THE QIANLONG period (1736–1795) is a glorious landmark in Chinese timepiece collection history. During these sixty years, the timepiece collection of the Qing (1644–1911) court not only expanded substantially, but the ingenuity of the pieces themselves also reached an unparalleled high. While inspecting these exquisitely intricate timeless works, one can strongly sense the striking difference between the timepiece collection of the Qing court and that of other countries from that period, especially that of the West. In the historical process of creating this achievement, the role of the Qianlong emperor cannot be overlooked. One undeniable fact is that the majority of timepieces in the current possession of the Palace Museum were either acquired or manufactured during the Qianlong reign. This article aims to make use of the Qing palace archives to examine the condition of its timepiece collection during the Qianlong period, in order to clarify the relations between the Qianlong emperor and the pieces within the collection. After depicting a clear outline of the period’s timepiece collection, this essay will explore the meaning of the Qianlong collection within a social, economic, cultural, humanistic and historical framework.

I. Qianlong’s Knowledge of the Timepiece

By examining historical texts, it is evident that watches and clocks were already used in the palace as the primary tool of keeping time from as early as the Kangxi (1662–1722) and Yongzheng (1723–1735) reigns. Still a prince during this time, Hongli, the Qianlong emperor, must have been very familiar with the timepiece collection of the imperial palace. In the eighth year of the Yongzheng reign (1730) upon turning twenty years old, he composed a poem entitled Chiming Clocks (1). This literary work grants us the opportunity to understand Qianlong’s basic opinion and attitude towards chiming clocks in his early years. Although Hongli considered imported chiming clocks a symbol of tribute to his great empire from myriad foreign countries, he described them as “curious objects” with “unsurpassed ingenuity that could possibly be the works of otherworldly beings”. In this poem he actively expressed how the Chi-

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Zitan Double-Eaved Pavilion Style Night Clock with Enamel Inlays
Made by the Imperial Workshops.
Qianlong period, Qing dynasty
Height 152 cm, width 70 cm, depth 70 cm
Palace Museum Collection, Beijing

This clock, which takes after the design of an ancient Chinese pavilion with precise calculation of each part, is an exemplar of the timepieces made by the Imperial Workshops. This clock is the collaboration of many different crafts, including the carving of wood, gold and jade, marquetry and enamelling, which were widely applied to timepieces in the Qing Court.

Coloured-Stone Framed Clock Set in a Gilt-Bronze Pagoda with an Elevator and Automaton Figures
Made in Britain. 18th century
Height 105 cm, width 39 cm, depth 39 cm
Palace Museum Collection, Beijing

Modelled as a Chinese pagoda with an elevating device, this richly decorated clock possesses a distinct Chinese sentiment.
The court located in Guangzhou. An additional function of the Yue Maritime Customs was to organise local craftsmen to produce court wares. In order to ensure that the quality of these items met the court’s requirements, the imperial workshops of the Imperial Household Department specifically sent officers to the Yue Maritime Customs to supervise. The supervisory personnel stationed in Guangzhou from the Imperial Workshops that are recorded were Treasurer Liu Shanjiu and his son Liu Zhongxin.64 Already serving in the Imperial Workshops during the Yongzheng reign, Liu Shanjiu must have had an in-depth understanding of the production of court wares and for the preferences of such wares. His duty at the Yue Maritime Customs involved “production drawings” and “supervision”, meaning he was in charge of the design, organisation and supervision of wares made for imperial use at the Yue Maritime Customs. We rarely come across recorded instances when the Yue Maritime Customs in Guangzhou relied on the court in Beijing for resources that ranged the entire spectrum from raw materials to design. This was the case for the production of jade ware in Suzhou, located in the lower reaches of the Yangtze River.65 This explains that Liu Shangjiu only brought himself to Guangzhou because of the dependence on raw materials and their technological abilities. What he borrowed from the court were their styles, designs, ideas, tastes, rigorous requirements and exceptionally high standards. In this way, court trends and the taste of the emperor had the opportunity to incorporate local materials and technological abilities.

While the court received its ideal product, the development of local technologies was also greatly promoted. Liu Shanjiu’s job in Guangzhou held critical importance to the manufacturing of court wares, so his salary was commensurate with his responsibilities. The compensation of five hundred taels of silver per annum was far beyond the standard for his original post as an Imperial Workshops Treasurer in Beijing. He therefore must have done his best to perform his duty. He even brought his son with him to learn his skills, which indicates the wish for his son to succeed in his business. Among the works designed and supervised locally in Guangzhou overseen by officers from the court like Liu Shanjiu, timepieces were obviously included. For timepiece manufacturers during the Qianlong reign, the court was their primary client who acquired the best pieces. Sending supervisory staff from the Imperial Workshops to be stationed in Guangzhou also meant the court’s involvement as the director of timepiece production in Guangzhou. The Guangzhou timepieces from the Qianlong period in the current collection of the Beijing Palace Museum are the physical results of this production method. The saying, “court style; Guangzhou craftsman” conveys the characteristics of the Guangzhou timepiece in the collection of the court as well as the court’s substantial impact.

64 “Ji Shi Lu”, Zong Hui, Vol. 11, January, 8th year of the Qianlong reign, p. 474.

21 Gilt-Bronze Enamelled Pagoda Style Clock with Gods Giving Birthday Blessings
Made in Guangzhou. Qianlong period, Qing dynasty
Height 103 cm, width 35 cm, depth 35 cm
Palace Museum Collection, Beijing

In the centre of the front panel of the base, where the movement is housed, is a two hand dial flanked by framed decorations of glass waterfalls. The top of the base is covered in glass water effects centred by a dragon’s head spewing glass water beams supporting a double-eaved pavilion with immortals. Behind the curtains of the three arched doors are the god of longevity and the eight immortals. Once the music plays, all glass water devices begin rotating; the god of longevity exits the centre door while a procession of the eight immortals pass by, displaying the flourishing scene of giving birthday blessings. With a theme taken from traditional Chinese mythology, this clock was obviously made for the purpose of celebrating Qianlong’s birthday.

22 Gilt-Bronze Double-Gourd Style Clock with an Automatic Door and The God of Longevity
Made in Guangzhou. Qianlong period, Qing dynasty
Height 84 cm, width 41 cm, depth 32 cm
Palace Museum Collection, Beijing

Behind the automatic door in the centre of the ovoid clock base stands an old god of longevity. Glass waterfalls cover the sides and the enamelled platform on the top of the base. Amidst the water stands a double-gourd vase with a clock mounted on the lower body, a whirling flower on the higher and a spinning jackfruit blossom surmounting the vase. Upon activation, the music plays, the glass waterfalls and blossoms spin simultaneously, the door to the front of the clock base opens up while an immortal crane, a deer and a Buddha hand orbit the god of longevity. The entire design signifying longevity and peace in the four seas ("world peace") was created for a birthday celebration.
on the development of timepiece making in Guangzhou. For instance, the multicoloured clear enamel on Guangzhou timepieces that involved a complicated and delicate procedure was created when Guangzhou craftsmen assimilated local crafts on the basis of western enamelling. The metal stands and the intricate balustrades with a pattern of dense scrolling foliage were a direct imitation of works of the same type. All of these features were deeply influenced by western culture and craftsmanship. They existed because of Guangzhou's geographical position as the bridgehead in Sino-Western cultural communications and the advantages that came with being the centre of Lingnan's traditional crafts (20). The styles and designs of the timepieces most frequently represented good wishes for birthdays or festivals. The idea and presentation of the designs were identical to those of the court (21, 22). When looking at the exchange of skills and communications between the palace and Guangzhou, the Guangzhou timepiece collection in the Qianlong court was actually the manifestation of the court making use of local skills to realise its taste and to meet its demand for luxury. On the other hand, this demand directly stimulated the development of local timepiece manufacturing technology, making Guangzhou the pivotal centre for timepiece making in China during this time.

V. Conclusion

The Qianlong period was a historical pinnacle of Chinese timepiece collecting and manufacturing. How the imperial collection and the manufacturing of timepieces prospered was a historical inevitability.

The Qianlong emperor inherited bountiful assets passed down from his grandfather, Kangxi, and his father, Yongzheng. During his sixty years of effective ruling, he created the Qing dynasty’s most glorious era. At the height of its power, the empire enjoyed a booming economy, a relatively stable society, fortified frontiers and a record high accumulation of national wealth. This all provided the prerequisite for the pursuit of a lavish lifestyle and material pleasures. A considerable amount of the vast fortune was consumed on luxury goods. Especially with the increase of the court’s wealth, the palaces, gardens and temporary dwelling palaces all underwent large scale expansion and renovation, prompting a sharp increase in the court’s need for upscale interior decorations. As a direct result, the court became the most influential consumer of fine arts and luxury goods. The exquisite design, distinctive function and sumptuous ornamental features of the timepiece made them the exemplar of luxury goods, which the Qianlong court so actively tried to incorporate in its collection.

Dressed in Han attire, the Qianlong emperor is in the middle of viewing and appraising the various kinds of antiques placed around his seat, reflecting what it was like when the emperor evaluated works of art from previous dynasties. The Qianlong emperor’s interest in ancient and contemporary art, to a large extent, contributed to the vast imperial collection during his reign.
Furthermore, the sheer size of the imperial timepiece collection from the Qianlong reign was closely related to the emperor’s personality and preference. Having received an extensive education at a young age, the Qianlong emperor had a keen fondness for calligraphy, paintings, antiques and delicate curiosities. As a collector as well as a discerning connoisseur himself, the emperor possessed a strong passion for the arts. Under his leadership and influence, connoisseurship gained popularity in the court. Ministers and officials paid great amounts for ancient and contemporary artworks as tributes, propelling the collection of the imperial palace to reach a record scale, with timepieces being one of the important categories included in the imperial collection (23).

Meanwhile, the enormous timepiece collection of the Qianlong court had a close relation with the position that the emperor envisaged for himself and that of the era. From the Qianlong emperor’s perspective, a vast high quality imperial collection is the embodiment of a halcyon era. He had always dedicated himself to becoming the best emperor of all time, exemplified through means and methods to demonstrate his political and military strength. Trying to amass curious treasures into his palace collection was also an approach to project the same image. From the point of view of others, the emperor’s efforts in broadening the collection of the palace in order to satiate his ever-expanding desires were linked to the psychology of a vain egotist. This interpretation may be somewhat right, but by itself is insufficient. As a matter of fact, the epic scale of the palace collection that the Qianlong emperor established conveyed the underlying message that it was only during halcyon times when the most precious treasures could be gathered. Only wise monarchs and judicious rulers had the ability to own treasured curiosities from different corners of the globe. Timepieces matched the criteria for such treasured curiosities. Qianlong ordered painters of the inner court numerous times to compose paintings of *The Myriad Nations Presenting Tributes*. In the bustling tribute-presenting processions, emissaries of different countries waited with tributes in their hands within the Forbidden City to have an audience with the Qianlong emperor. Timepieces were found among the tributes. Here, the timepiece has become a representation of the highly civilised Hua Xia67 and its far-reaching prestige, attracting a myriad of nations to seek an audience with the emperor (24).

On the other hand, amassing the imperial timepiece collection during the Qianlong reign cost untold hours of labour and immeasurable amounts of material and financial resources. This increased the financial burden of both the court and those responsible at local levels. This situation was further aggravated towards the later years of the Qianlong reign when social conflicts worsened and the court continued to suffer from a decreasing income. Even so, the Qianlong emperor’s infatuation with timepieces was far from diminishing. It was not until his son, the Jiaqing emperor, attained full control over national affairs when this situation began to change.

After ruling China de facto for sixty-three years, the Qianlong emperor passed away in 1799 at the old age of eighty-nine. His son, the Jiaqing emperor, advocated a more pragmatic ruling strategy and a simpler lifestyle. During the first year when he assumed the reins of national affairs, he publicly expressed his stance on the consumption of western luxury goods and the presenting of tributes. He states, “I have never been impressed by either the precious or the curious. It is my nature, instead of an affectation, not to have the proclivity for playthings. Millet, rice, cotton and silk are what sustain us between heaven and earth and are what each household need, while timepieces are merely used for telling time. Although quite a few commoners do not possess such objects, did they ever stop rising at dawn and resting at dusk? Objects such as chiming birds are even more worthless. My wish to gradually return to a purer and simpler custom should be known. Do not give foreigners the opportunity to resort to trickery. All of you high ranking officials should advise and encourage one another and assist me in ruling this empire.”68 The quantity of timepieces purchased by the court plummeted because of this new philosophy. This in turn caused the prices of timepieces to nosedive. Under such circumstances, an interesting switch of roles with far-reaching influences transpired when civilians became the main consumer of timepieces, thus replacing the court. From the perspective of the timepiece collection of the imperial palace, the glorious heyday of the Qianlong reign was seemingly lost forever.

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66 Lingnan refers to lands in the south of China’s “Five Ranges”: Tayu, Qitian, Dupang, Mengzha, Yuecheng.
67 An ancient name for China.
from disassembling the timepieces was merely a few thousand catties when following previous method, while ten fold of bronze can be gained if the decommissioned timepieces were handed over to Chongwen Gate to handle”. He recommended that the timepieces for disassembly and destruction should be delivered to Chongwen Gate, which would subsequently present bronze ten times the weight of the timepieces given to the Imperial Household Department. Chongwen Gate revamped these timepieces before selling them off and were able to make a sizeable income. Chongen Gate, namely the Chongwen Gate Customs and Tariffs Bureau, had always been under the jurisdiction of the Imperial Household Department. Besides collecting taxes from the Beijing area, it also sold off decommissioned or redundant items from the Imperial Palace, which was a major source of income. The Qianlong emperor endorsed the suggestion by Shu Wen and he was ordered to make sure of the weight of “fourteen pairs of western chiming clocks” before handing them over to Chongwen Gate for sell-off.34 Five days later he instructed to “have Shu Wen take the actual weight of the twenty-nine various types of chiming clocks” taken from Ying Tai of Xiyuan, the Ocean Terrace of the West Garden, and “trust them to Chongwen Gate to handle like before”.35 During this year, fifty-seven timepieces were given to Chongwen Gate for sell-off and the Imperial Household Department hence obtained forty-six thousand and forty catties of bronze.

The palace dealt with subsequent matters regarding timepieces based on this example. In March, the fifty-third year of the Qianlong period (1788), an imperial edict was given to “conduct a thorough investigation of average timepieces in places such as the Yuan Ming Yuan and the palace. Present them for [my] viewing before having them destroyed or sold-off.” Personnel from the Clock-making Atelier thus “respectfully submitted the results of the investigation for imperial viewing. It was found that there was a total of fifty-eight chiming clocks of grade three, grade four, grade nil and old inventory stock from three places including the palace and the Yuan Ming Yuan. Imperial permission is to be sought for all that are listed to be destroyed or sold-off.”36 In September, “escort forty-nine timepieces of grade three, grade four, grade nil and inventory stock from places within Rehe Garden” to Chongwen Gate for sell-off.37

Within the aforementioned three brief years from the fifty-tenth to the fifty-third year of the Qianlong period (1788), up to two hundred and fifty large timepieces were recorded that either had the bronze melted or sold-off. This process of elimination accounted for the absence of numerous early-period timepieces. It is highly probable that this is the reason why existing timepieces in the collection of the Qing palace from before the Yongzheng reign are terribly scarce. There were instances when small watches were trusted to Chongwen Gate for sell-off. A typical example of this is when four bronze-cased western watches from the House for Artifacts “were given to Chongwen Gate for sell-off”38 on the twentieth of May, the twenty-first year of the Qianlong reign (1756).

IV. The Analysis of the Timepiece Collection of the Qianlong Court

By going through the texts mentioned above, we get an overall picture of the timepiece collection of the Qing court during the Qianlong period. In feudal times, emperors' preferences and artistic accomplishments directly influenced art related activities and values towards an object, forming an artistic style unique to the imperial palace. This was no different for the timepiece collection of the Qing palace during the Qianlong reign. Below are several points regarding the timepiece collection of Qianlong's imperial palace. They are conclusions made after combining information from the preceding texts and that from existing timepieces in the Beijing Palace Museum.

Firstly, the size of the collection was substantial. Notwithstanding the existing records in the archives, there is still no way to know the actual number of timepieces in the collection of the Qianlong period imperial palace. One thing that can be certain from the information of varying sources is that it was a handsome amount. For instance, in February of the fifth year of the Qianlong reign, the Clockmaking Atelier dispatched craftsmen to various locations in the Yuan Ming Yuan to remove eighty-two timepieces on display.39 In September of the next year, the Head Eunuch of the Clock-making Atelier, Zhao Jinzhong, was assigned to administer the replacement of old cables for timepieces
With soaring numbers of timepieces during the Qianlong reign, their presence in palaces and gardens became prevalent. While displaying the timepieces, their types and sizes were taken into consideration before being placed in corresponding locations with a formula to follow. Of the utmost importance during the Qianlong period was for the majority of timepieces to be displayed in pairs. The timepieces shown in the photo are a typical example of this.

For example, in a zitan cabinet in the Palace of Great Blessings as many as thirty-seven small watches were found amongst the one hundred and ten objects it held. The

14 Timepieces Displayed in the Hall of Refreshing Mists and Ripples of the Summer Resort of Chengde

on display from several locales within the Yuan Ming Yuan. In the twenty-first year of the Qianlong reign (1756), it was recorded that the number of timepieces on display in a number of locations such as the Forbidden city, the West Garden, the North Sea, the Scenic Hill, the Yonghe Gong (Lamaist Temple), the Yuan Ming Yuan, the Garden of Eternal Spring, the Garden of Limpid Ripples, the Garden of Brightness with Quiescence, the Garden of Compatibility with Quiescence, the Temporary Palace on Mount Pan and the Summer Resort of Rehe, reached two hundred and eighty-six (13, 14). The warehouse of the Clock-making Atelier also housed a substantial number of timepieces. For example, in July of the tenth year of the Qianlong reign (1745), an edict was given to “hand over the thirty-two broken timepieces of various sizes stored in the warehouse to the Chiming Clock-making Atelier. Have the ones that need to be altered or revamped rightly done before presenting them in turn.” In May of the eleventh year, another edict was given to “restore and amend the twenty-three timepieces stored in the warehouse. Present them in due course and display them at appropriate locations.” These are all relatively larger timepieces for display and there could have been additional small watches.

55 “Ji Shi Lu”, Zong Hui, Vol. 49, April, 51st year of the Qianlong reign, pp. 220–222.
58 “Ji Shi Lu”, Zong Hui, Vol. 21, May, 21st year of the Qianlong reign, p. 780.
60 “Zuo Zhong Chu”, Zong Hui, Vol. 9, August, 6th year of the Qianlong reign, p. 732.
61 “Zi Ming Zhong”, Zong Hui, Vol. 13, October, 10th year of the Qianlong reign, p. 587.
Included among the forty-seven playing objects treasures is a rectangular box embedded with a watch made by James Cox. The Qianlong emperor had a desire for timepieces and viewed them as precious items. Therefore, plenty of small watches are incorporated in his curio boxes along with other treasured scholar’s objects. This type of curio box was called “bai shi jian” (“hundred and ten pieces”) during the Qianlong period. Well-crafted miniature watches were essential components.
Gilt-Bronze Birdcage Clock with Singing Bird Automaton and Spinning Blossom
Made by James Cox. Britain. 18th century
Height 76 cm, width 32 cm, depth 32 cm
 Palace Museum Collection, Beijing

Upon activation, the bird flutters its wings, raises and lowers its tail and turns its body sideways before jumping back and forth between the two bars while chirping with the music. This watch vividly captures the movements of a singing bird leaping among branches.

16  Gilt-Bronze Birdcage Clock with Singing Bird Automaton and Spinning Blossom
Made by James Cox. Britain. 18th century
Height 76 cm, width 32 cm, depth 32 cm
 Palace Museum Collection, Beijing

Upon activation, the bird flutters its wings, raises and lowers its tail and turns its body sideways before jumping back and forth between the two bars while chirping with the music. This watch vividly captures the movements of a singing bird leaping among branches.

watchcase of another cabinet contained as many as eighty-eight small watches (15).

Secondly, the wide range of mechanical apparatus provided a myriad of visual effects, providing much entertainment to its viewers. As mentioned earlier, Qianlong’s preference for timepieces shifted from the functional to the unique and ingenious. It was recorded more than once in a great number of the imperial archives that the Qianlong emperor commanded high officials to present timepieces decent in both style and form. Style and form hereby refers to the various mechanical installations found on the timepieces. Xu Chaojun incorporated examples of these designs in The Diagrams of the Chiming Clocks, which reads “with regard to all the ostentatious gadgets, such as those that indicate dates and present cards, incorporate playing music, moving water, moving figures, fist-fighting scenes, bathing ducks, moving boats, an eclipse of the sun and the blossoming and withering of famous prized flowers, all of which only serve a decorative purpose unrelated to practical usage and border on being obscenely clever” (16). In fact, the automatic devices on timepieces of the imperial collection during the Qianlong period had even more variety than those just mentioned; they imitated natural phenomena on an even higher level and contained objects that were comparatively more vivid, novel and unique (16). This inclination was furthered when Qianlong became even more infatuated with brilliant gadgets like these in his later years. Even Jean-Mathieu de Ventavon of France, who was summoned to serve in the Palace as a horologist, gave the conclusion that “what the emperor needs are ingenious novel gadgets rather than timepieces”. The majority of timepieces from the Qianlong reign come with various mechanical devices, while some of them even took attention away from the practical function of a timepiece. It should be reiterated that this was not a coincidence (17).

Thirdly, they embodied the combination of several handicraft skills and were of a rather high level of craftsmanship with a similarly high aesthetic value. Regardless of whether the timepieces came from a high official or the atelier of the imperial palace, the Qianlong emperor himself was always the final inspector and his requirements for timepieces were fairly exact and rigorous. It can be found in the Qing archives that tributary objects were rejected in many instances for failing to meet Qianlong’s requirements. Reprimands concerning substandard work like “need not present western clocks of such coarse quality” and “expense claim denied” could often be found in the emperor’s edicts as well. Therefore, every step of the procurement and production process for timepieces entering the imperial collection was taken with meticulous care, in order to secure only the very best. To achieve optimal artistic effects, diverse crafts such as woodwork, metalwork, enamelling, lapidary cutting and inlay work were frequently incorporated in making the timepieces. From moulding, carving, engraving, inlaying, mounting, plating to painting, all were completed by the collaborative work of brilliant craftsmen. Existing timepieces from the Qianlong period were mostly made from prized materials. Some came with an inlay of pearls, diamonds, jades or other lapidaries of various colours, while those made by imperial order from the imperial workshop were of even better materials, namely making extensive usage of treasured zitan for the framework, carving different styles of architecture such as towers, terraces, pavilions, ki-

Gilt-Bronze Clock Modelled as an Elephant-Driven Battle Vehicle
Made in Britain. 18th century
Height 72 cm, width 136 cm, depth 40 cm
Palace Museum Collection, Beijing

Modelled as a four-wheel battle vehicle driven by an enormous elephant with triumphant soldiers positioned on the elephant’s back and various other locations on the vehicle. Each part of the battle vehicle contains mechanical devices that enables the elephant to move it in a circular motion upon activation while blinking, retracting its nose, and swishing its tail with the general turning sideways and the sides of the chariot displaying alternating scenes to the music.

blossoms. They were the product of western culture, represented by missionaries, meeting the East, which was represented by the emperor. In order to acquire timepieces that met his expectations, the Qianlong emperor was never stingy. He instructed procurement officials for tributary gifts to “need not save money” and even allocated a sizeable amount of funds from the imperial treasury to deliver objects to the West and then retrieve them. This must have influenced the western horological industry. To increase the sales of timepieces, some western distributors provided designs to timepiece makers and handicraftsmen, which catered to the sentiment and taste of the East (19). This was when timepieces first appeared on the Chinese market. There is a striking difference in style between Qianlong period timepieces kept in the Palace Museum and those from other countries and regions of the same time. This is the result of the efforts made by both parties.

Fifthly, the high quality of local tributes indicates that the court took charge of communications regarding technological elements with local timepiece makers. Judging from current data, timepiece making existed in several locations within China during the Qianlong period. Nonetheless, they did not develop into large-scale industry, but were found in individual workshops with limited production and impact. The only exception was Guangzhou. The rise of Guangzhou’s timepiece industry is attributable to the geographical advantages it has by being the first place in China to come into contact with chiming clocks. During the end of the Ming dynasty (1368–1644) and the beginning of the Qing dynasty, European missionaries brought chiming clocks to Guangzhou in order to gain access to the government as well as a means of lobbying. This is when chiming clocks first caught the attention of the Chinese. Furthermore, Guangzhou was the centre for Sino-Western trade at the time where large amounts of imported western clocks were sent to and distributed from Guangzhou. The advent of Guangzhou’s timepiece manufacturing industry was due to these factors. Some of the timepiece craftsmen from this region were even summoned to serve in the palace. By the Qianlong period, the craftsmanship of timepieces produced in Guangzhou was advanced enough so that Guangzhou was able to manufacture timepieces directly for the court. These are the clocks mentioned in the archives as “Guangzhou” clocks, namely clocks made in Guangzhou. The supervisory body of this task was the Yue Maritime Customs located in Guangzhou, which managed external trade along the Guangdong coast as well as procuring for the court. More importantly, it acted as a direct extension of
eastern market tailored specifically to the liking of the Chinese. One can gain a deep impression of this after viewing the timepiece collection of the Palace Museum (8, 9). Besides the collection of the Palace Museum, we can obtain extra evidence. From the records above, it is certain that through placing custom orders, design blueprints from China reached European manufacturers and this had a direct influence on the timepieces they produced.

4. Manufactured in the Palace

In January of the second year of the Qianlong reign (1737), Zhao Jinzhong, the chief of the Chiming Clock-making Atelier reported to Hai Wang, a grand minister of the Imperial Household Department that, “the atelier produces numerous chiming clocks, but the working chambers are rather small and narrow. We wish to build three extra chambers in the back yard.” The request was soon approved and the chambers were completed in May. This record indicates the status of horological development in the Qing palace during the initial stages of the Qianlong period and how it had already reached a certain scale. Then, during the thirty-eighth year of the Qianlong reign (1773), for housing repairs and renovation, the imperial workshops of the Hall of Mental Cultivation wrote to the engineering office of the inner court expressing that, “there has been leakage in all of the nine working chambers of the Chiming Clock-making Atelier. This atelier is used for storing handicrafts such as timepieces for the emperor.” This illustrates that, by the thirty-seventh year of the Qianlong reign (1772), the Chiming Clock-making Atelier was equipped with a rather large scale of at least nine chambers.

The institution in charge of timepiece making in the Qing palace is the Clock-making Atelier, formerly known as the Chiming Clock-making Atelier, under the imperial workshops of the Hall of Mental Cultivation. As early as the Kangxi period, the Chiming Clock-making Atelier was established in the inner court, where they learnt the mechanisms of western horology as well as how to repair pieces in the palace timepiece collection. As time passed, its function was expanded upon. Aside from maintenance, it also took on the responsibility of manufacturing. It was then that the Chiming Clock-making Atelier transformed into the Clock-making Atelier. With over a hundred craftsmen working within, the production of the atelier reached its height during the Qianlong period. It was at this point that it became a specialised institution, which produced timepieces that surpassed those from other dynasties in terms of both quantity and quality. It is often mentioned in the Qianlong period archives that the Atelier had to appoint craftsmen to accompany the emperor while he went on inspection tours. The Imperial Household Department had arranged specialised vehicles to carry tools and equipment from the Clock-making Atelier and assigned corresponding offices and working locations. The clock chamber in the Yuan Ming Yuan, which is mentioned in the archives, must have been this type of premises. Due to the fact that many of the staff, craftsmen and equipment of the Clock-making Atelier had to move according to the seasons with the emperor and his corresponding organisations between the palace and the Yuan Ming Yuan, there are relatively more records on the Clock Chamber in the Yuan Ming Yuan. This is also due to the large quantities of horological devices that were located there and the fact that the Qianlong emperor spent quite an extended period of time a year in the Yuan Ming Yuan. It can therefore be deduced that the Clock Chamber in the Yuan Ming Yuan and the Clock-making Atelier were actually one entity. Though the production output of the Atelier had diminished since the Jiaqing emperor (1796–1820), this institution had remained a crucial location for producing luxury goods in the palace and it did not stop until 1924 when the last emperor, Puyi, left the palace.

It was the craftsmen of the Clock-making Atelier’s essential duty to obey the emperor’s instructions by manufacturing all sorts of timepieces and mechanical gadgets to fulfil the demands of the palace. The making of timepieces generally began from the basic intentions and specific requirements of the emperor, or requests based on past examples submitted by grand ministers of the Imperial Household Department. Then the timepiece makers proceeded with production after their designs based on the instructions were approved. The emperors’ attention and intervention towards the making of the timepieces were multifold; some would not forego any specific detail. From stylistic designs to materials used, all had to be reviewed and granted by the emperors. Many documents in the Qing archives provided direct evidence for research into the influence of the Qing emperors on timepiece making in the Qing palace. It is because of this influence that timepieces made by the Qing palace were entitled, “Clocks Made by Imperial Order.”

The “Clocks Made by Imperial Order” from the Clock-making Atelier all possessed distinctive characteristics of the imperial palace, most of which had a wooden structure of high-quality materials such as zitan, hongmu, gaolimu, kualimu, shanmu. The designs ranged from including pavilions, kiosks and towers to belvederes, which are in fact all microcosmic elements of the palatial complex. Even the block-arms, balustrades, column capitals and the gargoyle on the sides of the roofs are exquisitely crafted. The dials of these clocks also had the special feature of bearing the characters of Qianlong Nianzhi (Made during the Qianlong Reign), especially the enamelled ones on copper with a yellow ground and floral motif, presenting a sumptuous and gracious quality.

23 “Ge Chu Xing Wen”, Zong Hui, Vol. 36, August, 38th year of the Qianlong reign, p. 840.
24 Yuan Ming Yuan is the Old Summer Palace; also known as the Garden of Perfect Brightness.
25 Examples in this respect can be found in numerous records in the archives of the Imperial Household Department. Also refer to Guan Xueling, “Qianlong Shi Qi De Zhong Biao Gai Zao”, Palace Museum Journal, no. 2 (2000), pp. 85–91.
10  Large Chiming Clock on a Black-Lacquered Tower with Gilt Carvings of Flowers and Foliage
Made by the Imperial Workshops. Jiaqing period, Qing dynasty
Height 557 cm, width 221 cm, depth 178 cm
Palace Museum Collection, Beijing

Situated in the Hall of Mutual Ease, the clock is enormous with bright resonating sounds. According to historical texts, the large chiming clock in the Hall of Mutual Ease kept the standard time for the entire imperial court during the Qianlong period. Destroyed by a fire in the Hall of Mutual Ease during the third year of the Jiaqing reign (1798), the clock was replicated soon afterwards.

11  Chinese Pavilion Style Clock with Automatic Doors and Automaton Immortals Presenting Blessing of Longevity, Decorated with Polychrome Paint and Gold
Made by the Imperial Workshops.
Qianlong period, Qing dynasty
Height 185 cm, width 102 cm, depth 70 cm
Palace Museum Collection, Beijing

This large timepiece takes after the shape of a palatial structure. So exquisite is the workmanship that even the block-arms, balustrades, column capitals and gargoyles on the ridges of the roofs are all portrayed. The yellow-ground enamel on copper dial with floral motif bears the Qianlong Nianzhi mark (“Made during the Qianlong Reign”), demonstrating the sumptuous and gracious quality of the clocks made by imperial order. According to Imperial Workshops archives of the Qing court, the clock was designed by a European technician who served the palace in the eighth year of the Qianlong reign (1743). After the design was modified by the Qianlong emperor, the Clock-making Atelier of the Imperial Workshops undertook its production and completed it in the fourteenth year of the Qianlong reign (1749).
12 Zitan Night Clock with a Carillon Tower
Made by the Imperial Workshops.
Qianlong period, Qing dynasty.
Height 103 cm, width 50 cm, depth 42 cm.
Palace Museum Collection, Beijing.

Encased entirely in an ornately carved piece of precious zitan, the clock has a yellow-ground enamel on copper face with a flower-subject dial. Inscribed Qianlong Nianzhi, it is of the typical Qianlong period style.

5. Confiscation

It was discovered that “besides plundering through the normal taxes for salt and customs, the Qing court also performed chaogia to expand the wealth of the imperial family.” Chaogia, which was quite common in the Qianlong reign, refers to confiscating the properties and possessions of greedy officials who were found guilty of embezzlement. Since scandals were especially abundant while the Qianlong emperor was in power, possessions obtained from confiscation were rather substantial. In individual cases of confiscation, the Qianlong emperor would normally order to send the timepiece to the Imperial Household Department, meaning that they would ultimately be incorporated into the collection of the palace. These occurrences were particularly prevalent towards the end of the Qianlong period.

To give a few typical examples to further illustrate, during the forty-sixth year of the Qianlong reign (1781), Wang Sui, an administrative staff of the Hangjia lake district, was punished for embezzlement. The confiscation from his household reached over two hundred thousand taels (of silver), among which were “five chiming clocks, one hanging clock and one watch.” In the forty-seventh year of the Qianlong reign (1782), Guo Tai, the Governor of Shandong province, caused the province to go into a debt of over two million taels (of silver) due to misappropriating funds and was awarded the privilege of taking his own life. Among his entire assets that were confiscated was “one hanging screen embedded with a watch, four table clocks and one watch.” In the forty-sixth year of the Qianlong reign, Chen Huizu, the Director-General of Minzhe district, was investigated and punished for switching and keeping the timepieces, jade ware, antiques, paintings and calligraphy of another dishonest official, Wang Shanwang. “Thirty entries containing sixty-four” chiming clocks were recorded when his assets were seized. In the meantime, “Four entries containing seven” chiming clocks were found in the possession of his family member, Du Tai, making seventy-one pieces in total. In the fifty-first year of the Qianlong reign (1786), the Director-General of Guangdong and Guangxi provinces, Fu Lezhun, was investigated for encouraging his family members to extort the staff at each port. The households of those involved were all searched with their assets confiscated. The timepieces seized from his various estates included “one pair of tortoiseshell eight note table clocks, one pair of hat stand clocks, one pair of music clocks, one ebony table clock...one pair of wall clocks, one pair of small wall clocks, one pair of old clocks, one pair of seven hand double dial watches, two pairs of three hand watches and two pairs of old watches”. In the possession of his family member, Chen Hansan, “one chiming clock with pendent, one pair of old table clocks, two table watches, one wall clock and one sedan watch” were found, as part of a grand total of thirty pieces.

Amongst the high-ranking officials whose assets were confiscated, Heshen is a typical example with the most being seized. Heshen was an individual who began to wield enormous power during the second half of the Qianlong reign and was favoured by the Qianlong emperor, so he amassed an incredible fortune for himself. Despite the fact

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that the confiscation of his assets occurred in the fourth year of the Jiaqing reign (1799), the majority of his wealth was accumulated during the Qianlong period. From the archives, the decorations from his estate in Rehe province came to the number of two hundred and sixteen, among which one western finger watch, one pair of desk watches, one pair of wall clocks and four table clocks were found. The set up in Heshen’s Rehe property was not the most extravagant, leading us to believe that the treasures and playing objects must have been much more abundant in his Beijing residence and garden. Although no specific number of timepieces from the confiscation were recorded in the official archives, it was indicated in a personal note that ten large chiming clocks, some three hundred small chiming clocks, over two hundred and eighty western watches were found, while others said that ten large chiming clocks, one hundred and fifty-six small chiming clocks, three hundred table clocks and eighty watches were found. These figures were all from unofficial sources, but if we compare the timepiece set up in his Rehe residence, it is fair to think that he may have had hundreds of timepieces in his collection. There was a saying that went, “when Heshen tripped and fell, the Jiaqing emperor had a full stomach”. It appears that confiscating Heshen’s assets greatly increased the quantity of timepieces of the imperial palace.

Next we will examine the case of Fu Changan, who had close interactions with Heshen and served in the court the same time as Heshen. According to the Jiaqing emperor, Fu Changan was second in position to Heshen and “by spending time with Heshen day in and day out and often times just the two of them, he has the clearest knowledge of Heshen's criminal acts”. However, he never uttered a word, “it is because he intends to conceal the evidence and even if he had a hundred mouths, he would not be able to prove his innocence”. Consequently, the emperor planned to have him beheaded and his assets confiscated in accordance with a set of laws enforced upon clique-groups. The amount of Heshen’s personal belongings dwarfed Fu Changan’s, which was “less than one to two-tens of Heshen’s confiscated assets”. In spite of this, we still see “thirty-seven table clocks and thirty-four watches” on the list of his effects and “seventy-seven clocks and seventeen watch cases” on the list of confiscation from an unspecified source related to Heshen. These records exemplify the sheer quantity of timepieces confiscated from high officials’ goods and chattels.

Despite the lack of a definitive number of timepieces belonging to Heshen, the amount of assets belonging to the rest of the officials all come from actual contemporary archival statistics. From the fact that up to two hundred and seventy timepieces were found from merely five to six households, we can surmise that the number of timepieces the court obtained from confiscating guilty officials’ assets was substantial. It can be said that confiscated timepieces from officials’ assets were a crucial part of the court’s timepiece collection.

### III. Awarding, Destruction and Sell-off of Timepieces from the Qing Court

Through the various sources mentioned above, a copious number of timepieces were supplied to the Qing court. During the Qianlong period, the palace collection was unmatched within China, but this did not mean that the collection of the Qing court expanded without limitations. Due to miscellaneous reasons, the imperial collection was able to increase steadily without an unchecked expansion. Two of the key ways of control were awarding or destruction and sell-off.

#### 1. Awarding

In the Clock-making Atelier was an “awarding chest” for the emperors, which contained all sorts of timepieces they kept for awarding purpose. They were categorised into five grades, from grade nil to grade four. These timepieces were bestowed upon family members, empresses, the imperial concubines and officials according to rank and depending on the emperor’s moods and a variety of circumstances. Records of the timepiece inventories from the inner court and the Yuan Ming Yuan found in the Qing archives often only noted down the timepieces that were about to be awarded or had already been awarded by the emperors.

During the Qianlong reign, the awarding of timepieces was employed under various situations as one of the approaches to lubricate the relations between the emperor and his officials.

The first type of timepiece that was awarded were those to high-ranking officials with contributory efforts in battle. For instance, in order to pay homage to those who successfully thwarted Kuo Erke’s invasion of Tibet, the emperor awarded the chief generals of the Qing army, Fu Kangan, Hai Lancha and Hui Ling, a western watch each in June of the fifty-seventh year of his reign (1792). In October of the same year, Fu Kangan, Hai Lancha, Hui Ling, Sun Shiyi and He Lin were awarded a western watch respectively. In February of the sixtieth year of the Qianlong reign (1795), the emperor conferred a western watch each to Fu Kangan and He Ling for suppressing revolts led by the Miao ethnic group in Hunan and Guizhou provinces. In December of the same year, Fu Kangan and He Lin were once again each bestowed upon a three hand western watch, while two Miao people, E-le-deng-bao and De Lengtai, were each awarded a two hand enamelled western watch.

The second type were those awarded to the imperial family, such as the imperial princes other than the heir apparent, the empress and the imperial concubines. It can be found from existing archives that it was mainly a few of the princes, noted as “A-ge”, who were frequently awarded. For example, “Give the two clocks and three watches removed from the round container to the following: one clock to the third prince, one clock to the fourth prince, one watch to the fifth prince, one watch to the sixth prince and one watch to the eighth prince. Such are the imperial commands.” “Award the contributed eight timepieces to the following: one clock to the fourth prince; one clock to the fifth prince; one clock to the sixth prince; one clock to the eighth prince; one clock to the tenth prince; one clock to the twelfth prince.” The fifteenth prince, the Jiaqing emperor, who later succeeded Qianlong, was also awarded “a double hand watch with a white enamelled dial and a gilt box with agate, ruby and white stone inlay” in the thirty-fourth year (1769) and “a clock with a black-lacquered mount” in the forty-third year (1775) of the Qianlong period respectively. It was even more common for
imperial concubines to be given timepieces, which became what they were passionately fond of as decorations and playthings. Each of them had quite a few timepieces in their possessions, amounting to a handsome total. Rong was one of Qianlong emperor’s consorts and is famous in legends as the Fragrant Concubine, for bewitching the emperor with her captivating scent. Three clocks, ten watches of varied sizes, and a hat stand timepiece were found in the possessions she left behind. The rest were either put into the imperial inventory or given to her family as souvenirs. From the Qianlong period onward, it became commonplace for the empresses and imperial concubines to own timepieces. For the Tongzhi and Guangxu emperors’ weddings in the late Qing, timepieces had become crucial components of the empresses’ dowry. The four gilt bronze clocks with spinning blossoms from the Illustrations of the Grand Wedding of the Guangxu Emperor provide credible image data for this trend.

Third were the timepieces bestowed upon different people providing services in the palace. A noteworthy point is that the Qianlong emperor awarded plenty of pocket watches to the Nanfu people, literally translated as people of the South Residence, and the Jingshan people, those of Scenic Hill. For instance, on December 27th the forty-first year of the Qianlong reign, he bestowed six different small watches on the Nanfu people and three on the Jingshan people. The so-called Nanfu and Jingshan people were all court thespians with relatively low status in comparison to the craftsmen who also served the court, but the chances of them being awarded timepieces were far greater than the other artists. It is likely that the Qianlong emperor was extremely pleased with their performances so they received frequent rewards. Certain performers were awarded repeatedly, namely Shuyu of Nanfu was awarded timepieces in the twenty-second (1757), twenty-fourth (1759) and twenty-eighth (1763) year, while Anyu of Jingshan was awarded timepieces four times within the twenty-fourth year of the Qianlong reign. This signifies the emperor’s interest in court drama and theatre and how highly he valued this art form.

2. Destruction and Sell-off

“Destruction and Sell-off” which were measures taken by the court in terms of broken-down timepieces, refers to melting the bronze and then selling it. It was inevitable for the timepieces to break down after extended periods of usage; they could not be repaired and were processed in batches. There were primarily two approaches in doing so. First, was to melt down the bronze before using it for other purposes. Second, was to entrust them to Chongwen Gate for sell-off where they had to hand the amount made back to the Imperial Household Department in silver or copper according to the amount that was sold.

The destruction and sell-off of timepieces did not appear until approximately the fiftieth year of the Qianlong reign (1785). On February 15th of the same year, the Clockmaking Atelier handed over twenty-three various sorts of large bronzed timepieces, weighing a total of one thousand eight hundred and forty-five catties, to the Censer-casting Atelier. The Qianlong emperor instructed, “for the ones that contains gold, scrape it off before melting; for those without gold, melt the bronze and report how much copper is obtained”. Five days later, the Clock-making Atelier handed over twenty-three bronze clocks and twenty-eight bronze clock movements, which accounted for one thousand and thirty-eight catties of bronze for melting. After relevant personnel gave a report on the matter, the Qianlong emperor once again passed a decree, which reads, “The total amount of bronze compound acquired from destroyed clock mounts went over three thousand catties. Turn over six hundred catties of nickel silver into the purple-gold lima bronze-brass compound. Copy the design of the statue of the Infinite Life Buddha, Amitayu, with back light that are in the making and construct two more, but present the design first. For the rest of the two thousand four hundred catties of bronze, also present the design of the Buddha and estimate the materials needed. Such are the imperial instructions.” The bronze obtained from the forty-four large timepieces and twenty-eight clock movements were eventually used for making Buddhist figures.

The make-up of bronze in timepieces varies by origin. Because most timepieces were plated with gold, the gold needed to be separated from the bronze, which is a process that costs more than the gold extracted. By following the Qianlong emperor’s instruction, it was not exactly cost-effective to turn the nickel silver into purple gold lima bronze-brass compound, since the addition of gold was required.

Therefore, when the Clock-making Atelier submitted another batch of timepieces to be destroyed on April 19th of the next year, a minister of the Imperial Household Department, Shu Wen, mentioned that “the bronze obtained

11 Qing Ren Zong Shi Lu, Vol. 38, January, 4th year of the Jiaqing reign (Ding Chou year).
12 Wei Wu Fu Lan Wei 8, Punishment parcel no. 2178, First Historical Archives of China Collection.
13 Gong Zhong Za Jian parcel no. 2093, First Historical Archives of China Collection.
14 Qing Gao Zong Shi Lu, Vol. 1407, June, 57th year of the Qianlong reign.
15 Qing Gao Zong Shi Lu, Vol. 1415, October, 57th year of the Qianlong reign.
16 Qing Gao Zong Shi Lu, Vol. 1473, February, 60th year of the Qianlong reign.
17 Qing Gao Zong Shi Lu, Vol. 1492, December, 60th year of the Qianlong reign.
24 "Zhu Lu Chu", Zong Hui, Vol. 48, February, 50th year of the Qianlong reign, pp. 139–144.
Gilt-Bronze Watch with Shepherd Tending Sheep
Made by Williamson, Britain. 18th century
Height 79 cm, width 63 cm, depth 53 cm
Palace Museum Collection, Beijing

This clock of graceful style features an idyllic scene of shepherding in the countryside with a shepherd boy leaning leisurely against an old tree while blowing into a trumpet. In the lush old tree on the meadow rests a partridge while two lambs stay close to their mother. The front side of the box carried by the ewe is inlaid with a small watch while the ewe’s body contains its movement. Upon telling time, the mechanism is set in motion with the partridge flapping its wings and cooing with the music. The Williamson family enjoyed a strong reputation within the horological industry in 18th century London. Their timepieces were exported to China and Williamson was one of the major suppliers for the Sino-British timepiece trade at the time.
Pair of Gilt-Bronze Music Box Style Watches with Agate Inlays and Spinning Blossoms
Made by James Cox. Britain. 18th century
Height 51 cm, width 20 cm, depth 18 cm
Palace Museum Collection, Beijing

The gilt-bronze framed red agate musical box is surmounted by four lions; above, four small elephants carry a dual-handled bulbous bodied vase, encrusted with stones of various colours, containing a bouquet of flowers. Ten spinning flowers encircle the dial of a small watch embedded in the centre of the flowers. Once turned on, all ten flowers spin with the music while revolving clockwise around the dial. James Cox was a British goldsmith and distinguished entrepreneur of the 18th century who began hiring a large number of watchmakers in the 1760s to produce unique automata to export to China. The extensive collection of James Cox’s timepieces demonstrates the Qianlong emperor’s fondness for his work.
establishment of the Qing court timepiece collection. It should be mentioned that the acquisition of these privately offered timepieces were at the individual official’s expense, rather than paid by the imperial treasury.

2. Procurement

Centrally controlled local procurement institutions purchased a large percentage of the commodities for the Qing palace. Since Guangzhou was the most crucial channel for Sino-Western trade, Guangzhou’s Yue Maritime Customs and its Superintendent were mainly responsible for acquiring timepieces for the Qianlong court.

The Yue Maritime Customs was chiefly in charge of trade and tariffs located along the coast of Guangdong where a Customs Superintendent was appointed. Administering all customs affairs, its complete title was “The Branch Office for the Ministry of Revenue Overseeing Trade and Tariffs of Places along the Coast of Guangdong with Approval by the Emperor”. The supervisors were mostly Manchurian bondservants from the Imperial Household Department, appointed directly by the emperor. Wielding great power, they were the equivalent of “the emperor’s proxies” stationed in Guangzhou who “handled tax and all relevant matters without having to answer to the Civil and Military Governor”. In addition to managing tax affairs, another important duty of the Superintendent of the Yue Maritime Customs was to purchase curiosities for the imperial court. The expenses were reported regularly to the Imperial Household Department for approval. A substantial portion of the thirty to forty thousand 两 approved annually by the workshops of the Imperial Household Department was attributed to the purchase of timepieces.

In actuality, more was spent on acquiring timepieces for the imperial court in Guangzhou. It was through agencies, otherwise known as the hong merchants, where the Superintendent of the Yue Maritime Customs obtained timepieces from foreign commercial ships. “It is a Custom here it seems to send Curiosities to the Emperor three times in the Year, for the Expenses of which an Allowance has been formerly made from Court of Tales 50,000 per Annum. In course of time, this Sum has been reduced to Tales 30,000 One half of which is absorbed in the Charges attending the long Journeys to Pekin, the other half is insufficient for purchasing the many valuable things that are sent thither. This Grievance the Tsongiouk is fearful of representing to the Court, nor will the Hoppo make good the deficiency at his own cost.”8 Due to the fact that the price for the court was far below the market price, the difference to be paid by the handling hong merchants. “They were forced to snatch up timepieces and preciously curious objects from private dealers/trading businesses in Guangzhou, using their own money to offset the difference between the price the importer set and that the officials were willing to pay.”9 Under such circumstances, the hong merchants were only able to recover approximately one quarter of the selling price for these precious curiosities.10 Some officials would even use the excuse of purchasing tributary gifts to secure fine objects for themselves. “Whenever one item was needed, officials from the customs, the Imperial Household Department and the local office would ask for up to ten pieces from each agency.”11 “In one matter in which the Merchants were unable to resist the importunities of the officials, they sought to make the supercargoes their protectors. In the private trade were imported many ‘singsongs’, a generic term which included musical boxes, mechanical toys, clocks, watches, and other objects of beauty or curiosity, which the officials were eager to acquire, either for themselves or to send to the court or the ministers of state of Peking.”12 According to the The Chronicles of the East India Company Trading to China, the expenses used in acquiring timepieces and mechanical toys offered to the Qianlong emperor under the order of the Yue Maritime Customs Superintendent reached a hundred thousand 两 in 1793 and 1796 respectively.13 While the hong merchants became a steady source for western curiosities that the court needed, they concurrently took on a heavy financial burden.

We know that the highly unusual Guangzhou (Canton) system was promoted in terms of external trade during the Qianlong reign. This means that Guangzhou was the only port for external trade that operated through officially approved hong merchants. Foreign businesses that traded in Guangzhou had to be guaranteed by these hong merchants. Requests from foreign businesses and administration requirements also had to be delivered through these channels. Guangzhou administration did not deal with foreign business directly.6 This was the basis for such hong merchants to monopolise external trade, which also proved to be the source of their exploitation. The hong merchants encountered much criticism for the money losing business of importing curiosities such as timepieces and even decided to boycott them at one stage. It is recorded in the archives of the British East India Company that, “our ships usually brought to this Port a great many Curiosities and other valuable Goods, which the Mandarin were desirous of purchasing, that the Security was the Person employed on this occasion, and often was so great a sufferer by it, that no Merchant would now enter into this Engagement”.17 “We beg leave to observe to your Honors that the Merchants here are under very great apprehensions that the Toys brought out on board the Hon-ble Companys Ships to

9 “Za Lu”, Zong Hui, Vol. 46, 47th year of the Qianlong reign, pp. 386–441.
10 “Nei Wu Fu—Gong Zhong Za Jian”, no. 5212, First Historical Archives of China Collection.
The Guangzhou (Canton) system instituted during the Qianlong period rendered Guangzhou the sole port for external trade at the time. Western countries set up trading companies to conduct business along the Pearl River (Zhujiang) outside the city of Guangzhou, thus making Guangzhou the busiest trading port of China at that period. Western timepieces were brought to Guangzhou for trading via western merchant vessels.

such large amount as have been lately, will be the Ruin of some of them."  

The bankruptcy of the hong merchants would surely have affected the business of trading companies. For its own benefit and to expand trade, the East India Company would occasionally take sides with the hong merchants by interfering with trade of curiosities. “We included the same copies given to the supercargoes in the letter to the Captain of each ship from Europe, forbidding them to show curiosities to customs officers and asked them to do so,” Most of the Captains from the East India Company would try to cooperate. “As it has always been my Endeavors to avoid giving Trouble I have not brought either Clock, Watch or Trinket of any Sort, and on Enquiry I have the pleasure to inform you that there is not any Thing of that sort in the Ship.”  

At the time, curiosities including timepieces were brought in using the discounted tonnage of individual businesses or crew members of commercial ships. They were personal objects that fell under the trading rights of private entities. Though the measures taken by the East India Company could not stop the transportation and importation of this type of object entirely, the number declined and a sizeable portion of it went underground. This consequently influenced the availability of tributary goods for Guangdong officials. Therefore, on April 7th of the twentieth year of the Qianlong reign (1755), the Superintendent of the Yue Maritime Customs issued regulations regarding trade with Europeans. Trading of curiosities were mentioned specifically. “Curiosities of value, such as Peals, coral, Chrystal, True Amber &c., all of which being for the Emperor’s Use, no Shops shall presume to Interfere… Curiosities of Value or Precious things are imported by private merchants, not for Account of the Companies, and that the Shopkeepers knowing the demand for the Emperor, play many Tricks, such as raising the price, or Concealing the things themselves, or instructing the Europeans to Smuggle them ashore, thus when wanted for the Emperors service they are not to be found, And as this is one branch of my Office, I am necessarily obliged to remedy the Evil. The shops in Question are permitted to deal in all private goods of common use…These precious Curiosities as to the purchase belong to the Hongist Security.” 

In fact, the Yue Maritime Customs imposed this stipulation in order to guarantee that the court had priority in acquiring unique western objects, which included timepieces.

This is the general situation recorded in western texts concerning how the Qianlong court acquired timepieces and other unique items from the West—acts which were accompanied by exploitation and extortion. So, how is this recorded in the Chinese archives?

It is worth first noting that the purchase of western timepieces during this period was conducted under the permission of the emperor. Generally speaking, after the Qianlong emperor proposed the initial idea, the relevant department would write to Guangdong’s Civil and Military Governor or its Superintendent of the Yue Maritime Customs before they relay the order to the hong merchants. The hong merchants would then contact western merchants
This entry records that, in the forty-eighth year of the Qianlong reign (1783), the emperor instructed the Superintendent of the Canton Maritime Customs that western clocks of great style and form regardless of size should be purchased in the future.

for making purchases or placing custom orders. It needs to be explained that the Qianlong emperor did not overlook any aspect, occasionally making very specific requests, which might include the place of origin or the style of the timepieces to be purchased. It has been recorded multiple times that he made specific instructions for the purchase of timepieces. For instance, in the fourteenth year of the Qianlong reign (1749), imperial instructions were delivered to Shuose, the Governor-General of Guangdong and Guangxi provinces, which reads, “The timepieces and western lacquer ware that were presented to me were not made in the West. If timepieces, lacquer ware, precious fabrics and carpets are to be presented as tributes, it is quintessential for them to be of western origin.”

In the sixteenth year of the Qianlong reign, Tang Ying, the Superintendent of Yue Maritime Customs, was instructed that “in future, make sure to purchase and present some quality large timepieces, gold and silver threads and western objects seldom seen in the capital. You must not try to save money.” In the twenty-second year of the Qianlong reign (1757), Li Shirao and Li Yongbiao received the imperial edict, which states, “The gold-plated pavilion clock with western view presented to me this time was quite nice. Find more of the same kind in the future. Also, try to find some larger decent ones and we need not save money.” In the forty-seventh year of the Qianlong reign (1782), the Superintendent of the Yue Maritime Customs, Li Zhiying, was instructed, “not to include large watches with three to five hands for presentation. Present superior western quarterly and hourly sounding watches with enamelled casing as soon as they are found.” In the forty-eighth year of the Qianlong reign (1783), an edict was delivered to Li Zhiying, which reads, “the pair of western moving figure four-dial music clocks with glass waterfall design presented by Li Zhiying for the annual tribute was inferior in both form and style. The gear train is also of the fourth grade. Therefore, I would like your Eminence to send a reprimand letter to the Superintendent of the Yue Maritime Customs. For future purchases and tributes of western clocks of various sizes, only present ones of great style. Western watches of such substandard quality need not be presented again.”

Under these circumstances, procurement officers exhausted their mental strength to search and amass all sorts of unique timepieces to satisfy the Qianlong emperor’s desire for acquiring timepieces.

Secondly, the requirements enforced by the court ensured quality control of acquired timepieces and the procedure to approve expenditure funds was meticulous. There were two instances of this involving Tang Ying, which took place on the sixteenth year of the Qianlong reign (1751). Tang Ying was the Superintendent of pottery production stationed in Jingde Zhen, who supervised the manufacture of imperial ceramics during the Yongzheng and Qianlong reigns. He reached fame when he brought the production of the Jingde Zhen imperial wares to its zenith during his tenure. He also held the post of the Superintendent of the Yue Maritime Customs briefly, purchasing western goods for the court during the Qianlong reign. It can be learned from these two recorded purchases that, firstly, Tang Ying was the Superintendent of the Yue Maritime Customs responsible for acquiring tributary objects of the highest grade. This also applies to timepieces. Secondly, the approved purchasing price for first grade watches was approximately thirty taels of silver and only a dozen for those of the second or third grade. Thirdly, from the imperial decree of the Qianlong emperor, we can gain information regarding his requirements for timepieces, the types needed and his unconcerned attitude towards spending a fortune. Fourthly, the tributary items presented by the Yue Maritime Customs were chiefly acquired through purchase. There was also the differentiation between tributes from individual officials and orthodox tributes. Tributes from in-

24 “Zhao Lu”, Zhong Hui, Vol. 17, 14th year of the Qianlong reign, Vol. 17, p. 705.
26 “Zhao Lu Dan”, Zhong Hui, Vol. 23, 22nd year of the Qianlong reign, p. 167.
28 “Xing Wen”, Zhong Hui, Vol. 46, December, 48th year of the Qianlong reign, p. 661.
individual officials were paid by officials themselves and not to be claimed from the Imperial Household Department, while orthodox tributes were. This means that the Qianlong emperor was covering the bill himself, so he was rather mindful about the items purchased, which included timepieces. The quantity and amounts reported underwent rigorous examination and control. The court’s basic procedure and process for procuring timepieces was recorded clearly in detail.

3. Commissioned Orders to the West

Procurement was restricted to selecting from freights brought to the Guangdong port by western commercial vessels. This resulted in the Qing court taking a more passive stance. As personal and economic interactions furthered, the Qing court began to make specific requirements according to its own needs. Thus came about custom orders to the West. Despite the fact that ordering timepieces directly from the West has yet to be found in the imperial archives, the procurement records for other categories of western items reveals rare information, leading us to believe that a direct ordering mechanism for timepieces must probably also existed. Although proactively ordering custom-made items from the West is one method of procurement for the court, it is also specifically important for research on Sino-Western trade relations. It is therefore given mention here instead of in the previous paragraph. A few records on handicraft work of the Imperial Workshops during the Qianlong period are to be examined first.

In the fifteenth year of the Qianlong reign, “on August 10th, De Jiang, a grand minister of the Imperial Household Department, drafted a design for a western glass lamp and presented it to the eunuch, Hu Shijie, for submission as a memorandum to the emperor. The instruction received reads, ‘It has been granted to have it made in the West.’ In order to deliver the design to the West and retrieve the finished product, the inner court paid twenty thousand taels of silver.” This entry was recorded in a correspondence between the officials of the Imperial Household Department and the entourage of the emperor who were far away in Rehe. The Qianlong emperor, who was staying at a summer resort in Rehe to escape from the heat at the time, embarked on his autumn hunting excursion to the Bashang grasslands in Weichang by the dam in September. He was rather concerned with the large quantities of western decorations in the Western Fountain Chamber in the capital. In this record, the Qianlong emperor allowed the design of the western glass lamp drawn by a grand minister of the Imperial Household Department to be taken to the West. Meanwhile, in order to deliver the design and receive the finished product, the emperor even allocated twenty thousand taels of silver from the imperial treasury for this purpose. This serves as an example of providing the design for a tailor-made service. Another example of this occurred in July of the same year when it was recorded that the matter regarding the western lacquered folding screen was appointed to someone heading for the West. On the twelfth, the Vice Director, Bai Shixiu, and the Treasurer, Dazi, reported that the eunuch, Hu Shijie, delivered an edict, which went, “Take the measurements and make a draft of the Pavilion of Borne-Autumn folding screen. Use the old painting in the centre and hand it to someone travelling to the West to have it lacquered. Such are the imperial instructions.” The following year, the Qianlong emperor instructed a glass ball found on a timepiece to be replicated and brought over by a western merchant from Europe. Western merchants originally brought this glass ball to Guangzhou for sale as a tribute object, but it was damaged during the transportation. Therefore, the court traced it back to its place of origin. Since the western merchant was instructed to bring another identical piece to Guangdong as compensation, this can be seen as an example of a custom-made order.

In fact, placing custom-made orders to the West was not limited to the Qianlong period and took place as early as the Kangxi period. In the fourteenth year of the Qianlong reign, the emperor mentioned in his instructions to the Yue Maritime Customs that the court had asked the merchants on western ships to deliver letters to the West, listing the items needed in the palace and requesting those to be custom-made and sold to the Superintendent for presentation to the court. The Qianlong emperor’s thoughts were clear. What he wanted was for the Yue Maritime Customs to adopt the procurement method that took place during the Kangxi period. By delivering requests to western manufacturers to produce desired objects, the court was directly placing custom orders.

I have previously mentioned that the court’s demand for western timepieces was reflected in the western timepiece industry that traded through procurement officials and intermediate merchants. Seeing China’s vast market potential, western timepiece manufacturers and distributors took account of their taste, producing large quantities of timepieces in line with China’s desired aesthetic in order to successfully market their merchandise. Britain is a typical example. Being one of the earliest countries to produce timepieces, trade with China was rather active. There were a couple of reasons for this. On the one hand, this was the result of Britain’s well-developed timepiece manufacturing business. By the late 17th century, timepieces had become one of Britain’s important exporting goods. With London being its manufacturing centre, the city was in its heyday when British production met no foreign competitors. Therefore, it took a leading role in European timepiece trading with the East. On the other hand, due to Britain’s formidable power at sea, the East India Company literally monopolised early European sea trade with the East, providing great advantages and protection for Britain’s eastbound timepieces. At the time, many of the timepieces from different European countries were transported to China via Great Britain. More importantly, it was the keen foresight of Britain’s horological industry, which had long been paying attention to this enormous market, making every possible effort to cater to the taste of the Chinese. It did this by taking advantage of trade routes and relations, pioneering horological manufacturing technology, as well as consolidating various resources to produce timepieces for the

22 "Ji Shi Lu", Zong Hui, Vol. 18, January, 16th year of the Qianlong reign, p. 425.
This poem is included in Le Shan Tang Quan Ji Ding Ben, Vol. 14 and was composed before the Qianlong emperor’s accession to the throne. It acknowledges the essential functions of timepieces of keeping time, revising the calendar and influencing the productivity of agriculture.

Chinese influence spread across the four seas, while praising the precise timekeeping devices from the West without reservation. In the last sentence of the poem he writes, “to aid the three agricultures by checking time and setting the calendar, the merits of this clock should be boundless”. By doing so, the Qianlong emperor acknowledges the important functions that these western devices served by keeping time, revising the calendar and influencing the productivity of agriculture. This is a rare example when timepieces were given recognition by the Chinese court in relation to their effect on national livelihood. By showing appreciation for the timepiece, the Qianlong emperor inherited his grandfather Kangxi’s passion for western science and technological innovations.

Five years later, which was the thirteenth year of the Yongzheng reign (1735), Hongli succeeded his father and began a monarchy of sixty years. ushered in was the “Golden Age of Emperor Qianlong”, winning attention from both home and abroad with power unprecedented throughout Manchurian ruling history. Society became relatively more stable and a constant increase of national wealth occurred, particularly within the court. This provided the perfect conditions for the pursuit of a luxurious lifestyle and an emphasis on enjoyment. It was undoubtedly an age of consumerism and lavishness. Timepieces acquired during the Qianlong period were equipped with numerous features that classified them as luxury consumer goods. If we look at the Qianlong emperor as an individual, we will discover that his character succinctly matches with the overall sentiment of the era and the desire to expand one’s imagination and exotic possessions to the extreme. Despite the fact that his interest in chiming clocks remained strong, there seems to be subtle changes to his focus within the genre.

In the forty-ninth year of the Qianlong reign (1784), the already seventy-four years old Qianlong emperor composed yet another poem regarding timepieces, this one entitled Poetic Thoughts on Chiming Clocks (2). In this poem, it can clearly be detected that the emperor’s interest in chiming clocks focused on ingenuity. Besides the routine description of the precise time-keeping quality of western timepieces, more emphasis was placed on the various movement mechanisms and effects, such as the sounds of the chime and the spectacular display of heavenly phenomena. We especially noticed that in the notes to the poem when he stressed that “the more peculiar ones are those that play western tunes at set times”, he assumes the role of a connoisseur of peculiar timepieces. In his eyes, western timepieces of various forms with flamboyantly ingenious designs had turned into a symbol of luxury and artwork of great viewing value. The western missionaries serving in the court at the time can verify this. In a letter by French Jesuit missionary Joannes M. de Ventavon sent to his home country in 1769, he wrote, “one year after I arrived in China, I was summoned to serve in the palace as a horologist, but what it is, is in fact a mechanic, since what the emperor needs are ingenious novel gadgets rather than timepieces.” This preference by the emperor influenced manufacturing and the Qing court collection. As this opinion began to take shape, the search for timepieces of new curious forms became a subconscious behaviour of the Qianlong emperor, as well as his officials and servants; thus contributing to the substantial importation of western timepieces and mass production at the Clock-making Atelier of the imperial palace during the Qianlong reign.

II. Acquisition Channels of the Qing Court Timepiece Collection During the Qianlong Reign

Based on the foundation laid during the Kangxi and Yongzheng reigns, the timepiece collection of the imperial palace greatly expanded during the Qianlong period. It reached an unprecedented scale and had a lasting influence. By going through related research as well as the Qing archives, we can gain a basic understanding of the relevant channels and methods of acquisition.

1. Paid Tributes

In the minds of Qing rulers, all gifts presented to the emperor were called “tributes”, regardless of the motives for tribute and whether they were from foreign emissaries or domestic officials. This makes it more complicated to discuss instances where timepieces were offered as tribute. A typical example of timepieces being presented as tribute was when the British envoy led by George Macartney
Photograph of the Poem Poetic Thoughts on Chiming Clocks by the Qianlong Emperor

This poem is included in Yu Zhi Shi San Ji, Vol. 89 and was written in 1784, forty-nine years after the Qianlong emperor acceded to the throne. It demonstrates his focus on various automatic contraptions found on timepieces during this period.

Drawing of an Orrery Set Presented to the Qianlong Emperor by the British Macartney Embassy

This orrery set including timepieces was brought to China in 1793 by George Macartney and was displayed in the Yuan Ming Yuan. Sketched by an official draftsman, William Alexander, in the envoy at the time, it is now in the possession of the British Library in London.

came to China in the fifty-eighth year of the Qianlong reign (1793). Britain paid extra attention to the choice of gifts, among which was a “chiming clock with an astronomical and geographical instrument” (3) that was a time-keeping device combined with an astronomical instrument, otherwise known as an orrery set. It not only had the capacity to give the month, date and time, but could also be used to understand the universe and show that the earth is only a minuscule part in the vast cosmos. George Macartney also personally presented a pair of gold watches inlaid with diamonds (4). Situations when foreign emissaries presented timepieces as tributary gifts were not common during the Qianlong period. Most of the tributes came from individual local officials and these made up the majority of the contemporary Qing court timepiece collection.

The contributors of timepieces to the emperor during the Qianlong reign were chiefly officials from Guangdong and Fujian provinces. These areas served as essential windows to external trade in the Qing dynasty. Some of the goods obtained through trade with the West were timepieces, instruments, equipment and toys, which were purchased by officials and then presented to the emperor in Beijing as personal tribute. In the meantime, while an increasing number of western timepiece replicas were being made in the southern provinces of China, particularly in Guangdong, local officials also used the finer ones amongst them as tribute. It can be seen from existing documents that the number of tributary timepieces presented as officials’ personal gifts varied from one to two sets at a time to a maximum of five to six. Take the tributary archive of the fifty-ninth year (1794) of the Qianlong reign alone for example: on March 25th, the Superintendent of the Yue Maritime Customs, Su Leng-e, offered two pairs of enamelled eight-note watches and one pair of enamelled boxes with an eight-note watch inlaid in each box; on March 27th, the Governor of Fujian province, Pu Lin, contributed four pairs of western watches; on July 24th, the Governor-General of Guangdong and Guangxi provinces, Chang Lin, contributed one pair of quarterly sounding eight-note clocks, one pair of quarterly sounding chiming clocks, two pairs of double hand enamelled watches and two pairs of double hand gold watches; on July 26th, the General of Fujian province, Kui Lun, contributed one pair of eight-note music clocks; on December 8th, the Governor of Guangdong, Zhu Gui, contributed one pair of hourly and quarterly sounding eight-note chiming clocks with a fountain design, two pairs of western watches and two pairs of western enamelled watches. One extreme example took place on

1 Hongli, “Yong Zi Ming Zhong”, Yu Zhi Shi San Ji, Vol. 89.


3 George Staunton, An Authentic Account of an Embassy from the King of Great Britain to the Emperor of China, London, 1797.

4 Previously referred to in English historical texts as Canton Maritime Customs and located in present-day Guangzhou.

5 “Gong Fang”, 59th year of the Qianlong reign, Qing Gong Nei Wu Fu Zao Ban Chu Dan Av Zong Hui, edited by the First Historical Archives of China and the Art Museum the Chinese University of Hong Kong, Beijing: People’s Publishing House, Vol. 55 (2005), pp. 71–142. All entries of this book below are referred to as Zong Hui.
The Qianlong Emperor Receiving The British Envoy in Chengde

This image depicts the British Ambassador George Macartney paying an official visit to the Qianlong emperor of China at the Summer Resort of Chengde. Drawn by draftsman William Alexander of the Macartney Embassy. During the visit, Macartney presented a pair of gold watches with diamond inlay in his own name.

January 2nd of the forty-third year of the Qianlong reign (1778), when Hai Cun, the son of a former Superintendent of Yue Maritime Customs, De Kui, offered one hundred and five items including chiming clocks that were kept as stock tributary gifts to Qianlong. All of them were accepted for use and as many as sixty-three items were timepieces (5). It can be deduced from the names of the listed timepieces that some were imported from the West, while others were manufactured locally in Guangzhou.

Of course, not all timepieces offered to the Qianlong emperor by individual local officials were accepted. Occasional rejections did occur. For instance, in the forty-seventh year of the Qianlong reign (1782), two pairs of the western three hand watches from Li Fengyao, the Military Commander of Fujian province, one pair of boxes inlaid with western watches from Zhu Chun, the Governor of Guangxi province, three pairs of hat stands inlaid with a large three hand watch on each stand from Yong De, General of Fujian province, as well as two pairs of four hand and five hand watches with double dials from Ya De, the Governor of Fujian province, were all rejected.9

By accepting or rejecting the timepieces, the Qianlong emperor expressed his personal preference in an indirect way. Through the acquisition process of tributary timepieces, officials from different provinces could deduce the types of timepieces which appealed to Qianlong. The personal contributions by local officials enabled the further

Tribute List to the Qianlong Emperor from Officials of the Yue Maritime Customs
First Historical Archives of China Collection, Beijing

This entry noted on January 2nd of the forty-third year of the Qianlong reign (1778) is when Hai Cun, the son of De Kui, a former Superintendent of the Yue Maritime Customs, offered the Qianlong emperor one hundred and five tributes including chiming clocks that were kept as stock tributary gifts, all of which were accepted by the emperor, as many as sixty-three of the gifts were timepieces.