relief), and one man to attach clay, before the inscription could finally be cast in bronze. The reason why inscriptions on different vessels differed from each other, was due to the changing of hands between the carver and the writer. 古者造器能銘銘者為一人，筆書者又一人，書之於梓者雕梓者又一人（陰文），傳蠟者又一人（陽文），傳泥者又一人，而後鑄以銅。此篆跡所以少異，銘文之有不同者，雕梓者換一手為之筆，書銘者更非一手也。

Ruan's explanation is a great improvement in the Qing Dynasty scholarship. From a technical perspective, he linked the results back to the process of bronze production. This assumption is still valid today, except some scholars are still debating whether the inscription in intaglio was transferred by leather instead of wax or other methods.[67]

When the books came into the hands of viewers, the viewers individualized the books by adding their comments. The HKU version provides a perfect example. Several pages of it contained small pieces of paper with viewers' opinions. Before the catalogue entered the collection of Hong Kong University, it was owned by a literatus named Chen Changui 陳蟾桂. Chen added to the catalogue his hand-written comments about the vessels in the catalogue. For example, a piece of paper pasted beside the Pengsheng gui vessel records that Chen considered the vessel a dun, instead of a gui, based on its inscription.[68] This type of individualized addition was common in the late Qing dynasty. Zhang Tingji's 張廷濟 catalogue bears personal seals that

[67] Ledderose, Ten Thousand Things: Module and Mass Production in China, pp.59.
[68] Cao Zaikui, huaimi, Hong Kong University.

were later added by Wu Yun: some of them strategically placed in positions that could interact with the images (Figure 2-21).[69]

The differences between the HKU and the Taipei versions showcased the process by which Cao, together with later viewers, edited his catalogue. It shows that the Qing dynasty catalogues are not just circulated texts/images with fixity: but components of a dynamic visual culture, in which the visual sign and the viewer acted on one another. The process of catalogue making, then, was not only a collective effort among different craftsmanships, it also required the participation and interaction of members of the literati network.

[69] Zhang Tingji, Qingyige suocang guqiwu wen 清儀閣所藏古器物文, around 1820s, collected in National Kyoto University, Kyoto, Japan.

Figure 2-1 Shang dynasty Xiaofu gui tureen. In Hayashi Minao 林巳奈夫, In shū jidai seidōki no kenkyū Vol.1 殷周時代青銅器の研究, (Tokyo: Yoshi kawa kou bun kan 吉川弘文館, 1984), 96.

Figure 2-2 Cao Zaikui, Huaimi shanfang jijintu 懷米山房吉金圖 Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 2-3 Rectangular cauldron with animal-mask decoration. Late Ming dynasty (1368-1644). In the National Palace Museum, Taipei. Accession Number: 中-銅-000959-N000000000.

Figure 2-4 Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 2-5 Wu Yun, Lianglei xuan yiqi tushi 兩壘軒彝器圖釋 (Illustrations of the Vessels in the Studio of Two lei). 1872. 7.21-22. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng 中國古文字大系 金文文獻集成, Vol. 8.

Figure 2-6 The yi water vessel of the Duke of Qi. In Chen Peifen 陳佩芬 ed., Xia Shang Zhou qingtongqi yanjiu: Shanghai bowuguan cangpin 夏商周青銅器研究 上海博物館藏品 (A Study of the Bronzes in Xia, Shang and Zhou: the Collection in Shanghai Museum). Shanghai: Shanghai guji chubanshe. 2005. P.559.

Figure 2-7 Detail of Scroll of Antiquities, dated 1728. Handscroll, ink and color on paper, height 62.5 cm. Sir Percival David Collection, the British Museum, London. Accession Number: PDF X01.

Figure 2-8 The Huanzi Mengjiang hu water container. Dated late Spring and Autumn period. Now collected by the Shanghai Museum. In Shanghai bowuguan cang qingtongqi 上海博物館藏青銅器 (Bronzes Collected in the Shanghai Museum). Shanghai: Shanghai renmin meishu chubanshe. 1964. P.75.

Figure 2-9 Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 2-10 The recording of the bell of Marquis Qi with inscription. In Wang Fu (1079-1126), Bogutu, 22.11a-b. Reprinted in 1636. National Library of China.

Figure 2-11 Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 2-12 Cao Zaikui, Huaimi shanfang jijintu Vol.1, 1839, collected by Academia Sinica, Taipei.

Figure 2-13 Shang dynasty you vessel collected in the Freer/Sackler Gallery. Accession Number: S1987.47a-b

Figure 2-14 Shang dynasty Zu Xin you. In Wang Fu (1079-1126), Bogutu, 9. 18a. Reprinted in 1636. National Library of China.

Figure 2-15 The process of making line drawing illustration. In Liao Caihui 廖彩惠, "juexue waichuan: yi puzi zuohua de quanxingtuo jiyi, gujin lunheng 絕學外傳：以撲子作畫的全形拓技藝," Gujin lunheng 古今論衡 20 (2009): 158.

Figure 2-16 An opened page of the Hong Kong version. Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by the Hong Kong University.

Figure 2-17 An opened page of the Taipei version. Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 2-18 A comment written by Zhu Shanqi 朱善旂 that was added beside the Pengsheng gui tureen in Cao's catalogue. Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 2-19 The recording of Pengsheng gui tureen in Cao's catalogue. Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by the Hong Kong University.

Figure 2-20 The Pengsheng gui tureen. Dated the mid Western Zhou. In Gugong qingtongqi 故宮青銅器 (The Bronzes in the Palace Museum). Beijing: zijincheng chubanshe. 1999. P.155.

Figure 2-21 Zhang Tingji, Qingyige suocang guqiwu wen 清儀閣所藏古器物文 Vol.1 (Inscriptions on ancient objects in the Studio of Refined Manners). Around 1820s. Collected in National Kyoto University, Kyoto, Japan.

CHAPTER 3
REPRODUCING A CATALOGUE

Cao's catalogue combines block printing and rubbing. As with block prints, Cao prepared the incised surface on stone slabs. While block prints require the incised surface to be carved into a mirror image, Cao's stone slabs were not in mirror image on the printed page. When making a print, a piece of paper needs to be laid face down to the block; Cao's stones were intended to be made into rubbings, so that the papers are laid face up. Since the inscriptions on Cao's stone slabs were in intaglio, the characters were not inked but left blank when they were made into rubbings. The final product of Cao's catalogue is the assemblage of rubbings that were cut and pasted into an album-format. Through the endeavors of carving stones and making rubbings, Cao did not only reverted the color of his writings, and also aligned his catalogue with the tradition of Model Calligraphy (fa tie 法貼) production, an imperial method to set up calligraphic canon since the Northern Song dynasty (960-1127). This choice granted his catalogue authority, material heaviness, and an "aura" that lies in its irreproducibility.

Next, we explore the reproduction of Cao Zaikui's catalogue during the late Qing and early Republican China (1912-1949). When a block-printed book needed to be reproduced, one could simply use the blocks, if still extant, to make more copies. But in Cao's case, since the catalogue was made of rubbings and the original stones were lost or destroyed, it was impossible to make more copies from the originals. However, scholar-collectors were so eager to reproduce Cao's catalogue that they recarved new stone blocks based on the circulated catalogues, so that new rubbings could be made from the replicated stones. Cao's catalogue was also reproduced through other media: woodblock printing and photography, when new printing technologies

became available. The former was made in 1880s by a Japanese bookstore; the later, in the 1920s by a Chinese scholar.

Reproducing the Stones

The technique of rubbing gained wide currency in the West, no earlier than the nineteenth century, when traveling antiquarians began using crayon-like agents to record inscriptions, as well as designs, on tombstones and other ancient remains. But in China, rubbings were made of ink, and appeared at least by the sixth century.[1] The technique then developed into a major means of preserving ancient engravings, as well as transmitting famous calligraphy. It gradually transformed from a "means" to an "end" when it became an independent art form.

Establishing Authority: The Making of fa tie

Cao was not the first person to present his catalogue through rubbings. Long before him, many Song predecessors had already made efforts along the same lines. Originally, the act was exclusively carried out by the court, during the early Northern Song dynasty. Carved stelae were erected, and rubbings of them were made and circulated in limited numbers. These rubbings were named "tie" or "fa tie," intended to be emulated, as a calligraphic model. On a surface level, this act could be understood as the emperor's establishment of a new calligraphic canon: using styles of art for purposes of propaganda. On a deeper level, the act is a "legible" sign, meant to be read by court spectators. By granting only the prestigious courtiers the rubbings, the act solicited the emperor's political power by including and excluding the intended viewers.

[1] Kenneth Starr, The Black Tigers (Seattle: University of Washington Press, 2008), pp.6-8.

The compilation of the most famous fa tie in the history of Chinese calligraphy was initiated in the Northern Song, in the third year of the Chunhua 淳化 era (992). Though never officially titled, it is known as Model Calligraphy in the Imperial Archives of the Chunhua Era (Chunhua ge tie 淳化閣貼, henceforth, Chunhua Model Calligraphy).[2] Though it served as political propaganda, Chunhua model calligraphy was actually shared only with a limited number of high officials, through the granting of rubbings, which was strictly sanctioned by Emperor Taizong (r.976-997).[3] The carved blocks were hidden deep in the private space of the imperial palace, rejecting any public spectatorship.[4] This gesture of gift-giving could be read as a legible sign, as the emperor's organizing and grouping of his court officials. Inclusion and exclusion of viewership depended on the bureaucratic position of an official, as well as whether he was personally favored by the emperor.[5]

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[2] Works of some one hundred calligraphers, from antiquity through the mid-Tang, were represented and engraved in wooden plates. The compendium contains ten volumes: the first five included writings by rulers, renowned officials and masters in the past; the latter five are the casual writings of Wang Xizhi 王羲之 (ca. 307-ca. 365) and his son Wang Xianzhi 王獻之 (344-386). The stylistic lineage of the two Wangs and followers in the Northern and Southern Dynasties (317-589), Sui (581-618) and Tang (618-907) periods was termed "the classical tradition" by scholars in the West. This stylistic choice of the two Wangs has much more to do with a personal aesthetic preference of an elite aristocratic style; It is more like a political claim, that emperor Taizong of Song aligned himself with emperor Taizong of Tang, whose era was characterized by prosperity and peace. Song Taizong promoted the Wang style just in the manner of Tang Taizong: they both commanded the court calligraphers to practice the style of Wang Xizhi, and both gathered the extant works for the Imperial Archives. For the political significance of the Chunhua model calligraphy, see Amy McNair, The Engraved Model-Letters Compendia of the Song Dynasty, Journal of the American Oriental Society, 2009, 114 (2): 209-25.

[3] Emperor Taizong of Song only bestowed ink rubbings on the officials who had climbed to very high positions, for example, the Zhongshu sheng 中書省 (Secretariat) and Shumi yuan 樞密院 (Bureau of Military Affairs). See Lilian Lan-ying Tseng, "Between Printing and Rubbing: Chu Jun's Illustrated Catalogues of Ancient Monuments in Eighteenth-Century China," in Reinventing the Past, pp. 257.

[4] Chen Fangmei, Jinxue shike yu fatie chuantong de jiaohui: lidai zhongding yiqi kuanshi fatie song taben canye de wenhua yiyi, meishushi yanjiu jikan, 2007, no.23, p.105-6.

[5] Paradoxically, Emperor Taizong's intention of perpetuating ancient writings was miraculously carried out, through the constant reproduction of stone or wood blocks that based on the few rubbings he selectively gave out. The unusual political prestige linked with the distribution of the Chunhua model Calligraphy, as well as its fairly limited readership, prompted the reproduction of the compendium from one generation to another. During the Song dynasty, the imperial family had at least re-engraved the compendium for four times, either copying the original carving, or relying on ink rubbings. The re-engravings included the Er Wangfu 二王府 version, the Shaoxing guozijian 紹興國子監 version, the Xiuneishi 修內史 version, and the Shicaitang 世綵堂 version. See Lin Zhijun, Tie Kao 貼考 (Study of Model Calligraphy), Taipei: huazheng, 1985, pp.20-22. The endeavor of reproduction was continued in

As for Cao, it was also the keen interests in the materiality and authority of writing that prompted him to choose rubbing as a medium to introduce his catalogue. Cao appropriated the monumentality of formal stele writing to promote the inscriptions on ancient bronzes. The authority of Cao's catalogue, like Song Taizong's compendium, was achieved also through a strictly controlled viewership; the reason this sanction could be carried out successfully lies in the limits to the reproducibility of its material, rubbing. Rejection of mass reproduction and an insistence on the production of individual, "luxury" objects was essential to understand Cao's choice. By circulating his catalogue through rubbings rather than prints, Cao confined the publicity of his private collection only within the literati circle, among coteries who were well educated and who shared common interests with the author. Through the circulation of rubbings, Cao's private collection won him reputation among the literati, and assured an exclusive cultural prestige.[6]

Few scholars had the opportunity to own Cao's catalogues: to access the stones hidden deep inside Cao's villa would be even more difficult. To actually view the stones, scholars needed to enter Cao's personal realm, being physically proximate to the author. Several less-famous scholars—Wu Rongguang 吳榮光 and Shi Nanjin 施南金, Beiyong 貝墉, Wang Zaixi 王載熙 and Zheng Guoji 鄭國基—had this opportunity. Their experience of viewing was recorded as postscripts in the author's catalogue. For example, Shi Nanjin[7] expressed his excitement when comparing the stone carving with the real artifacts (Figure 3-1):

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the Ming and Qing dynasties. Not long before Cao Zaikui's birth, the court of Emperor Qianlong of Qing made a grander reproduction in 1769, which might had casted a influence on Cao.

[6] This psychology of controlling readership, of seeking peer recognition of the value of certain texts became a shared phenomenon since the seventeenth century. See Suyoung Son, Writing For Print: Publishing and the Making of Textual Authority in Late Imperial China, 2018, Harvard University Asia Centre, especially "Chapter One: The Making of the Printed Texts".

[7] Cao Zaikui, Huaimi shanfang jijintu, 1839, Taipei, Academia Sinica.

> When I passed Cao's Mountain House, I got the chance to view the illustrations and texts [on the stones] and to inspect inscriptions and vessels. [The stones were incised] without a tiny mistake. I believe the catalogue will pass down to later generations along with such books as the Bogu tu. 余遇山房，觀其圖文，審其器銘，纖毫無爽，信可與博古諸書並傳焉。

This postscript served as a compliment to the accuracy of Cao's carving, and also as an acknowledgment of the viewing experience: a demonstration of the friendship between author and viewer, that was usually named "friendship of metal and stone (jinshi zhijiao 金石之交). In this case, Cao's stone slabs served as monuments that recorded the historical past; meanwhile, the present collective viewing experience itself became events for commemoration.

Cao's catalogue appealed to what Walter Benjamin described as the authority of traditional art objects: the authority they retained through their relationship to tradition and in the context of established social rituals. Rubbing, as a form of traditional art, with its connotation of imperial Model Calligraphy, maintained autonomous authority through its role in the literati culture among the upper class homes. The social rituals of collecting, studying and exchanging rubbings perpetuated the distance between object and user–the aura, the "unique apparition of a distance, however near it may be"–that sustained traditional authority.[8]

Other than authority and materiality, a shifted stylistic preference in calligraphy also triggered Cao's choice of rubbing. The time Cao was making his catalogue was exactly the time when the ancient calligraphy style was favored. Cao's pictorial album served as a model calligraphy for practitioners of the ancient style.[9] The ancient monumental stones, always found

[8] Walter Benjamin, The Work of Art in the Age of Its Technological Reproducibility, in Walter Benjamin: Selected Writings, ed. Howard Eiland and Michael W. Jennings, vol.3, 1935-1938 (Cambridge, MA: Harvard University Press, 2002), 104-6.

[9] This ancient style is also known as the "pre-Wang" style. For hundreds of years, practitioners of calligraphy had been emulating the tie rubbings that promoted the Wang style; it was not until the eighteenth century that the attitude toward stone inscriptions shifted dramatically.

in the northern part of China, were re-discovered and revalued in the eighteenth century. In the naive yet sublime style of those inscriptions—always referred to as "the northern school"—epigraphers discovered an alternative to imperious standards. Ruan Yuan was the one who first promulgated the northern style, bravely opposing the canon of calligraphy that was dominated by the Southern school.[10] Kang Youwei 康有為 (1858-1927), a late Qing reformer, retrospectively suggested that the revival of the northern school after the Daoguang era was due to degeneration of Model Calligraphy and the development of jinshi xue, the study of bronze and stone.[11]

To advocate the northern school, scholars preferred to aesthetically appropriate the format of Model Calligraphy—the traditional format to establish Calligraphic canon—in order to efficaciously present the newly excavated sources. Cao Zaikui's catalogue provides a perfect example. He presented the jinshi materials, the archaeological sources, through the well-established and acceptable format of Model calligraphy. Another example was Qian Yong 錢泳's (courtesy name Liqun 立群, 1759-1844) catalogue, Panyunge tie 攀雲閣貼. A scholar-calligrapher contemporaneous with Cao, Qian made his album of calligraphy by imitating, re-writing and reorganizing characters that appeared on Han dynasty stelae. Qian's endeavor was not mere imitation: he consciously selected characters, and rearranged them into readable paragraphs. By this attempt, for the first time, the inscriptions on ancient stelae were included in

[10] In the sixteenth year of Jiaqing era (1811), he published an article "A Discussion of the Northern and Southern Calligraphic Schools (nanbei shupai lun 南北書派論)", which advocated the Northern school. Another article "The Discussion of the Northern bei and Southern tie (Bei bei nan tie lun 北碑南貼論)" was supplementary article to the nanbei shupai lun, possibly written at the same time. The two articles could be viewed as rediscussion of the history of Chinese calligraphy. See Gao Mingyi, Ruan Yuan's Promotion of Epigraphy and Its Impact, Phd diss., National Taiwan University, pp.119-143.

[11] The Chinese texts says: "道光之後，碑學中興，乘帖學之壞，亦因金石之大盛也。" See Kang Youwei, Guangyi zhou shuang ji 廣藝舟雙楫, in lidai shufa lunwen xuan 歷代書法論文選, Shanghai: shanghai shuhua chubanshe, 1979, pp.755.

the major calligraphic canon to be made and perceived as model calligraphy.[12] This aesthetic appropriation by both Cao and Qian, to present newly discovered materials in a traditional format, was necessary and a common practice in early modern China. As Lothar Ledderose pointed out, in the eighteenth century, at the same time when the archaeological discoveries of architectural ruins in Europe exercised a novel fascination and stimulated the creative imagination of builders, Chinese calligraphers drew ancient script types into the existing aesthetic system, thereby expanding and unifying the system.[13]

Making the Stone Replicas

In 1860, warfare wracked Jiangnan area and Taiping troops entered Suzhou, Cao Zaikui's hometown. The peasant-armies burnt down Cao's villa, destroying the stone slabs. After a few decades, scholars were eager to replicate them. Today, the replicas can still be seen in a museum in Changshu, a city near Suzhou. Why did scholars or collectors consider it necessary to remake the original stones? What's the Chinese attitude to this type of replication? How did this act reflect the characteristic of making tie rubbings?

The destruction of Cao's engraved stone blocks meant that for a period of time, the connection between the circulated rubbings and the stones was broken. In the early Republican era, to restore this connection, new stone engravings were made based on the rubbings, by a Suzhou scholar-collector named Bian Zhongming 卞鐘銘. In the 1930s, a Changshu collector named Shen Yangsun 沈養孫 (courtesy name Yanmin 彥民) purchased the replicated stelae

[12] For the study of Qian Yong, see Lu Hwei-wen, Bei yu tie de jiaohui: Qian Yong Panyunge tie zap qingdai shushi zhong de yiyi 碑與貼得交會：錢泳《攀雲閣貼》在清代書史中的意義. Guoli Taiwan daxue meishushi yanjiu jikan (31): 205-260.
[13] Ledderose, "Aesthetic Appropriation of Ancient Calligraphy in Modern China," pp. 213, 219.

from Mr. Bian, and placed them on the walls of his villa, the Chengbi shanzhuang 澄碧山莊 (The Mountain Villa of Pure Green). Mr. Shen's villa was located outside the Northern gate of the city Changshu, around Lingtang yan 菱塘沿. During the next decades, China underwent huge social and political changes; the country suffered from the second Sino-Japanese war (1937-1945), the Civil War (1946-1949), the Great Leap Forward (1958-1962), and the Cultural Revolution (1966-197). The replicated stelae made by Mr. Bian mysteriously came to the Third Civil Hospital of Changshu, probably as trash placed in its backyard. In the 1980s, the Changshu Municipal Bureau of Culture acquired those replicated stelae from the hospital.[14] The stelae are now held by the Changshu Museum of Steles, located in the Garden of the Squared Tower (fangta yuan 方塔園) (Figure 3-2). Nowadays, new rubbings of Cao's catalogue made from these replicated stones could be purchased from the museum as souvenirs.

The notion of tie rubbing should be first clarified, in order to explore the chain of reproduction of Cao's catalogue. "Tie" is a specific meaning of rubbings made from blocks, carved specifically for transmitting famous calligraphy. To be more detailed, the word tie originally refers to a small paper sheet which contains informal handwritten notes by famous calligraphers in ink; when the term is used to refer to a type of rubbing, it means collections of rubbings of famous masterpieces that were mounted in album form and used as model calligraphies (fa tie).[15] Another type of rubbing named bei 碑 normally means "stone stele", but also pertains to rubbings made from pre-existing engravings, or the engravings not made

[14] Changshushi beike bowuguan (Changshu Museum of Stelae), Jiangnan yanzi guli beike ji (Shanghai: Shanghai cishu chubanshe, 2013), 313.
[15] Lothar Ledderose, Mi Fu and The Classical Tradition of Chinese Calligraphy, pp. 11. Also see Ledderose, Lothar Ledderose, "Rubbings in Art History," in Catalogue of Chinese Rubbings From Field Museum, 1981, 28-36.

exclusively to be rubbed.[16] In short, Bei stelae were erected to commemorate important incidents: Tie blocks were mainly used to set up calligraphic models.[17]

The history of a famous tie is characterized not by producing new sets of rubbings from the original engraving, but by the constant remaking of engravings based on older rubbings, when the original engraving is damaged or lost, or not accessible.[18] The blocks made by Emperor Taizong of Northern Song, for example, became cracked and unusable before the dynasty perished; it was the rubbings made from those blocks that served as sources for new engraving. The case of making stone replicas for Cao's catalogue was almost the same. What is the relationship between the replicated stones and the original writings on the bronze vessels? The newly made stone carving was based on the circulated rubbing, that was a replication of the original carving, which was itself a replication of the transferred tracing copy that replicated the original handwriting on the bronzes. This indicates that in the cycle of birth, death, and rebirth of a tie block, originality or authenticity, though important, was not the only feature people cared about.

Here a "semi-substitutional chain" between later and older stelae exists, which demonstrates a special idea of originality when it comes to the making of tie rubbing. Christopher S. Wood, in his groundbreaking book Fogery, Replica, Fiction pointed out a "substitutional chain" in early Renaissance Art: artifacts could replace one another with no loss

[16] Tie appeared much later than bei: the invention of tie in the tenth century might be a possible influence from printing. The first bei stelae from which rubbings were made were the Xiping Stone Classics (xiping shijing 熹平石經); they were erected in the late second century, to promulgate and standardize the Confucian Classics. For a semiotic study on rubbings, see Wu Hung, On Rubbings: Their Materiality and Historicity, Writing and Materiality in China: Essays in Honor of Patrick Hanan, (Cambridge: Harvard University Asia Centre,2003), 31.
[17] It was only in the second half of the second century that some stelae began to be signed. Ledderose, "Rubbings in Art History," 29.
[18] Wu Hung, "On Rubbings," p.33.

of authenticity. That is, if an object sufficiently resembled an older object, the later object could substitute for the earlier; the newer stood in for an older not as a reminder or a symbol, but as an equivalent. The newer was equivalent to the older object because each pointed to a common origin.[19] In the case of making tie rubbings, this chain also exists, while not exactly in a "substitutional" way. Each replicated version of stone has its specific historical significance, so that the later could not stand in to replace the older. However, since a replicated stone is made based on an existed rubbing believed identical to the original stone, the new stone could somehow serve as a reminder of the old, that to a certain extent functions as the original.

Here, the physical relationship between a rubbing and a stele is crucial, just like a boat in relation to its anchor. Rubbings, as boats, could be circulated away from the stones, but the viewers are always expecting the existence of the stones in situ. Without the stone as the anchor, the rubbings are like boats floating aimlessly on the sea, and would ultimately disappear into oblivion. The stones, thus, offer a tangible place where those rubbings could be tied. A replicated stone is important since it gives a rubbing material form: a physical connection and a separate locality.

Did the replica resemble the original? The answer would be both yes and no. If we compare each character or illustration, the replicated stone highly resembled the original. What people valued were the individual texts/images and the separate entities; not the format in which they were originally arrayed. Both the texts and images were explicitly traced from the existed rubbings. However, if attention is paid to the overall arrangement, the stone replica seems

[19] Christopher S. Wood, Forgery, Replica, Fiction: Temporalities of Germain Renaissance Art (Chicago: The University of Chicago Press, 2008).

messed up. In several cases, artifacts originally recorded on the same piece of stone are separated in replicas.[20]

Despite all the differences revealed in the replications, when they were placed on the wall of the Changshu Museum of Stelae, visitors didn't actually care about originality and the quality of mimeticism. When new rubbings were made from the replicated stones, they were eagerly purchased by tourists as souvenirs. Not all of the souvenirs were academic or historical in character. The entire museum was actually given over to the production and sale of rubbings. The rubbings, in this case, were transvalued as secular remembrance of the museum itself, of the visitors' travel experience.

Reproducing Rubbings

Making stone replicas was only one way to reproduce rubbings. Rubbings could also be reproduced through block printing or photo-mechanical reproduction. The first attempt to reproduce Cao's catalogue was actually carried out by a Meiji Japanese literatus who loved Chinese culture; He remade the catalogue through woodblock printing in 1882. The reprinted version was sold for a modest price, so it successfully reached the masses. In 1921, Cao Zaikui's original catalogue was again reproduced through photocopy, by Chen Naiqian: a literatus, publisher, and bibliologist who was active in the early Republican China. Chen's idea of

[20] We learnt how the artifacts were originally arranged thanks to the HKU version of the catalogue. Hidden details on the book margins—the mysterious numbers written in Chinese characters—revealed the author's original choice for organizing of his record. Normally, each rubbing in Cao's catalogue was made from a piece of stone slab; each rubbing is folded into four pages that contain two vessels. However, there also existed half-length rubbings that only contain a single artifact. Those "shortened rubbings" were possibly made from the stones excluded from the overall plan before the carving process. Six vessels were incised on the outcast stones and half rubbed: the Shang ce ce fuxin yi 商冊冊父辛彝 and Shang Zuxin zhi 商且辛觶 in the first volume; Zhou Jiali hu 周嘉禮壺, Zhou Guozhong li 周虢仲鬲, Zhou Zhongji pan 周仲姬盤 and the Han daji hu 漢大吉壺 in the second volume. The five newly gained artifacts, in the replicated stones, were indifferently placed together with the others, messing up the author's original arrangement.

reproducing rare books showcased a shifted view of preserving the past. He treated all sources equally, no matter whether they are contemporary or from the remote past. He also insisted on faithfully reproducing them, without intermingling any personal judgment.

Block Printing: Bensekidō and the Kinseki gaku in Early Meiji Era

Cao's catalogue was first reproduced through block printing by a Japanese bookshop named bunsekidō 文石堂 (The Studio of Letter and Stone) in the fifteenth year of Meiji era (1882) (Figure 3-3). Why did the Japanese book dealer Kitamura Shirobē 北村四郎兵衛,[21] the owner of Bunsekidō, attempt to reproduce Cao's catalogue, a rare Chinese book? What was the market for rare Chinese books in the early Meiji era? How was Cao's catalogue received among the Meiji literati (bunjin)?

The bookstore–bunsekidō–that reproduced Cao's catalogue was owned by Kitamura Shirobē, a Kyoto-based rare-book dealer, and a lover of Chinese study, or Kangaku. The bookstore, more like a personal studio, offered a place for the Kyoto literati, the bunjin, to search for rare Chinese books. Sources we relied on to study this bookstore, as well as its owner and customers, were mainly scholars' diaries or memoirs, especially the one written by Tanaka Keitaro 田中慶太郎 (1880-1951), which recorded his childhood experiences of encountering

[21] Sometimes the name of Kitamura is also written as 北邨四郎兵衛.

bookstores that sold Chinese rare books.[22] Tanaka[23] recorded the Japanese bunjin's behavior of searching for Chinese rare books as "catching fish":

> At that time, the bunjin who were interested in Kangaku, were "catching fish" (searching for rare books) based on Bunsekidō. その當時の支那趣味の文人は文石堂を中心として書物を漁っておったのでしょう。

Other than providing sources for study, bunsekidō offered a public space for scholars to gather and chat, possibly permitting them close proximity without previous acquaintance. Bunsekidō was not the only place in Kyoto that concentrated on selling Chinese rare books: there were other famous book dealers, such as Yamada Mosuke 山田茂助.

What was the purpose for Kitamura Shirobē to reproduce Cao Zaikui's catalogue through woodblock printing? For Kitamura, the central concern was to mass reproduce Cao's catalogue at a relatively moderate price, through a more-developed technique, so knowledge of authentic ancient bronzes could reach the masses. Because the stone carving in Japan was less advanced, Kitamura believed that woodblock printing was the best choice. In the preface of Cao's reproduced catalogue, Kitamura (Figure 3-4)[24] said:

> The original version of Cao's catalogue was carved on stones. However, the stone carvers in Japan are not as skillful as those in China. I'm afraid that if the catalogue is reproduced in stone carving, the original flavor will be lost. Thus I invited an old [woodblock] carver by the name of Onishi Eikumo. 但曹圖原本係石刻，而本邦石刻之技未能精巧如彼。予恐失原跡，因倩所知老工大西英雲。

[22] See Tanaka Keitaro, "Tō hon shō no hen sen 唐本商の變遷," in Shigeo Sorimachi 反町茂雄 (1901-1991), Shimi no mukashigatari 紙魚の昔がたり 明治大正篇, Tokyo: Yagi Shoten 八木書店, 1934, p.515. The Japanese texts said "Mr. Kitamura Shirobē was also known by his studio name bunsekidō. Rather than being acknowledged as a store, bunsekidō was more like a personal studio. The bookstore was situated at Fuyacho dori, Kyoto. 北村四郎兵衛、堂號を文石堂といい、店といっても素人屋作りで、麩屋町通りにめりもした。"
[23] Ibid. pp.516.
[24] Cao Zaikui, huaimi shanfang jijintu, 1882, reprinted in woodblock by Bensekidō.

The evidence for Kitamura's[25] endeavor of "mass reproduction" could also be seen from his written preface:

> Thus, [I] want to reproduce the catalogue and to achieve wide circulation. 因慾翻刻廣其傳。

Unlike Cao who secured his role as an author through the irreproducibility of rubbings, Kitamura presented the reproduced catalogue as an object overcoming its tradition-grounded formal qualities, and instead determined by its inherent reproducibility.

What was the price of the reproduced catalogue? Kitamura posted an advertisement for the catalogue on Published Books Monthly (Shuppan shomoku geppō 出版書目月報) in November, 1882, saying that each two volumes of the catalogue would be sold for 2.5 Japanese yen.[26] That was actually a very modest price for a reproduction of a rare Chinese book. A contrast could be offered through Tanaka's recording of another reproduced rare book Duanshi shuowen jiezi zhu (Explaining Graphs and Analyzing Characters Annotated by Duan Yucai 段氏說文解字注). The book was an important annotated dictionary of Chinese characters; it was sold by the bunsekidō in the 1890s and was priced from 30 to 40 yen. Tanaka[27] said:

> For example, Duanshi shuowen jiezi zhu is a book we can purchase from almost every book store nowadays. However, back then it was placed in a wooden bookcase, and was formally displayed at the front of Bunsekidō. I remember that the book was not even an original copy from Jingyun lou (The Hall of Classics and Rhymes), but a re-carved version from Hubei Book Bureau. It could now be purchased for around 10 to 15 yen, while back to then it was worth 30 to 40 yen. 例えて申せは、「段氏說文解字註」、これわ今日ではどちらの店にでもめるというものですが、その頃に桐の本箱に入っておって、非常に鄭重に、文石堂の正面に飾られてめった事を記憶しておりもす。それが今から思え

[25] Ibid.
[26] NIJL Publishing and Advertisement Database in Meiji Era 明治期出版広告データベース. ID number: IA0084233. http://dbrec.nijl.ac.jp/PADB_IA0084233
[27] Tanaka Keitaro, Tō hon shō no hen sen, pp.516.

> は経韻樓原刊本というわけでもなく、湖北書局の翻刻本であるといったようなわけで、今日では十円か十五円位ですが、その時分の値段にして三十円とか四十円とかしておった。

The time period Tanaka was referring to was during the 1890s. The dictionary sold by Bunsekidō, as Tanaka had observed, was not even a high-quality reproduction. However, during the 1890s, it was highly treasured, well preserved in a delicate bookcase to be placed in front of the bookshop. Compared with the reproduced version of Duanshi shuowen jiezi zhu, which had already undergone a value decrease, the price of Cao's catalogue was extremely modest. Kitamura's endeavor, thus, was not to gain personal profits, but to "achieve wide circulation 廣其傳" of the kinseki knowledge.

Also worth notice is information related to book price mentioned in Tanaka's memoir: in the early Meiji era, the price for rare Chinese books saw a sharp decrease. This was probably because certain Japanese bunjin wanted to get rid of their rare Chinese book collections, to minimize the importance of Chinese civilization for Japan. The Meiji restoration transformed Japan into a modern country, and the only imperial power in Asia. With the introduction of Western ideas and technologies, some Meiji intellectuals had rejected past tastes in favor of modernity and the West.[28] Also, an emphasis on national learning and indigenous cultural practices triggered a growing delight in Japanese artifacts, the promotion of which was treasured

[28] Xia Rixin 夏日新. "Yang Shoujing Riben fangshu chenggong yuanyin chu- tan" 杨守敬日本访书成功原因初探 (Initial exploration of the reasons for Yang Shoujing's success in searching for books in Japan). Jianghan luntan 江汉论坛 4 (2007): 70.

since they could express regional and national identity.[29] As a result, tons of rare Chinese books were poured into the markets.[30]

But of course, there are bunjin and bunjin. If for the group of the radical bunjin, getting rid of Chinese books marked a turning point for their promotion of national identity, for other bunjin–always being referred to as conservative–Chinese rare books were still highly desirable. These cultural conservatives, eager to embrace Chinese study, or kangaku, triggered a development in Kanshi (Chinese poems), and a growing interest in kinseki (the study of bronze and stone). Richard John Lynn had noted the impressive enduring power of Siwen 斯文 (Jp. shibun), that existed after the Meiji Reformation. Siwen referred to the common literary and scholarly tradition, primarily Confucian and Neo-Confucian, shared by the learned elite of China, Japan, and other countries that formed parts of the Chinese cultural sphere in East and Southeast Asia during premodern time.[31] Kitamura's reproduction of Cao's catalogue enlarged

[29] Shana J. Brown, Modern Antiquarianism and Sino-Japanese Rivalry: Yang Shouting in Meiji Japan, The Role of Japan in Modern Chinese Art, pp. 74-75.

[30] This sharp decrease in book price, interestingly, offered Chinese literati an opportunity to purchase rare books preserved in Japan in large quantity. Several Chinese scholars' traveling diaries demonstrated that the rare Chinese books were highly demanded in the Meiji Japanese book market. Wang Zhichun 王之春, a late Qing literati, recorded in his Dongyou riji 東遊日記 (A Diary of Traveling Eastward): "I entered the (Japanese book) market to purchase ancient books… To my great delight, precious Chinese rare books were also gathered here. For example, the Siku quanshu, Tushu jicheng, Peiwen yunfu, could all be found in the markets. In certain cases, there would still be certain books a scholar is unable to find during his lifetime, no matter how resourceful and dedicated he is. However, he can probably find them in the Japanese markets. I once heard that the Japanese loved to purchase Chinese books, but I hesitated to believe it. After viewing the book markets, I realized that what people had said was the truth. 入市購買古書... 尤喜者中土書籍亦群萃於此，如《四庫全書》、《圖書集成》、《佩文韻府》等無不皆備，更有中土終老窮經而未得一窺之書... 余嘗聞日本喜購中土書籍，未之敢信，觀此則人言真不我欺。" In Wang Zhichun, dongyou riji, in Wang Xiqi 王錫祺 ed., xiaofanghu chai yudi congchao 小方壺齋輿地叢鈔, zhi 帙 5, ce 4. Wang's recording shows that a large group of Chinese buyers was searching for rare books in Japanese book markets; most of them traveled to Japan as diplomats, and were willing to carry back rare Chinese books that were hard to find in China.

[31] Richard John Lynn, "Huang Zunxian 黃遵憲 (1848–1905) and His Association with Meiji Era Japanese Literati (Bunjin 文人)." Japan Review 10 (1998): 73–91.

the image of the early modern interest in antiquarian study: interest in jinshi, or kinseki, was not limited to Chinese scholars: rather, the phenomenon was acted on a larger cultural stage.

How was Cao's catalogue received by the Japanese bunjin? Chinese bronzes were not unfamiliar to the Japanese nobility and bunjin. At least from the thirteenth century, the shoguns had been using Chinese bronzes for interior decoration, especially as flower vases and incense burners. This kind of bronze decoration was under the karamono 唐物 tradition, which referred to artifacts imported from China during the medieval and early modern periods. Most of the karamono were archaistic rather than genuine ancient objects; it was hard for the Japanese bunjin to distinguish archaic vessels from authentic, not to mention the Japanese forgeries or replicas.

Cao's catalogue might have triggered an eye-opening effect among the early Meiji bunjin. Without much chance of viewing authentic ancient bronzes, the Japanese bunjin were unfamiliar with Shang and Zhou bronzes decorated with animal masks. Instead, they developed their own taste in the sixteenth century, preferring undecorated surfaces over the decorated ones.[32] For example, Hsu Ya-hwei studied the most-admired karamono vases owned by Toyotomi Hideyoshi (豊臣秀吉 1637-1598) (Figure 3-5). This long-necked vessel has no decoration except for the lugs on each side of its neck. The surface shines with a subtle hue of different gradations of brown, probably carefully colored to produce the archaistic effect.[33] The preference for this simplicity continued into the Edo period (1603-1868).

[32] H. Nishida, "Hanaike toshiteno kodō to seiji no utsuwa 花生けとしての古銅と青磁の器 (Ancient bronze and celadon flower vases)," in Hanaike (flower vases), ed. Tokugawa bijutsukan and Nezu bijutsukan (Tōkyō, 1982), pp.139.
[33] Hsu Ya-hwei, Reception of Chinese Bronze Antiquities in Early Twentieth-century Japan, Journal of the History of Collections, vol.29, no.3, pp. 484.

After the Meiji era, Japanese bunjin started to acquire objects originally owned by renowned kinseki scholars. As high-quality Shang and Zhou bronzes entered Japan at an increasing rate since the late nineteenth century, the Japanese begun to appreciate the ancient decoration of the solemn animal mask pattern, instead of the undecorated surface under the karamono tradition.[34] Cao's catalogue preceded the huge rush of authentic Chinese bronzes in the Japanese antique market, especially after the fall of the Qing empire, when vast imperial and personal collections were carried outside China. The vessels recorded by Cao were very different from those offered by Japanese antique dealers under the karamono tradition in the early Meiji period. The catalogue offered Japanese bunjin a window of opportunity to understand how the authentic ancient bronzes were shaped and decorated; and it also possibly served as a guide book for dealers to compare and purchase ancient bronzes in the later decades. What Kitamura did, was to mass-produce the catalogue, to "emancipate the work of art from its parasitic subservience to ritual".[35]

Photography: Chen Naiqian's Effort to Preserve the Past

In 1922, Cao's catalogue was again reproduced: this time by photo-mechanic reproducing technique (Figure 3-6). Chen Naiqian 陳乃乾 (originally named Qian 乾, courtesy name

[34] This "rethinking" or "recanonizing" of the past was partially due to the increased accessibility of authentic ancient bronzes in Japan, which reached its peak after the Xinhai 辛亥 revolution and the fall of the Qing empire. The re-canonizing of Chinese bronzes was paralleled with the shift to collecting of Chinese paintings, when a large number of qualified literati paintings arrived in Japan. In the late 19th century, Okakura Tenshin (岡倉天心, 1862-1913), the leading scholar on Chinese art, still rejected the Chinese "literati painting" (after the Song dynasty) and believed the golden age of Chinese painting was during the Tang dynasty. Twenty years later, in the 1910s and 1920s, with more available sources, the Japanese concept of "literati painting" shifted. Chinese paintings imported to Edo Japan that triggered the emergence of Japanese Nanga paintings, were no longer considered as "literati painting", when the tru masters' works could be accessed by the Japanese. This shifting of view was studied by Tamaki Maeda based on the Kyoto Circle. See Tamaki Maeda, (Re-) Canonizing Literati Painting in the Early Twentieth Century: The Kyoto Circle. Joshua A. Fogel ed. The Role of Japan in Modern Chinese Art, 219-220.

[35] Benjamin, Work of Art, p.106.

Naiqian, 1896-1971) was a native Zhejiang scholar with expertise in bibliology.[36] Aiming to preserve the past, starting in the 1920s, Chen Naiqian photocopied a great number of books during his life, including Cao's catalogue. What the "past" did Chen aimed to preserve, and how? What is the purpose, then, of preserving the past?

The rare books Chen reproduced, first of all, did not necessarily come from his own collection. For example, Chen didn't own Cao's catalogue himself; rather, he got the author's original rubbings from a literatus named Xu Naichang 徐乃昌 (courtesy name Jiyu 積余). In the postscript of his reproduced catalogue, Chen[37] said:

> When I was supervising Mr. Xu's Jixue zhai (The Studio of Accumulation of Knowledge), I got the chance to view the original rubbings of Cao's catalogue. I then borrowed the rubbings and reproduced them photo-mechanically, so that other aficionados could view it. 余館南陵徐氏積學齋，獲覩原石拓本，因假歸影印，以視同好。

During the early 1920s, Chen was named supervisor of Nanyang 南洋 Middle school. While working in that middle school, he was also responsible for keeping Mr. Xu's studio.[38] When Chen was working in Xu's studio, he saw Cao's catalogue by chance. Considering it important, Chen borrowed the catalogue from Xu's studio and reproduced it.

When preserving rare books, Chen treated all the books as historical sources that are equally important; and this was new at his time. During the early Republican era, most scholars only preserved the rare books they considered shanben 善本 (rare books completed before the

[36] Chen was the decedent of Chen Zhan 陳鱣, a famous late Qing scholar who owned a studio named xiangshan ge 向山閣 (Studio that faces mountains). Chen Naiqian's studio was named shen chu tang 慎初堂 (Studio of Cautious Beginning).
[37] Cao Zaikui, huaimi shanfang jijintu, 1922, Photocopied by Chen Naiqian 陳乃乾, Wenjin building, National Library of China, Beijing.
[38] Chen Boliang, Yu Kunlin, Chen Naiqian xiansheng nianpu jianbian 陳乃乾先生年譜簡編, in Chen Naiqian wenji, pp.1007-1008.

late Ming dynasty), but did not bother to preserve Qing and contemporary books. Chen's reproduction of Cao's catalogue, a pictorial, second-hand study by a lesser-renown early-modern scholar, was a gesture commenting on the problematic trajectory of preserving the past. Criticizing the problem of "valuing the past and neglecting the present (hougu bojin 厚古薄今)," Chen said: "One of the characteristic of Chinese literati, is that they only care about the ancient, but ignore the present, letting the present objects disperse and be lost, only to wait for later generations to preserve them."[39]

For Chen Naiqian, how to preserve the past? To faithfully preserve a rare book includes two aspects: the main text, and the paratextual information. First of all, Chen showed an untrustworthy attitude toward the Chinese printing culture before the introduction of photomechanical reproduction, emphasizing the problematic aspects of woodblock printing. According to Chen, it was exactly the mistakes made by carvers during the "standardization" process of reproduction that hindered the development of Chinese bibliology. The mistakes could either be made consciously or unconsciously by a carver: not only the given text could be mistakenly carved; they could also be consciously interpreted. That is, when a character was unclear or unrecognizable, the carver would interpret it based on his own understanding. The result was disappointing: in many cases, the debates over the meaning of single characters could last thousands of years.[40]

[39] Chen Naiqian, tan xianzhuangshu 談線裝書, 1946, Minguo ribao 民國日報, in Chen Naiqian wenji, pp.25. The Chinese texts states: "中國文人的質性，只管古代，不管目前，眼看現代的史料文物，淪散拋棄，留給後代人來訪求保存。"

[40] Chen Naiqian, zhongguo muluxue de tezhi 中國目錄學的特質 (Characteristics of Chinese Bibliology), 1946, Dawanbao: Xinqingnian 大晚報：新青年. In Yu Kunlin ed., Chen Naiqian Wenji 陳乃乾文集, p.19.

Secondly, the paratextual information was treated with the same importance given to the major text. Chen believed that the paratextual information, including the scholarly comments and postscripts, was of great importance for the bibliographical study. Contrast this with Tanaka and Mr. Bian, who treated the main text of Cao's catalogue as separate from the paratext. Largely ignoring their order, Chen's endeavor showed a conscious awareness of the importance of the overall format of a given source. Chen said: "To reprint rare books, it is important to include the comments and annotations left by present and past scholars in the upper and lower margins of each page, or at the end of each volume. The publishers are responsible for ensuring that the reprinted version would be exactly the same with the original in each characters."[41]

Both the main text and the paratext, in a faithful reproduction, should be devoid of any traces of interpretive quality. Even in certain conditions where the accessible rare books contained "questionable" information, Chen would choose not to correct them based on his own understanding; instead leaving the text as exactly the way it was, to be judged by later scholars. For example, in the case of Cao's catalogue, Chen believed that the postscript written by Ye Zhishen should be placed near the record of the Pengsheng gui vessel, instead of situated at the end. While believing the catalogue he accessed had been arranged in a mistaken order, Chen didn't move Ye's writing back to the position he thought to be proper, but reproduced it in its original form, without involving his personal judgement.[42]

[41] Yu Kunlin ed., Chen Naiqian Wenji 陳乃乾文集, pp.20. The Chinese texts says: "希望出版界忠實地翻印古書，把古今學者的註釋評論校勘記等，完全附錄在每頁上下端，或每卷的後面，負責保證與原書一字不異。"

[42] Chen said in his postscript: "葉志詵東卿一跋，當在格伯簋後，原本訛刻于貝定父題名之後，今玆不復改移." Actually, in compared the Taipei and Hong Kong versions, we see that the original catalogue Chen received was in correct order.

Early Republican China has been characterized as an age of radical modernization and westernization. However, in this age of dramatic change, thousands of "traditional" texts were also reproduced. Chen's idea of mass-publishing rare books could be put back into its context, when the concept of heritage preservation emerged—a concept introduced to China from the West as part of the modernizing effort during the late Qing dynasty. Reasons that triggered the formation of heritage preservation were complicated, including the rise of public awareness through imperial legislation, the fear of Western exploitation, and a growing wish to define the National Essence (guo cui 國粹) in a drastically changing political environment.[43]

Advocating the National Essence by "transmitting antiquity (chuan gu 傳古)" was first promoted by Luo Zhenyu 羅振玉 (1866-1940) and Wang Guowei 王國維 (1877-1927), two late Qing scholar-officials who actively engaged in publishing antiquities and rare books in the early Republican era.[44] Both considered as loyalists to the Qing dynasty (Old Leftovers, yilao 遺老), they moved from keen supporters of Western learning to strong promoters of National Learning (guo xue 國學). They began to promote the idea of heritage preservation in China as early as 1902, directly modeled on Japanese Meiji restoration.[45] Luo had the conflated identity of collector, publisher and scholar. He publicized antiquities using the new collotype printing technology, aiming to preserve all the historical sources–the "national treasures"–which included rare books, mural paintings, oracle bone inscriptions, bronzes and stelae.[46] Luo, together with

[43] For the formation and development of heritage preservation in the late Qing and early Republican China, see Guolong Lai, The Emergence of 'Cultural Heritage' in Modern China: A Historical and Legal Perspective, in Akira Matsuda and Luisa Mengoni (eds), Reconsidering Cultural Heritage in East Asia. London: Ubiquity Press, 2016, p. 50.
[44] Culp, pp.101.
[45] The Japanese government issued its national project of heritage preservation 30 years earlier.
[46] For Luo Zhenyu's publishing behavior, see Wang Cheng-hua, Luo Zhenyu de shoucang yu chuban: qiwu, qiwuxue zai minguo chunian de chengli 羅振玉的收藏與出版：器物、器物學在民國初年的成立 (Luo Zhenyu

Wang, published new editions of older books, particularly antiquarian works. Their first project carried out in 1914, was to republish Pan Zuyin's 潘祖蔭 1872 bronze catalogue Pangulou yiqi kuanshi 攀雲樓彝器款識 (Engraved inscriptions on ritual vessels from the Pangulou). Also being published were catalogues made by Wu Dacheng, Wang Yirong and Sun Yirang 孫詒讓 (1848-1908).[47] This republishing endeavor, allowed the manuscripts that existed only in private collections to survive into the twentieth century, becoming accessible to a wider reading public.

Possibly influenced by the contemporaneous atmosphere of promoting National Essence, commercial presses further provided an environment for transmitting antiquities. Robert Culp argued that the two major presses—the Commercial Press (Shangwu yinshu guan 商務印書館) and its main competitor Zhonghua Book Company (zhonghua shuju 中華書局)—though considered as modern industrial enterprises, were actually filled with classically trained scholars such as Chen Naiqian.[48] Classically trained "new literati" who dominated the editing departments of the two comercial presses promoted the republishing of classical works. Chen's individual endeavor to transmit the past was possibly influenced by his short stay in the Zhonghua Book Company.[49] About the same time, Chen met Zhang Yuanji 張元濟 (1867-1959), the most renowned publisher of the time; and the head of the Editing Department and General

and the Formation of Qiwu and Qiwuxue in the First Decade of the Republican Erra), meishushi yanjiu jikan (31): 277-312.

[47] Shana Brown, Pastimes, pp.188.

[48] Robert Culp, New Literati and the Reproduction of Antiquity: Contextualizing Luo Zhenyu and Wang Guowei, in Yang Chia-Ling, Roderick Whitfield edit, Lost Generation: Luo Zhenyu, Qing Loyalists and the Formation of Modern Chinese Culture, p.100.

[49] Born in the late Qing, Chen Naiqian was trained in both the traditional private school (sishu 私塾) and the modern educational system. After graduating from Soochow University in 1916, Chen entered the Wenming Book Company (wenming shuju 文明書局). He later entered the Zhonghua Book Company in 1918. Yu Xiaoyao 俞筱堯, Chen Naiqian yu guji zhengli gongzuo 陳乃乾與古籍整理工作 (Chen Naiqian and the Cataloguing of Rare Books), chuban shiliao, pp.82.

Manager of the Commercial Press, responsible for republishing the Sibu congkan 四部叢刊 (Collection of the Four Categories).[50]

Chen Naiqian's case provided an example to complicate the lineal "westernizing" image of early Republic China presented in textbooks. Under the circumstance of promoting the National Essence and National Learning when the country was drastically changing, Chen's effort also demonstrated a shifted concept of preserving the past: contemporary sources and sources from the remote past are treated alike; main texts and paratext are treated alike. As a bibliologist trained in both traditional and modern ways, Chen's attempt was mainly to preserve the rare books through mass production. His numerous publications in various areas of history, art, Sinology and archaeology are still influential.

[50] Zhang was a typical traditionally trained scholar who worked for commercial presses in the Republican era. Zhang was earlier trained for the civil service examination and won a jinshi 進士 degree in 1892 during the late Qing dynasty. Despite the age difference, he became close friends with Chen; the two of them frequently exchanged letters to discuss issues related to preservation and publishing of rare books. Seventeen letters written by Zhang to Chen were discovered and published. See Yu Kunlin, Zhang Yuanji zhi Chen Naiqian shuxin shiqitong 張元濟致陳乃乾書信十七通 (Seventeen Letters from Zhang Yuanji to Chen Naiqian), wenxian jikan 文獻季刊, 2003, no.4, pp. 251-261. Christopher Reed used Zhang as an example to showcase the "downward" mobility of Qing high officials who entered new fields combining education with industry in the early Republican era. See Reed, Gutenberg in Shanghai, pp, 168-69. For a biographical study of Zhang Yuanji, see Zhang Xueji 張學繼, shishu cangshu chushu de yisheng: Zhang Yuanji zhuan 嗜書、藏書、出書的一生：張元濟傳 (A Life of Loving, Collecting and Publishing Books: The Biography of Zhang Yuanji), tuanjie chubanshe, 2018.

Figure 3-1 Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 3-2 Replicated stones in the Changshu Museum of Stelae. Photo taken by the author.

Figure 3-3 Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1882, reprinted in woodblock by Bensekidō 文石堂. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 3-4 Cao Zaikui, Huaimi shanfang jijintu Vol.1, 1882, reprinted in woodblock by Bensekidō. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 3-5 Bronze vase, with the inscription kine no ore (served pestle). Dated thirteen to fourteenth century. Tokugawa Art Museum, Nagoya. From Hsu Ya-hwei, Reception of Chinese Bronze Antiquities in Early Twentieth-Century Japan. Journal of the History of Collection 29 (3): 485.

Figure 3-6 Cao Zaikui, Huaimi shanfang jijin tu, 1922, photocopied by Chen Naiqian 陳乃乾, collected in Wenjin building, National Library of China, Beijing. Photo taken by the author.

CHAPTER 4
REPRESENTING ANTIQUITIES

"When things are accumulated in such quantity, it is difficult to keep the collection intact, and sooner or later it will inevitably be broken up and scattered," said Ouyang Xiu, a famous Song dynasty scholar-collector.[1] There is an inevitable fate of things a collector acquires. To record the objects in catalogues is to perpetuate one's collection. After Cao's death, his bronzes dispersed and owned by different collectors, who "redefined" those objects by recording them into their own catalogues. Now we focus on the moments when Cao's bronzes were again represented by other collectors through diverse techniques. By tracing the collecting history of Cao's vessels, we also discuss the history of catalogue-making in the late Qing and early Republican era from a technical perspective.

There are basically three methods of cataloguing ancient bronzes: line drawing, rubbing, and photography; the first two are the traditional Chinese ways for reproduction, the last was introduced to China during the late nineteenth century. First, there was no lineal developmentary relationship among the three techniques; rather, each technique developed within its own technical category, while sometimes one technique was also influenced by the others. For example, the introduction of photography, a more "advanced" technique, didn't terminate the making of either rubbing or line drawing. Both line drawing and rubbing kept being produced in the "photo-mechanic age," yet they were influenced by the perspectivity or tonality rendered in photography. Second, different techniques frequently juxtaposed with each other, creating a sense of visual diversity. This juxtaposition of techniques is still seen in bronze catalogues and

[1] Li Yian ed., Ouyang Xiu quanji (Complete Works of Ouyang Xiu), pp.599-600. For the English translation, see Tao Wang, Matters of Things: How to read Ancient Chinese Bronzes, in Mirroring China's Past, p. 29.

museums nowadays: a photograph of a bronze vessel is frequently placed together with a rubbing of its inscription, and a line drawing to highlight its inner structure or surface decor.

Representing antiquities includes recording their text and/or images. “Text” refers to incised inscriptions; “image” refers to the illustrations of vessel shape. While texts could be recorded alone in bronze catalogues; images, since they were basically viewed as compensation for texts, would never be recorded alone. Next we discuss the representation of texts and images in Chinese bronze catalogues individually, focusing on the provenance of Cao’s collection.

Representing Texts

For Qing dynasty scholar-collectors, the study of epigraphy was considered the most important aim for collecting; this scholarly motivation separated them from the merchant-collectors who pursued only personal aesthetic enjoyment (Chapter 1). Recording the bronze inscriptions, thus, was crucial to catalogue compilation. Qing dynasty scholars revolutionized the Song dynasty tradition of recording texts, giving the representation a higher level of preciseness, physicality, and reproducibility.

How to represent inscriptions in catalogues? In the Song dynasty, although rubbings of bronzes had already been made and circulated, bronze inscriptions were represented in catalogues as line drawing. The original characters, when being imitated, were frequently distorted and rearranged. It was only in the Jiaqing period (1796-1821) of the Qing dynasty, that Chinese collectors began to use rubbings to obtain more precise illustrations of inscriptions in

bronze catalogues.[2] After rubbings of inscriptions were made, there were three methods to "transfer" them into catalogues: tracing, pasting or photographing.

The first invention of the mid-Qing scholars was tracing (goumo 鉤摹) of rubbings. Through the act of tracing, a much higher level of preciseness in representation was achieved. To trace an inscription, a piece of half-translucent paper was laid on top of a rubbing. The artisan needed to be able to see the characters on the rubbing through the tracing paper, so that exact copies could be made. Qian Dian 錢坫 (1744-1806), a mid-Qing scholar contemporaneous with Ruan Yuan, was a pioneer who used this method. Inscriptions recorded in his bronze catalogue, shiliu changletang guqi kuanshi kao 十六長樂堂古器款識考 (Ancient Objects in the Hall of Sixteen Eternal Happiness, 1796, henceforth, "Shiliu"), were traced directly from the rubbings.

The motivation behind Qian Dian's invention of tracing was his desire to represent the inscriptions faithfully, so that his catalogue could offer later evidential scholarship a trustworthy source. Unsatisfied by the Song scholarship, Qian[3] complained:

> Often [I] want to collect and edit books such as Bogu tu by adding comments and correcting mistakes, but I worry that after multiple transmissions, the illustrations and texts will be corrupted again and again. 每欲彙輯《博古》等書遞加匡正，但恐數經傳刻，於形制筆畫再失再譌。

Doubting the credibility of those line-drawn texts in Song catalogues, Qian believed that any scholarship based on untrustworthy representation of texts was a waste of time. In his own catalogue, he spared no effort to improve the quality of textual representation. One example was the recording of a Pengsheng gui 倗生簋 tureen (recorded in Cao Zaikui's catalogue as "Gebo

[2] Thomas Lawton, "Rubbings of Chinese Bronzes," Bulletin of the Museum of Far Eastern Antiquities 67, 1995, p. 8.
[3] See Qian dian, Preface of Shiliu changletang guqi kuanshi kao, 1796, pp. 1-2.

gui 格伯簋") (Figure 4-1), a grain container made by Pengsheng. The vessel previously belonged to Qian Dian, before it entered Cao Zaikui's collection. The quality of Qian's illustrations was visible when compared with rubbings made directly from the vessel (Figure 4-2).

How does accurate textual representation benefit later study? One important result was that vessels ordered by the same patron, with similar shape but slightly different inscriptions, could be differentiated. For example, both Cao Zaikui and Liu Xihai 劉喜海 (1793-1852) recorded a Man Gongfu xu 曼龔父盨 vessel in their catalogues; precise tracing of the inscriptions by the two scholars allows us to recognize that they collected two different vessels.[4] Later scholars could compare the line-drawn inscriptions in the two catalogues, and then double-check them against the real rubbings. The most obvious difference was the character xu 盨 on the first row of the second column (counted from right to left) . While the inscription on Liu's vessel shows the character xu as if it was cast by a timid school boy, hesitating in rendering each stroke (Figure 4-3), the one on Cao's vessel conveys more power and determination: the right half of the character was ostentatiously enlarged to equal its left counterpart (Figure 4-4). These two xu vessels were ordered by the same nobility, Mr. Man 曼.[5] This xu vessel should have a lid

[4] Xu is a type of vessel similar to gui; this was why both collectors mistook the vessel as gui. Compared with gui, the body of xu is a rectangle instead of a circular shape. Some of the xu vessels were self-inscribed as "xu gui 盨簋", which means they were self-identified as the xu subtype of gui. This shows that xu and gui were not only similar in shape, but were sometimes considered as an identical type of vessel. The two collectors both recorded the xu vessel as a gui vessel. See Hayashi Minao 林巳奈夫, translated by Kunio Hirose 廣瀨薰雄, Yin Zhou qingtongqi zonglan 殷周時代青銅器總覽, juan 1, pp. 57. Scholars in the late Qing didn't recognize xu as a type (or subtype) of bronze vessel; it was not until the 1930s, that xu was separated as a type. Ruan Yuan recorded the Man Gongfu xu as a "fu 簠" vessel, a type of square food container.

[5] It was recorded in Zuo zhuan 左傳 that in the Western Zhou, there was a lord (bo 伯) named Man in the state of Zheng 鄭. The official title "Man" later slowly became a surname. Man Gongfu, the owner of the vessel, was probably one of the descendants of Lord Man. Ruan Yuan said: "左傳鄭有曼伯，後為曼姓，亦作鄤，此龔父殆其後歟。" See Ruan Yuan, Jiguzhai zhongding yiqi kuanshi, juan 7, 12.

with L-shaped handles, as shown from a third known vessel, now held in the Shanghai Museum (Figure 4-5).[6] When the vessel is opened, the lid is to be placed upside down, serving as an individual container side-by-side with the body.

Besides the lack of preciseness, another problem with Song catalogues was intentional ignorance of the spatiality of the inscriptions: a self-reflexive separation of the inscriptions and their original vessels. Song dynasty catalogues cared more about coherency of formality when representing inscriptions: people valued the individual characters more than they valued the format in which the characters were rearranged. For example, in the case of bronze bells, characters were always inscribed on three different parts on a single bell: the framed panel (zheng 鉦), and two side strike areas (sui 遂) (Figure 4-6). In Bogu tu, the separately inscribed ancient bird-script characters were neatly rearranged into a rectangular block (Figure 4-7). This 12th-century choice might be a compromise, to highlight the content of the inscription by neglecting its original form, which made the representation lack a physical indication of the original object. For Song scholars, inscriptions on bronze vessels were treated as individual characters: they were rearranged into a coherent rectangular form throughout a catalogue. This rearrangement of texts may confuse viewers, especially in the case where the inscriptions were taken from different parts of a vessel.

To overcome this disadvantage, growing attention to the spatiality and physicality of textual representation was seen in the mid-Qing catalogues. Cao Zaikui's catalogue offers an early example. In the recording of a bell made by the Duke Xuan of Zou (Zou Xuangong 邾宣

[6] The body of the xu vessel now held by the Shanghai museum was owned by Pan Zuyin 潘祖蔭 and Sun Zhuang 孫壯 in the late Qing. The lid was found during the Great Leap Forward Movement (da yuejin 大躍進, 1958-1962) from a dozen of wasted coppers and irons.

公, r. 542-556 BCE), named Zougong Keng zhong 邾公牼鐘, Cao Zaikui indicated the spatial separation of the three groups of texts, while at the same time maintaining an overall rectangular format, a visual language of the Song catalogues (Figure 4-8). In the rectangular composition, a learned viewer of the mid-Qing, who was familiar with ancient bronzes, would recognize the author's attempt to group texts taken from different parts of the vessel: group A and C were taken from the side striking areas of the bell, while group B was taken from the central panel.

While Cao's effort was to indicate the location of the inscription, Wu Yun's representation of the same vessel further restored this physicality. Wu Yun 吳雲 (courtesy name Shaofu 少甫, art name Pingzhai 平齋 or Tuilou 退樓, 1811-1883) was a native Gui'an 歸安 (moden Huzhou city, Zhejiang province) scholar in the Jiangnan area. In the sixth year of the Xianfeng 咸豐 reign (1856), Wu completed his catalogue Erbai lantingzhai shoucang jinshiji 二百蘭亭齋收藏金石記, which included thirty-nine bronze vessels and five stone steles. Unfortunately, his collection was lost during the Second Opium War (1856-1860) and the Taiping rebellion (1850-1864).[7] After the wars, Wu attempted to restore his collection, and the scattered ancient artifacts gravitated to his hand. He purchased a number of vessels once collected by famous southern collectors, including those previously belonging to Ruan Yuan, Zhang Tingji and Cao Zaikui.[8] He then compiled his second catalogue, Liang lei xuan yiqi tushi

[7] In the preface of lianglei, Wu said, "Previously, I wrote a catalogue named Erbai lantingzhai jinshi ji, which recorded the vessels in my collection. During the second opium war, in the conflicts of Gengshen year, the blocks of my catalogue were destroyed, and the vessels I collected also largely lost. 昔余丙辰年著二百蘭亭齋金石記，專錄家藏各器。庚申之變，書版遭毀器亦間多遺失。" See Wu Yun, lianglei, pp. 1-2.

[8] Rong Geng said in his Shangzhou yiqi tongkao, "Mr. Ruan of Yizheng, Mr. Zhang of Jiaxing, Mr. Cao of Suzhou, had the best collections of bronze vessels in the southeast. They were lost after the turmoil. Wu was able to bue some of their collections in the markets. 儀徵阮氏，嘉興張氏，蘇州曹氏，藏吉金為東南最。亂後散失，往往於市肆中物色得之。" See Rong Geng, Shangzhou yiqi tongkao, 248. After Wu's retirement in the first year of Tongzhi 同治 era (1862), he lived around Lake Tai of Suzhou, and dedicated himself to collecting and studying antiquities. Wu Yun said in the preface of his catalogue lianglei, "Since [I] left the official position in 1862, I shut

兩罍軒彝器圖釋 (Illustrations of the Vessels in the Studio of Two lei, henceforth, "lianglei"), which included 110 vessels, but excluded the stone steles. Wu Yun recorded both texts and images in his catalogue, lianglei.

When Wu was representing the inscriptions on the same bell, he further separated the three groups of texts, to make them resemble their original placement on the vessel. Because of spatial limitations of his catalogue, Wu had no choice but to rearrange the position of several characters in his catalogue: the last three characters originally inscribed on both of the side striking areas were removed to form two individual columns (Figure 4-9). This tiny rearrangement of texts, compared with Song dynasty predecessors, was considered nothing. However, Wu carefully recorded this variation after transcribing the texts: "Inscriptions on the first and last columns are separated into two columns (in my catalogue)."[9] Compared with the Song catalogues, Wu was more careful to represent the texts the way they were originally positioned on the object. The represented inscriptions in Wu's catalogue were no longer isolated texts, abstract words; but were attached to the object, and acquired a form and became palpable.

In the mid-nineteenth century, scholars also started to skip the middle step of tracing, by directly pasting rubbings into their catalogues. Although this practice may seem simpler than carving woodblocks of line drawings, it was actually very labor-intensive. Shana Brown suggested that each piece of rubbing needed to be pasted onto folio pages made up of three sheets: the top had the rubbing pasted on; the middle sheet was cut out, with the hole exactly the same size as the rubbing; amd the third was left blank.[10] Since each page had to be created

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out visitors and dedicated myself to only to the study of ancient inscriptions, in order to compile my catalogue. 自壬戌年罷官以後，杜門詮伏，專事銘槧。"

[9] The Chinese texts said: "銘文首一行、末一行均截作兩行." See Wu Yun, lianglei, juan 3, 4b.

[10] Shana J. Brown, Past Time, pp. 115-116.

individually, catalogues of rubbings were probably more difficult to produce than woodblock catalogues. Unlike the woodblock catalogues, catalogues of rubbings could not be mass-produced before the introduction of photography. The catalogue made by Zhang Tingji 張廷濟, (courtesy name Shuwei 叔未, 1768-1848), a native Jiaxing 嘉興 scholar, was the best-known example. Zhang's catalogue was named Qingyige suocang guqiwu wen 清儀閣所藏古器物文 (Inscriptions on ancient objects in the Studio of Refined Manners, henceforth "Qingyi"), which he gradually compiled during the 1820s to 1840s. The catalogue is now held at Kyoto University.[11]

While the act of tracing enhanced the preciseness of textual representation, the inclusion of rubbings added "tactility" to the representation. When readers view Zhang's catalogue, they experience the sensation of "touch," a move from optic to haptic; antiquarians accustomed to viewing line-drawn inscriptions might marvel at the rougher and less-stylized texts, presented in relation to the vessel's surface condition.[12] An object, the lid of Zhui gui 追簋 tureen, once collected by Cao, later entered Zhang's collection.[13] The tureen has a hollow base, a typical

[11] It was divided into ten volumes, including bronze vessels, and all sorts of objects such as fittings, ancient bricks and tiles, mirrors, measures, and seals. Basically, the first five volumes focus on jin (bronzes); and the last five focus on shi (stones). Zhang made careful notes about the people, places, dates, and prices related to each object. Those detailed notes made his catalogue one of the most revealing of the late Qing, in terms of practical aspects of art collecting. For the study of antique markets, price, dealers, and Zhang Tingji's circle based on qingyi, see Yao Yang, cong qingyige suocang guqiwu wen kan qing zhongqi jiangnan minjian jinshi shoucang shenghuo 從清儀閣所藏古器物文看清中期江南民間金石收藏生活, Journal of Capital Normal University, 2014 (2): 34-40. Another famous example of a pictorial catalogue that included rubbings is Chen Jieqi's catalogue Fuzhai jijinlu 簠齋吉金錄 (Record of Fuzhai's handed-down antiquities), posthumously completed by Wang Yirong.

[12] This idea was borrowed from Ewa Lajer-Burcharth's discussion of Froice Boucher's paintings of the Marquise de Pompadour. Lajer-Burcharth argues that instead of being a negative sitter to be painted through Boucher's artistic touch, Madame de Pompadour actively engaged her own "touch" in her self-representations. On a surface level, the touch of Pompadour refers to the tactility, a central characteristic of Rococo paintings, the objects surrounding her as an external piece of the body; in a broader sense, "touch" also referred to Madame Pompadour's touch over society, how she influenced the taste of the French art world. See Ewa Lajer-Burcharth, Pompadour's Touch: Difference in Representation, Representations 73, no. 1 (2001): 54-88.

[13] The vessel was made in the early Western Zhou, by an officer named Zhui. Zhui made the vessel to commemorate the rewards offered by the King of Zhou, also to make offerings to his ancestors.

characteristic of early Western Zhou gui vessels. The decoration of both vessel and pedestal is dominated by confronted pairs of coiled monsters, usually recognized as dragons (Figure 4-10).[14] In Cao's representation, the precisely traced texts were idealized by excluding corrosions and cracks on the surface (Figure 4-11). Zhang's representation, on the contrary, leads his readers to new ways of perceiving rough artifacts (Figure 4-12).

The sense of touch presented through rubbings always arose from a double experience: A viewer may first sense the tactility of the object by viewing a rubbing, which actually "touches" the object through physical contact. Then the viewer may realize the craftsman's "touch" during the making of the rubbing, when the rubbing reveals itself not as "representation" of another sign-bearing object, but as a mere picturesque surface, as an actual paper that was tamped and inked. This doubleness is best exemplified in Zhang's recording of a Zhou dynasty bell named Kongzhang zhong 孔漳鐘 (Figure 4-13). A viewer, as he moves his eyes over the inscription, visually "touches" the object's surface: the coldness of bronze, the sunken lines, the rough corrosions. Meanwhile, the trace of folding on the paper, left during the process of rubbing, drags the viewer back from the imagination of touching the sign-bearing object, to touching the piece of paper. Here, the viewer identifies himself with the rubbing-maker, especially when viewing the areas around the protruding knobs, where the paper is unevenly folded. The rubbing, in this case, was viewed not as a reminder of the original object, but became a pictorial situation, a making process through the rubbing-maker's touch.

[14] There were all-together six Zhui gui vessels originally from the Qing imperial collection. Now two are collected by in the Palace Museum, Beijing; one in the National Palace Museum, Taipei, one in the Avery Brundage Collection in the Asian Art Museum, San Fransisco. The lid once owned by Cao and Zhang is now collected by the Taito City Calligraphy Museum in Tokyo, Japan.

The use of rubbings in bronze catalogues was accompanied by other changes. Zhang's catalogue increased the visual reliability of size. Zhang insisted on pasting rubbings directly in his catalogue even if the rubbings are larger than the page frame. Examples are seen in several rubbings of Han dynasty bricks (Figure 4-14); the rubbings outran the frame of the catalogue, so they needed to be folded back when the album was closed. When reading the catalogue, readers can immediately sense the actual scale of the objects.

Strict division of the image of the artifact and the accompanying text also softened, with notes, inscription, and seals increasingly sharing a page with image. As Shana Brown suggested, Zhang's catalogue implied hands-on treatment by scholars in their study of ancient artifacts, making albums "more like notebooks of work-in-progress."[15] Certain pages were deliberately left blank, waiting for readers to make notes and comments (Figure 4-12). This open annotation derived from the tradition of Chinese painting. This foregrounding of rubbings in bronze catalogues, and the shared, annotating of the catalogue within a small group, made the catalogue a direct complement to the social organizations that created it.

While Zhang's catalogue could only be shared among a small group of literati, the introduction of photography to fin-de-siècle China allowed rubbings to be mass-produced. For the first time in Chinese history, this elegant art that had been hidden in the private collections could be viewed and discussed by a wider group of viewers. The first catalogue to use a photo-mechanic reproducing technique was taozhai jijinlu 陶齋吉金錄 (Bronzes in the Tao Studio, 1908, henceforth "Taozhai") compiled by Duanfang 端方 (courtesy name Wuqiao 午橋, 1861-

[15] Shana J. Brown, Past Time, pp. 117.

1911). Duanfang was a late Qing scholar-collector, born in a Manchu noble family.[16] He has the distinction of being the only major Qing collector to visit the United States in the early 20th century. Through his 18-month tour to the United States and Europe, he was exposed to the advanced photographic technology of the west, and actively posed himself in front of cameras.[17] His catalogue, Taozhai, was completed in 1908.[18]

Interestingly, Duanfang's catalogue used photolithography to mass-reproduce rubbings, while images of the vessel shape were still presented through line drawings.[19] The juxtaposition of photography and line drawing, the new and the old, could be seen in Duanfang's recording of the Bell of Duke Xuan of Zou that once belonged to Cao Zaikui and Wu Yun (Figure 4-15). The rubbing, reproduced through photolithography, presented the inscriptions with the rough corroded surface, which made the characters extremely hard to decipher. Compared with Cao and Wu's representations (Figure 4-8, 4-9), Duan's recording, by faithfully presenting the rough surface of the vessel, left the right of interpretation totally to viewers. Meanwhile, Duanfang also made a gesture toward established tradition, giving it a place in his representation: he intentionally pasted the rubbings together, to form a rectangular shape, before reproducing them, which recalls Northern Song rectangular facsimiles of rubbings, and representation of a similar vessel in Cao's catalogue.

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[16] For a study of Duan Fang's biography, see Lai Yuyun 賴鈺匀, "Duan Fang yu wanqing zhanshi wenhua yanjiu 端方與晚清展示文化研究" (Phd diss., Tsing-hua University, Beijing, 2011).

[17] For Duan's trip to the United States, see Thomas Lawton, A Time of Transition: Two Collectors of Chinese Art, 1991 (Kansas City: Spencer Museum of Art, University of Kansas), 5-9.

[18] Duan Fang's bronze collection was catalogued in both taozhai jijinlu and the taozhai jijin xulu (Continued Records of taozhai jijinlu, henceforth, "Taoxu"), completed in 1908 and 1909 respectively.

[19] Photography was first applied to printing via photolithography, which was developed in 1859. By the 1880s, photolithography, involving the projection of photographic negatives of book pages onto a stone treated with a photosensitive emulsion, had become one of the main processes in the single most important branch of Western-style printing in Shanghai. See Christopher Reed, Gutenberg in Shanghai: Chinese Print Capitalism, 1876-1937, Chapter 1: Gutenberg's Descendants, Transferring Industrialized Printing Technology to Shanghai, Honolulu: University of Hawai'i Press, 2004, pp. 62.

From a semiotic view, what is the difference between rubbing and photography? As Wu Hung suggested, a rubbing is similar to a photograph, since both carried the quality of "analogical perfection," a term used by Roland Barthes in describing photography. Unlike photography, a rubbing minimizes the physical distance between an object and its image; it is physically connected to the sign-bearing object.[20] This physical contact between a rubbing and a sign-bearing object resembles the "indexical mode of signification" addressed by Charles Pierce: just as a bullet-hole indicates a gunshot, a rubbing indicates the presence of an object under a specific condition.[21]

Scholarly acceptance of photography in bronze catalogues was a slow and timid process: unlike rubbing, the lack of physical connection between a photographed image and the original object resulted in a sense of photography's unreliability: its lack of elegance and archaic taste was also a concern. This is why, although photography was introduced to China during the second half of the nineteenth century, it actually took scholars several decades to truly accept the technique as a means to reproduce antiquities. Initial use of this technique in bronze catalogues, as shown in Duanfang's case, was limited only to the reproduction of rubbings, instead of vessel shape. For scholars, the technique was too "foreign," too "new," too "real," and difficult to situate in a traditional Chinese aesthetic system. Chen Jieqi[22] 陳介祺 (1813-1884) said in his letter to Wu Dacheng 吳大澂 (1835-1902):

> Because [photography] yields likenesses that are not especially elegant, [I] did not initially use this technology… Shooting stele rubbings and model calligraphy, the

[20] Wu Hung, On Rubbings: Their Materiality and Historicity, Writing And Materiality in China: Essays In Honor of Patrick Hanan, 29-30.
[21] Charlies Peirce divided the nature of signification into three categories: index, icon and symbol. See Charles Sanders Peirce, in Peirce on Signs, James Hoops ed., (Chapel Hill: University of North Carolina Press, 1991), pp. 141-43, 180-85, 239-40.
[22] For the English translation, see Bai Qianshen, "Composite Rubbings in Nineteenth-Century China: The Case of Wu Dacheng (1835-1902) and His Friends," in Wu Hung ed., Reinventing the Past, 307-308.

> results (of photography) can be quite elegant, but not very archaic. 以其法形似而不大雅，故不取... 照碑帖則近雅，而未甚古也。

For a late Qing scholar used to viewing rubbings, the "newness" and "realness" of a photograph made it lack aesthetic ambiguity, and closed up the psychological distance between viewer and object.[23]

Representing Images

"It would be better if line-drawn illustrations of the vessel shape could be made, to compensate for the flaw of rubbings," said Ruan Yuan, a Jiangnan scholar almost contemporaneous with Cao Zaikui,[24] in a preface by Ruan, for a catalogue compiled by one of his friends, Chen Jing. Because of the large number of vessels being recorded, Ruan himself was not able to include images in his catalogue. He praised Chen's catalogue for including images, believing the representation of vessel shape could offer viewers important information other than mere verbal inscriptions. While rubbings capture the inscription of a vessel, the image of the vessel shape offered the inscription a material form.

Inclusion of images in bronze catalogues had already occured in the Song dynasty; but in the mid-Qing dynasty, the significance of it increased, and multiple methods other than line

[23] Unlike the "stubborn" scholars, the very connotation of foreignness of the technology linked with photography was used by other groups of people. The first group of people to actively adopt photography was the Shanghai courtesans, who used the technique in creating the effect of "fantasy" and modernity, to advocate for themselves in the competitive "flower world." See Catherine Vance Yeh, Courtesans, Intellectuals, and Entertainment Culture, 1850-1910 (Seattle: University of Washington Press, 2006), 87-88. Later on, the nobility of the Qing royal house began to take numerous photographs, in a large amount, partially to exchange them with foreign political leaders and diplomats, to convey a gesture of friendship between countries. For political approach to the early photography of China, see Wang Cheng-hua, Zouxiang gongkaihua: cixi xiaoxiang de fengge xingshi zhengzhi yunzuo yu xingxiang suzao 走向公開化：慈禧肖像的風格形式、政治運作與形象塑造 (Portraits of the Empress Dowager Cixi and Their Public Roles), in guoli taiwan daxue meishushi yanjiu jikan 國立台灣大學美術史研究集刊 (32), 2012.

[24] The Chinese text states: "以所藏者皆摹繪之，助槌拓所不及也。" See Chenjing, qiugu jingshe jinshitu, in Zhongguo wenzi daxi: jinwenwenxian jicheng, vol. 2, pp. 464.

drawing were developed. Before the mid-Qing dynasty, all images in the bronze catalogues were made by line drawing. The first of them, no longer extant, is thought to be The Illustration of Pre-Qin Ancient Vessels (xianqin guqi tu 先秦古器圖) by Liu Chang 劉敞 (1019-1068, courtesy name Yuanfu).[25] At the end of the Northern Song dynasty, Kaogu tu and Bogu tu, the two most extraordinary accomplishments of Song antiquarianism, standardized the style of line-drawn illustrations. The Song tradition provided a lasting blueprint for visual representation of antiquity. Later pictorial catalogues tended to be inspired by this Northern Song standard: rather than painting directly from "nature," from real objects. The "chain" of the Northern Song style was somehow loosened in the mid and late Qing, when illustrators started to add details to the line drawings, captured from directly observing the real objects. New methods of representation other than line drawing also appeared: composite rubbing (quanxing tuo 全形拓), and photography.

Next, to explain "composite rubbing," or full-form rubbing. This special rubbing technique developed in the late 18th century, could render objects in three dimensions. This technique combines both drawing and rubbing. To complete a work of composite rubbing, a rubbing-maker needed to sketch the shape of a vessel. Stencils were made to apply ink on the given sketch. This using of stencils was similar to the coloring process of Western medieval prints. Generally speaking, as Kenneth Starr summed up, making composite rubbing includes

[25] Liu Chang's catalogue was compiled in 1063, which contained eleven objects, including both texts and illustrations. Liu believed by his efforts of collecting and cataloguing, he could contribute to the historical knowledge of the three dynasties.

sketching (or photographing) and stenciling, after which the procedure was similar to making a simple rubbing: laying, tamping, and inking the paper.[26]

The use of composite rubbings signifies a diversified method for representing vessel shape: line-drawn illustration was no longer the only way to make bronze catalogues. Composite rubbing was probably invented by Ma Qifeng 馬起鳳 (courtesy name Fuyan 傅岩), a native Zhejiang rubbing maker.[27] It was once widely believed that the first existed composite rubbing was a Han Dynasty xi 洗 vessel (water basin) recorded in a catalogue named jinshi xie 金石屑 (Odds and Ends on Metal and Stone).[28] However, the water basin, believed to be the first composite rubbing, was actually a woodblock reproduced rubbing. During recent years, Ma Qifeng's works of composite rubbing appeared in several auctions (Figure 4-16): not in catalogues but in paintings. The rigorous symmetry of the jue vessel that commends the whole, granted the representation monumentality; it singles a viewer out to stand before the ancient bronze, to experience the subject, to touch the surface through the subtle shift in areas of grey. This symmetry is tempered throughout by the randomness of the surrounding boldly formed texts. The edges of the picture frame appear as the limits of the vessel and texts, confounding any progression of vision into depth.

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[26] For a detailed description of the technique of composite rubbing, see Starr, Black tigers, Chapter 5. Academia Sinica of Taiwan hosted a workshop in 2009, and invited a Chinese expert of composite rubbing named Fu Wanli, to perform the technique. The workshop was recorded and published. See Liao Caihui, "juexue waichuan: yi puzi zuohua de quanxingtuo jiyi," gujin lunheng, 156-170.

[27] For a brief introduction to the birth, development of composite rubbings, see Sangshen 桑椹, qingtongqi quanxing tuo jishu fazhan de fenqi yanjiu 青銅器全形拓技術發展的分期研究 (A Study of the Technique of Composite Rubbings of Bronze Vessels), dongfang bowu, 2004 (3), p.32-39.

[28] In shangzhou yiqi tongkao 商周彝器通考 (A General Study of Shang and Zhou Vessels), Rong Geng states: "Rubbing ritual vessels in full form first was done by Ma Qifeng of Jiaxing. Odds and Ends on Metal and Stone (jinshi xie, by Bao Changxi)(1:ce 3) records a Han xi basin, and Mr. Ma annotated it: 'Han xi, an old rubbing, and on the eighteenth day of the sixth month of the wuwu, Fuyan Ma Qifeng records it. 彝器拓全形始于嘉興馬起鳳. (鮑昌熙)金石屑錄一漢洗, 馬氏題云: 漢洗, 舊拓本, 傅巖馬起鳳並記." Rong Geng, Shangzhou yiqi tongkao, pp.179-180.

Cao Zaikui's bronze collection was also made into composite rubbings to be included in hand scrolls. One painting, made collaboratively by Zhu Cheng and Ren Xun in 1872 after Cao's death, contains four vessels that once belonged to Cao (Figure 4-17).[29] The four vessels (from right to left) are Sikou Liangfu zuo weiji hu 司寇良父作衛姬壺 (recorded as Weiji hu 衛姬壺 in Cao's catalogue), De dun 德敦, Sanxing jue 三形爵, and Ju ding 舉鼎.[30] Each composite rubbing had flowers added, with a simple rubbing showing their inscriptions. This type of painting, with rubbings of vessels serving as containers for painted followers, is named bogu huahui 博古花卉, meaning antiquities and flowers. Rubbings in the bogu huahui paintings were not aimed for scholarly research: they were usually for commercial use.[31]

The first catalogue that actually included composite rubbings was the Qingyi mentioned above, compiled by Zhang Tingji. Images represented by composite rubbings in Zhang's catalogue show an early stage in the development of this technique. Zhang's representations show a failed endeavor to render the vessels in three-dimensional form. One example was the Zhong Fufu gui 仲㠯父簋 tureen (Figure 4-18). The rubbings of different parts were taken and then arranged in such a way as to recreate a projected view of the container. The body of the vessel is covered with evenly applied ink, without a hint of chiaroscuro; its lid and the connecting areas were left blank. The "unframed" vessel seems to be radically compressed,

[29] For a detailed discussion of the painting, see Pai Ting-hsuan, 1872 nian Zhucheng, Renxun bogu huahui sitiaoping yanjiu. Master's Thesis, Taipei: National Taiwan University. 2016.
[30] The other four vessels shown in the work were also collected by famous collectors. From right to left, the Jingning yuannian yanzu deng 竟寧元年雁足燈 was collected by Cheng Hongpu 程洪溥, and was later transferred to Pan Zengwei's 潘曾瑋 hand in the late 19th century. Shi Song gui was collected by Cheng Hongpu, Zhang Tingji, Cheng Liujie 程六皆, Pan Yuquan 潘玉泉, and Pan Zuyin 潘祖蔭.
[31] For a discussion of how composite rubbings entered the paintings, and how they influenced viewership, see Bai Qianshen, "From Composite Rubbing to Pictures of Antiquities and Flowers (Bogu Huahui): The Case of Wu Yun," Orientations 38, no.3 (2007): 52-60.

deliberately purged of any perspectivizing construction of continuous space, forcing viewers to focus more on its richly textured surface.

The juxtaposition of more than one surface in Zhang's catalogue created an effect as though readers could literally lift and rotate each artifact. For example, the Zhong Fufu gui container has a rectangular base. But since the base was difficult to represent through a frontal view, Zhang added another drawing to his catalogue, showing the vessel from a bird's-eye view (Figure 4-19). The drawing is actually a juxtaposition of a rubbing of the interior inscription, and a line drawing of simple geometric shapes. Parts because of horror vacui, and parts to keep the drawing visually coherent with other rubbings, Zhang included in this drawing two scholarly comments on the effect of rubbing: one written by Zhang himself, the other by Weng Fanggang 翁方綱. The purpose of the drawing is to present the vessel from another perspective, to highlight its structure, the base. Comments added on the base served as decorations, to make the representation more visually appealing. This "lifting" and "rotating" effect created through pictorial representation was seen everywhere in Zhang's catalogue. A Han Dynasty candle holder was captured from a bird's-eye view, yet a band of inscription on its side wall was also represented (Figure 4-20). This juxtaposition of more than one piece of rubbing invites the viewer to lift up the vessel and fold back the band of inscription. By so doing, Zhang successfully represents the object's inscription in relation to its material form.

The newly invented rubbing technique did not sideline the traditional way of image representation. Line drawing, in the 19th century, was still the method most frequently applied in depicting vessel shape. Compared with composite rubbings, line drawing has three advantages: (1) the ability to be mass-produced by block printing; (2) the level of preciseness and abundant details they could render; (3) flexibility in choosing angles for depiction. Line drawings were

much easier to mass-produce. Once the inscribed surface is prepared, it takes numerous pressings to make a rubbing, while one pressing is enough to make a print. The preciseness and abundant detail of line drawing can be explained by comparing Zhang Tingji and Wu Yun's representations of the Zhong Fufu gui vessel (Figure 4-21). Compared with Zhang, Wu's representation shows no seductive variety of texture: the hard-edged lines rendered the surface with brittle, unrelieved hardness. Wu Yun, by using line drawing, depicted the gui vessel with more straightforward details: meander patterns, the animal face on the center of the upper band, and the two animals on the handles were much more precisely shown. The flexibility of line drawing lies in the freedom to choose angles for depiction. In the record of a fu vessel, Wu Yun chose to illustrate the vessel from a bird's-eye view, a highly unusual perspective to illustrate this type of vessel (Figure 4-22). The fu vessel was seriously damaged, with two incomplete side walls. Wu's line drawing was so detailed that it even captured the condition of the damage, portraying the vessel's cracks on the broken part. In this perspective of depiction, the surface décor on the bottom was also highlighted. Two s-shaped dragons with strongly curved bodies and elaborate fins decorate the bottom. Partially sharing their bodies, the shape of the two dragons is almost completely abstract: only their heads show distinctly animal features. One of this fu vessel's incomplete side walls was intentionally turned toward the viewers: an attempt that allows the curvilinear cloud pattern to be carefully included.

In the 19th century, scholars began paying attention to the "style" of line drawings. Line-drawn images were no longer seen as compensating the inscriptions: they began to gain individual artistic and aesthetic value. Professional terminologies were used to describe the quality of line drawings. Frequently seen through scholars' discussions were terms such as "rigid and inflexible (ban zhi 板滯)," or "delicate and weak (xian ruo 纖弱)," complaining about the

unsatisfying effects of lines; and "double-line (shuang gou 雙鉤)" or "solid strock (shi bi 實筆)" to distinguish the techniques used for illustrating surface pattern.

With an increased awareness of the importance of images in bronze catalogues, the line drawings of vessel shape in the late Qing moved toward photo-realism. The Song dynasty depiction of "anonymous" vessels no longer served as the only model for late Qing artisans to directly copy; the particularity of each individual vessel began to be highlighted. The problem of how to realistically capture the negative and positive patterns caught scholars' attention. In a letter to Chen Jieqi, Wu Dacheng[32]said:

> [The problem is that] the patterns incised on the vessels are not identical in their thickness. If the protruding parts need to be filled with ink, the concave pattern should be presented in relief, and the convex pattern in intaglio. 惟文之粗細不等，若墳起處悉用墨填，須凸文畫作陽文，凹文畫作陰文。

Wu Dacheng had paid increased attention to the depiction of surface pattern, analyzing different methods to render their positivity or negativity, in contrast to the Song dynasty depiction, where "double-line" was applied to depict every type of pattern.

This newly developed line-drawing technique was used in Wu Yun's catalogue, as shown in the representation of Man Gongfu xu discussed above (Figure 4-23). Compared with Cao Zaikui's representation, which depicted the surface pattern using double-line (Figure 4-24), Wu's line drawing changed to using thick single lines, which somehow clarifies the pattern-ground relationship. Rong Geng[33] had suggested the achievements made in Wu's representation:

[32] Wu Dacheng, Wu Kezhai Dacheng chidu, in Wu Dacheng shuxin sizhong, pp.7.
[33] Rong Geng, qingdai jijen shuji pingshu, 115.

> Previously, artisans illustrated the surface patterns by using the double-line technique; this catalogue shifted to using single brush, which made the representation more vivid. 前人摹繪花紋皆用雙鉤，此改用實筆，更為逼肖。

According to Wu, the "thick stroke" could render a higher level of verisimilitude. Though the positivity and negativity of the patterns is still vague, the change in Wu's catalogue demonstrated an endeavor to break the Northern Song orthodox in pursuit of a more realistic depiction.

Wu Yun's representation also pioneered in the combination of text and image. A learned viewer familiar with the bronze catalogues might expect the arrangement shown by a "first the drawing, then the text" mode. This arrangement, as Robert Hegel observed from other illustrated books, created a kind of "suspense" to "draw the reader further into the text".[34] Shana J. Brown also pointed out, the traditional "page break" emphasized the distinction between the aesthetic artifact and its paleographic importance. On the contrary, in the recording of a hu vessel made by the Duke of Qi, originally owned by Cao Zaikui, Wu directly included parts of the inscription in his illustration (Figure 4-25). This violated the conventional language by juxtaposing different types of signs. This invention, with its unfamiliarity, caused in the viewer to pause and behold for contemplation. Meanwhile it highlighted the position of the inscription, as well as the artifact's paleographic importance.

The move toward photo-realism was further showcased in Duanfang's catalogue. The Man Gongfu xu passed from Cao to Wu Yun was later purchased by Duanfang. The representation of this xu vessel in Duanfang's catalogue demonstrated the usage of western perspectivity (Figure 4-26). His representation, compared with the one in Wu Yun's catalogue (Figure 4-23), better illustrated the vessel with voluminous quality by using a single-point

[34] Robert Hegel, Reading Illustrated Fiction in Late Imperial China (Stanford: Stanford University Press, 1998), 204.

perspective. A more realistic rendering of structural detail is seen by comparing the lid of the vessel in the two catalogues. In Wu's catalogue, the lid is presented with concentrated rounded rectangles, showing the effect as if the upper part of the artifact was tilted toward the viewer. The body was seen from the side; the lid was seen from above. Duanfang's representation united the perspective. He accepted that certain parts of the inner lid could not be seen from a frontal view, which demonstrated an improved understanding of the structure of the artifact.

Use of the one-point perspective in Duanfang's catalogue was probably the influence of photography. Duanfang's craftsman had probably traced photographs to make the line-drawings. Back in the late 19th century, certain scholars had already suggested that photographs could be used to aid the making of line drawing and composite rubbing. In a letter to Wang Liansheng 王廉生 in 1875, Chen Jieqi[35] commented on the illustration of a ding vessel.

> I was quite unsatisfied with the illustration of the Yu ding vessel… It would be better for the illustrator to first use a photograph to trace the shape of the vessel; and then rub the inscription, handles, and feet exactly as their likeness. 盂鼎圖不甚愜意... 當以洋照取其真形，再拓鼎文、鼎足原樣。

Chen Jieqi was suggesting that when making a composite rubbing, the drawing procedure could be assisted by photography. With an accurate shape traced from photographs, the composite rubbings would achieve more reliability. According to Chen, Photographs could also be used to check the quality of composite rubbings. In another letter, Chen[36] suggested

> If [a rubbing is worth] transmitting [to later generations], it must not lose its fidelity. An inscription and its composite rubbing should be compared with their photographs. If no distortions are apparent, then the rubbing will be handed down. 傳則必不可失真，字與拓圖與照者校，皆不失毫髮，則必傳。

[35] Letter from Chen Jieqi to Wang Liansheng in 1875. See Fuzhai chidu.
[36] Chen Jieqi, fuzhai chidu, 162. For the English translation, see Bai Qianshen, Composite Rubbings in Nineteenth-Century China: The Case of Wu Dacheng (1835-1902) and His Friends, in Wu Hung ed., Reinventing the Past, 309.

As for Chen, together with the other late Qing and early Republican scholars, the quality of the illustrations was measured by their degree of verisimilitude. Only texts and images represented without distortion from the real objects were worth passing down to later generations. Photography, thus, offered scholars opportunities to record and reproduce antiquities, and to measure the quality of the representations.

Besides aiding the making of line drawing and rubbings, photography was later also applied to mass-reproduce composite rubbings: Yilinguan jijin tulu 栘林館吉金圖錄 (The Illustrations of the Auspicious Bronzes Collected in the Studio of Yilin, henceforth, "Yilin") was the first of them.[37] The catalogue was made by Ding Lin'nian 丁麟年 (1870-1930), a native Shandong scholar, in the second year of Xuantong 宣統 era (1910). Ding's catalogue showcased a different trajectory of stylistic change, opposing to a lineal development toward photo-realism. From Ding's representation of a tripod, a viewer gained a sense of the "ghost" of the Song convention still hanging around (Figure 4-27). Duanfang's use of one-point perspective totally disappeared. Instead, the multiple perspectivity of the Song convention returned. The vessel is rendered as intentionally distorted: the body is shown in frontal view, and the two handles are in three-quarters view; the opening of the lid is enlarged, inviting viewers to look inside. These techniques were frequently used in line drawings of tripods, to highlight the surface decor on the handles and the inscriptions inside the belly.

The advantage of photography that it could vary freely in size, was exactly their disadvantage, according to the late Qing and early Republican scholars. In Ding's catalogue

[37] Rong Geng said in Shangzhou yiqi tongkao, "Although the book was not finished, it used photolithography to reproduce composite rubbings, a phenomenon that had not been seen throughout history. 此書雖未成，以全形拓本石印，前所未有也。" See Rong, Shangzhou yiqi tongkao, pp.263-264.

Yilin, the image of each vessel is accompanied by texts explaining the ratio by which a vessel was reduced. But not all the scholar-collectors paid enough attention to this variation of pictorial size. One disastrous result was Shuangwangxi zhai jinshi tulu 雙王璽齋金石圖錄 (The Illustration of Bronzes Collected in the Studio of Two Emperors' Seals, henceforth "Shuangwang") compiled by Zou An 鄒安 in 1916, which is also the first catalogue that used photography to directly capture the vessel shape (Figure 4-28). Each artifact in Zou's catalogue is recorded with a photograph and a piece of rubbing; he made each image the maximum size by zooming it into the very margin of the paper, regardless of the viewers' reception of the relationship between different vessels. This careless handling of vessel size was criticized by contemporaneous scholars. Rong Rong Geng[38] 容庚 said:

> The photographs (in Zou's catalogue) were not to the scale [of real objects]. Each photograph was followed by a rubbing, but without any explanations. 攝影大小不倫，後附文字拓本，無考釋。

In Rong Geng's view, Zou An's catalogue made small vessels large, and large vessels small. For example, in his representation, a large water basin (pan) looks smaller than a yi water vessel; while in reality, the latter was to be placed inside the former, before and after ritual ceremonies. In the late Qing and early republican era, it was important that a viewer get an idea of a vessel's scale in relation to others, by perusing a catalogue. Even if the representation of an artifact must be reduced, there should be certain standards of measurement.[39]

[38] Rong Geng, Shangzhou yiqi tongkao 商周彝器通考, pp.263

[39] After Zou An made the first photographic catalogue in 1916, for another two decades, scholars kept using composite rubbings and line drawings to depict vessel shape. This diversity of choices was evident in catalogues made to record the Xinzheng 新鄭 Lijialou 李家樓 excavation, an archaeological site that had been considered to be the first controlled archaeological excavation done by the Chinese people. Reports in photographs or traditional-style woodcut illustrations were published after excavation of the site.

After struggling and experimenting with the three techniques for 20 years, a standard format of representation was finally established during the 1930s: each object is recorded with a photograph juxtaposed together with its rubbing (showing either the inscription or surface decor). For example, a yi water vessel of the Duke of Yan (Yangong yi 燕公匜), once collected by Cao and later owned by Liu Tizhi 劉體智 (courtesy name Huizhi 晦之, 1879-1962), was recorded in Shanzhai yiqi tulu 善齋彝器圖錄 (The Illustrations of Vessels Collected in the House of Benevolence, henceforth, "Shanyi") with a juxtaposition of photograph and rubbing (Figure 4-29).[40] This format of representation is still used today. For clarity of individual details, rubbing offers an understanding of the bronze that is lacking in the photography. As Thomas Lawton said: "Photographs still did not transmit the nuances of inscriptions or the fine intaglio decorative motifs with the same uniform fidelity as did rubbings".[41]

Rubbings of inscriptions were juxtaposed with photographs. In the 1930s, however, rubbings of the surface patterns also appeared in catalogues, first shown in Songzhai jijin tu 頌齋吉金圖 (The Illustrations of Auspicious Bronzes Collected in the Song Studio, henceforth, "songzhai") compiled by Rong Geng in 1933 (Figure 4-30). This inclusion of pictorial rubbings instead of textual ones signified that the un-inscribed artifacts were included in serious scholarly research. Rong's attempt could be considered a continuation of the evidential study of the late Qing, and a reaction to the Western scholarship that treated surface pattern as an important criteria for dating Chinese bronzes.[42]

[40] The vessel is noe held at the National Palace Museum, Taipei.
[41] Lawton, Rubbings of Chinese Bronzes, pp.17.
[42] Huang Ruiwen 黃睿文, minchu qingtongqi tulu fuzhi guannian de zhuanbian: yi Rong Geng wuyingdian yiqi tulu wei zhongxin, Master diss., National Taiwan Normal University, 2018.

By tracing the collecting history of Cao Zaikui's bronze collection, we see how these vessels were redefined in other scholars' catalogues, and we are able to picture a brief history of the technical development of nineteenth-century bronze catalogues. While a pursuit for accuracy, better quality, and photo-realistic representation marks a major trajectory for the development of bronze catalogues, there was rapture in their transformative continuity. In most cases, line drawing, rubbing and photography maintained parallel evolutionary trajectories. They co-existed together, and cross-media influence was common.

Figure 4-1 Pengsheng gui with inscription, in Qian Dian, Shiliu changletang guqi kuanshi kao 十六長樂堂古器款識考 (Research on Inscriptions on Ancient Objects in the Hall of Sixteen Eternal Happinesses), 1796, 1 a-b. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 2.

Figure 4-2 Rubbing of inscriptions on Pengsheng gui. From Digital Archives of Bronze Images and Inscriptions, Academia Sinica, Taipei. Accession Number: 04263.

Figure 4-3 Man Gongfu xu. In Liu Xihai 劉喜海 (1793-1852), Qing'aitang jia cang zhongding yiqi kuanshi fatie 清愛堂家藏鐘鼎彝器款識發帖 (The Module Calligraphy of the Inscriptions of Bronze Vessels in the Hall of Honesty and Love), 1838, reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 12.

Figure 4-4 Man Gongfu xu. In Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 4-5 Man Gongfu xu collected by the Shanghai Museum. From Xia Shang Zhou qingtongqi yanjiu: shanghai bowuguan cangpin. Shanghai: Shanghai guji chubanshe. 2005. p.514.

Figurer 4-6 Zougong Keng zhong. In Shanghai bowuguan cang qingtongqi 上海博物館藏青銅器. Shanghai: Shanghai renmin meishu chubanshe. 1964. p.81.

Figure 4-7 The recording of the bell of Marquis Qi with inscription. In Wang Fu (1079-1126), Bogutu, 22.11a-b. Reprinted in 1636. National Library of China.

Figure 4-8 Zougong Keng zhong. Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Hong Kong University.

Figure 4-9 Inscriptions of Zougong Keng zhong in Wu Yun's catalogue Lianglei xuan yiqi tushi 兩壘軒彝器圖釋 (Illustrations of the Vessels in the Studio of Two lei), Vol.3, 3-4. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 4-10 The Zhui gui tureen collected in the Palace Museum, Beijing. In Yang Boda 楊伯達 el al ed., Gugong wenwu dadian 故宮文物大典 (A Grand Pictorial Dictionary of the Collection in the Palace Museum). Fuzhou: Fujian renmin chubanshe. 1994. p.671.

Figure 4-11 Inscription on the lid of Zhui gui tureen. Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 4-12 Inscription on the lid of Zhui gui in Zhang Tingji's catalogue. See Zhang Tingji, Qingyige suocang guqiwu wen 清儀閣所藏古器物文 (Inscriptions on ancient objects in the Studio of Refined Manners), Vol.1. Around 1820s. Collected in National Kyoto University, Kyoto, Japan.

Figure 4-13 Kongzhang zhong. Zhang Tingji, Qingyige suocang guqiwu wen, Vol.1.

Figuer 4-14 Rubbing of a Han dynasty brick Han Yongning zhuan 漢永寧磚. Zhang Tingji, Qingyige suocang guqiwu wen, Vol.5.

Figure 4-15 Zougong Keng zhong in Duanfang's catalogue. Duanfang, Taozhai jijinlu 陶齋吉金錄 (The Auspicious Bronzes in the Tao Studio), 1908, vol.1, 16 a-b. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 4-16 Example of Ma Qifeng's composite rubbing. In Zhejiang sheng bowu guan 浙江省博物館, Liuzhou: yiwei jinshiseng de yishushijie 六舟：一位金石僧的藝術世界. xileng yinshe, 2016. P.10.

Figure 4-17 Zhu Cheng, Ren Xun, Bogu huahui tu siping 博古花卉圖四屏, 1872. Collected by Taiwan Shi yunwen.

Figure 4-18 Zhong Fufu gui 仲㚤父簋 tureen in profile. Zhang Tingji, Qingyige suocang guqiwu wen, Vol.1. Around 1820s. Collected in National Kyoto University, Kyoto, Japan.

Figure 4-19 Zhong Fufu gui 仲㚤父簋 tureen in bird's eye view. Zhang Tingji, Qingyige suocang guqiwu wen, Vol.1. Around 1820s. Collected in National Kyoto University, Kyoto, Japan.

Figure 4-20 Rubbing of a Han dynasty candle holder. Zhang Tingji, Qingyige suocang guqiwu wen, Vol.2. Around 1820s. Collected in National Kyoto University, Kyoto, Japan.

Figure 4-21 Zhong Fufu gui 仲㚤父簋 presented in line drawing. In Wu Yun, Lianglei xuan yiqi tushi. 6, 41 a-b. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 4-22 Line drawing of a fu vessel. In Wu Yun, Lianglei xuan yiqi tushi. 7, 10 a-b. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 4-23 Mangongfu xu vessel. In Wu Yun, Lianglei xuan yiqi tushi. 7, 12 a-b. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 4-24 Mangong fu xu vessel. In Cao Zaikui, Huaimi shanfang jijintu Vol.2, 1839, collected by Academia Sinica, Taipei.

Figure 4-25 Huanzi Mengjiang hu vessel. In In Wu Yun, Lianglei xuan yiqi tushi. 5, 1 a-b. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 4-26 Mangong fu xu vessel. In Duanfang, Taozhai jijinlu 陶齋吉金錄 (The Auspicious Bronzes in the Tao Studio), 1908, 1, 44 a-b. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 4-27 A ding tripod presented in rubbing. In Ding Lin'nian, Yilinguan jijin tulu 栘林館吉金圖錄 (The Illustrations of the Auspicious Bronzes Collected in the Studio of Yilin), 1910. Reprinted in Zhongguo wenzi daxi: jinwenwenxian jicheng, Vol. 8.

Figure 4-28 A pan vessel and a yi vessel presented in photography. In Shuangwangxi zhai jinshi tulu 雙王璽齋金石圖錄 (The Illustrated Bronzes Collected in the Studio of Two Imperial Seals), 1916. Collected by Academia Sinica, Taipei.

Figure 4-29 Yangong yi vessel. In Rong Geng ed., Liu Tizhi collected, Shanzhai yiqi tulu 善齋彝器圖錄 (The Illustrations of Vessels Collected in the Studio of Benevolence), 1936, Fig.96. Beijing: Hafo yanking xueshe.

Figure 4-30 Surface pattern on Shifu gui 事父簋 tureen. Rong Geng 容庚, Songzhai jijinlu 頌齋吉金圖錄. In Rong Geng, Ronggeng xueshu zhuzuo quanji: Songzhai jijin tulu; Songzhai jijin xulu; Haiwai jijin tulu 容庚學術著作全集：頌齋吉金圖錄；頌齋吉金續錄；海外吉金圖錄. (Beijing: Zhonghua shuju, 2012), p.69.

CHAPTER 5
CONCLUSION

My study was an important case study for antiquarianism in early modern China, a critical phenomenon that refers to growing scholarly dedication to bronze vessels and inscribed stones from the three dynasties. The life cycle of a single object, a catalogue, is at the same time is also a rubbing and a work of art. By exploring how the catalogue was produced, reproduced, and redefined, we examined the making and reproducing of catalogues of bronze collections from a technical perspective. Chinese concepts of authenticity and replica, imitation and representation and social collaboration among scholars were explored.

My study was also an experiment, in which the methods used in studying Renaissance printing culture are borrowed and applied on the study of Chinese bronze catalogues. Prevailing theories used in my study were largely inspired by the Renaissance study. For example, in the study of "readerly reception" of the printed texts/images, David Areford suggested that a Renaissance printed image was less a product than a process; the printed images were frequently edited and personified by the viewers.[1] The making of a bronze catalogue could also be treated as an ongoing process that required constant readerly intervention. In discussing the idea of originality, Christopher S. Wood explored the distinction between notions of history and truth before and after the advent of mechanically reproducible media. Wood suggested a concept of "substitutional chain" that existed before the printing culture, arguing that during the Middle Ages, artifacts could replace one another with no loss of authenticity.[2] In the Chinese case, there also existed a kind of "semi-substitutional chain" in the making of rubbing. When a stele used to

[1] David S. Areford, "The Image In the Viewer's Hands: The Reception of Early Prints in Europe," Studies in Iconography 24 (2003), pp. 5-42.
[2] Christopher Wood, Fogery, Replica, Fiction: Temporalities of German Renaissance Art (Chicago: The University of Chicago Press, 2008).

make rubbings is damaged, a new stele was carved and erected, based on the circulated rubbings. From a technical aspect, Paul Needham drew a Venn diagram to show the interaction of different kinds of craftsmanship in early Renaissance printing culture: scribal, block-book printing, and typographic printing techniques, intertwined with each other.[3] A similar diversity of phenomena also existed in the making of bronze catalogues in early Modern China. In the history of catalogue-making, the newly invented techniques did not replace the old ones all of a sudden. For example, when photography was introduced to China, this seemingly more advanced technique did not replace rubbings, the traditional technique for reproduction. Rather, photography was considered less serious, and was initially used as a tool to aid the making of rubbings.

The practice of antiquarianism in modern China was sometimes categorized as anti-modern, in contrast to the spirit of western archaeology that was guided by logic and scientific principles. My study provides insight that the late Qing traditional jinshi scholarship was actively responding to modern technologies, ideas and methods of representation. However, facing the introduction of archeology, the jinshi scholarship did not survive the transformative period: it either merged into the modern discourses of history, philology, or archaeology; or encountered its dead-ends. My study invites historians and art historians to further invest in Chinese antiquarianism, its cultural contexts and lasting impacts.

[3] Paul Needham, "Prints in the Early Printing Shops," in the Woodcut in Fifteenth-Century Europe, edited by Peter Parshall, (Washington D.C.: National Gallery of Art, 2009), 39-91.

APPENDIX
LIST OF FIGURES

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